What would it take for health promotion to take structural racism seriously?

Sume Ndumbe-Eyoh

The rising public race consciousness brought by the murder of George Floyd, a Black man, on May 25, 2020, by Derek Chauvin, a White police officer in Minneapolis, and further amplified by the relentless voices of the Black Lives Matter movement, numerous activists, communities and thinkers may be unlike anything we have seen in the past. In this period of reckoning (particularly in the Global North), which reflects centuries of racial oppression and exploitation, and concomitant resistance from racialized peoples, what would it take for the health promotion field to take racism seriously?

On racism

Racism is a powerful and organized social system that permeates all aspects of cultural, economic and political life at local, national and global levels. Racism is an organized cultural and social system whereby the dominant racial group creates an order of human value, differentiates and categorizes people into 'races' and uses its power to define reality and allocate resources inequitably. Race is a social construct, it is imagined. It is through racism that meaning is attached to racial groups, through powerful ideologies, values, policies and practices. Ultimately, White supremacy and Whiteness overvalue 'The Ways of White Folks' (1) and devalue us all. Structural racism is sanctioned by states through action or inaction in public policy and by institutions – private, public and not-for-profit alike. Racism interacts with other systems and institutions, influencing those systems and in turn being influenced by them.

Far from accidental, racism is engrained into systems, policies and practices. At its heart, racism destroys souls and bodies consistently exposing Black, Indigenous and people of color (BIPOC) to conditions that are deleterious to health. Racial inequities manifest across national boundaries, within nations, at sub-regional and local levels. Inequities between countries continue to reflect the dominance and substantial power of White-dominant countries in comparison with those in the Global South, many of whom were colonized and continue to be maligned through imperial neoliberal policies. In settler states like Canada, the United States (US), Australia and New Zealand, Indigenous Peoples are exposed to ongoing racist colonial violence leading to unacceptable health and social inequities (2). In Toronto, Canada, people of colour represented 83% of COVID-19 cases even though they represent just over half of the city's population (3). Residential segregation has been linked to poorer health for Afro-Brazilians (4). #sayhername, a US-based campaign, shines light on police violence levied on Black women and girls (5). Simply put, there is no shortage of evidence that racism is a pressing challenge that must be addressed now with clarity and conviction.

Disciplinary silences, exclusions and incomplete inclusions

Despite past calls (6–9), the field of health promotion has yet to fully contend with the pervasiveness of racism, particularly its impact on the health of society and solutions to eliminate racism. Contemporary health promotion seems to assume that with a disciplinary grounding in equity and social justice, a focus on structural racism automatically ensues. In practice, however, health behaviourism and individualist and neoliberal approaches continue to dominate (6, 10–15). In a recent review of 249 high-impact public health journals, only 14 journals had relevant articles and institutional racism was a core concept in only 16

Senior Knowledge Translation Specialist, National Collaborating Centre for Determinants of Health, Antigonish, NS Canada

Correspondence to: Sume Ndumbe-Eyoh, Senior Knowledge Translation Specialist, National Collaborating Centre for Determinants of Health, Antigonish, NS Canada. Email: seyoh@stfx.ca

Global Health Promotion 1757-9759; Vol 27(4): 3–5; 972259 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920972259 journals.sagepub.com/home/ghp

articles (16). Even approaches with more structural orientations, like mainstream discourse on the social determinants of health, often fail to include a nuanced analysis of structural racism (that is, proposals for action that explicitly name and implicate racism as a fundamental determinant of health). Moreover, when theories (like intersectionality) with the expressed goal of liberation for Black and Indigenous women slowly travel into health promotion, the liberatory goals for Black and Brown peoples are sometimes decentred. To quote Patricia (17), 'They are singing our song, but we don't recognize it.'

In educational settings, the limited engagement of racialized faculty (18) contributes to the dearth of critical perspectives in health promotion. When racialized faculty are present, their naming of issues of racism and racial injustice are often seen as self-serving rather than as legitimate research agendas (18). This is mirrored in health promotion competencies that do not include skill and knowledge of racism and spills into the curriculum, impacting health promotion education. Programs are matriculating health promoters who lack understanding of racism as a legitimate health and social concern and who are ill-prepared to propose and develop health promotion actions that eliminate racism.

The way forward

If we accept that racism is a system, implicated in and by all other systems, we accept that we all have a role to play in our everyday health promotion activities. We then have to proactively invest in ensuring that sites of health promotion knowledge production, education and practice advance the interests and wellbeing of Black, Indigenous and racialized communities (8, 9). Health promotion has to ask, 'What is our stake in upholding White supremacy and the 'ways of White folks'? Are we prepared to continue to create and maintain systems and practices that harm and ultimately kill or are we ready to take racism seriously?'

An explicit focus on cultural, structural, institutional racism and Whiteness provides direction for health promotion education, research and practice. Health promoters in all spheres must develop a deep race consciousness that acknowledges the centrality of race and racism in everyday life (9, 19). This requires moving from colour-blind or race-neutral approaches to a view that racism's contemporary manifestations are not arbitrary and mysterious, but systematic and knowable. Racial inequities then stop being seen as random but as the natural product of oppressive racist norms, values and actions. Doing so subverts the assumptions of everyday life which work to uphold and bolster White dominance and racial inequities (20). Anti-racist and critical race approaches must be embedded across health promotion competencies and curricula to contribute to training a new cadre of health promoters deeply implicated in addressing racism across the spectrum of the health promotion field.

At its core, health promotion has to critique and expand its disciplinary roots and practices. Disciplinary self-critique of health promotion actively examines the conventions of health promotion, those which take for granted truths and ways of working and the implications these have on societal understanding of race and racism and actions to eliminate racial injustices (9). Self-critiques expose how epistemic, cultural and structural racism is manifest through health promotion research, practice and policy, be it through silences, exclusions or erroneous inclusions. Disciplinary self-critique through a range of critical race approaches (8) provides a path for the development of transformative health promotion approaches with emancipatory potential for Black, Indigenous and people of colour. Health promotion must engage with theoretical and epistemic approaches that actively centre on the knowledges and perspectives of Black, Indigenous and other people of colour in national and global knowledge production activities. This must be coincident with critiques of Whiteness and its dominance in the production and use of knowledge in research and practice settings. As a researcher, what disciplinary traditions do you draw on, and have you engaged with the critiques from critical race scholars in those disciplines? Does your research examine how racism affects health-generating processes? Does this go beyond simply stating that race matters to underscoring how racism and racialization function to make race matter?

Health promotion practice must propose and implement policies and programs that invest in racialized communities and are divested from White supremacist systems. Actions rooted in decolonizing anti-racist praxis call for substantial investments in education, income and poverty reduction, employment, neighbourhoods and housing, climate and planetary health and other critical determinants of health for BIPOC (21, 22). Public policy-making, governance, politics, program development, implementation, evaluation and other mechanisms through which power and influence are wielded have to be transformed so that they no longer serve as tools through which racial inequities are reproduced, but instead are used as opportunities to envision and produce racially equitable societies.

Health promotion knowledge and action projects of all kinds cannot be neutral; they can either uphold the current norms of pervasive and widespread racialized inequities or they can actively challenge them. Health promotion has to contribute to two distinct but complementary agendas: understanding the impact and experiences of racism on health in its broadest sense, and developing the science and practice of anti-racism in health promotion (23). Health promotion must choose the path of challenging structural racism and the abysmal racial inequities it is designed to create, as a mere inclusion in racially oppressive systems will not suffice.

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Cultural influence on mindful eating: traditions and values as experienced by Mexican-American and non-Hispanic white parents of elementary-school children

Rocio Méndez[1], Keiko Goto[1], Chunyan Song[2], Joan Giampaoli[1],
Gauri Karnik[1] and Alyson Wylie[3]

Abstract

Objective: To examine perceptions of mindful eating and mindful food parenting among parents of elementary school children.

Methods: Four focus groups were conducted with 19 Mexican-American parents and 13 non-Hispanic white parents of children from a northern California elementary school.

Results: Themes emerging from this research included food traditions during mealtime, perceptions of mindful eating, mindful food parenting and portion control, mindful food parenting practices through gardening, and mindful food parenting with traditional foods. Mexican-American participants identified cooking traditional foods as an important part of their mindful eating and food parenting practices. Mexican-American participants also highlighted the importance of using their senses to appreciate food. Both Mexican-American and non-Hispanic white participants emphasized the importance of involving children in gardening and meal preparation. Mexican-American parents had different perceptions of food portion control than the non-Hispanic white participants.

Conclusions: The current study indicates the importance of mindfulness in broad food-related practices such as gardening, cooking and preserving food traditions in mindful eating practices. More research is needed to further understand how culture shapes and impacts these food practices among different cultural groups.

Keywords: Mindful Eating, Mexican-American, Food Culture, Mindful Food Parenting

Introduction

Childhood obesity is a global public health issue, and the USA has some of the highest obesity rates in the world. In the USA, one out of six children is obese, and one out of three children is overweight or obese (1). The obesity trend appears to affect all racial groups, but one of the highest increases occurs among Hispanics, one of the fastest growing minority groups in the USA (1). Between 2011 and 2014, 21.9% of Hispanic children and adolescents were obese (1). The Hispanic immigrant population faces challenges in preserving their food culture due to acculturation. There tends to be a decline in health when immigrants adopt more of the American cuisine and culture (2). Acculturation

1. Department of Nutrition and Food Sciences, California State University, Chico, USA.
2. Department of Sociology, California State University, Chico, USA.
3. Center for Healthy Communities, California State University, Chico, USA.

Correspondence to: Keiko Goto, Department of Nutrition and Food Sciences, California State University, Chico, CA 95929, USA. Email: kgoto@csuchico.edu

(This manuscript was submitted on 14 January 2019. Following blind peer review, it was accepted for publication on 4 September 2019)

Global Health Promotion 1757-9759; Vol 27(4): 6–14; 878654 Copyright © The Author(s) 2019, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975919878654 journals.sagepub.com/home/ghp

can be seen within one generation of living in California when significant economic gains are accompanied by deteriorating diet quality (3). According to a study of dietary habits among Latinos of Mexican descent in California, while they retained a few traditional foods such as tortillas as their staples, acculturation contributed to a decrease in the consumption of other healthy traditional food items such as boiled beans, pasta soup with vegetables, Mexican salsas, and fruit-based beverages (4). It is critical to address childhood obesity concerns among the fast growing yet vulnerable Hispanic population.

There is growing interest in research in regards to mindful eating as an approach to address the childhood obesity epidemic. One strategy that could help combat the obesity epidemic is mindful eating practices. Mindfulness is the awareness of one's self by recognizing the self in the present moment (5). There are several practices that one can use to become a more mindful eater: appreciating the food, engaging all of one's senses, serving modest portions, chewing smaller portions more thoroughly, eating more slowly, avoiding skipping meals, and eating more of a plant-based diet (6). Findings from mindfulness interventions indicate that mindfulness may be an effective strategy for treating obesity-related eating behaviors (7). Mindful eating in general has been associated with less impulsive eating, reduced calorie consumption, healthier snack choices, and significant weight loss (7).

A recent study shows that mindless eating was significantly associated with sugar-sweetened beverage consumption, as well as snack consumption among Hispanic and non-Hispanic white children (8). A fairly new concept called mindful food parenting incorporates both parental feeding practices as well as mindful eating (8). Mindful parenting is defined as the parents' awareness of their children's behaviors and emotions (8). The aim of mindful parenting is to allow parents to form a stronger relationship with their child by being cognizant of their child's behaviors. Findings from mindful parenting intervention indicate that mindful parents have a better relationship with their child because of their awareness of their child's behaviors and emotional needs. When this concept is applied to food parenting, parents are focused on their child's eating behaviors in the moment.

To date there is limited information about mindful eating or mindful food parenting practices in different cultures. Past research suggests that the encouragement of mindful eating may be an important element of food parenting and child feeding in some cultures (9,10). Food parenting that focused on traditional food culture may promote healthier eating habits among Hmong, Latino and non-Hispanic white children (10). Specifically, maintaining traditional meal patterns and cooking methods, eating family meals together, and children's involvement in preparing traditional foods were seen as valuable elements of food parenting among parents from different cultures (10). Understanding cultural roles in mindful food parenting may contribute to developing strategies for positive food behaviors and obesity prevention among children with diverse cultural backgrounds, especially the Hispanic population.

The primary objective of this study was to understand perceptions and practices of mindful eating and food parenting among Mexican-American and non-Hispanic white parents of elementary school children in northern California. The current study aimed to explore and identify some food-related cultural concepts and practices that may contribute to the construction and enhancement of mindful eating among children. Hispanics living in the USA comprise a heterogeneous population with diverse cultural backgrounds (4). Because the majority of Hispanics are of Mexican descent in the study area, the current study focused on the Mexican culture. The term 'Mexican Americans' was used in this study to refer to participants of Mexican descent living in the USA. The current study also aimed to examine similarities and differences in mindful eating and food parenting between the mainstream (non-Hispanic white) culture and the Mexican culture.

Methods

The project was reviewed and approved by the Human Subjects Board at California State University, Chico. Four focus groups were conducted with 32 parents of students from 2nd through 4th grade in an elementary school in northern California primarily consisting of Hispanic and non-Hispanic white children. The authors reached data saturation where no new information emerged from data, and no additional focus groups were conducted. Parents of elementary school–age children were chosen because parents still have direct influence over food intake while children in this age group start developing their lifelong eating habits. Participants were recruited with help from school staff which included a bilingual staff member. Nineteen of the participants were of Mexican descent and 13 were non-Hispanic whites. Participants were assigned to different focus groups based on their preferred languages, Spanish or English. All Mexican-American parents participated in Spanish focus groups. All focus group sessions were held in the evening hours to accommodate parents' schedules. A written consent form was obtained from all participants.

After recruitment, parents interested in participating were sent telephone reminders. Four main research questions for focus groups were developed for the study based on existing literature, and were discussed and refined by all authors. The questions were as follows: *What social-cultural influences played a role in the participant's childhood diet? Do the participants' childhood food habits play a role currently in their child feeding practices? What are the perceptions of mindless eating among the participants? Does mindful eating play a role in their culture and how does it reflect in their family eating practices?* Questions for focus group participants were developed based on the research questions. The definition of mindful eating was introduced to participants, but participants' own perceptions of mindful eating were also explored.

Two trained Mexican-American researchers with bilingual proficiency, who had experience of conducting qualitative research, facilitated focus groups. A focus group protocol with scripts was also developed. A half circle seating arrangement was utilized in order for all participants to converse with each other without difficulty. The focus groups were tape-recorded and transcribed. Video cameras were used to capture the sessions.

All of the four focus groups were transcribed directly in the language spoken at the sessions. Spanish focus group data were first transcribed directly into Spanish and then translated into English to maintain integrity. A Spanish-speaking researcher cross-checked the validity of the translation. Non-Hispanic white focus group data were transcribed directly into English. The transcribed data were coded using thematic analysis (11). Data were coded independently by two researchers to enhance validity and reliability. No particular participants or groups were favored when data and quotes were analyzed. Negative cases were also examined to identify exceptions in the data (12). Pre-identified and newly identified themes were compared and synthesized across the four focus groups.

Results

Among of the 32 participants, 29 were female and only 3 were male. There were differences in nativity, education level, employment status and family size between Mexican-American and white participants. While all 13 white participants were born in the USA, 17 out of 19 Mexican Americans were first generation immigrants. The education level among white participants was higher compared to Mexican-American participants. Only one out of 19 Mexican-American participants had a bachelor or above degree. Sixteen (84%) Mexican participants and five (39%) white participants had a high school diploma or less. The Mexican-American group was also less likely to be employed full time or part time and more likely to be unemployed compared to the white group. The majority (53%) of Mexican-American participants and 31% of white participants had four or more children living at home.

The following five main themes emerged from the focus group data: *food traditions during mealtime, perceptions of mindful eating, mindful food parenting and portion control, mindful food parenting practices through gardening*, and *mindful food parenting with traditional foods.*

Food traditions during mealtime

The majority of participants from both the Mexican-American and white focus groups stated that dinner was usually set at a scheduled time at their parents' houses when they were growing up. Meal times were also more structured in comparison to how they may currently practice it with their family nowadays.

> If it was 5 o'clock you ate dinner at 5 o'clock and everybody sat at the table, there was no if ands or buts (non-Hispanic white father).

The majority of participants recalled eating what was served without discussion. The meal that was prepared for them would be the meal that the whole family would eat.

> I don't remember saying 'I am NOT going to eat,' and look, here they tell us they want pizza or. . . (Mexican-American mother)

> You did not eat unless what was there for dinner. If you didn't like what was served for dinner, then you didn't eat (non-Hispanic white mother).

There were some convergent views on having a traditional sit-down dinner amongst many participants of both the Mexican-American and white groups. Part of the parents' memories revolved around sitting as a family together.

> I think that in Mexico people like to be around each other more around dinner time. One likes to be with one another whether it is with our parents, siblings, grandparents, uncles, anyone that lives there. It is like the time to concentrate, to talk about what happened during the day (Mexican-American father).

> My mom was a stay-at-home mom. She took care of us and had food on the table, and my dad got home from work. It was very traditional. We always sat and ate together and, you know, had the same thing as hers (non-Hispanic white mother).

There were divergent views on perceptions of dinnertime between Mexican-American and white participants. Mexican-American participants recalled dinnertime as a pleasant time to interact and eat with family while white participants described it more as a mandatory task. White participants also noted that they had to wear strict attire for dinner while this was not mentioned in the Mexican-American focus groups.

> And the whole time it was spent trying not to break grandpa's rules and laugh too hard and do the things you're not supposed to do at the table and get caught. If you don't like what was served for dinner then you didn't eat (non-Hispanic white mother).

Family meal rituals and traditions changed dramatically just within one generation. When participants were asked about their current mealtime traditions, both Mexican-American and white participants unanimously admitted there was no specific time to have dinner due to schedule conflicts among family members. The majority of all participants said that they viewed meal times as a time to bond. Mexican-American participants also highlighted the importance of keeping tradition *and stated how they enjoyed cooking traditional meals.*

Perceptions of mindful eating

Participants were asked what mindful eating meant to them. The majority of participants had not previously heard about mindful eating. Mindful eating was briefly introduced to participants as an experience of engaging all senses in selecting, preparing and eating food. Participants were also asked about their own perceptions of mindful eating. Many participants recognized some elements of mindful eating that benefit their families. Mexican-American participants noted that tradition was an important factor associated with mindful eating. Several Mexican-American participants mentioned the importance of allowing time for food to settle.

> Me, what we tell them is not to get up from the table until we are all finished, so that first we have enough time to let food settle (Mexican-American father).

> If you pay attention to what you're eating, you enjoy it more and maybe get fuller sooner or you become more satisfied because, well, I know that the brain will get the signal a few minutes after you've finished eating (Mexican-American mother).

Mexican-American participants also highlighted the importance of using their senses to appreciate the food. This is a mindful eating component that appeared to be embedded in their culture, and most Mexican-American and some non-Hispanic white participants mentioned that food not only had to taste good but also had to be appealing to the eye.

> For example when I make a stew, I add rice, and in their salads it has to have cucumber, avocado, carrot. You have to put in everything. They want what I am serving to be colorful (Mexican-American mother).

> When I cook, I like lots of color. So, I cook multiple vegetables and colorful vegetables. Luke barbecues fajitas on the grill and all the different colors of peppers and onions and steak or chicken. It's just more eye appealing (non-Hispanic white father).

The concept of appreciation of food and avoiding food waste was brought up in the discussion of mindful eating among Mexican-American participants. Many of them mentioned that other people in the world might not be as fortunate.

> I also tell them that I do not want to be wasting because there were times that my mom would say that a child is dying from starvation. . .sometimes they just bite here and bite there (Mexican-American mother).

Mindful food parenting through portion control

There was a lively discussion about participants' parenting in conjunction with mindful eating. Participants were asked in what way eating mindfully can benefit their family or their children and what they do or can do to facilitate mindful eating. There was a consensus among all participants on the importance of having good food experiences. Both Mexican-American and non-Hispanic white participants also noted that having open conversations with their children in regards to their hunger cues was an important element of food parenting. Specifically, white participants noted portion control in regards to mindful food parenting while it was not mentioned in the Mexican-American focus groups.

> I try to do portion control. . .so if we are going to have a snack, or like if we sit down as a family to watch a movie, and we pop popcorn. Everybody has their serving (non-Hispanic white mother).

> Had to train my husband. This goes towards talking about portion control, umm to eat slower. . .and so we've worked really hard, not just with our children but with him setting the example as well and listening to when you're full. Like you were saying, just eat slower, put your fork down, don't anticipate that next bite, actually stick it down, think about it and, then let your body say, 'ok I'm full,' and then stop, not to continue on (non-Hispanic white mother).

Mindful food parenting practices through gardening

When asked about other aspects of mindful eating that can help their children, growing food was identified as another element of mindful eating among study participants. Most participants noted that they recognized the importance of teaching their children to pick food from their garden.

> It helps them because they already know, like lemons, they already know which ones are juicy and which ones are not, the tomatoes which ones are good and which ones are not good, it teaches them to know well (Mexican-American mother).

> I've started to learn to use fresh herbs in my cooking and my kids love. They love to go outside and pick things and eat them. That's the thing I'm really happy about (Non-Hispanic white mother).

Growing food was viewed as an important factor associated with one's food habits across all four focus group sessions. Mexican-American participants noted that they grow their cultural foods such as tomatoes, peppers, squash, cilantro, oregano, mint and cactus. Non-Hispanic white parents noted the close connection between growing food and family meals.

> My seven-year-old makes me buy radishes and she just washes them and eats them like, you know. She loves them and she decided that she likes turnips because she thinks they're just big giant radishes. So, we're growing turnips in the garden. . . I'm usually begging people to take my turnips, but she loves them (non-Hispanic white mother).

> Yeah we had a garden last year. We had a bunch of zucchini, and so we traded it all and over the year. As I was cooking their favorite meals, oh, the taco filling got some zucchini added to it, and the chili got some zucchini added to it, and the pasta sauce got some zucchini added to it, and they were none the wiser until all of a sudden I

> made a mistake of mentioning it to my husband, and then my son was like, 'I see this microscopic zucchini in here,' and I said, 'yeah and this is the 5th time you've eaten it and had no idea' (laughter) (non-Hispanic white mother).

The importance of growing food at home was emphasized in the Mexican-American focus groups as they felt that home-grown food was more natural and had fewer chemicals.

Some Mexican-American participants who don't have enough space in their apartments mentioned that they tried to buy or obtain food from their neighbors and friends because home-grown food was perceived as healthier and natural.

Mindful food parenting through traditional foods

Mexican-American participants viewed traditional food practices as part of their cultural identity and traditional food as more healthful than fast food. They identified cooking as an important part of their food culture and mindful food parenting. Participants found it valuable to take into account flavor, sight and smell during meal preparation to please their family's taste buds and promote mindful eating practices.

> When they go somewhere and eat, they say, 'mommy don't you think that the rice needed garlic or did you see the rice?' I mean, they already know that because I already got them used to it. You must have the seasoning. That's my case, rather than not have to lose culture (Mexican-American mother).

Mexican-American participants in particular showed pride in serving traditional foods to their children. One group in particular highlighted the importance of having traditional dishes that take longer to finish so that children slow down and enjoy the food.

> For example, pizza, a pizza makes it easy to grab and be out playing. On the other hand, if I make soup, they will not be able to go because they know that if they throw it away, there will be problems with the mom (Mexican-American mother).

The participants' definitions of traditional meals were different between the Mexican-American and white focus groups. Some of the white participants mentioned that they enjoyed trying new foods and had adopted different ethnic meals as part of their own family traditions.

> It is hard to know what traditional is anymore you know. Like we, all of us have said I love to try different cultures, different things like that so think that has rolled in to the kitchen. Like my children love curry – that's not part of our tradition. I never knew what curry was until I was an adult and, but my children beg for it, and we'll make it home, and like whether it's traditional or not, I don't know, but it's a recipe that I've found, and we like it, and I think that has become more important than anything else. It's to just be willing to try something different (non-Hispanic white mother).

When asked what they do to facilitate mindful eating among family and children, both Mexican-American and non-Hispanic white participants emphasized the importance of involving children in meal preparation as mindful food parenting practices. Mexican-American participants mentioned challenges in maintaining their traditional Mexican food culture while residing in the USA. They noted that they tried to pass it along to their children by involving their children in cooking and teaching them what it means to cook a traditional Mexican cuisine with love and affection.

> Like my sisters, they grew up here, and they do not know how to cook mole. For me that is already losing the culture. . .not putting the seasoning and affection. It is not the same because everything is already made. It is not the same for me, to do something with love, with warmth, with wanting (Mexican-American mother).

Discussion

This study aimed to explore cultural perceptions and practices of mindful eating and food parenting among Mexican-American and non-Hispanic white parents of elementary school children. To our knowledge, this is the first study that examined cultural influences on mindful eating and food parenting. Although research shows Hispanic children have a higher obesity rate than white children, there has been very little research regarding obesity prevention strategies using innovative approaches such as mindful eating in this fast-growing group.

The current study identified cultural assets that may help facilitate mindful eating and food parenting among Mexican-American families. First of all, Mexican-American participants carried with them a rich food culture which they were extremely proud of and eager to pass along to the next generation. Food is an integral part of their cultural traditions and identity. Mexican-American participants in our study appreciated home-cooked traditional food that facilitates mindful eating and family bonding time over a sit-down meal. Additionally, Mexican participants emphasized the importance of cooking a traditional Mexican cuisine with love and affection. There is a strong relationship between food culture preservation, cultural bonding and healthy eating practices (10,13). Yet, both Mexican-American and non-Hispanic white participants voiced concerns over difficulties of scheduling family sit-down meals due to the fast-paced modern living in the USA. Our findings indicate that revisiting and incorporating one's cultural assets into mindful food parenting practices may be an effective strategy for healthy eating and childhood obesity prevention among children with diverse cultural backgrounds.

Both Mexican-American and non-Hispanic white participants noted the importance of involving children in meal preparation as part of mindful food parenting. All of our focus groups emphasized the importance of having open conversations with their children in regards to their hunger cues as a normal routine. There was also a consensus among all participants on the importance of having good food experiences. Engaging children in food preparation, ensuring regular meals, and choosing foods that are more nutritious can facilitate mindful eating by allowing children to listen to their hunger and satiety cues (14).

Our findings were consistent with previous research demonstrating the importance of mindful food parenting in getting children to try new foods (15). The current study revealed that some non-Hispanic white parents attempted to introduce new foods from other cultures to their children. Past research suggests that parents' open attitudes toward food from other cultural groups were associated with children's vegetable consumption (16). Thus, introducing new foods from different cultures may become an innovative element of mindful food parenting in a culturally diverse population.

Mexican-American parents in our study had different perceptions of food portion control than the non-Hispanic white participants. Portion control is a concept mentioned only in the non-Hispanic white focus group sessions. Mexican-American participants were more likely to emphasize appreciating and not wasting food. While both portion control and food appreciation have been identified as important elements of mindful eating (6), avoiding food waste may lead to finishing large portions of food regardless of hunger and fullness cues. The differences observed between the two groups in this study could be attributed to cultural or socio-economic backgrounds. The majority of our Mexican-American participants are first generation recent immigrants. Differences in perceptions and practices of portion control were observed between race/ethnic groups and by household food security status (17). Hanh and Cheung argue that serving in modest portions using a small plate not only prevents overeating but also is less wasteful of one's household food budget (6). More research is needed to develop effective strategies for integrating portion size awareness and food appreciation with mindful food parenting.

Finally, participants of the current study expressed the importance of growing food as part of mindful food parenting practices. To date, there is limited information of home or community gardening in the context of food parenting and culture. Participants of our current study noted the importance of involving children in growing food, as well as serving home-grown food to their families. According to a study in Japan, parents of young children emphasized the importance of home gardening as part of food parenting and feeding practices (9). Benefits of gardening in different settings have been well researched. Psychological benefits of school food gardening among children have been recognized in recent studies (18). Gardening is an important cultural practice in many cultural groups in the USA, as well as across the globe. More research is needed to develop effective strategies for incorporating gardening into mindful eating interventions for children, families and communities.

This study has its limitations. The sample size was small with only 32 participants including Hispanic of Mexican origin and non-Hispanic white. Therefore, findings may not reflect other cultural groups. The study was conducted in rural northern California which may not be representative of demographics in other areas. Lastly this qualitative study only examined participants' self-reported perceptions and practices of mindful eating and food parenting. We were not able to observe real practices at home.

Mindful eating and mindful food parenting are relatively new concepts in the field of health and nutrition. Previous mindful eating interventions focused primarily on eating behaviors such as hunger and satiety cues. The current study expands on this concept to include the importance of mindfulness in other food-related practices such as gardening, cooking and food traditions. It is important to further investigate how culture shapes and impacts these food practices among different cultural groups across the globe. Second, more research is needed to understand effects of mindful eating on children's dietary behaviors, emotional and physical well-being, and childhood obesity prevention. Despite recent growing interest in the connection between mindfulness and obesity prevention, there is limited information about possible mechanisms by which mindful eating practices, including cooking and gardening, may affect emotional well-being and reduce negative food behaviors such as emotional eating, food binge eating and food craving among children.

In conclusion, our study suggests that food-related cultural concepts and practices, such as gardening, cooking and food traditions, may contribute to the construction and enhancement of mindful eating and mindful food parenting. More research is needed to identify and understand specific cultural concepts and practice that facilitate mindful food parenting among culturally diverse populations in the world. Findings from such research may allow school and community nutrition professionals to develop culturally appropriate strategies for involving parents and providing them with resources for mindful eating practices among children.

Acknowledgements

The authors would like to thank the research assistants for their support.

Declaration of conflicting interest

The authors declare that there is no conflict of interest.

Funding

This work was supported by the USDA National Institute of Food and Agriculture Agriculture and Food Research Initiative (AFRI) program (grant number 2015-69001-23238).

ORCID iD

Keiko Goto https://orcid.org/0000-0003-0620-3485

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The evolution of physical activity promotion. Are we entering a liquid age?

Karim Abu-Omar, Peter Gelius and Sven Messing

Abstract: In order to counteract risk factors for non-communicable diseases, promotion of physical activity has become increasingly relevant. This article outlines recent developments in this field, adopting a perspective based on Zygmunt Bauman's concepts of liquid modernity and liquid life. Five trends in physical activity promotion are identified: (Trend 1) The expansion of physical activity recommendations from a narrow focus on exercise to a broad concept of 24-h movement guidelines, (Trend 2) the increasing number of population groups targeted by these recommendations, (Trend 3) the ascent of efforts for physical activity promotion to the global level, (Trend 4) the emancipation of physical activity promotion from an add-on to a stand-alone public health topic, and (Trend 5) the ongoing conflict between sport, health and other sectors about the leading role in physical activity promotion. Based on these developments, physical activity might be classified as 'liquid' in Bauman's sense, that is, as being elusive and in a constant state of flux.

Keywords: public health, physical activity, health promotion

Introduction

Physical activity and physical activity promotion

Together with smoking, alcohol and unhealthy nutrition, physical inactivity is considered one of the major risk factors for a number of chronic conditions such as obesity, type-2 diabetes and certain types of cancer (1). The new global World Health Organization (WHO) comparable estimates on physical activity (2) highlight the severity of physical inactivity as a public health issue. At the policy level, the recently published *WHO Global Action Plan on Physical Activity 2018–2030* demonstrates that physical activity promotion is now being dealt with as an urgent public health issue at the highest levels (3).

Recommendations informing the population about adequate levels of physical activity (4) have arguably been the most widely visible instruments for making populations more active. Such recommendations are usually derived from clinically guided frameworks and concern the nature, duration, intensity, and volume of physical activity (5). They provide specific guidance on health-enhancing amounts and modalities of activity for individuals from different age groups, and with certain medical preconditions.

At the same time, physical inactivity has been the subject of substantial national and international policy development over the past decades (6), often based on guidelines for physical activity promotion and policy (3, 7–9). The underlying perspective of such guidelines differs substantially from that of physical activity recommendations for individuals: they address stakeholders such as practitioners, professionals, and political decision-makers; they recommend interventions for physical activity promotion; and their intention is to inform collective action and policymaking on how to promote physical activity among entire populations (5).

Friedrich-Alexander-Universität Erlangen-Nürnberg, Department of Sport Science and Sport, Erlangen, Germany.

Correspondence to: Karim Abu-Omar, Friedrich-Alexander-Universität Erlangen-Nürnberg, Department of Sport Science and Sport, Gebbertstraße 123b, Erlangen 91058, Germany. Email: karim.abu-omar@fau.de

(This manuscript was submitted on 4 March 2019 and received in revised form on 15 July 2019. Following blind peer review, it was accepted for publication on 6 September 2019)

Global Health Promotion 1757-9759; Vol 27(4): 15–23; 882381 Copyright © The Author(s) 2019, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975919882381 journals.sagepub.com/home/ghp

Both individual recommendations for physical activity and guidelines for physical activity promotion have been revised and refined over time. In part, these modifications reflect the continuous emergence of new scientific evidence on physical activity. However, the ongoing development of guidelines may also be considered an indicator for the limited success of past physical activity promotion efforts (10). From a political science perspective, this is hardly surprising, as physical inactivity may be classified as a 'chronic policy problem' (11), the solution of which would be politically complex, involve multiple sectors and levels of government, and take more than government spending alone. Consequently, it is bound to keep reappearing on the political agenda.

Overall, while developments in individual physical activity recommendations are well-documented (12), the evolution of guidelines for physical activity promotion is far less clear. Additionally, it is uncertain how (if at all) advancements regarding these two types of document are connected, and what the potential end points of these developments could be. In order to answer such questions, it would be useful to develop an appropriate theoretical foundation to structure our observations. This article therefore aims to explore major trends in the development of physical activity recommendations and guidelines over the past decades using a theory-based approach that particularly draws on Zygmunt Bauman's concept of 'liquid modernity' (13, 14).

Postmodern theory, liquid modernity, and physical activity

Within the social sciences, reflections on the relationship between our postmodern age and individual health (behavior) have a tradition that goes back at least 30 years. For example, Glassner described in 1989 how 'the contemporary fitness mode incarnates, through practical beliefs and behavioral descriptions, some elemental premises and aspirations of a postmodern cultural order' (15).

The starting point of such reflections is postmodern society, which has been characterized among other things as being ephemeral, full of contradictions, anarchic (16), or even a 'juggernaut' (i.e. a runaway engine with so much power that it threatens to slip out of human control at any moment) (17). Bauman has contributed to this body of work by introducing the concepts of liquid modernity (13) and 'liquid life' (14). For Bauman, the metaphor 'liquid' signals that we live in a cultural age (the liquid modernity) that is in a constant state of flux, is elusive, and is governed by those who are rarely accountable for their actions (13). The result is a society that changes so fast that its non-ruling members are caught in a permanent struggle to stay afloat (thus living a liquid life), since they run the risk of drowning whenever they attempt to keep still (14).

For example, work and employment in liquid modernity can be described as having turned from solid to liquid states (13): today's labor markets offer more and more short-term, part-time, and minimum-wage jobs within a so-called 'gig-economy.' Individuals are caught in these precarious employment conditions, facing uncertainty, harsh working conditions and dissolving boundaries between their work and private lives.

We propose that physical activity, as a public health issue, has also turned from 'solid' to liquid in the past decades, and that we may currently be entering a 'liquid age' of physical activity promotion. Based on this hypothesis, we have attempted to categorize recent developments in the field into major trends that fit the tenets of Bauman's basic approach. We employed the terminology by Rütten *et al.* (18), which is based on the three major types of evidence related to physical activity and health:

- *Type I documents* are based on evidence related to the health effects of physical activity. Recommendations describing the types, intensity and amounts of physical activity for individuals are good examples for this document type (19).
- *Type II document*s build on evidence for effective interventions to increase physical activity in individuals. A typical example is *Interventions on Diet and Physical Activity: What Works* by the WHO (20).
- *Type III documents* are based on evidence for effective policies to increase physical activity at the population level. An example is the EU's *Council Recommendation on Health-Enhancing Physical Activity (HEPA) across Sectors* (21).

From our perspective, tracking physical activity promotion over an extended period of time suggests that the scope of the field has constantly expanded, reaching more and more beyond health and sport into other sectors of society and policy. Using an inductive- and theory-based approach, we attempted to make sense of the observed developments and draw conclusions about their benefits and risks. In order to do so, we considered Bauman's general theory of social development a good basis on which to conceptualize the evolution in our field. As a result, we identified five major trends that describe the development of physical activity promotion from a solid to a liquid aggregate condition.

Trend 1: expanding the concept of physical activity – from exercise to liquid physical activity

The first, and arguably most obvious, trend in physical activity promotion over the past decades pertains to the dramatic expansion of the concept of physical activity itself. The documents corroborating this trend are predominantly related to Type I evidence on physical activity. Starting with the American College of Sports Medicine's (ACSM) *Guidelines for Graded Exercise Testing and Exercise Prescription* in 1975 (22) and the ACSM position statement in 1978 (23), public health began specifying the amount of physical activity people should engage in for optimal health benefits. A number of articles have described these early physical activity guidelines (12, 24, 25).

ACSM's 1978 guidelines recommended exercise training on 3–5 days per week with an intensity equivalent to 60–90% of the maximum heart rate, and a duration of 15–60 min per session. Recommended activities included mostly sports and endurance pursuits such as running or jogging, swimming, skating, and bicycling. While walking and hiking were also listed as potential activities, the ACSM guidelines defined exercise as the standard through which health benefits could be achieved.

Beginning in the 1990s, a conceptual shift away from 'physical fitness' to HEPA took place. A major starting point was the publication of the new ACSM recommendations in 1995 that extended 'the traditional exercise-fitness model to a broader physical activity-health paradigm' (19). The focus of these recommendations shifted toward achieving general health and well-being that 'benefits health and functional capacity without undue harm or risk' (26), later referred to as HEPA. With this shift, physical activities such as walking and cycling for transport or household chores like general cleaning also became recognized as having beneficial health effects (19). In addition, the health effects of moderate-intensity (rather than only vigorous) activity were now also acknowledged.

More recently, since about 2010, the concept of physical activity seems to have expanded even further. For example, the current Australian physical activity recommendations systematically connect recommendations for physical activity and sedentary behavior for all age groups and also include advice on breaking up long periods of sitting as often as possible (27). Canada has developed comprehensive 24-h guidelines for children and adolescents older than 5 years of age, which cover four types of physical activity: moderate-to-vigorous, light, sedentary behavior and, probably most surprisingly, sleep (28). Given this dramatic expansion of the concept, one could argue that, from a sociological perspective, current physical activity recommendations have become liquid (13, 14), that is, they have begun to seep into every aspect of people's lives.

Trend 2: diversifying target groups – from healthy adults to everybody

At the same pace the concept of physical activity has become liquid, the population groups targeted by these recommendations have diversified. While early Type I documents contained exercise recommendations for healthy adults only (23), later documents became more inclusive. Pate *et al.* also started this development by addressing all adults in general (19), but their recommendations were subsequently modified for specific target groups: children and adolescents were addressed first (29). After that, it took more than 10 years for the first recommendations specifically targeting older people to be published (30), and to this day, most recommendations continue to focus on adults (31).

Newer Type I documents, however, seem to move beyond the three 'classic' target groups (children/adolescents, adults, older people). For example, the German recommendations (32) also include a separate chapter on adults with a chronic disease. In addition, the recommendations distinguish between infants and toddlers (0–3 years), preschool children (4–6 years), primary school children (6–11 years) and adolescents (12–18 years).

In the future, the diversification of target groups might even increase. For example, a new infographic recently published by Public Health England specifically targets persons with disabilities (33). This diversification of target groups may be explained, on the one hand, by our more in-depth understanding of the specific demands and benefits of physical activity for different population groups (34). On the other hand, it may also reflect political demands, for example, regarding the inclusion and equality of persons with disabilities (35).

Trend 3: globalizing physical activity promotion

Compared with trends 1 and 2, the development of political documents that either describe which physical activity interventions should be conducted (Type II documents) or attempt to formulate policies for the promotion of physical activity (Type III documents) is more difficult to capture.

In its early days, physical activity promotion was something only a few nations engaged in. In addition to the United States (25), Finland has a long policy history of physical activity promotion. Developments in the sports sector began as early as the mid-1960s. The first Sports Act (1980) put a focus on sports for all for fitness and health, and the national plan to develop health education (1983) included physical activity as one of the habits to be promoted (36).

Gradually though, the topic of physical activity promotion reached the public health agenda in many other nations and on the international stage. One of the earliest international Type II documents for physical activity promotion was the joint position statement by the WHO and the International Society and Federation of Cardiology (37). It highlighted the importance of physical inactivity as an underestimated risk factor for coronary heart disease and called for including physical activity promotion in prevention policies, particularly in industrialized countries with a high proportion of sedentary jobs.

The document marked the commencement of international organizations being involved in the field of physical activity promotion. Subsequent milestones included the WHO *Global Strategy on Diet, Physical Activity and Health* (7), which is based both on the notion of HEPA and the involvement of multiple policy sectors and actors, and the *EU Physical Activity Guidelines* (8), which recommended policy actions supporting HEPA for a number of sectors. The publication of the *Physical Activity Strategy for the WHO European Region 2016–2025* (9) and the WHO *Global Action Plan on Physical Activity 2018–2030* (3) can be seen as the final steps in this development – physical activity promotion reached the global stage in 2018.

Trend 4: emancipating physical activity promotion – from add-on to stand-alone topic

The fourth trend is partially intertwined with the third and refers to the gradual emergence of physical activity promotion as a stand-alone public health topic. In earlier Type II and Type III documents, physical activity was often reduced to as a 'junior partner' to nutrition. Examples include the WHO Global Strategy (7) and the *WHO European Action Plan for Food and Nutrition Policy 2007–2012* (38), but also national policy documents such as the German national initiative to promote healthy diets and physical activity (6). Arguably, this integration of health topics decreased the political visibility and autonomy of physical activity.

The EU Guidelines (8) are a noteworthy milestone in the development toward physical activity promotion as a topic in its own right as they focus exclusively on physical activity. The WHO European Region also played a leading role with its 2013 Vienna Declaration that, for the first time, mandated the development of a stand-alone physical activity strategy for the region alongside an updated action plan on nutrition (39). The result was the *Physical Activity Strategy for the WHO European Region 2016–2025* (9).

Interestingly, such emancipation of physical activity as a public health topic in its own right has led to new dependencies, as a growing number of sectors have been included in recent efforts. For example, the implementation of freely accessible, regular, mass participation initiatives in public spaces mentioned in the new WHO Global Action Plan (3) may be initiated by various sectors, including sport, health, parks, and recreation or even the social sector. Again, one might argue that physical activity promotion has entered a state of complexity, frequent change, and blurred boundaries – in short: a liquid state.

Trend 5: taking the lead in physical activity promotion – conflicts between sport, health, and other sectors

The final 'trend' could also be considered a constant rather than a development: while more and more sectors seem to be engaging in physical activity promotion, which sector should take the lead appears to be unresolved.

From the outset, Type II documents resulted in calls to step up public efforts to promote exercise among adults. With the US Surgeon General's report in 1979, the health sector (cardiology) took the lead in calling for increased efforts to promote exercise (25). In Finland, by contrast, the earliest efforts to promote physical activity were made by the sports sector (36).

The situation at the national level remains complex to this day. In some EU member states, for example, the health sector leads physical activity promotion (e.g., Croatia, Denmark, and UK), while in others, this role is taken by the sports sector (e.g., Austria, Finland, and Poland). There are also cases of high-level coordination between the two sectors: in Germany, the Federal Ministry of Health is responsible for physical activity but closely collaborates with the German Olympic Sports Federation in most matters of physical activity promotion.

At the international level, current WHO documents (by default written from a health perspective) favor the health sector but emphasize the strong role of other sectors (3, 9). The EU Council Recommendation underlines the importance of both the health and the sports sectors (21). In this context, it is interesting to note that this policy document, while championing the concept of HEPA over a narrow sport or exercise focus, originated from the Sport Unit of the European Commission.

In order to explain this diversity, it is important to understand the key strengths and weaknesses of both sectors. When it comes to physical activity promotion, the sports sector faces one key dilemma: sport per se is not healthy. Studies have demonstrated convincingly that certain sports (or exercises) can produce specific health benefits (40). But at the same time, it has been demonstrated that there is no evidence base for the health effects of many other sports (41) and that competitive sport might even be detrimental to athletes' health (42). To deal with this dilemma, the sports sector has stepped up efforts to market grassroots sport as the perfect tool to promote physical activity. By doing so, however, it encountered the dilemma of balancing objectives (and resources) of sports federations between competitive sport and grassroots sport.

The health sector faces another dilemma: it is in need of a partner to promote physical activity, since it has limited resources to do so on its own. Physical activity counseling by medical staff can be operated by the health sector independently but achieves only modest success rates (43). Sports facilities are important for many other measures, but they are usually owned and administered by the sports sector. Under these circumstances, the health sector may either convince the sports sector to engage in a cooperation (e.g., by promising to channel funds from the health sector to the sports sector) or explore its chances with other sectors such as urban planning (under the label 'active transport').

Discussion

Bauman's concept of liquid modernity has guided our analysis and reflection about the different trends. We believe the investigated documents clearly indicate that today's physical activity promotion is in a state of constant change, is characterized by the ongoing expansion of basic concepts, spheres affected, and sectors involved, and suffers from uncertainties about the boundaries between physical activity vis-à-vis other areas of health promotion and from leadership conflicts between sectors. We think that it is safe to say that the current state of physical activity promotion can be adequately described as liquid in Bauman's sense.

But is this new state preferable to the old, more solid character of physical activity promotion? As indicated, each trend comes with a set of improvements and opportunities, but also with specific drawbacks and risks: expanding the concept of physical activity (Trend 1) to an expanding range of target groups (Trend 2) reflects the improved evidence-base of physical activity and helps to better grasp all facets of this complex phenomenon. However, translating this evidence into recommendations for individuals means linking physical activity to an increasingly wide array of behaviors (such as sitting, eating, and sleeping for different target groups), increasing the risk of confusing potential end users. At the policy level, globalizing efforts to counteract physical inactivity (Trend 3) as a stand-alone topic (Trend 4) has helped put the issue into the focus of relevant international organizations, thus greatly improving its visibility. On the downside, this may lead to generic one-size-fits-all solutions that will require the coordination of multiple sectors and dealing with emerging new dependencies and complexities. Against this backdrop, the ongoing conflict between different sectors involved in physical activity promotion (Trend 5) may take important resources away from actual health promotion efforts.

A closer reflection about the implications of our analysis leads us to three more general questions that we would like to put forward for further consideration.

Are there three ages of physical activity promotion?

Taking the logic of the liquid age even further, one might be tempted to state that physical activity is actually entering the third age in its development, which could be roughly sketched out as follows:

- A first age, characterized by a focus on exercise and fitness, national level actions, and its integration into general efforts to combat non-communicable diseases (the 'Exercise and Fitness Age').
- A second age, characterized by the emergence of the HEPA concept, the internationalization of actions, and a close connection with healthy nutrition (the 'HEPA Age').
- A third age, characterized by recommendations becoming all-encompassing, and promotion efforts being global, seeping into all sectors, and emancipated from other public health topics (the 'Liquid Age').

Such a simple typology is tempting but also misleading to a certain degree. For one thing, it is impossible to mark exactly when one age should have ended and the next one started. Nations have entered different ages sooner or later than others: one might argue that Finland has been in the third age since the 1980s, while other nations are still waiting for the second age to arrive. Secondly, reality is much messier than a three-age distinction might suggest. For example, the 'linear' ascent of physical activity from a national to a global health topic (Trend 3) upon closer inspection may not be quite so linear: national and international documents are often developed in parallel, and national governments play a key role in developing international guidelines, recommendations, and policies. In conclusion, while we maintain that the current state of physical activity promotion is transitional, we are not sure whether there is a clear progression of developmental stages, and it may be up to other researchers to further explore this possibility.

Type I, Type II, and Type III documents: how are they connected?

A reoccurring theme in tracking the five trends is the relationship between physical activity recommendations (Type I documents), good practice guides for interventions to promote physical activity (Type II documents), and documents that contain actual policies to increase physical activity (Type III documents). As in the case of the 'three ages,' it is tempting to suggest a linear causality between new recommendations (e.g., HEPA) that stimulate research into new interventions (e.g., active living), which ultimately scale up into new policies (creating physical activity-friendly environments).

However, such linear thinking is based on the implicit assumption that the people who develop Type I documents are different from those developing Type II or -III documents.

Again, reality is likely to be much more complex, and there is probably a considerable overlap between these three groups. In addition, some Type II or -III documents were well ahead of their time and preceded the Type I documents on which they should have been based according to a linear logic: for example, the Finnish 'health in all' policy approaches of the 1980s (36) were already based on a comparatively broad concept of physical activity at a time when ACSM recommendations were still firmly grounded in the concept of exercise (24). Again, more research would be needed to untangle the complex relationship of the three major types of physical activity promotion documents.

From liquid to 'dissolved'? What does the future hold for physical activity promotion?

A final, even more daring question that arises from the analysis of the five major trends pertains to the future of physical activity promotion after the current liquid age. On the one hand, it appears as if the topic is now at its strongest ever, with serious efforts being made to combat physical inactivity by the WHO, the EU, other supranational organizations as well as many nation states around the world. Driven by ever increasing obesity and non-communicable disease rates straining the healthcare systems in many nations (44), one might hope that even more political will and financial resources will be invested in combating physical inactivity. Some advocates such as the State Government of Victoria (Australia) already envision physical activity promotion becoming as central to public health as tobacco control ('sitting is the new smoking').

In a less optimistic scenario, however, physical activity may continue to 'liquefy,' under the threat of getting lost in a health promotion landscape where every part of life is considered to be linked to physical activity, and where all policy sectors are considered relevant to counteracting inactivity. In such a scenario, physical activity could be literally 'dissolved' as a distinct public health issue in favor of more general efforts to promote healthy lifestyles.

Apart from theoretical implications, our results may have direct practical consequences for researchers, practitioners, and policymakers. In particular, it will be necessary to strike a balance between two poles: including a maximum number of individuals, population groups, sectors, and even countries in forthcoming physical activity promotion efforts at one end; and more focused approaches with a more limited scope but clearer messages and a potentially higher impact at the other. Eventually, the choice faced by physical activity promoters may be a strategic rather than an academic one: will it serve their cause better to embed physical activity in as many areas of people's lives as possible, or will it be advisable to give the issue a clear edge at the expense of limiting efforts to a few select sectors?

Declaration of conflicting interests

The authors declare that there is no conflict of interest.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Sven Messing https://orcid.org/0000-0002-9645-4079

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'I think one of the ways they will help is to create awareness': primary school teachers' perceptions of cardiovascular diseases in Nigeria

Kingsley Udeh[1,2], Candidus Nwakasi[1,3] and John Fulton[1]

Abstract: The increasing incidence and prevalence of non-communicable diseases is a major global health concern. Cardiovascular diseases (CVDs) account for the highest percentage of deaths related to non-communicable diseases, and low and middle-income countries (LMIC) face the highest burden of CVDs. Understanding the knowledge and perception of CVDs and their risk factors in an LMIC such as Nigeria may play an important role in cardiovascular health promotion and improvement plans to reduce CVD-related deaths. A qualitative study was conducted using semi-structured interviews to gain an in-depth understanding of some personal and sociocultural views on CVDs and their risk factors. The participants were purposively sampled primary school teachers in South-Eastern Nigeria. Thematic analysis approach was used for data analysis. The study findings include knowledge of heart disease, perceived causes and risk factors of CVDs, spirituality, and the way forward. Overall, the knowledge of CVDs in the setting was found to be related to the psychosocial nature of the participants; the effectiveness of any intervention needs to take these factors into consideration. For example, health policies for CVD health education and awareness should be tailored to address some of the issues of belief, values, and religion, as mentioned in the study.

Keywords: chronic disease/non-communicable disease, culture/health education, health promotion, heart health, qualitative study, risk factors, religion and spirituality, Africa

Introduction

Cardiovascular diseases (CVDs) account for the highest proportion of deaths related to non-communicable diseases, followed by cancer, chronic obstructive pulmonary disease, diabetes and others (1,2). Low and middle-income countries (LMIC) may face the highest burden of CVD, and it is one of the major causes of premature death and disability in sub-Saharan Africa (SSA) (3). Nigeria, with its high poverty rate (4), has a CVD-related mortality rate that is about 7% (5), and the prevalence rate of this health problem is projected to increase. Lifestyle factors such as alcohol consumption, smoking, and malnutrition may influence the burden of CVDs in the country, and these modifiable risk factors can be better managed to reduce CVD prevalence. Thus, exploring the knowledge and perception of CVDs, and their risk factors, may play an important role in the prevention and control of CVDs in Nigeria. The purpose of this qualitative study was to gain an in-depth understanding of knowledge and

1. Faculty of Pharmacy, Health and Wellbeing, University of Sunderland, Tyne and Wear, UK.
2. Epidemiology Division, Public Health Department, Health and Human Services Secretariat, Federal Capital Territory Administration, Abuja, Nigeria.
3. Department of Sociology and Gerontology, Miami University, Oxford, OH, USA.

Correspondence to: Candidus Nwakasi, Department of Sociology and Gerontology, Miami University, 210B Upham, 100 Bishop Court, Oxford, OH 45056, USA. Email: nwakascc@miamioh.edu

(This manuscript was submitted on 9 June 2019. Following blind peer review, it was accepted for publication on 18 November 2019)

Global Health Promotion 1757-9759; Vol 27(4): 24–31; 893981 Copyright © The Author(s) 2019, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975919893981 journals.sagepub.com/home/ghp

perceptions of CVDs and their risk factors among primary school teachers in South-Eastern Nigeria.

Background

A meta-analysis revealed that 10% of West Africa's population is obese (6). In addition to tobacco and alcohol consumption, identified as major risk factors of CVDs (7), abuse of these substances increases the risk of other comorbidities of CVDs (8). For example, a cohort prospective study in Cameroon involving 320 adults showed that increase in cardiovascular death was related to alcohol consumption (9). The issue is not gender selective as there is an increasing number of male and female smokers in SSA (10,11).

Socioeconomic factors may be contributors to cardiovascular risk as a result of psychosocial stressors (12). However, a mixed-methods study in Nigeria found that some participants referred to heart disease as a poor man's disease (13). Baum *et al.* (14) identified inadequate housing, potable water, sanitation, overcrowding, and environmental pollution as some of the stressors that predict health status in Sub-Saharan Africa. Some of these reviewed studies focus on the epidemiological risk factors of CVDs. However, in Nigeria, there is the need to gain in-depth understanding on perceptions of CVDs and their risk factors in order to develop effective corresponding health intervention policies.

Poor awareness of stroke was identified among staff and students of Obafemi Awolowo University Teaching Hospital, Ile Ife, Nigeria (15). Using a systematic random sample of 370 participants in a hospital, it was found that 29% did not know that the brain is the organ affected by stroke, 13.8% believed that evil spirits or witchcraft cause stroke, 61.1% preferred to receive medical care for stroke in hospital, and 13% preferred treatment by a spiritual healer (16). This poor knowledge is an indication of the need for more health education on CVDs in Nigerian communities. Moreover, these quantitative studies do not offer in-depth understanding of CVD perceptions.

Darr *et al.*'s (17) qualitative study in the UK found beliefs that genetics, lifestyle choices, and stress cause coronary heart diseases. Beliefs about heart diseases may influence rate of recovery, compliance with medication regime, and likelihood to follow healthy lifestyle recommendations (18). For example, cultural beliefs and practices (e.g. eating habits, overweight being a sign of prosperity, caring for the family above one's needs) are barriers to improving coronary heart disease prevention in South Asian communities (19). This highlights the need for better knowledge of CVD, the risk factors, and appropriate preventive measures.

Justification for study

A planned health intervention strategy that focuses on the education/training of teachers on CVD and its risk factors may be helpful in addressing the increasing health burden of CVDs in the study setting and Nigeria. More so, teachers can be key agents of change at the grassroots level (20,21), and they have been used in successful health education campaigns (22,23). In a WHO study, teachers in Bangladesh (a developing country like Nigeria) volunteer in health education campaigns geared towards improving family health, child and maternal mortality, water and environmental sanitation, and nutrition (24). In other to determine a health education program for South Eastern Nigeria, qualitative research using teachers will help explore some of the perceptions of CVDs and the sociocultural factors associated with this health problem, hence the rationale for this study. Additionally, this study may add to the body of knowledge on CVD perceptions; specifically, on how knowledge and perception of CVDs may vary among individuals of the same cultural background and educational level.

Methods

The aim of the study was to understand knowledge and perceptions of CVD and its risk factors among primary school teachers in South-Eastern Nigeria. Thus, the study employed a qualitative method of inquiry using semi-structured interviews (25,26). Additionally, the study was underpinned by Symbolic Interactionism (SI) because SI views knowledge and meanings as constructed from individuals' interactions, and considers people as major factors or agents of change. As a result, SI is deemed suitable to understand the perceptions of CVDs by participants who are members of the study setting.

Table 1. Demographic information of study participants.

Participants	*Code name*	*Gender*	*Marital status*	*Educational qualification*	*Years of teaching*	*Ethnic group*	*School location*	*Religion*
P1	R1	F	Married	NCE	20	Igbo	Rural	Christian
P2	R2	F	Married	NCE	8	Igbo	Rural	Christian
P3	R3	F	Married	NCE	12	Igbo	Rural	Christian
P4	R4	M	Married	B. ED	29	Igbo	Rural	Christian
P5	U1	F	Married	NCE	23	Igbo	Urban	Christian
P6	U2	F	Married	NCE	12	Igbo	Urban	Christian
P7	U3	F	Widow	NCE	15	Igbo	Urban	Christian
P8	U4	F	Married	B. ED	26	Igbo	Urban	Christian
P9	U5	M	Married	NCE	30	Igbo	Urban	Christian
P10	R5	F	Widow	NCE	11	Igbo	Rural	Christian
P11	R6	M	Married	NCE	17	Igbo	Rural	Christian

Study sample and location

The study used a purposive sampling method, thus, it allowed for deliberate recruitment of persons considered appropriate for inclusion into the study (26). The inclusion criteria were: participants must be actively teaching in a primary school, be an adult, and understand the research question posed. Hence, primary school teachers were recruited from six primary schools in urban (three schools) and rural (three schools) regions of Enugu state, Nigeria. In each school, two teachers were selected. However, the different locations chosen were not for comparative purposes, but aided to cover more teachers from different communities within the state. A total of 11 participants took part in the study: eight women and three men, with ages between 40 and 65 years. All the participants are Christians, with a National Certificate on Education (NCE) or a Bachelors in Education (B.Ed.), and they speak Igbo and English (see Table 1).

Data collection

Prior to the commencement of the interviews, ethical approval was granted by the University of Sunderland Research Committee, UK. Approval was also sought from the heads of the selected schools, and risk of participants' harm from the study was kept to the barest minimum (27). The recruited participants received about US$10 as honorarium, chose a convenient time and location for the interview, and were allowed to speak in English or Igbo language. The semi-structured interviews lasted for about one hour, and the lead researcher did the Igbo to English language translations where necessary during the transcription process.

Some of the interview questions were: what do you understand by the term CVDs, and what do you think may be the causes of this health problem? Nonetheless, when a participant made a statement that needed more clarification, further probing was adopted to explore issues that are important to the phenomenon studied (28). The participants were not pressured for answers and they were allowed to stop whenever they felt uncomfortable (29,30). The collected data were safely stored as transcripts with non-identifiers in a password-protected electronic device.

Data analysis

For data analysis, a thematic analytic approach (developing themes from the raw data) guided by the steps suggested by Bryman (29) was followed. They included: (a) transcribing recorded interviews verbatim (done manually); (b) reviewing the transcripts together with the field notes to identify vital points in the data analyzed such as overlapping or unique points, and certain expressions (e.g. metaphors); (c) focusing the analysis to reflect the purpose of the research, hence, identification of main codes; (d) grouping similar codes into themes; (e) identifying themes that are central and have more applicability; (f) all themes were examined and pattern of connections (e.g. similar or contrasting views) between themes were identified in order to group themes together to produce major themes. The thematic analytical steps mentioned were iterative, and, to ensure credibility of the study, we employed some strategies. First, a member check was conducted to ensure the major themes aligned with the participants' views. Second, the data collection and analysis processes were noted and documented. Third, findings were also compared with existing knowledge in the literature. The data analysis process was conducted manually.

Findings

The four major themes identified were: knowledge of heart disease, perceived causes and risk factors of CVDs, spirituality, and the way forward.

Knowledge of heart disease

This theme describes the knowledge of CVD from exploring what CVD means to the respondents, how common they perceive it to be, and their ability to describe the symptoms. For example, one of the participants gave the following response to a question about what she thought was the most challenging health issue in her community:

> The most common disease we suffer here in Enugu is malaria, but in most cases, you hear people die abruptly and when they are taken to the hospital to check the cause of their death, people say it's heart attack or heart failure . . . we don't even know how the heart failure starts and how to control it (U3).

Another participant described how the curiosity about heart diseases from some members of the community comes after a person who may seem healthy dies abruptly. The participant mentioned:

> So, when the person [deceased] is diagnosed maybe through autopsy it will be said that the person died of a heart attack . . . then many people started asking what is this heart attack (R4)?

The sample showed varied but little knowledge of heart disease. Additionally, most of the participants lacked the basic knowledge of early symptoms of any type of heart disease. One of the participants could not distinguish that heart disease is different from increased blood pressure. However, all the participants agreed that any adult may be at risk of having heart disease. As mentioned: 'Anybody can get heart disease as long as life is concerned, anybody that has life and is a human being and has a heart can develop heart disease' (U2).

Perceived causes and risk factors of CVDs

The sample, while describing their views of heart disease and its causes, described who they think is at high risk of developing heart disease. One of the participants explained what he thinks are the possible causes of heart disease:

> . . . I know that to my own understanding that many things can cause it; one is thinking, thinking can cause heart attack, then malfunctioning age [older age] because I know that as one advances in age the heart beat goes faster. So, another one is something like . . . the types of food people eat . . . alcohol consumption . . . could cause heart attack (R4).

Some of the participants mentioned a change in the type of food they consume. A participant (U1) believed increasing consumption of fruits and vegetables is key to better heart health and preventing CVDs. According to her, the experience her family had with heart disease made them more careful: 'This has affected the whole family as everyone is more cautious about what they eat'. Interestingly, another participant was more concerned about maintaining her psychological wellbeing as a way to prevent CVDs. She described:

> I don't allow people to annoy me like I abstain from getting angry, and over-thinking. Most times I think about my children, and not on how they will succeed in life (R3).

Most of the respondents believe that heart diseases can be inherited and if it is not in your family history, you will likely not have any CVD incidence. For example, a participant (U1) mentioned: 'I don't think so, because there are some diseases which are said that goes in lineage'.

Furthermore, economic hardship, and lack of social amenities were some of the recurrent themes identified from the described experiences and perceptions of the participants. For example, lack of money to eat healthily was identified by one of the participants as a barrier to good cardiac health. She (U1) described: 'When you go to the market you will see the price so at times capital [money] will be a barrier . . .' They also pointed out that poor salary and pension incomes by the government are barriers to adopting a healthy lifestyle:

> What I see as a barrier is still lack of fund like money because our salary is very poor. Before you pay your children's school fees, do one thing or the other, you will see that you are left with nothing and you will resort to thinking how to make ends meet. So, it will give you much stress and thinking and one will over work one's self (U3).

Although the sample did not complain of absolute poverty, they talked about not having enough money for medical check-ups that can help detect heart disease on time, pay for medications, and access to other appropriate medical care:

> There is no hospital that you will go to for whatever kind of check-up that they will tell you that it is free and because of that money people are dodging . . . just like the one [deceased] that happened few days ago down there [pointing at a place], if that lady had gone to the hospital for a check-up maybe her death would have been prevented (R5).

Some of the participants explained that because of lack of money, people have resorted to patronising local untrained drug vendors instead of seeking for appropriate medical services from health professionals and hospitals. A person's heart condition may worsen without funds to seek professional medical help and according to one of the participants:

> This will result in the disease to develop too much, which will result that by then a medical doctor cannot do anything again when he/she is taken to the hospital (R2).

Spirituality

This theme refers to the views that mystical, and especially diabolic activities are associated with heart diseases. The theme emerged from participants' belief that some types of disease like stroke and heart attack can be sent paranormally through occult incantations and charms from an enemy or an evil person (witch/wizard). This is one of the participants description of what causes heart disease:

> Hmmm as it regards to stroke, it is believed that people can drop it [charm/poison] for others, and that some get it through stepping on it as poison kept for them by their enemies (R2).

The question of if heart disease can be sent mystically was probed further and another participant (U4) responded: 'Nothing is impossible in this world now oh! I don't know how they do it, they may call the person's name or something and the thing [heart disease] will just affect him/her'. However, some of the participants dismissed the possibility of a heart attack resulting from spiritual attack:

> I don't think it could be possible because ignorance is a disease. We ignore certain things which we have to look into . . . suspecting one another to be the cause of our problem instead of looking for a solution to our problem and some people don't even visit the hospital to check themselves (U2).

Another respondent gave her response based on her faith. She believes that heart disease can be sent to someone but religious interventions can help save the person. She explained: 'Some of these diseases can go through deliverance, and the affected person will be free which shows that it is demon that causes some of the diseases' (U3).

Religious belief manifests in some of the participants' statements when they describe their risk of getting a heart disease. Specifically, prayer and faith were identified as a protection against heart disease. A participant described what she does frequently to reduce her risk of having a heart disease:

> . . . there is nothing extraordinary that I do apart from putting it in prayers, anytime I pray, I do ask God to prevent any form of diseases for me, be it heart or any other diseases (R2).

The way forward

The participants may not have shown adequate knowledge and awareness of CVD but their suggestions on how to improve the health of the members of their community emphasizes the role of teachers in health promotion. In addition to basic amenities, providing access to healthcare was suggested by one of the participants:

> My suggestion is that there is supposed to be doctors inside villages to see, for the health and wellbeing of the women and men inside the villages who are farmers and do not have good education (R5).

Some of the participants suggested that creating awareness in the media and training of teachers by the government will help to bring about more knowledge of heart diseases and how to prevent them in the community:

> I think one of the ways they will help is to create awareness; some of these people are suffering these diseases because they don't know anything about it, the cost and how they can even prevent it when it comes . . . if you people will do it in a way that teachers will be trained, organize a seminar for them so that they will be aware of all these things, then we will carry them to the pupils and the pupils will take it to their parents at home (U5).

When the participants were probed to know if there has been any form of awareness campaign, workshop or seminar in their school on heart diseases or any other non-communicable disease, the answer was 'no' among the teachers in the rural primary schools. This was a rural school teacher's response to the question: 'No, since I came here I have never seen [awareness campaigns], is only the immunization people that come once in a while to immunize the children' (R6). One of the participants (U3), an urban school teacher, stated that health educators come to their schools not necessarily to educate them but to market their products.

Discussion

Our study highlights issues of poor knowledge of CVDs, perceived risk factors and causes, and the use of spirituality to make sense of the symptoms. The poor knowledge of CVD identified in our study is similar to other quantitative studies conducted in Nigeria (15,16). Most of the study participants believed that anybody can have a heart disease irrespective of gender and this appears to differ from the findings of other studies in developed countries (31–33) that found CVDs to be viewed as diseases of men. Although our study found that poor lifestyles (e.g. smoking and drinking) are viewed as CVD risk factors, these lifestyles are attributed more to men than women and cause men to be viewed as more at risk than women (32).

Similar to other studies in the UK and Ghana (17,34), the study participants think that people with family history of heart disease are those who are most at risk of having heart disease. Another risk factor that most participants in our study emphasized was age (18), but they could not provide any explanation. Consequently, attributing heart diseases as a normal part of aging may negatively influence uptake of a healthy lifestyle in older age.

Participants in our study believe that psychological factors (e.g. emotional distress), unhealthy lifestyle choices, and physical stress can cause CVDs and these findings are in line with other studies (12,35–37). Similar to findings of studies involving people from South East Asia, our study identified affordability of a healthy lifestyle as a major issue (17,19). Adults in the study setting may struggle to provide for their families while in poverty. Thus, there may be no funds reserved to support healthier living, emphasizing that lack of financial resources is a major barrier to better health outcomes. It is also possible that the participants saw the study as an opportunity to complain about their poor salary incomes from the government and how this may be impacting their health. This was not explored further as it is beyond the scope of the study.

The study shows a strong influence of religion/faith on understanding CVDs in the study setting. For example, participants' suspicions of witchcraft as the cause of CVDs highlights the poor level of CVD knowledge and awareness, and how meanings are constructed in the setting studied (16). Furthermore, unlike those in urban areas, participants in rural areas believe that diseases can be sent through mystical means. Cultural beliefs and spirituality may also influence health-seeking behaviours of individuals.

This influence is also seen in some of the study participants' (Christians) preference of a spiritual healer over an orthodox medical practitioner. These views offer insight on the influence of spirituality and religion on perceptions of diseases and require further exploration.

In terms of health intervention, the study supports some of the participants recommendations such as: increasing health awareness campaigns in the study setting, posting more health workers to remote villages for community health education, and the government should make health and social services more accessible. Why do these participants' views matter? School teachers are ideal for health interventions in a community (38), especially if we consider their significant ability to influence the health and wellbeing of young people through education (39). School teachers can be useful health promoters when health information is broken-down to them in a way that seems educationally and culturally meaningful (40). Thus, these teachers/participants, when properly educated on CVD-related issues, can help disseminate health information about CVDs to their students and other community members. The planned next step in the study is a focus group discussion including community health workers in the study setting. This is to explore what, in their views, are the barriers to successful CVD health education in their communities.

Limitation of the study

This study is not generalizable. Also, the translation of the Igbo part of the interviews to English may have resulted in missing some key nuances in communication, but this was overcome because the lead researcher is proficient in Igbo. In terms of the study strengths, the findings from this study may help to understand some issues (e.g. beliefs, lifestyle, awareness) to be considered before implementing a health promotion strategy in Nigeria.

Conclusion

CVD may be one of the biggest national health challenges in Nigeria, but the country's high focus on communicable diseases leaves little room for addressing this rapidly increasing public health burden. Our qualitative study offers an in-depth understanding of the knowledge and perception of CVD and its risk factors among teachers. Overall, the participants' poor knowledge of CVD and its risk factors offers insight into the level of CVD awareness in a typical Nigerian community. Considering the implications of the study in relation to practice and education, it may help health practitioners to understand some of the issues associated with CVDs, and to develop better health promotion strategies.

Declaration of conflicting interest

The authors declare that there is no conflict of interest.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Candidus Nwakasi https://orcid.org/0000-0001-5727-1694

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Use of educational technologies in the promotion of children’s cardiovascular health: a systematic review

Francisca Bertilia Chaves Costa[1], Ana Maria Fontenelle Catrib[1], July Grassiely de Oliveira Branco[1], Rafaela Oliveira de Sales[1], Geraldo Bezerra da Silva Junior[1], Ana Paula Vasconcellos Abdon[1] and Lana Paula Crivelaro Monteiro de Almeida[2]

Abstract:
Objective: The aim of this study was to investigate the effectiveness of educational technologies for cardiovascular health promotion in children.
Methods: A systematic review was carried out through a search in Biblioteca Virtual de Saúde, Comissão de Aperfeiçoamento de Pessoal do Nível Superior, EBSCOHot Information Services, and US National Library of Medicine National Institutes of Health databases, using the descriptors: play and plaything, cardiovascular diseases, child, and health promotion, between 2012 and 2019.
Results: Eight articles were selected for this review. The identified technologies were based on low-tech interventions, such as play workshops, using tools such as CARDIOKIDS, the SI! program, MOVI-2, and activities with wide-ranging digital tools such as Fooya!, Fit2Play™, and the exergame cycling program.
Conclusions: It is noteworthy that all of the analyzed interventions were effective and those that involved playing were better accepted by the children.

Keywords: children, health promotion, cardiovascular diseases, playthings

Introduction

Cardiovascular diseases (CVDs) constitute the main cause of morbidity and mortality worldwide (1), accounting for 17.9 million deaths in 2016 (2). In Brazil, data show that from January to May of 2019 there were 159,013 deaths from CVDs (3).

The issue becomes even more a matter of concern when considering studies for the evaluation of children and adolescents. This fact is supported by a study carried out in the US that monitored four risk factors for CVD (body mass index (BMI), diet, total cholesterol, and blood pressure), showing that none of the children had all factors within the expected parameters for cardiovascular health (4).

CVDs are highly likely to develop in adults when they are linked to multiple associated risk factors in childhood, such as inadequate eating habits and lifestyle (5,6).

In this scenario, one identifies the need for CVD prevention in childhood, aiming at preventing them or reducing their complications in adult life (6). Therefore, given the opportunity to promote the health of populations and, consequently, decrease the morbidity and mortality rates caused by chronic diseases such as CVD, it becomes necessary to

1. Universidade de Fortaleza, UNIFOR, Fortaleza, Ceará, Brazil.
2. Faculdade Paraiso do Ceará, FAPCe, Juazeiro do Norte, Brazil.

Correspondence to: Francisca Bertilia Chaves Costa, Universidade de Fortaleza, UNIFOR, Avenida Washington, 1321 Sala S1, Fortaleza, Ceará, 60811-905, Brazil. Email: bertilia_chaves@hotmail.com

(This manuscript was submitted on 5 September 2019. Following blind peer review, it was accepted for publication on 8 January 2020)

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Table 1. Guidelines for the creation of the study question.

Population	Children
Intervention	Educational technology (playing, playthings, and/or games)
Comparison	Children divided into two groups – control and intervention to evaluate the changes in life habits using playing, playthings, and/or games as intervention, being effective for healthy behavioral improvements among the children
Outcomes	Actions to promote cardiovascular health in children that demonstrate the effectiveness of the use of games, playthings, and/or playing to promote the cardiovascular health of the pediatric population
Study design	Intervention studies

discuss the use of more efficient health promotion strategies (1).

There has been a concern aimed at ensuring equality of opportunity and providing the means for individuals to have a favorable chance to know and control the conditioning factors and determinants to achieve cardiovascular health. Therefore, it is of crucial importance to prevent potential CVD-related risk factors in children using multifaceted strategies that involve primary and secondary prevention, as well as regulatory initiatives such as the strict control of products with high trans-fat content, to be carried out in the school environment (7). Among these strategies, the use of technologies in CVD prevention aimed at encouraging behavioral changes is highlighted (1,8). Scientific evidence shows that traditional interventions have little or no effect on modifiable cardiovascular risk factors (9), and, thus, innovative approaches are necessary. It has been observed that technological innovations have shown to be an excellent opportunity for behavioral interventions to stimulate healthy habits, which has a positive impact on the change in health-related behaviors (10,11).

Based on this context, the aim was to investigate the effectiveness of educational technologies aimed at cardiovascular health promotion in children through a systematic review of the literature.

Methods

A systematic review of the literature was carried out through a search in *Biblioteca Virtual em Saúde* (BVS), *Comissão de Aperfeiçoamento de Pessoal do Nível Superior* (CAPES), EBSCOHot Information Services, and US National Library of Medicine National Institutes of Health (PubMed – NBCI), with the results being presented based on the criteria for Systematic Review and Meta-Analyses from the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) tool (12).

A systematic review is understood as the characterization of a review that seeks to obtain the subsidies for evidence-based practice (EBP). It comprises a strict methodology that identifies studies about a certain topic, applies explicit and systematized search methods, and evaluates the quality and validity of these studies, as well as their applicability in the context in which the changes will be implemented. This allows one to select the studies that provide scientific evidence and make their synthesis available, aiming to facilitate its implementation in EBP (13).

However, carrying out a systematic review requires the creation of a protocol. Thus, eight steps are followed: 1) creation of the research question; 2) literature search; 3) article selection; 4) data extraction; 5) methodological quality assessment; 6) data synthesis; 7) evaluation of the quality of evidence; and 8) writing and publication of the results (14).

Initially, to guide the creation of the study question, the 'population, intervention, comparison, outcomes and study design' (PICOS) strategy was used, according to Table 1 (12).

Considering this strategy, the study question was created: 'What is the effectiveness of educational technologies (playing, playthings, and/or games) used in actions aimed to promote the cardiovascular health of children?'

This review uses the terms game, plaything, and/or play, as even though these terms have different concepts, it is necessary to join them for a recreational activity to occur. A game is characterized by the existence of rules for its performance, whereas the plaything is a support for the play, which has rules that allow its flexibility and the inclusion of new participants, without changing the recreational action being performed at that moment (15).

This review was carried out from March to May 2019, aiming to identify scientific articles classified as empirical research on the use of educational technologies, with or without digital tools, to promote cardiovascular health in children. This was done by cross-referencing four English keywords from the Medical Subject Headings (MeSH) and in Portuguese from the Descriptors in Health Sciences (DeCS), using the Boolean operator AND: play and plaything AND cardiovascular diseases AND child and health promotion, at the abovementioned databases, using the combination of four triads between the descriptors.

Articles that reported educational technologies, using or not using digital tools, in English, Portuguese or Spanish, and published from January 2012 to May 2019 were included in the review. Articles such as 'Annals', technical papers, editorials, reviews, comments, reflection articles, theses, dissertations, and those that did not match the study question, as well as duplicate articles, were excluded.

After the cross-referencing of the descriptors, the search resulted in 362 articles in the Virtual Health Library, 481 in the CAPES portal, 520 in EBSCOHot Information Services, and 306 in PubMed – NBCI database, comprising a total of 1669 articles.

After this first sample selection, the careful reading of the titles and abstracts of the selected articles was carried out by two independent researchers to identify those that included information that answered the guiding question of the present review. After the selected articles went through this screening, they were continually assessed by the researchers and in the case of any disagreement between them, they were solved by a third author, with the final selection being carried out by reading the full-text articles, as well as the filing of the articles.

Results

After the selection, three publications were obtained from the *Biblioteca Virtual de Saúde* (BVS), none from the *Comissão de Aperfeiçoamenteo de Pessoal do Nível Superior* (CAPES), one from EBSCOHot Information Services, and four from PubMed – NBCI databases, as a final result for this review, as shown in Figure 1.

For the organization and tabulation of data obtained from the selected articles, a tool adapted from Ursi and Gavão (16) was used, which contained the following information: author, year of publication, study site, target population, sample size, level of evidence, objectives of the study, educational technology used, digital tool used, and intervention effectiveness (Tables 2 and 3).

According to Table 2, the characterization of the studies shows the different countries where they were carried out, using the approach to promote the cardiovascular health of children, as well as the different participants involved in the studies, in addition to the methodological outline.

Most of the studies were carried out in developed countries, with emphasis on Spain (21–23) and the US (17–18). From 2012 onward, there was a gradual increase of publications on the subject, showing the interest of the scientific community on the topic.

Regarding the sample size, it ranged from eight (20) to 1546 (18) children, showing the purpose of including other social actors, either directly or indirectly with the promotion of cardiovascular health, such as parents and teachers (23).

As for the methodological aspect of the studies, a high percentage of high-impact studies were obtained, such as randomized clinical trials (17,20), which used effective interventions to promote cardiovascular health in children.

Table 3 shows the studies according to the authors, year of publication, objectives, educational technology used, use of digital tools, and the evidence of intervention effectiveness.

As shown in Table 3, it was possible to identify that the objectives were aimed at promoting cardiovascular health in children, through the performance of activities aimed at addressing risk factors in a specific way, such as concerns about inadequate diet (23), sedentary lifestyle (22,24), being overweight (18–20), and lack of knowledge (19,23). Moreover, other studies have been carried out to provide an active lifestyle for the children (17,21,23).

Different strategies were used to promote cardiovascular health in children. Services using wide-ranging digital tools such as Fooya (17), Fit2Play™ (18), and exergame in a cycling program (20), as well as low-tech interventions, such as play workshops using tools such as CARDIOKIDS (19), the SI! Program (21), MOVI-2 (22), and interventions

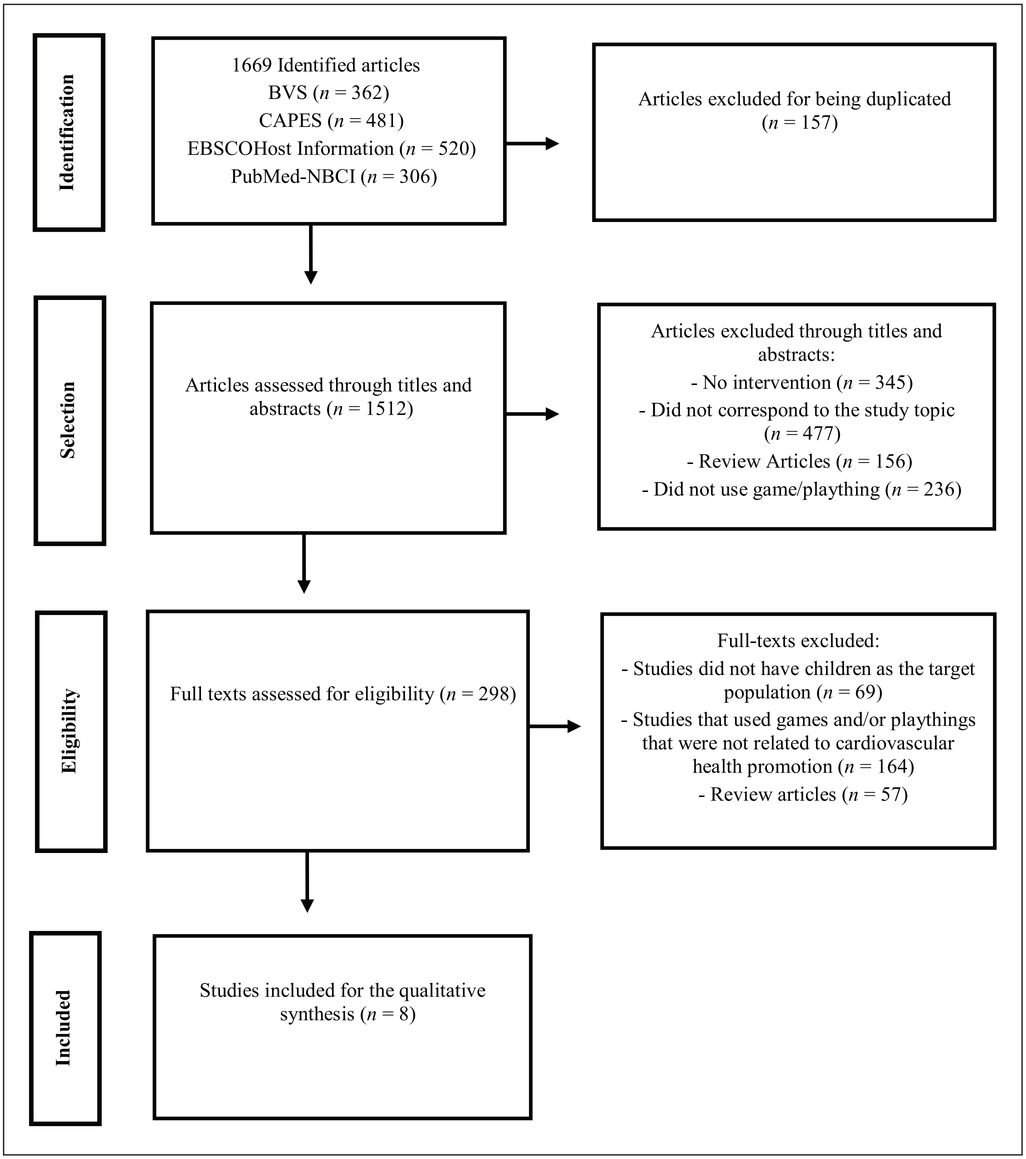

Figure 1. Description of the selection, evaluation, and inclusion of studies in the systematic review of games and/or playthings using or not using digital tools, developed for the promotion of the cardiovascular health of children.

carried out in the school environment (23,24) were the actions used in these scientific productions.

Of the educational technologies described in the intervention, three studies mentioned the use of digital games (17,20), in addition to associating this type of game with real elements (municipal parks) (18). Other studies have used art workshops through drawings, dancing with music, and memory games (19). One of the studies (21) added virtual elements such as emotion cards, healthy tips, and online

Table 2. Characterization of the articles on educational technologies for the promotion of children's cardiovascular health.

Articles	*Study site (Country)*	*Study participants*	*Study design*	*LE*
Padman *et al.* (17)	USA	100 schoolchildren	RCT	I
Messiah *et al.* (18)	USA	1546 children aged 6 to 14 years	Intervention	I
Ceccehetto *et al.* (19)	Brazil	79 students aged 7 to 11 years	RCT	I
Knights *et al.* (20)	Canada	8 children aged 9 to 18 years	RCT	I
Peñalvo *et al.* (21)	Spain	24 schools, including 2062 children (3 to 5 years)	Cluster randomized trial	I
Martínez-Vizcaíno *et al.* (22)	Spain	712 schoolchildren aged 8 to 10 years	RCT	I
Céspedes *et al.* (23)	Colombia	1216 children aged 3 to 5 years, 928 parents, and 120 teachers	RCT	I
Knox *et al.* (24)	UK	115 children aged 11 to 14 years	Quasi-experimental	III

RCT: randomized clinical trial; LE: level of evidence.

resources into their real activities. Recreational and non-competitive activities were also present in one of the studies (22) through the use of traditional games and outdoor activities. And, finally, one intervention (24) included a daily brisk walk.

According to the effectiveness of the above-mentioned interventions, positive results achieved through physical activity are described in the studies (18,21–23). However, the other studies (17,19,24) mention the possibility of satisfactory outcomes when using healthy lifestyle strategies (diet and physical activity).

The study developed with children diagnosed with cerebral palsy (20), which stimulated physical activity, suggests in its results that this action can lead to cardiovascular fitness improvement.

Regarding the process of child development, one publication (20) suggests aspects related to constructivism and organic maturation (25). Other studies (18–19,21–24) were related to the socio-ecological model (22), social cognitive theory (17,23), and transtheoretical model (23).

Discussion

The strategies used showed significant results in promoting cardiovascular health in children, since they are recreational tools that stimulate an environment that arouses the interest of the children. It was observed that the literature is still scarce, specifically regarding this topic related to children. However, even with only eight studies identified in the literature, sufficient potential was observed to trigger a line of reflection within the cardiovascular health approach.

It is possible to infer that all analyzed educational interventions were effective for the promotion of cardiovascular health in children, but the importance of including recreation to ensure effectiveness is emphasized, since the recreational aspect attracts and motivates children to participate in the proposed actions (19,22).

By analyzing the educational strategies used in the studies that constitute this review, the emphasis was on the use of interventionist methodologies, which provided the collectivity's interaction (18–19, 21–24).

Considering these assumptions, it is understood that this assertion also becomes valid when discussing the question of knowledge about cardiovascular health. One of the main challenges to the promotion of cardiovascular health in children is the issue of childhood obesity, including the availability of prevention and/or treatment in easily accessible programs (17–19,22).

Thus, focusing on the obesity risk factor, the change in several cardiovascular problems related to obesity was evaluated after participation in an intervention program called Fit2Play™, created for urban municipal parks. As a result of this strategy, it was observed that children aged six to 14 years participating in the intervention over a five-year

Table 3. Presentation of the studies according to the educational technology used and evidence of its effectiveness.

Articles	*Study objectives*	*Educational technologies (game, playthings, and/or playing)*	*Digital tool*	*Intervention effectiveness*
Padman *et al.* (17)	Assess the impact of a mobile game on diet and lifestyle and food choices	Fooya! Game for mobile devices, developed as a 'digital vaccine' to reduce the risk of chronic non-communicable diseases in the long term	Fooya!	The game showed a positive effect on healthy food choices, after only 40 minutes of exposure to the intervention
Messiah *et al.* (18)	To evaluate the change in several modifiable cardiovascular risk factors related to obesity after participating in the Fit2Play™	Fit2Play™ Post-school program, structured for the urban municipal park system	Fit2Play™	The post-school program was effective in preventing and treating childhood obesity and successful in high-risk groups
Ceccehetto *et al.* (19)	To verify the impact of play workshops on children's knowledge, self-care, and body weight	Play workshops	No	The workshops provided increased knowledge about healthy habits and risk factors for cardiovascular disease, as measured by CARDIOKIDS, in addition to changes in physical activity levels and body mass index immediately after the intervention
Knights *et al.* (20)	To evaluate the effects of an Internet-platform exergame cycling program on cardiovascular fitness in children and young individuals with cerebral palsy	Cycling program	*Exergame* (digital game)	A cycling program using exergame can lead to cardiovascular fitness improvement in children and young individuals with cerebral palsy
Peñalvo *et al.* (21)	To evaluate the effect of a three-year multidimensional intervention at school to improve lifestyle behaviors	SI!	No	The SI! program was an effective strategy to encourage healthy habits among preschoolers, resulting in benefits and a significant effect when started early and maintained for more than three years
Martínez-Vizcaíno *et al.* (22)	To evaluate the impact of a physical activity program on adiposity and cardiometabolic risk factors in schoolchildren	(MOVI-2) Recreational and non-competitive activities	No	Non-competitive physical activity during one school year was a safe and effective measure to reduce adiposity in both genders and improve the cardiometabolic risk profile

(Continued)

Table 3. (Continued)

Articles	*Study objectives*	*Educational technologies (game, playthings, and/or playing)*	*Digital tool*	*Intervention effectiveness*
Céspedes *et al.* (23)	Evaluate changes in preschoolers' knowledge, attitudes, and habits regarding healthy eating and an active lifestyle	Educational intervention in preschool facilities	No	The proposed preschool intervention was feasible, effective, and sustainable in very young children
Knox *et al.* (24)	To investigate the response of risk factors for cardiovascular diseases after the introduction of fast walking in curricular classes	Intercultural physical activity intervention of 18 weeks in a high school	No	This intervention was shown to be sustainable, effective, and inexpensive to engage children in physical activity on a daily basis

period (2010–2015) showed that after one year, the groups with excess weight significantly decreased the mean percentile of BMI. It should also be noted that the nutritional knowledge of those submitted to the interventions significantly improved as well, suggesting that structured health/wellness programs created for parks constitute a low-cost and high-value tool for the promotion of cardiovascular health (18).

Studies show that overweight in childhood and adolescence has been a cause of great concern worldwide (25–27), since little is known about the complications that this phenomenon, which occurs early in life, can cause in the long term (28).

However, at this stage of development, it is expected that actions to prevent excessive weight gain will be effective, because at this stage there is greater energy expenditure in comparison to the other phases of life. Moreover, it is essential to minimize sedentary activities, such as sitting for long periods in front of the television, at the computer, or playing video games (29). In addition to a sedentary lifestyle, they report that dietary interventions related to cardiovascular health should be incorporated into young populations at an early age, as they target interventions and changes in eating habits that are considered inadequate (30).

Considering this context, simple and low-cost interventions can also have a significant impact on the promotion of the cardiovascular health of children, provided they comprise recreational and educational activities, as shown by the study performed with low-income children in a Brazilian school, which improved knowledge about healthy habits and risk factors for CVD, in addition to being useful for the planning of preventive strategies (19,21–22).

Another example was the SI! program, which demonstrated that a multidimensional intervention for preschoolers brought significant improvement to lifestyle-related behaviors and measures of adiposity in those involved along the intervention years (21). This fact was identified in the first year of the program, with a differential increase of 5% (31).

Another study that showed significant results in this systematic review was the evaluation of the effects of an Internet-platform exergame cycling program for cardiovascular fitness of children and young individuals with cerebral palsy. Thus, the study observed that there were significant post-intervention improvements, with the conclusion that an exergame cycling program could lead to improvements in cardiovascular fitness (20).

The impact of an intervention consisting of a physical activity program called MOVI-2 related to cardiometabolic risk factors, carried out for one year, is also highlighted. This program was characterized by presenting recreational and non-competitive activities, based on a sociological model, for schools, parents, and teachers, aiming to increase the practice of physical activity. The intervention also led to lower serum low-density lipoprotein cholesterol levels and reduced insulin levels. Among the boys, there was a decrease in waist circumference, demonstrating that studies such as this one comprise safe and effective measures (22).

Another study that also focused on physical activity investigated the response of risk factors for CVDs after the introduction of walking activities to the school curriculum. The intervention was characterized as a cross-cultural physical activity lasting 18 months, with evaluations both in the pre- and post-intervention phase of physical activity and diet, demonstrating that the intervention was sustainable, effective, and a low-cost strategy to engage children in daily physical activities (24).

Programs carried out in the school environment are effective in changing knowledge, attitudes, and habits that are important for the long-term risk of CVDs associated with sedentary lifestyles. This was evidenced by an educational and recreational intervention study involving children, parents, and teachers (23).

However, it can be observed that the number of specific scientific publications aimed at this particular population is scarce, especially in developing countries (19,23), which becomes a major concern due to the severity of CVD and the increase of its incidence (32).

The limitations of this review include the fact that some studies did not have a detailed description of each developed intervention, which made it difficult to further investigate the association between the use of educational technology and the variables assessed in the studies, as well as their effects on the outcomes.

Conclusion

The study found a significant diversity of educational technologies developed and evaluated for the promotion of the cardiovascular health in children, with the involvement of several strategies that associate playing with health education, making them more attractive and interesting for children.

It was observed that the scientific corpus of the systematic review showed that the interventions were effective, demonstrating the importance of working with this topic even in childhood. However, to attain a significant result, one must recognize that playing is the important characteristic of the actions developed with the children, even if the tool used does not have high technological features.

Moreover, it was demonstrated that interventional studies of this type require a longitudinal design for better long-term observation of the impact of these interventions on the children's daily routine, as well as on the prevention of future CVDs.

It is noteworthy that the use of digital technologies for the promotion of children's health is a viable one, through a recreational approach, the use of repetition that makes the contents more easily understood, the interaction that promotes socialization, in addition to the low risk and costs involved.

Declaration of conflicting interests

The authors have no conflicts of interest to declare.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

ORCID iDs

Francisca Bertilia Chaves Costa https://orcid.org/0000-0002-2672-3309
Ana Maria Fontenelle Catrib https://orcid.org/0000-0002-2088-0733
July Grassiely de Oliveira Branco https://orcid.org/0000-0001-6188-9745
Rafaela Oliveira de Sales https://orcid.org/0000-0002-5725-279X

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Social capital, gender, and health: an ethnographic analysis of women in a Mumbai slum

Anisha Gundewar[1] and Nancy P. Chin[2]

Abstract

Objective: Quantitative studies have demonstrated that social capital can positively impact community health, but qualitative explorations of the factors mediating this relationship are lacking. Furthermore, while the world's poor are becoming increasingly concentrated in the cities of lower-middle income countries, most of the existing literature on social capital and health explores these variables in Western or rural contexts. Even fewer studies consider the impact of social constructs like race, gender, or class on the creation of social capital and its operationalization in health promotion.

Our study aimed to address these gaps in the literature through an ethnographic exploration of social capital among women living in Kaula Bandar (KB) – a marginalized slum on the eastern waterfront of Mumbai, India. We then sought to identify how these women leveraged their social capital to promote health within their households.

Methods: This was a mixed-method, qualitative study involving participant observation and 20 in-depth, semi-structured, individual interviews over a nine-month period. Field notes and interview transcripts were manually analyzed for recurring content and themes.

Results: We found that women in KB relied heavily on bonding social capital for both daily survival and survival during a health crisis, but that the local contexts of gender and poverty actively impeded the ability of women in this community to build forms of social capital – namely bridging or linking social capital – that could be leveraged for health promotion beyond immediate survival.

Conclusions: These findings illustrate the context-specific challenges that women living in urban poverty face in their efforts to build social capital and promote health within their households and communities. Community-based qualitative studies are needed to identify the macro- and micro-level forces, like gender and class oppression, in which these challenges are rooted. Directly addressing these structural inequalities significantly increases the potential for health promotion through social capital formation.

Keywords: ethnographic study, gender, global health/globalization, health promotion, healthy cities/healthy communities, poverty, social capital, Southeast Asia

Introduction

Urban populations are expanding (1) at a pace that exceeds infrastructure and policy development. This process exacerbates inequalities within cities (2,3) and increases in the numbers of urban poor – a phenomenon termed the urbanization of poverty (4).

In India, rising urban poverty is a major public health concern. An estimated 169 million Indians currently live in slums (5) – extremely impoverished, overcrowded urban settlements characterized by poor sanitation and substandard housing – and this number is steadily rising (6). These conditions place slum residents at increased risk for poor health (3,6–9).

1. School of Medicine and Dentistry, University of Rochester, USA.
2. Department of Public Health Sciences, University of Rochester, USA.

Correspondence to: Anisha Gundewar, School of Medicine and Dentistry, University of Rochester, Box 493, Strong Memorial Hospital, 601 Elmwood Avenue, Rochester, NY 14642, USA. Email: anisha_gundewar@urmc.rochester.edu

(This manuscript was submitted on 8 May 2019. Following blind peer review, it was accepted for publication on 25 January 2020)

Global Health Promotion 1757-9759; Vol 27(4): 42–49; 909114 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920909114 journals.sagepub.com/home/ghp

Slum residents also lack access to quality health services (6,10,11). India's public health system is overwhelmed (10), resulting in proliferation of an under-regulated, profit-driven private healthcare sector (12). Those who are unable to receive care from overburdened public providers and cannot afford qualified private providers receive inadequate care from lower-cost, unqualified private providers (10,12).

Social capital is an intangible resource derived from the relationships between individuals and groups within a community (13). In communities that lack more tangible forms of capital, the elements of social infrastructure – such as social networks and norms of trust and reciprocity – may be leveraged to meet needs and promote health (13–15). For example, a tightly connected community able to identify shared concerns can employ their collective voice to advocate for change (14,16). Based upon this assumption, interventions that strengthen social capital hold promise as a means to empower poor communities to drive health promotion and development (2,16–18).

To inform these interventions, quantitative studies have sought to link measures of social capital and health outcomes (14,19). This one-framework-fits-all approach has struggled to ascertain a clear relationship between these two variables (15,20); both positive and negative associations between social capital and health have been reported (14,19). The few qualitative studies exploring mechanisms by which social capital influences community health suggest that discrepancies in the quantitative literature reflect the influence of context and social constructs on social capital (15,20,21). These studies found that poor communities rely more on different types of social capital than wealthier communities, and that oppressed subgroups within communities face unique barriers to building social capital (15,22,23).

Such findings argue for further qualitative exploration of social capital in different communities and with consideration of the diversity within them. Currently, the qualitative literature on social capital and health is primarily concentrated in Western or rural contexts (16,19,20,24,25). Even fewer analyses explore the impact of social constructs such as gender or class on social capital creation and mobilization (22,26). Feminist theory supports the notion that women's agency is often unaccounted for and the gendered nature of social capital rarely examined (27,28). Our study explores both the extent of women's social capital and notions of agency by qualitatively exploring the characteristics of social capital among women living in Kaula Bandar (KB) – a non-notified slum in Mumbai, India – and the ways in which women leverage social capital to promote household health. We believe that our gendered, qualitative study of social capital will broaden the scope of the existing literature and inform the operationalization of social capital theory in non-Western, urban poor communities.

Table 1. Household demographic data for Kaula Bandar $n = 1701$ households

Variable	*Percent (%)*
Age	
15–24	37.9
25–39	47.9
40–49	14.3
Religion	
Hindu	40.9
Muslim	54.3
Christian	3.7
Other	1.1
Migration status (women))	
Always in current slum	26.6
Migrant from another area	73.4
Home ownership status	
Owner	65.6
Renter or other arrangement	34.4
Water	
Households with piped drinking water	0.1
Sanitation	
Access to non-shared toilet	3.0
Open defecation	14.0

Data collected by Partners for Urban Knowledge, Action, and Research between 2008 and 2011.

Setting

Kaula Bandar (KB) is a 2777 household slum, located on Mumbai's eastern waterfront (9). Established over 50 years ago by migrants from the Indian state of Tamil Nadu, KB is now home to migrants with different primary languages, cultures, and religions from throughout India (9) (Table 1). Because KB is located on central (federal) rather than state government land, it is considered 'non-notified' and ineligible for state-provided municipal services like water, electricity, sanitation, and education (9). Consequently, the residents of KB have worse health outcomes and quality of life than residents of slums that receive these services (9).

Methods

Theoretical framework

Social capital is a set of socio-cultural resources that consists of aspects of social structure that facilitate certain actions of individuals within that social structure. Social capital has two domains: structural and cognitive.

At the individual level, structural social capital is the social support – informational, instrumental, and emotional – accessed through one's social networks. Social networks are further sub-categorized as informal or formal. Informal social networks include close contacts like family and neighbors. Formal social networks are established through participation in larger organizations, like political or religious affiliation.

Structural social capital is also conceptualized as bonding, bridging, or linking. Bonding social capital describes tight-knit networks of individuals with a shared social identity. Bridging social capital refers to connections between distinct groups with equitable social position. Relationships crossing explicit or institutionalized gradients of power are referred to as linking social capital.

Cognitive social capital consists of community characteristics – like trust, sense of safety, shared norms of behavior, and ethic of reciprocity – that create the context of relationship formation within that community.

Data collection and analysis

Data were collected through traditional ethnographic methods (29) of community immersion, participant-observation, and 20 interviews over a 10-month period between August 2014–May 2015 and June 2016–July 2016. The University of Rochester Institutional Review Board approved this study.

Participant Observation: The first author systematically observed daily community life and local health services delivery and held informal conversations with community members. Data were recorded in field notes.

Table 2. Participant demographics $n = 20$

Variable	*n*
Age	
<30	11
⩾30	9
Religion	
Hindu	7
Muslim	13
Marital status	
Married	18
Not Married	2
Employment status	
Not Employed	11
In Home	2
Outside Home	7
State of origin	
Maharashtra	8
South India	6
North India	1
Other	5
Migration status	
Kaula Bandar Native	7
Migrant, Mumbai	6
Migrant, Other	7
Years in KB	
<10	5
10–20	8
>20	7

Recruitment: Participant demographics are given in Table 2. Eligible participants were current female residents of KB, ages 18 and older. Demographics, including religious and cultural background, age, employment status, marital status, and duration of residency in KB, were considered to ensure participants represented community diversity. Informed consent was obtained orally. Data were de-identified.

Semi-Structured Interviews: Interview guides were informed by participant observation. We conducted 20 interviews. Participants were asked about their personal experiences with health and illness and the exchange of social support. Interviews were conducted in participants' homes in Hindi

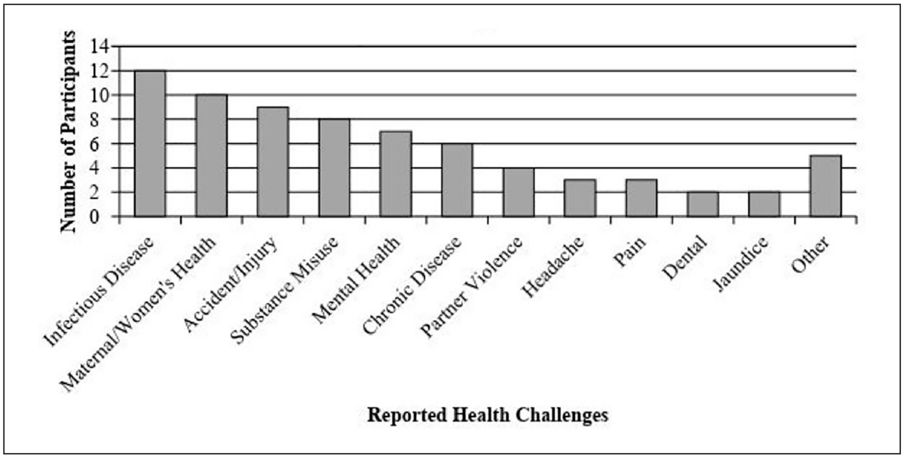

Figure 1. Participant-reported health challenges.
Data collected by Partners for Urban Knowledge, Action, and Research between 2008 and 2011 (9).

through a Hindi-English translator, and translated and transcribed by the author and translator.

Analysis: Both authors analyzed interviews and field notes in an iterative process for recurring content, quotes, and themes. Data were examined for features of social capital and their outcomes.

Results

Health and care seeking in KB

Major health challenges in KB (Figure 1) include infectious disease, pregnancy and childbirth, accidental injury, substance use and domestic violence.

During health crises, KB residents struggle to navigate Mumbai's complex system of local clinics and government and private hospitals. Deciding whether or where to seek treatment requires weighing problem severity and costs of care (time, financial, etc.) against expenses for daily necessities. For example, families may utilize unregulated local clinics for a cold or diarrheal illness but resort to time-consuming government hospitals or, when they can afford it, expensive private hospitals for accidental injury or childbirth. This resource-limited care-seeking approach leads to care fragmentation and delayed and inadequate treatment, placing further strain on families in KB.

As the primary caregivers within their families, women are particularly vulnerable to this added stress. Each day, women in KB dedicate hours to household cooking and cleaning, accompanying their children to and from school on dangerous roads and trains, and waiting in line at taps to collect illegally siphoned water that runs in KB at limited time intervals. When a family member is ill, it is the wife, mother, or daughter who is expected to uphold these daily responsibilities and also tend to the affected individual, despite the devastating impact of health care expenses on the household budget.

Structural social capital

Informal social networks

Small, tight-knit informal social networks of neighbors and family – cultivated and strengthened through day-to-day reciprocal exchanges of support – are the primary source of structural social capital for women in KB. KB mothers rely on family and neighbors to watch their children while they run an errand or use the public toilets. Small cash loans between close contacts for public transportation or groceries are commonplace. When a health crisis occurs, women in KB leverage this established infrastructure of daily support for situational financial and instrumental assistance.

These informal social networks are also a crucial source of emotional support for many women in KB. One woman shared how her neighbors helped her to cope after her son died in a traffic accident:

> 'They told me that 'God has taken your son, you shouldn't worry about what has happened. Spend your days with your other two children'. . . They would talk to me a lot and try to lessen my problems. . . When my neighbors would go out, they would take me along. . . If I was short 50 or 100 rupees, they would give me money'.

Proximity is a defining characteristic of these informal social networks. We identified two primary reasons for this. First, lack of time and autonomy prevent women in KB from maintaining relationships beyond their immediate vicinity. Therefore, when women relocate within the community – whether displaced by landlords or moving after marriage – they often break ties with older networks and build new connections nearby. Second, the utility of a woman's informal social network depends upon ease of access. For example, one woman shared a story of a hit-and-run traffic accident that occurred outside her home. The victim – a pregnant woman who had been walking with her son along the side of the road – had her dress caught in the wheels of a passing vehicle. Some witnesses tracked down the responsible driver, while others took care of her son. The respondent and some of her neighbors hailed a taxi and accompanied the injured woman to the hospital. When risk for such accidents is high, trusted neighbors provide critical support as first responders.

Formal social networks

Whereas informal social networks are important for survival, few women in KB have access to formal social networks and linking social capital. Lack of time and opportunity are the major barriers to building these forms of social capital. Household responsibilities leave little time for activities outside of the home. Additionally, KB's tenuous future as an unrecognized slum discourages government and non-government institutions from establishing programs within the community; they are hesitant to dedicate resources to a community at such high risk for eviction.

While the majority of women stay at home or work as independent vendors within KB, a few women are able to build formal social capital through employment in factories and companies. During health crises, these women can request advance payments from employers to cover healthcare expenses. Importantly, women who work outside of KB spend much less time within the community and are less able to build and maintain their informal social networks. Thus, the benefits of expanded formal social networks are offset by decreased capacity for informal connections.

Cognitive social capital

The prominent dimensions of cognitive social capital in KB are trust, norms of reciprocity, values of self-sufficiency, and perception of community.

Trust

Trust in KB is tightly linked to one's informal social network. Women expressed confidence that they could rely upon women from their inner circle for support:

> 'Here, if anyone has a problem, the neighbors come to help. The people who live here are good, from talking to them, I know that they are good and that they will help'.

When speaking about the community as a whole, however, women expressed mistrust:

> 'I don't trust anyone [else]. . . They are not dependable, they will make a fool of you'.

Thus, while close contacts are viewed as 'good' and 'reliable,' individuals outside of one's trusted network are perceived as 'bad' and possibly even deceitful. Low levels of generalized trust discourage women within an informal network from connecting with other informal social networks and building bridging social capital.

Norms of reciprocity

> 'If any woman calls me, I go with them. I go because if tomorrow I have a problem, they will come and help me'.

For many women, local norms of reciprocity – the exchange of resources for mutual benefit – within trusted networks are the foundation upon which social capital is created. Transactions of support within networks are integral to daily life, and helping others is viewed as a way to build a 'reserve' of support that can be drawn upon in the future. For example, a single mother of six children strategically sought opportunities to help her neighbors, capitalizing on sentiments of reciprocity within the community:

> 'If I help them, then one day when I need help, they will be there'.

Value of self-sufficiency

The operationalization of reciprocity among women in KB depends upon a strongly held value of self-sufficiency. While lending support is associated with elevations in status and respect within one's social network, receiving support is looked down upon and undermines social capital. The result is significant social pressure to reciprocate support in order to maintain standing within the community. This importance of self-sufficiency was reflected in the willingness of many women to share examples of helping others, whereas very few women opened up about receiving assistance.

Perceptions of community

The transactional nature of reciprocity in KB also highlights predominantly negative perceptions of the community. While women can leverage reciprocity for personal gain, they derive little benefit from extending practices of reciprocity to promote a broader sense of community. The slum's illegitimate status – which prevents the community from receiving municipal waste collection and removal – perpetuates this mentality. KB's own residents view the area as 'not good', 'dirty', and 'unsafe'. Thus, most residents are gathering the resources to move out of KB rather than investing resources into improving it.

Gender and social capital

Social capital formation among women in KB is significantly constrained by gendered norms, beliefs, and behaviors.

Rigid gender roles prevent women from maintaining or expanding their bonding and bridging social capital, and isolate them from opportunities to create linking social capital. Women's primary responsibilities are maintaining the home and child rearing, and they are often discouraged from pursuing education or formal employment. This limits their capacity to establish connections with individuals and institutions with greater knowledge, resources, and power.

Additionally, the practice of virilocal marriage and patriarchal household structure frequently disrupts women's social networks:

> 'Anyone would face problems when they leave their own family and go to live with another family. Anyone in that position would face some difficulties'.

Married women are relegated to a lower status within their husband's households, cut-off from the support of their biological families, and prohibited from establishing friendships with other women in the community. Husbands and in-laws fear that socialization and gossip will expose submissive wives and daughter-in-laws to 'bad behaviors' like disobedience and disrespect:

> 'When the neighbors come to visit, my in-laws get upset. They think that I disrespect them, because the neighbors teach me bad things. So the neighbors don't come to visit anymore'.

Women who avoid these normative practices have more capacity to create social capital. For example, one woman – we will call her Shakti – benefits greatly from the continued support of her natal family after marriage. Unlike the majority of women in KB, Shakti married a man who did not have family in the community. Therefore, Shakti and her husband established an uxorilocal, as opposed to virilocal, household. With her mother available to help with child-rearing and household responsibilities, Shakti was able to pursue both education and formal employment outside of the community. This led to benefits including access to information about health care for her family, a new job within KB that strengthened her relationships with her neighbors, and the stability of an increased income.

Discussion

In this study, we sought to ethnographically explore the nature of social capital among women living in an urban Mumbai slum and the ways in which these women could leverage their social capital to promote health within their households and their community. Through our qualitative analysis we were able to both describe the different dimensions of social capital among these women and elucidate the social, political, and economic forces that shaped its creation, expansion, and mobilization.

We found that the women in KB are both resilient and resourceful in their ability to build bonding social capital and leverage it to buffer the impact of health challenges in their households. Yet the systemic injustices of living in a non-notified urban slum and the subjugation of women within their households and community actively prohibit them from gaining increased power or agency by expanding their bridging or linking social capital.

The current quantitative literature on social capital and health has struggled to capture the complexity of the relationship between these two variables (15,20). Despite these mixed results, those working in both health promotion and community development often frame social capital as a promising 'inherent' community resource that – if invested in – can empower marginalized communities that lack more tangible resources to challenge the systemic factors which perpetuate their increased risk for illness and poverty (2,15,17,18). Critics of this approach, on the other hand, argue that social capital is subject to the same macro-level forces that dictate the creation, growth, and value of other forms of capital (28,30). According to this view, we need to consider not only the potential of social capital in the spheres of health promotion and community development but also its limitations.

The dynamics of social capital that we identified provide direct evidence to support the latter argument. Based on these findings, we argue for a paradigm shift in the application of social capital theory to health promotion and community development. While social capital can be a grass-roots driver of positive change in poor communities, the same etiologies underlying the marginalization of poor communities and oppression of women also suppress their agency for gaining power through social capital formation. We cannot effectively identify and strengthen the existing social infrastructure within a community without a parallel examination and disruption of the ingrained gendered inequalities that impede this growth (27). As we observed with Shakti, the potential for positive change is far greater when these patterns of oppression are broken.

Conclusion

Women living in urban poverty face context-specific challenges in their efforts to build bridging and linking social capital. Community-based qualitative studies are needed to identify the macro- and micro-level forces, like gender and class oppression, in which these challenges are rooted. Directly addressing these structural inequalities significantly increases the potential for health promotion through social capital formation.

Declaration of conflicting interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was funded by a Fulbright-Nehru Research Scholarship (2014) and a University of Rochester School of Medicine Summer Research Grant (2015). A Mumbai-based organization provided local expertise.

ORCID iD

Anisha Gundewar https://orcid.org/0000-0001-8059-7369

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Using photovoice to understand the context of cervical cancer screening for underserved communities in rural India

Prajakta Adsul[1,2], Shivamma Nayaka[2], Rashmi Pramathesh[2], Savitha Gowda[2], Poornima Jaykrishna[2], Vijaya Srinivas[2] and Purnima Madhivanan[2,3]

Abstract: Cervical cancer is the second most common cancer diagnosed among women in India and current estimates indicate low screening rates. To implement successful population-based screening programs, there is an urgent need to explore the social and cultural beliefs among women residing in underserved communities. An innovative, community-based participatory approach called photovoice was used with 14 women aged between 30–51 years, residing in rural and tribal villages around Mysore, Karnataka, India. Each participant was trained in photovoice techniques, provided with a digital camera, and asked to photo document their everyday realities that could influence their intentions to undergo cervical cancer screening. Over 6 months, participants took a total of 136 photos and participated in 42 individual interviews and two group discussions. These data helped identify specific beliefs prevalent in the target population and were organized according to the Integrated Behavior Model. Some women reported a lack of perceived susceptibility to cervical cancer whereas others mentioned the fatal nature of cancer as a disease and believed that no screening exam could prevent death if they were destined to get cancer. Husbands, mothers-in-law, and their peers in the community had an important influence on the social identity of women and influenced their intentions to participate in the screening exams. Seeking healthcare was associated with an economic burden, not only in terms of out-of-pocket expenses for healthcare services but also in missing daily labor wages or taking unpaid leave from work to seek healthcare when they were asymptomatic. Several action steps were proposed including: identifying community liaisons or champions, repeated community activities to raise awareness of cervical cancer, and educating men and other family members about women's health issues. Study findings can conceptually help design and develop educational efforts for mobilizing women to undergo screening and inform future research to help understand disparities.

Keywords: photovoice, community-based participatory research, attitudes, beliefs, cervical cancer, cervical cancer screening, underserved communities

Introduction

The World Health Organization estimates from 2014 suggest that 122,844 new cases and 67,544 deaths in India were due to cervical cancer, accounting for nearly one-third of global cervical cancer deaths (1). Screening women for precancerous lesions can impact mortality but is contingent on achieving high screening coverage rates in the population. A recent study from India suggests an average cervical cancer screening rate of around 30% (2). The uptake of screening is affected by multiple factors recognized broadly as social determinants of health. In the field of global oncology, where context varies across

1. Department of Internal Medicine, University of New Mexico, USA.
2. Public Health Research Institute of India, Mysore, India.
3. Mel & Enid Zuckerman College of Public Health, University of Arizona, USA.

Correspondence to: Prajakta Adsul, Department of Internal Medicine, University of New Mexico, 2325 Camino de Salud, Albuquerque, NM 87131, United States of America. Email: padsul@salud.unm.edu

(This manuscript was submitted on 11 March 2019. Following blind peer review, it was accepted for publication on 10 February 2020)

Global Health Promotion 1757-9759; Vol 27(4): 50–58; 915677 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920915677 journals.sagepub.com/home/ghp

countries and cultures, the need to understand the social determinants of how interventions are adopted, implemented, and sustained is even greater (3). However, previous attempts at understanding social and cultural factors towards cervical cancer screening uptake have often lacked a theoretical basis and focus on healthcare organizations rather than community settings (4,5).

Community-based participatory research (CBPR) has emerged in the past decade as a unique research approach that integrates practice and research efforts to understand and address health disparities (6). The Kellogg Foundation defines CBPR as 'equitably involving all partners with a research topic of importance to the community, with the aim of combining knowledge and action for social change to improve community health and eliminate health disparities' (7). Within the CBPR paradigm, photovoice is a specific research method 'by which people can identify, represent, and enhance their community through photographs' (8). Photovoice integrates participatory action research (PAR) with CBPR principles to promote the participants' empowerment through project involvement. It is important to consider, however, that a participant's voice may be different in the context of a photovoice project compared to a CBPR project. Specifically, CBPR projects may include study participants in determining goals and methods for the research, whereas in a photovoice project the participant's voice is embodied in the photo and their descriptions, which are often co-created with the understanding that each participant has a right to be heard in their own voice. Furthermore, recent literature in the field has allowed for a critical distinction among photovoice researchers, those that utilize grounded theory designs as photo-elicitation to describe lived-experiences, and those that take a PAR approach and seek social change using photo-texts (9).

Several studies have utilized photovoice to study the impact of cancer screenings (10,11), treatments (12), and advocacy for minority and disadvantaged populations (13). Findings from these studies suggest that photovoice enables detailed and descriptive conversations with participants, permitting researchers to study sensitive health issues in communities. For these reasons, cancer prevention and control researchers have encouraged the use of CBPR to identify contextual attributes of communities and generate practice-based evidence necessary for implementing interventions in real-world settings that are aligned with the community's preferences (14,15). In India, the uptake of cervical cancer screening is one such sensitive issue experienced by women residing in disadvantaged communities. Data from national surveys suggest that less than 50% of women work for cash and are limited in terms of freedom of movement and accessing public amenities without the explicit permission of family members (16). Women have limited participation in making health- and finance-related decisions within their household. Structural factors such as caste (a proxy for socioeconomic status in India) and class have an impact on a woman's rights (17). These factors together create a complex environment for women and can influence healthcare-seeking behaviors. Particularly in relation to cervical cancer screening, there is limited research on describing contextual attributes of communities in which screening services are implemented, which further limits the ability to generate practice-based evidence to reduce disparities.

The purpose of this study was to use photovoice to explore social and cultural determinants of cervical cancer screening uptake among women residing in underserved communities in India and to generate action-oriented findings that can help augment overall screening rates in future health promotion efforts.

Methods

This study was conducted in collaboration with the Public Health Research Institute of India (PHRII) located in Mysore, India. PHRII is a non-profit organization, working to improve the health of women in the community by providing access to cervical cancer screening and appropriate linkages to tertiary care facilities for screen-positive women. The study authors PA and PM engaged in discussion with PHRII staff members that included physicians, nurses, community workers, and social workers (authors: SN, RP, SG, PJ, and VS among others) who have been working in the Mysore community for the past decade. Through a series of discussions, we collaboratively defined the issues faced by PHRII in improving the uptake of cervical cancer screening services using data from ongoing studies, which showed a lack of uptake despite delivering free-of-charge cervical cancer services to the community.

Three specific issues were highlighted: (a) ongoing educational efforts (group-based and/or print materials) were useful in promoting awareness for cervical cancer but resulted in fewer women undergoing cervical cancer screening exams, (b) even when services were provided in the local communities, acceptance rates were very low, and (c) from working in the community, there was anecdotal evidence on the sociocultural barriers among women as it relates to cervical cancer screening uptake but no data were available to support these anecdotes.

Based on these issues, authors PA and PM introduced the photovoice methodology and discussed the potential to capture sociocultural barriers experienced by women. Discussions with the PHRII staff focused on delineating who would best represent rural and tribal communities being served by PHRII, resulting in the following inclusion criteria: women residing in these communities, with a minimum of 10th grade education level, and those involved in some type of public service. Collaboratively, we identified a group of community development workers known as *Anganwadi* workers as participants for the project. Located across India, an *Anganwadi* (courtyard) is a government-funded, pre-school, childcare facility that employs women (*Anganwadi* workers) from within the community to care for children under 5 years of age. We chose to recruit *Anganwadi* workers for two reasons: first, as government employees responsible for *Anganwadi's*, they had a 10th grade education level, and second, the women residing in these communities trusted *Anganwadi* workers because they cared for their children. This trust made the workers acutely aware of experiences in their community, enabling us to collect rich data regarding the social and cultural determinants. Project decisions on methods for recruitment, data collection, and analysis were made in collaboration with the PHRII staff. The study was approved by the Institutional Review Board at Florida International University and PHRII.

Study team members presented the project goals at monthly team meetings for *Anganwadi* workers where they were invited to participate. A total of 16 workers expressed interest and were included in the study after informed consent. Two groups were created, each with eight participants. Two participants (one from each group) dropped out of the study; one due to a family emergency and the other due to an employment transfer. This brought the total number of study participants to 14 with seven participants in each group. Participants from each group met with the study team at PHRII and spent 2 days in training for the project. Training consisted of informational sessions on photovoice methodology and a facilitated discussion about ethical considerations for photovoice. Study team members trained the participants in the use of digital cameras to capture photos in various contexts. Participants were asked to sign a photo and media release statement for their photos. Each participant was then provided a digital camera and asked to photo document their everyday reality. The training ended with a facilitated focus group discussion exploring knowledge and beliefs about cervical cancer and screening and what helped or hindered their participation in screening programs.

Data were collected between December 2015 and May 2016 via four different modalities: (a) two focus group discussions about the knowledge and beliefs about cervical cancer and screening, after the training; (b) the visual photographs from participants; (c) 42 individual interviews, at an average of three per participant; and (d) two group discussions on photographs chosen by participants. A project timeline is provided in the Supplemental Figure 1. Individual interviews and group discussions were recorded, transcribed, and translated to English. All transcripts were checked for accuracy. The project followed an iterative cycle of collecting and discussing photographs in individual interviews over 3–4 weeks with each participant. There were no limits placed on the number of photographs participants could collect. On average, participants collected and discussed four to five photographs at each interview. The individual interviews and the group discussion followed the SHOwED technique proposed by Shaffer (18). The pneumonic SHOwED stands for the questions that facilitators ask regarding the photographs chosen for the discussion as follows: What do you **S**ee here? What's really **H**appening here? How does this relate to **O**ur lives? Why does this problem **E**xist? What can we **D**o about it?

At the end of 4 weeks, each participant was asked to choose photographs they wanted to discuss with the entire group with no limits on how many they could present. The group discussions allowed participants to collectively reflect on the meaning and messages of the photographs and discuss actionable steps to address these barriers as a group. At the group discussions, similar themes were brought up by the participants, reflecting data saturation. A total of 136 photos were discussed in the two groups with an average of nine photos per participant. Each photograph was associated with the participant's description using the SHOwED technique and the discussion in the groups surrounding each photograph was transcribed verbatim. These were formed into one-page documents and analyzed using Dedoose (19). Each photograph with the associated text was considered as a single unit of analysis. The study team read and re-read these documents (photo-texts) several times to come up with the initial set of coding and grouping into distinct themes. We resolved minor conflicts using consensus among team members and revised the codes and the themes after inviting the study participants to provide feedback.

After this step in the project, study participants engaged in community displays of these photos along with study team members, involving several hundred community members that included health workers and medical providers from within the community. In preparation for the community displays, participants could choose, with no maximum limit, the photo-texts that they wanted to present and talk about at the events. The study team members and the participants worked together to organize the 136 photos into 13 distinct themes with some photo-texts that fell under overlapping themes. These themes were highlighted in the community displays and provided an opportunity for participants to provide additional feedback to the study team members on the specific relationships and accuracy of interpretation.

To organize the themes, we utilized the Integrated Behavior Model (IBM) that proposes behavioral intention as a function of behavioral beliefs, attitudes, social norms, and perceived self-efficacy (20). Attitudes are comprised of personal beliefs about the behavior and the person's overall favorableness and unfavorableness towards performing the behavior; perceived norms reflect the social pressure a person feels to perform or not perform a behavior; and the third determinant of behavioral intention in the IBM is personal agency and consists of self-efficacy in performing the behavior, proposed by Bandura (21), and perceived control over the behavioral performance. In addition to the determinants above, the IBM also suggests considering the influence of knowledge and skills to perform the behavior, salience of the behavior, environmental constraints, and previous participation in the behavior. These overarching constructs incorporated the 13 themes in our study. Participants were not involved in the decision making of which photo-texts were included in this final manuscript; however, the data reported in this study are direct quotes and photos provided by the participants, and no attempts to remove any speech, photos, phrases, or patterns were made.

Results

In total, 14 women between the ages of 30–51 years participated in the study. All participants had a high school education and two had a bachelor's degree. Of the participants, 11 were from rural communities and three lived in tribal areas. The quotes presented in Table 1 are primarily drawn from the individual interviews and where applicable, information from the group discussions was included to clarify the action steps as reported by the participants.

In terms of attitudes towards cervical cancer screening, several participants reported that women in the community did not perceive themselves to be susceptible to cervical cancer, citing these reasons: their natural and healthy lifestyles prevented them from getting cancer; their lack of symptoms for seeking healthcare, and the belief that widows or women without active sexual relationships could not get cervical cancer. A few participants reported a strong sense of despair as it related to cervical cancer and mentioned the fatal nature of cancer, with the belief that screening could not prevent death if one was destined to get cancer. To highlight this belief, a participant took a picture of a cemetery (Figure 1 and Quote 1). These beliefs were reported as the most common reasons why women in the community did not perceive the need to seek screening services. Many participants reported feeling shy or embarrassed about showing their private parts in a pelvic exam, as one participant stated in Quote 2. Participants noted fearing pelvic exams because their peers often recounted their uncomfortable experiences. Some participants reported that women did not want to

Table 1. Representative quotes for the themes highlighted in the manuscript.

Quote No.	*Text*
Attitudes	
1.	(See Figure 1.) 'Many women in my community strongly believe that cancer is a fatal disease. We all are going to end up buried in the ground and no screening test can prevent this. If we see and hear more people living healthy after a cancer diagnosis and appropriate treatment, then these beliefs might change.' Participant F2, 30 years old.
2.	'Women in my community are very shy. . . they don't have enough knowledge and awareness about cervical cancer to take decisions about their health.' – Participant E1, 41 years old.
3.	(See Supplemental Figure 2.) 'As working women in the community, it is difficult to find time for ourselves.' Participant D1, 31-year-old female.
Perceived norms	
4.	'. . .[Women] need to get permission from their mother-in-law. Many times, the mother-in-law will oppose these health check-ups quoting that she is alive despite never getting one herself. They blame the woman as giving excuses to not do household work. The whole family needs to be educated about the benefits of screening.' Participant E1, 41-year-old female.
5.	'Women's empowerment groups [Mahila Sanghas] can be positive for the communities but can also spread a lot of negative information. I have heard from other women in my group that pelvic exams involved doctors putting their entire hands in the vagina. That scared me and other women in the group too!' Participant C1, 30 years old.
Personal agency	
6.	(See Supplemental Figure 3.) 'As a woman in this community, I feel like I don't have the right to take decision for myself. I feel like I am in the prison of my own house. If I want to go for screening, I have to explain why it is important to everyone in my household. Even if I take the effort of explaining all of this, finally, it is their choice on whether to let me go or not. That is why I think we need to educate the whole family and not just the women when we talk about cervical cancer screening.' Participant E2, 36 years old.
Other factors	
7.	(See Figure 2.) 'Even if women know about cervical cancer they don't go for screening. As it is shown in the picture the water below the algal bloom we can't say whether it is clean or polluted. In the same way, as women don't have the symptoms, they think why they should undergo cervical cancer screening. We can use this picture and say that our body is the same. What is happening inside cannot be known from outside so, we must undergo screening. Women should be given education about this. It is important to tell women that doctors can see inside you and tell you whether something is wrong with you. You cannot do that by yourself.' Participant D1, 31 years old.
Action steps	
8.	'Women who live in haadis [tribal areas]. . . don't like to go to the hospital, they believe in home medicine. . . We should educate them about the importance of health. They don't trust outsiders so, we should identify a person from their community, train them regarding the cervical cancer and convince them to undergo screening. It is possible to convince them but it takes time and we need to repeat it several times. This applies to the entire community, because women will forget about it.' Participant 4, group discussion 1.
9.	'We have to tell stories of cancer survivors, how they got diagnosed and how they overcome cancer by getting the facilities [services] from the hospital, we have to give information to all family members.' Participant 4, group discussion 2.
10.	'To attract more women towards screening we need to put out attractive advertisements in the newspaper just like the one seen in this picture.' Participant E1, 41-year-old female.
11.	'There is a lot of support for women participating in Mahila Sanghas [ladies' associations] in our community. . . they can be very useful to spread messages about women's health. We need to conduct health education campaigns at these get togethers. Many women can be convinced to undergo screening at the same time.' Participant F, 41-year-old female.
12.	'We have to educate the family members and health educators need to target some family members and convince them and explain the benefit of the screening. We need to make them understand that we have to give equal importance to health and work also.' Participant 1, group discussion 2.

Figure 1. 'Many women in my community strongly believe that cancer is a fatal disease. We all are going to end up buried in the ground and no screening test can prevent this. If we see and hear more people living healthy after a cancer diagnosis and appropriate treatment, then these beliefs might change.' Participant F2, 30-year-old female.

undergo pelvic exams because they mistakenly believed that doctors insert their hands in the vagina, or pelvic exams led to itching after, and that pelvic exams would interfere with their intrauterine contraceptive devices.

Because all participants in the project were professionally employed, many highlighted their own struggle in managing household chores (often the responsibility of the women in the family) and their professional workload (Supplemental Figure 2). Many reported difficulties in taking days off and missing wages, even if it was to take care of their own health. Several participants discussed their fear of not being able to cover treatment costs, if they were diagnosed with cancer, and believed they would not get this support from their husband or his family. The woman would then need to ask her parents, which prompted several participants to report that they would rather die of cancer when the time came than get screened to be diagnosed with cancer and deal with stigma in the community.

Regarding perceived norms, the three most important people identified by the participants as having an important influence on their social identity were their husbands, mothers-in-law, and peers in the community. Within the family, women specifically highlighted the need for seeking approval from their husbands to undergo medical exams. This often meant educating husbands about cervical cancer and the role of screening, because they had no knowledge about cervical cancer. Without their approval, women feared being victims of domestic abuse. A few participants reported that if husbands found out about the role of multiple partners in the spread of the human papilloma virus infections that lead to cervical cancer, they would not allow their wives to undergo screening tests, fearing that screening would detect their own sexual transgressions. Some participants reported instances where husbands believed that if their wife wanted to get screened, it was because she was involved in illicit relationships herself. Almost all participants agreed on the need for educating men about cervical cancer.

Figure 2. 'Even if women know about cervical cancer they don't go for screening. As it is shown in the picture the water below the algal bloom, we can't say whether it is clean or polluted. In the same way, as women don't have the symptoms, they think why they should undergo cervical cancer screening. We can use this picture and say that our body is the same. What is happening inside cannot be known from outside, so we must undergo screening. Women should be given education about this. It is important to tell women that doctors can see inside you and tell you whether something is wrong with you. You cannot do that by yourself.' Participant D1, 31-year-old female.

Participants also reported the need to seek approval from their mothers-in-law. This was a complex situation because many women reported being opposed by mothers-in-law in their family as one participant notes in Quote 4. Although the mothers-in-law were eligible to participate in the screening services themselves, not many did and in turn suggested there was no need for screening or considered it as an excuse given by the daughters-in-law to not do household work. Several participants also noted peers were an important influencer in terms of reducing misconceptions and providing emotional support for participation in healthcare services. Participants provided pictures of Mahila Sanghas (ladies' associations) during their meetings in the community and noted that although these associations were created with the purpose of empowering women in the community, they could serve as avenues for perpetuating negative experiences and false information as described in Quote 5.

As an influence on personal agency, several participants noted the economic burden not only in terms of out-of-pocket expenses for healthcare services but also in missing daily labor wages or taking unpaid leave from work to seek healthcare when they being a were asymptomatic. Participants also reported that being a single woman leading a household or having limited support from spouses or family members, are factors that prevented women from seeking healthcare since they were often sole caretakers for their children. In terms of self-efficacy, several participants took pictures that acutely portrayed their identity as a woman in their household and the community at large. These pictures and discussions highlighted their depleted confidence in taking decisions for their own health and wellbeing. Many participants reported that complex relationships with their family members, especially with their husbands and mothers-in-law, influenced whether they engaged in self-care, as pictured in Supplemental Figure 3 and described by the participant in Quote 6.

Regarding other factors, a consistent theme that came up during data collection was the lack of knowledge about cervical cancer and how it affects women. Several participants presented pictures that portrayed cervical cancer as a hidden disease that could not be detected by women themselves (Figure 2 and Quote 7). Some participants mentioned that women did not have information on how they could prevent cervical cancer and that it was hard for them to conceptualize the need for a medical test when they had no symptoms. Others mentioned having no information on where these services were available in their community. None of the study participants had undergone screening for cervical cancer but mentioned the importance of hearing perspectives of women who had been screened in the past.

One of the important aspects of a photovoice study is to generate action steps that can influence the barriers identified through the photo-data collection and discussion phase. The information presented forthwith, was derived primarily from group discussions. One suggestion to improve knowledge among women in the community that was mentioned, especially by the tribal populations participants, is the need for identifying community liaisons or champions—people from within the community who are respected members and can encourage others to participate in screening, as noted in Quote 8. For many participants, it was important to hear stories of survival from cancer because they firmly believed cancer was a fatal disease as noted in Quote 9. The role of repeated community activities to raise awareness of cervical cancer was brought up several times as was the need for creative messaging techniques. Many participants reported the need for 'advertisements' in local newspapers that could 'grab attention' because this was an important issue for women in the community (Quote 10). Several participants commented on the role of ladies' associations as avenues for group-based health education to reach women from underserved communities and to promote positive peer influence (Quote 11). For many participants, the need to educate men and other family members about women's health was important, as one participant notes in Quote 12.

Discussion

This photovoice study is among the first to explore social and cultural beliefs that may influence the uptake of cancer screening services among women residing in underserved communities in India. The methodology allowed researchers to apply a woman-centered research approach and collect extensive data through photographs, interviews, and group discussions (8). Study findings provide a rich, in-depth understanding of the context in which women reside in rural and tribal Indian communities and identify social and cultural determinants of their intentions to engage in cervical cancer screening programs. Photovoice is uniquely suited to engage and empower women to participate in discussions around their health, which can be a sensitive issue for many women. Participants in this study had the opportunity to reflect on their beliefs and concerns not just with each other, but also with the larger community through community displays of their photographs, and propose action steps.

This study contributes to the limited literature on identifying social and cultural influences on uptake of screening among women from developing countries such as India. Findings from this study are especially relevant to the National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Disease and Stroke, which is being implemented in India to reduce the burden of cervical cancer (22). These findings can help inform the design of health communication materials, in addition to informing the use of implementation strategies, as proposed in the action steps, for promoting cervical cancer screening uptake among women in underserved communities. This will be critical as existing public healthcare settings that are set up for providing symptom-based care in India operate with prevention-oriented objectives for screening asymptomatic women for cancer (23).

The study has some limitations. The photovoice methodology required an intensive training component and a substantial time commitment on the part of the research team and participants, which was critical to gathering comprehensive data from women in the community. We were also limited in capturing two important outcomes: (a) the individual empowerment of women that occurred as a result of going into their communities and taking pictures to represent their communities, and (b) the community empowerment that occurred as a result of the community displays. Future research is needed to identify practical measurement tools that can enable photovoice projects to capture these data in a meaningful way. As with other photovoice studies (10,11), the small number of participants generated a substantial amount of data requiring careful analysis.

In conclusion, CBPR methods, specifically photovoice, allow for a comprehensive investigation that helps program implementers understand social and cultural determinants of women's intentions to participate in cervical cancer screening exams. Findings from this work can inform future interventions and strategies to increase the uptake of cervical cancer screening in these communities.

Acknowledgements

The authors would like to acknowledge the dedication and efforts of the participants that contributed to this project. In addition, we would like to thank PHRII staff, the Community Development and Planning Officer, District Health Officer, and the Tribal Health Officers in the Mysore district for extending their help during project implementation. We would also like to thank Shreya Lambda for her work on the earlier versions of the manuscript. In addition, we are thankful for the thoughtful critique of Linda Ko, April Oh, and Santosh Vijaykumar on earlier versions of this manuscript.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Research reported in this publication was supported by the Fogarty International Center of the National Institutes of Health (under training grant # TW009338). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

ORCID iD

Prajakta Adsul https://orcid.org/0000-0003-2860-4378

Supplemental material

Supplemental material for this article is available online.

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Original Article

Grounding evaluation design in the socio-ecological model of health: a logic framework for the assessment of a national routine immunization communication initiative in Kyrgyzstan

Renata Schiavo[1,2,3], Upal Basu Roy[1], Latisha Faroul[1]
and Galina Solodunova[4]

Abstract: Childhood routine immunization (RI) is a highly effective public health intervention for the prevention of infectious diseases. Despite high immunization rates, a 2018 Knowledge, Attitudes, and Practices (KAP) study by the United Nations Children's Fund (UNICEF) noted a growing practice of vaccine refusal among parents and primary caregivers as well as clusters of significantly lower immunization coverage in some provinces. Moreover, a 2018 Joint Appraisal report by GAVI (Global Vaccine Alliance) has highlighted a decrease in immunization rates among children under 1 year of age from 96.1% to 92% for some vaccines. As a result, UNICEF is spearheading a national communication initiative to increase the rates of RI in Kyrgyzstan. This initiative includes strengthening interpersonal communication skills of local healthcare workers, improving the quality and accuracy of media coverage via a tailored outreach to the Kyrgyz media, as well as fostering community engagement to give voice to local champions and engage hesitant parents and vaccine refuters. UNICEF has also partnered with a research team for the design phase of a suitable evaluation framework. Grounded in the socio-ecological model (SEM) of health, the framework recognizes the interconnection of behavioral, social, and policy change, and includes not only activity-specific indicators (process indicators) but also progress, outcome, and impact indicators to document results among key groups and stakeholders at different levels of the SEM, and, ultimately, on immunization rates in Kyrgyzstan. The framework reflects the importance of an integrated and multilevel approach to intervention and communication design, and integrates the SEM with a logic model that connects different components of the initiative. This paper introduces this evaluation framework, including implications for the evaluation of child health programs, and other public health, communication, and international development interventions.

Keywords: evaluation design, health communication, health promotion, child health, immunization, global health, equity, social justice, systems-thinking

Introduction

Routine immunization (RI) is a highly effective public health intervention to prevent infectious diseases, especially among children and adolescents. The role of RI in global health is unequivocal – RI against viral diseases has led to the eradication of

1. Strategic Communication Resources, New York, USA.
2. Columbia University Mailman School of Public Health, New York, USA.
3. Health Equity Initiative, New York, USA.
4. UNICEF-Kyrgyzstan, Bishkek, Kyrgyzstan.

Correspondence to: Renata Schiavo, Strategic Communication Resources, 601 West 26th Street, Suite 235-216, New York, NY 10001, USA. Email: renata@renataschiavo.com

(This manuscript was submitted on 27 June 2019. Following blind peer review, it was accepted for publication on 15 February 2020)

Global Health Promotion 1757-9759; Vol 27(4): 59–68; 914550 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920914550 journals.sagepub.com/home/ghp

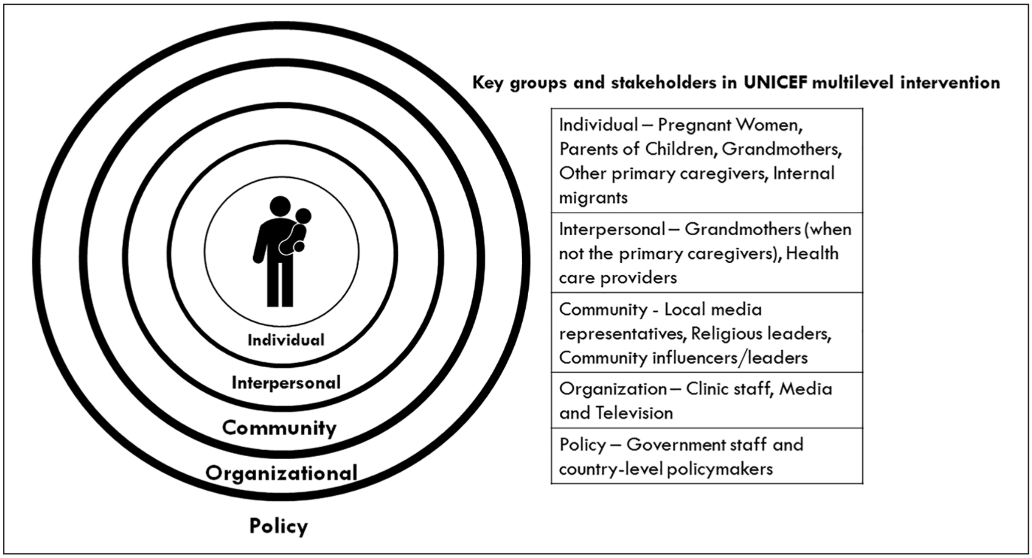
smallpox and a decrease in the incidence of polio, measles, mumps, and rubella (1,2). Additionally, the vaccine against bacterial diseases such as Hemophilus influenzae type b (Hib), which causes bacterial meningitis in children under 4 years of age, has led to a dramatic decrease in Hib incidence in developed countries (3,4). Though rates of Hib vaccine coverage have been sub-optimal in developing countries, recent single-country studies show great progress on both rates of Hib immunization and prevention of infection (5). Moreover, the effect of RI is not just restricted to individual-level immunity but has effects on the entire community (also known as herd immunity), whereby high rates of vaccinations may offer protection to unvaccinated individuals due to extremely low incidence of vaccine-preventable diseases (6).

Despite the overwhelming evidence in support of RI effectiveness, many countries and communities are facing increased hesitancy or refusal on the part of caregivers to vaccinate their children (7,8), even when immunization services are available (8). As immunization interventions are essential components of broader health and social systems, parents and caregivers are often influenced by other stakeholders, like family members, clinicians, community outreach workers, policy-makers, media outlets, religious leaders, and other community leaders, in their decision to accept or refuse a vaccine for their children. Communicating about the efficacy and safety of immunization requires a comprehensive community- and system-driven approach that addresses misconceptions, manage hoaxes, and ultimately engages professionals and leaders across sectors as well as the community at large.

Lately, the Kyrgyz Republic (KR) in Central Asia has also been experiencing issues with vaccine hesitancy and refusal within pockets of its population. This is despite a strong immunization system, which has led to a decrease in the incidence of many vaccine preventable diseases (VPDs), including diphtheria, tetanus, whooping cough, and hepatitis. A recent Knowledge, Attitude, and Practice (KAP) study conducted by the United Nations Children's Fund (UNICEF) revealed a practice of vaccine refusal in many pockets of the population and across different regions in Kyrgyzstan mainly because of misconceptions about the safety of vaccines (9). In addition, data from a 2018 Joint Appraisal Report revealed a decrease in 2017 from 96.1% to 92% in immunization rates among children under 1 year old for the pentavalent vaccine, which protects children again five life-threatening diseases – diphtheria, pertussis, tetanus, Hepatitis B, and Hib – with some cities such as Bishkek reaching rates as low as 88% (10). Compared with 2016, vaccine refusals increased 1.8 times in Bishkek, from 3 to 4.5 times in Naryn, Talass, and Chuya, and from 1.3 to 2 times in Batken, Jalal-Abad, and I-Kul. Increases in vaccine refusal were also observed in the city of Osh and the Osh region (10). Moreover, data from the measles outbreak in 2014–2015 and other surveys also indicate a decreasing trend in immunization coverage. According to the Multiple Indicator Country Survey (MICS), only 80.4% of children surveyed were fully immunized in 2014 (11). Finally, 4% of healthcare providers do not trust that all vaccines have been tested for quality and safety (9,11).

As for all health and social behaviors, immunization behavior (or lack thereof) reflects complex interactions between multiple levels of society (individual, interpersonal, community, organizational, and policymaking) and related groups and stakeholders. For instance, 'global monitoring of the state of inequality in childhood immunization has demonstrated lower coverage in the poorest and least educated of many low- and middle-income countries' (12). Establishing strong systems (e.g. information, health, and social support systems), and engaging key influentials in each of these intersecting systems is an important 'prerequisite to ensuring that policies, programs and practices' are tailored to – and effective in engaging – the most-disadvantaged groups, ultimately contributing to eliminate inequities in childhood immunization (11).

Moreover, key to communication design in the 21st century is a perspective that takes into account the many social, economic, and environmental determinants of health, promotes health and social equity, and considers the connection between different issues, stakeholders, and behavioral and social results. Socio-ecological theory is a well-established theoretical framework in global health, international development, and communication (13–16). For example, the socio-ecological model (SEM) is at the core of Communication for Development (C4D), UNICEF's signature approach and planning framework for social and behavior change communication (17). Similarly, the integration



Key groups and stakeholders in UNICEF multilevel intervention

Individual – Pregnant Women, Parents of Children, Grandmothers, Other primary caregivers, Internal migrants
Interpersonal – Grandmothers (when not the primary caregivers), Health care providers
Community - Local media representatives, Religious leaders, Community influencers/leaders
Organization – Clinic staff, Media and Television
Policy – Government staff and country-level policymakers

Figure 1. The socio-ecological model of health and related key stakeholders for the Routine Immunization Communication Initiative by UNICEF-Kyrgyzstan.
Source: Adapted from the United Nations Children's Fund (UNICEF)-Kyrgyzstan, 2018 (11).

of multi-level interventions to engage different groups and stakeholders is a key mantra of other long-standing frameworks for communication planning (17–19). Moreover, the SEM of health has been used successfully for the development of public health, international development, and communication interventions, both for chronic and infectious diseases, in the United States and internationally (20,21).

In order to promote RI in Kyrgyzstan, UNICEF has spearheaded a comprehensive communication initiative to engage all major stakeholders and address key factors that contribute to inequities in childhood immunization. Reflecting a system-driven and multi-level approach to intervention design, the UNICEF RI Communication Strategy and Action Plan 2018–2020 (10) in Kyrgyzstan is grounded in the SEM (15,16), which recognizes that 'social and individual behavior change does not happen as a result of isolated interventions, but rather through the interaction of social, individual, and structural factors to produce an environment that supports behavior change' (13).

The UNICEF Communication Initiative incorporates several stakeholder groups impacting RI: community members including parents, grandmothers, and other primary caregivers of young children, and religious and community leaders; the Kyrgyz media; healthcare providers; and policy-makers. The community engagement component aims to give voice to local champions, including community and religious leaders, and parents (vaccine accepters) who understand the importance of, and advocate for, RI; and to provide a platform for information dissemination among vaccine refuters. The media component of the initiative includes, among others, a workshop for key journalists and systematic media outreach, to improve the quality and accuracy of RI media coverage and to promote changes in beliefs, attitudes, and behaviors among journalists on this topic. Finally, the initiative includes an interpersonal communication (IPC) training module for healthcare providers and community influencers/community health workers to better equip them to educate parents and caretakers on immunization-related issues, and promote RI amongst hesitant caregivers. The model also includes a comprehensive outreach to policymakers to gain their support and engagement in the initiative.

Figure 1 depicts the different layers of the SEM and the spheres of influence associated with key stakeholders, as related to the UNICEF initiative. This paper discusses the logical framework that was developed to assess this initiative. Such framework builds upon previous work by one of the authors (22,23), and integrates elements of logic modelling with different types of indicators at all levels of the SEM. The framework seeks to contribute to the current debate on the evaluation of social and behavior change communication initiatives and other kinds of multi-level interventions, and can be applied to a variety of global health interventions. The framework can be implemented both in quantitative and qualitative research settings, and therefore can be tailored to resource-poor settings.

Overview of the evaluation framework

The evaluation of social and behavior change communication (SBCC) and other multi-level interventions is an ever-evolving and highly debated topic. Several evaluation frameworks already exist (24,25), but, in many cases, evaluation tends to focus on single- or individual-level factors. This mirrors a critical limitation of many interventions in the intersecting fields of communication, child health, health equity, public health, and international development. While interdisciplinary and multisectoral interventions have shown promising results in many fields, evidence on such integrated approaches is still somewhat scarce, with many interventions and evaluation studies focusing on one single factor, approach, or type of media or activity (26,27).

Given the complexity of the many intersecting health and social issues of our times, 'we must consider approaches for systematically designing and assessing the efficacy of multilevel interventions' (26) especially when engaging vulnerable, marginalized, and/or low health literacy populations, such as those where inequalities in childhood immunization tend to be widespread.

Generally, the most widely accepted outcome of immunization interventions is a health-seeking behavior that results in the improvement of overall immunization rates. In other words, the outcome of immunization interventions should be an increase in the number of primary caregivers who comply with the recommended RI schedule, as well as behavioral and social results within groups and systems that have a stake in, and can affect, a decrease in the incidence of vaccine-preventable diseases. Yet, what happens between people's exposure to a communication intervention and the adoption of immunization-seeking behaviors includes changes in awareness, knowledge, attitudes, participation, skills, self-efficacy, behavior readiness, and other intermediate steps toward behavioral results (27). Alongside the actual behavior, these intermediate indicators are all influenced by many factors and community-specific behaviors among professional and lay groups at different levels of the SEM. In order for behavioral outcomes to be sustainable, immunization interventions need to encourage long-term systems-level change, and promote the engagement of different segments of society.

The proposed evaluation framework reflects such a multilevel approach to communication design, recognizes the importance of the many social, economic, and environmental determinants of health that contribute to immunization behavior, and integrates the SEM with a logic model that connects different components of the communication intervention as related to the monitoring and evaluation of its results. Logic models are the gold standard in evaluation design as they provide a vision tool to link short- and long-term outcomes with the theory, strategies, and activities, and assumptions/contributing factors considered for program development (27–29).

The logic model used here (see Figure 2) was adapted from an earlier evaluation framework developed by the Office of Minority Health (OMH), United States Department of Health and Human Resources (HHS) for improving racial/ethnic minority health and eliminating health inequities (30). This framework was subsequently modified and implemented for the evaluation design of a national intervention on infant mortality prevention in the United States (23), as well as the evaluation of a national communication initiative to eliminate chronic malnutrition in Rwanda (22).

The framework includes different indicators (progress, outcome, and impact indicators) at all levels of the SEM, which are related to specific key groups and stakeholders. Complementing the model are process indicators, which are activity-specific and are listed in a separate table by intervention area and separated by activity, media, or materials. Table 1 includes a definition for each indicator.

As developed, the framework is intended to help UNICEF, its partners, and other stakeholders, to evaluate the impact of the national initiative in support of children's right to immunization in Kyrgyzstan, and, ultimately, to contribute to the

Long-term Problem to be Addressed: Growing trend of immunization refusals contributes to the growing number of people susceptible to vaccine-preventable diseases in Kyrgyzstan

Impact Indicator: A decrease in the prevalence of childhood vaccine-preventable diseases in Kyrgyzstan

Outcome indicator among primary groups: Increased childhood immunization rates/immunization-seeking behavior among parents and other primary caregivers of children of immunization age

From Formative Research/Past Evaluations/Other Relevant Data

"How" the program addresses the health issue/attempts to achieve objectives (e.g. via community mobilization, mass media, a specific focus, etc.)

What kinds of activities the program includes? For example, workshops, trainings, radio programs, etc.

Short term/intermediate outcomes (progress outcomes/indicators). For example, changes in awareness, knowledge, attitudes, skills **Summative/Long-term outcomes/indicators** (outcome objectives/indicators –behavioral, social, policy, organizational indicators)

Individual: Lack of trust in the safety and efficacy of vaccinations among parents and caregivers

Interpersonal: Lack of healthcare providers' training on communicating the importance of immunization

Community: Cultural and religious beliefs and other existing social norms against immunization

Organizational and Policy/Enabling Environment: Limited leadership buy-in and public support for immunization, including within organizations policy settings, and media coverage

Interpersonal communication (IPC) focus and capacity building approach **(individual, interpersonal, community and policy/enabling environment levels)**

Community-based approach **(community level)**

Advocacy-centered approach **(community, organizational, and policy levels)**

Media-focused approach **(community and organizational level)**

IPC and Capacity Building
- IPC training for healthcare providers
- Material dissemination for medical workers
- Health counseling for parents and caregivers
- Capacity building and strengthening of immunization knowledge and IPC skills among religious and community leaders and policymakers

Community-based Approach
- Social mobilization activities (e.g., road shows, home visits, events, outreach to community and religious leaders, development of local champions) in low-performing regions or areas of high resistance to immunization

Advocacy-Centered Approach
- Advocacy efforts to engage decision makers and influential leaders and to increase their support for RI, including high-level meetings

Media-focused Approach
- Workshop series to train media on key RI issues
- Media outreach, including advocacy, face-to-face communication, material dissemination, press tour

Progress and Outcome Indicators in Table 2
Process Indicators in Table 3

Figure 2. The logic model framework was adapted from references (23) and (30), Chapters 2 and 14 in reference (27) and references (22) and (31). This figure illustrates the evaluation framework at all levels of the multi-stakeholder intervention, and also includes sample elements.

Table 1. Types of indicators.

- ○ ***Process indicators***, which 'compare key steps of the program's implementation with the original program plan.' These are activity-specific and 'refer to parameters such as audience reach, event attendance, short-term message recall, quality and tone of media coverage, number of partnerships, material distribution numbers,' and similar measures of process
- ○ ***Progress indicators***, which 'monitor the intervention's impact vis-à-vis 'intermediate steps' toward behavioral and social change and may include 'changes in awareness, knowledge, attitudes, skills, community participation levels,' or other intermediate results
- ○ ***Outcome indicators***, which measure behavioral, social, policy, and organizational results
- ○ ***Impact indicators***, which measure the intervention's impact on disease's morbidity, mortality, prevalence, incidence, quality of life, and other parameters related to the severity and prominence of a specific health condition

Source: Schiavo R. Health Communication: From Theory to Practice. Second Edition. San Francisco: Jossey-Bass, an imprint of Wiley, 2014, Chapter 14, p.414–418. All rights reserved. Used by permission. (27).

well-being of our global community by preventing severe or life-threatening childhood infectious diseases. Sample indicators and other information on the framework as applied to the evaluation design of this initiative are highlighted in the *Discussion*. Implications for the evaluation of other immunization, child health, global health, SBCC, health promotion, and international development interventions are discussed below in an attempt to contribute to the ongoing debate on the evaluation of multi-level interventions.

Discussion

The development of this framework lends itself to strengthening the knowledge base and confidence of different stakeholders (Figure 1) in RI while actively seeking behavioral results. As applied to the UNICEF RI communication initiative, the framework considers key factors that emerged from the KAP as contributing to vaccine hesitancy and refusal in Kyrgyzstan, and integrates strategic objectives of the initiative in developing key indicators at different levels of the SEM. The framework has been generated through analysis of the literature as well as a review of UNICEF's strategic plan, intermediate evaluation results, media reports, and other documents on immunization issues in Kyrgyzstan.

The KAP study aimed to assess knowledge, attitudes, and practices of mothers and caregivers and practices of healthcare professionals about RI (9,11). Data collected from 2500+ respondents revealed that parental concerns and misconceptions about potential side effects are among the main reasons why children were not vaccinated, or not fully vaccinated (9). The study found that parents received their information about immunization via medical providers, who, in turn, received information from higher-level professional organizations, reiterating the complexity of interactions that influence immunization behavior in Kyrgyzstan.

Our framework builds upon a logic model developed by the Office of Minority Health, United States Department of Health and Human Resources and its subsequent modifications, and incorporates the SEM of health promotion as the conceptual underpinning of the framework (22,23,30). It acknowledges that individual behavior among primary caregivers is influenced by interpersonal, community, organizational, and policy settings. Interaction among key stakeholders in these settings is essential to create a web of social support in favor of immunization within all systems with which primary caregivers interact. Sample measurement criteria and indicators at different levels of the SEM, and specifically for each of the groups and stakeholders in Figure 1, are included in supplementary materials. Hopefully, as the framework is applied in Kyrgyzstan, further criteria will be developed to reflect country- and situation-specific issues.

Examples of progress and outcome indicators associated with each layer of the SEM are in Supplementary Table 2 (online only). While progress and outcome indicators were designed to assess changes at the individual, interpersonal, community, organizational and policy levels, it is assumed that improvements in all indicators will ultimately affect the individual level of the SEM by supporting behavioral results among primary caregivers. In other words, increasing the number of primary caregivers who vaccinate their children can be considered both an outcome indicator at the individual level and the main behavioral outcome of the communication initiative, and is linked to behavioral and social change at different levels of the SEM. Additionally, some of the indicators at the organizational level are not specific to a single organization; they also measure progress and outcomes of interactions across organizations and communities.

Another important component of this evaluation framework is the integration of formative research to consider process indicators, which are activity-specific, so that activities can be adjusted iteratively. Process indicators were deliberately not included in the described logic model, as these indicators are being considered as part of the activity-specific evaluation methodology versus other types of indicators that are likely to be achieved by the combination of multiple components (strategies and activities) of the initiative.

Supplementary Table 3 (online only) provides examples of process indicators as they pertain to the framework and specific activities for different groups. Though we have considered process indicators only for ongoing or upcoming activities, some of these indicators may apply to the measurement of similar future activities.

As for other indicators in the framework, process indicators will be assessed in the initial evaluation phase via qualitative methods (in-depth interviews and panel studies) and mixed methods tools (pre–post event questionnaires). Qualitative methodology is being considered by UNICEF and its partners to meet the goals of initial evaluation efforts, and to predict trends in behavioral change for both program refinement and progress reporting. Qualitative research is often the method of choice for evaluation in global health as it may double as a tool to give voice to unheard populations and to generate information that may increase stakeholder buy-in (32). As the initiative continues, many indicators will be also assessed quantitatively.

Finally, process indicators will be measured in 2019–2020 by using qualitative methods to assess the efficiency of communication activities and understand if expected changes are starting to occur. Progress indicators will be measured in 2021 or 2022 by qualitative and quantitative methods, including in-depth interviews, panel studies, each of which will comprise representatives of a specific key group, focus groups, media monitoring and analysis, and pre–post event qualitative and quantitative assessments. Research questions are being implemented in the field for all indicators to assess and refine clarity, cultural relevance and ease of implementation, and will be included as part of future reporting on the findings of this evaluation effort. Outcome indicators will be measured through the next Multiple Indicator Country Survey (MICS), which is grounded in UNICEF international household survey initiative for data collection and reporting (33). Similar experiences in developing countries in the field of maternal, newborn, infant, and child health, show that behavior results and increased demand for health services tend to be observed within a 3–5 year period from the launch of an integrated communication initiative, including multiple approaches and media (33). Observed changes are usually in the range of a 10–21% increase in the desired behavior, including demand for specific health services. This also depends on the intensity and continuity of all efforts, and other elements that may be intervention- and/or country-specific (34). Moreover, the framework is well suited for use in future evaluation phases to assess and compare results across different groups and regions and related variables (e.g. socio-economic and health literacy levels) and to document the potential association (or lack of thereof) of key findings with changes among key stakeholders and the systems in which they live, work, or operate, at different levels of the framework. This may also help monitor changes in inequities on immunization rates. Similarly, the framework can be adapted to measure health and social inequities as part of the evaluation of other global health, health promotion, and international development interventions.

Conclusion

While immunization coverage has improved throughout the world, immunization disparities still exist across different countries and populations. Though our discussion has revolved on a framework for the assessment of a Routine Immunization Communication Initiative in Kyrgyzstan, vaccine hesitancy and refusal are emerging and timely issues both in economically developing and developed countries. For example, in the U.S., vaccine hesitancy and refusal among parents and other primary caregivers are growing, and have resulted in an increase in children who reach age 2 without receiving any vaccinations from 0.9% for children born in 2011 to 1.3% for children born in 2015 (35). This trend may explain the recent higher rates of vaccine-preventable diseases, such as in the case of the 2019 measles outbreak in New York City (36).

Similar to other health inequities, disparities in immunization coverage and vaccine demand are related to complex factors that require the engagement and participation of multiple levels of society in promoting behavioral and social change, not only among parents and other primary caregivers, but across systems and stakeholders who ultimately influence parental decisions on whether to immunize or not (10). Immunization disparities also have important consequences for population health and well-being. Therefore, it is imperative that society as a whole contributes to protecting children's right to immunization and survival.

As for other health and social inequities, systems-level change to address immunization disparities can be achieved only via multi-level interventions and cross-sectoral partnerships and engagement (37,38). Efforts to evaluate multi-level interventions must reflect the 'complex interplay between these levels' (26), and consider the SEM as an important framework to be integrated in assessments.

Although the evaluation framework discussed here refers to the assessment of the UNICEF RI Communication Initiative in Kyrgyzstan, the framework has broader applicability and transferability for other SBCC interventions to address immunization issues, and across the fields of global health and international development and related disciplines. More specifically, the framework can be applied to other population health interventions for both infectious (e.g., other vaccine-preventable diseases, HIV, etc.) and non-communicable diseases (e.g., diabetes and obesity), as these should aim to build social support for behavioral change among vulnerable and at-risk groups and ultimately promote sustainable results across groups at different levels of the framework. Another strength of the framework is its ease of use and adaptability to international development settings as the framework prompts potential users to take into account the specificity of the local and political contexts of any intervention. The framework also aligns with key principles from the Ottawa Charter for Health Promotion (39) and its emphasis on multi-level interventions and system-thinking, as well as creating supportive environments.

Finally, the framework has implications for future research and practice as it seeks to contribute to the ongoing debate and explorations on setting guidelines and building a body of evidence on methods to assess multi-level interventions that aim to advance immunization equity, address complex issues like vaccine hesitancy, or eliminate other kinds of health disparities, and to systematically integrate intervention and evaluation design.

Authors' note

The opinions expressed in this article are the authors' own and do not reflect the views of UNICEF and/or any other organizations with which the authors are affiliated. UNICEF owns the rights to the model in Figure 2 only as it pertains to routine immunization. As previously stated, the general model draws upon previously published work and iterations of this evaluation framework by one of the authors (RS), and was implemented by the authors of this article in application to routine immunization.

Author contributions

RS conceptualized the manuscript, designed and developed the evaluation framework, and wrote the manuscript. UBR and LF helped with the implementation of the framework to routine immunization in Kyrgyzstan, worked on graphic elements of Figure 2, and wrote several sections of the manuscript. GS reviewed and provided input on the manuscript. All authors reviewed and finalized the manuscript.

Declaration of conflicting interests

The authors certify that there is no conflict of interest regarding the materials discussed in this manuscript.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This project, as well as the development of this article, were supported by generous funds from the GAVI 'Health Systems Strengthening' Grant, which were administered via the Routine Immunization Communication Initiative led by UNICEF Kyrgyzstan.

Ethical approval

Institutional review board approval was not needed for this project, as the article does not include information collected from human subjects.

ORCID iD

Renata Schiavo https://orcid.org/0000-0001-8243-1522

Supplemental material

Supplemental material for this article is available online.

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Developing the culture of ethics in population health intervention research in Canada

Anne-Marie Hamelin[1], Chantal Caux[2], Michel Désy[3], Anne Guichard[4], Samiratou Ouédraogo[1], Marie-Claude Tremblay[4], Bilkis Vissandjée[2] and Béatrice Godard[2]

Abstract: Population health intervention research (PHIR) is a particular field of health research that aims to generate knowledge that contributes to the sustainable improvement of population health by enabling the implementation of cross-sectoral solutions adapted to social realities. Despite the ethical issues that necessarily raise its social agenda, the ethics of PHIR is still not very formalized. Unresolved ethical challenges may limit its focus on health equity. This contribution aims to highlight some of these issues and calls on researchers to develop a culture of ethics in PHIR. Three complementary ways are proposed: to build an ethical concept specific to this field, to promote a shared space for critical reflection on PHIR ethics, and to develop the ethical competence in PHIR for which a preliminary framework is proposed.

Keywords: Ethics, population health intervention research, equity, competences, population and public health

Introduction

The improvement of health at the population level involves a thorough understanding of the complex systems in which populations live and the interventions, institutions, policies, and programs that influence their health. Population Health Intervention Research (PHIR) seeks to generate knowledge on health sector interventions (e.g., prevention, promotion, or monitoring policies or programs) and other intervention sectors (e.g., employment, housing, transportation), which may have an influence on population health (1). It aims to contribute to sustained improvement of population health and health equity, a concept by which all people can reach their full health potential and should not be socially, politically, and economically disadvantaged from attaining it (2,3). PHIR does so by taking into account the social (e.g., income, socioeconomic position, education, gender) and environmental/ecological (e.g., urban design, access to health services, climatic changes) determinants of health, and their interactions, and by facilitating the establishment of inter-sectoral solutions adapted to social realities (4). It can be conceptualized as a reflexive system that enables learning from

1. Université McGill, Montreal, Canada.
2. Université de Montréal, Montreal, Canada.
3. Institut national de santé publique du Québec, Montreal, Canada.
4. Université Laval, Quebec City, Canada.

Correspondence to: Anne-Marie Hamelin, Department of Epidemiology, Biostatistics and Occupational Health, McGill University, 1020, Pine Avenue West, Montreal, QC H3A 1A2, Canada. Emails: anne-marie.hamelin@mcgill.ca; amh2396@gmail.com

(This manuscript was submitted on 8 May 2019. Following blind peer review, it was accepted for publication on 14 February 2020.

Global Health Promotion 1757-9759; Vol 27(4): 69–77; 913547 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920913547 journals.sagepub.com/home/ghp

interventions, and that empirically helps to test our understanding of causal mechanisms by which health is produced and strengthened (1,5).

Despite significant developments in PHIR during the last decade, its ethical dimensions have been the subject of relatively few discussions (6,7). The concept of ethical competence in PHIR has also not been developed (8). This situation contrasts with the abundant scientific literature addressing ethics in public health (9–17). The ethics of PHIR, however, is a crucial issue, as this type of research, primarily financed and commissioned by the public, focuses on the underlying conditions of health at the population level and raises controversies and questions that are sometimes complex and remain unanswered.

In order to contribute to the discussion on this subject, on April 25, 2018, the Quebec Population Health Research Network organized the first PHIR Ethics Day (https://drive.google.com/file/d/1KYfK2Iej_dyH0Ir9f_B3MaCIfPSj2V4L/view). This meeting brought together ethics experts, researchers, research coordinators, doctoral students, postdoctoral fellows, professors, lawyers, and members of research ethics committees, including community representatives. The diversity of the participants enabled the identification of critical themes concerning PHIR ethics and to reflect on how to frame PHIR in respect to its related issues.

From public health ethics to PHIR ethics

The public health practice seeks to protect and improve population health. It is guided, *inter alia*, by values of autonomy, beneficence, and non-maleficence, social justice, common good, and equity (18). Although public health ethics frameworks may help researchers to explore the specific ethics dimensions of PHIR, these frameworks are of little assistance, generally, in prioritizing the values and reaching ethical decisions in the elaboration, implementation, and evaluation of research on population health interventions.

The specific characteristics of PHIR fall under the scope of its population health perspective, which favors an inter-sectoral action targeting health determinants, with the intention of impacting, before problems arise, the distribution of risks at the population level. Thus, PHIR requires an interdisciplinary and partnership approach necessary to understanding and taking into account the complexity of population health and to producing the knowledge required for the establishment of an efficacious and efficient intervention (19,20). The population scale involves a number of factors situated at different levels (e.g., community, environmental, political, organizational, systemic), which are examined in relation to the intervention, the system actors, and population health. The system actors come from public and administrative establishments from various sectors and government levels, including public health, nongovernmental organizations, civil society, and the private sector. To actually have an impact at the population level, PHIR requires a focus on certain questions, approaches and research designs. PHIR also produces data (e.g., social inequalities in health; unequal distribution of power, money, or resources; interactions between intervention and context) and measures effects (e.g., health equity impact of policies through redistribution of resources or other changes in the underlying sociocultural and environmental conditions of health risk) (3,21,22), which are very different from individually oriented biomedical and clinical research. It also differs from public health research that targets specific groups without changing underlying conditions of health risk.

PHIR researchers face specific ethical challenges with few reference points. Such challenges include operationalizing the informed consent of populations in a vulnerable situation (23), adequately and equitably representing the population (24), and balancing the risks and benefits in a population composed of various subgroups who do not equitably benefit from the intervention (24,25). The collaborative and participatory dimensions of PHIR also raise a significant number of challenges: for example, the choice of research partners, the commitment of researchers vis-à-vis all interested parties and the significant participation of the latter in the various research phases (24), the establishment of a common language between research players, and the participation of targeted (including vulnerable) populations. There are also multiple risks related to cultural diversity, gender relations, and an imbalance in power between researchers, partners, research participants, and populations—questions that must be addressed to avoid the risk of concealing or reproducing social inequalities and injustices (18,24,26–28).

Striking the balance between the interests of the organizations involved and the populations with regard to individual rights constitutes another significant challenge (2). The research field relating to the determinants and solutions to household food insecurity offers a useful example. For practical reasons, this research is often conducted in partnership with the network of food banks, thus contributing indirectly or directly to promoting this institution, which governments see as a response to household food insecurity. However, food assistance provided by food banks does not respond to the significant food security needs of households and does not enable food insecurity to be eliminated—a problem that has continued to persist for decades in Canada in absence of a global vision of the problem, and adequate social policies (30–32). How does one reconcile population needs in terms of food security and the objectives of the research partner food banks, which in this case have become institutionalized? How can the balance principle, and other principles, concretely assist in providing a framework for posing conceptual and practical food security research questions? More generally, one may also wonder whether research contexts and processes contribute to inequalities in food security over time.

The ethical response to these challenges is not an easy one. Indeed, it implies a situational assessment that is all the more difficult, as PHIR overlaps two worlds with their own practices and normativities: the health research universe and the public health intervention universe. The ethical normativity of the former is based on three guiding principles: respecting people, the importance of welfare and justice, and being guided by a process of free, informed, and continuous consent (33). The ethical normativity of the second, considering public health ethics, according to works by Massé (18), is based on 10 principle values associated with the objectives (respect for healthy life, beneficence, common good, paternalistic responsibility, social justice) and the limits of interventions (solidarity of collectivity and individual responsibility, non-maleficence, autonomy/self-determination, privacy, usefulness).

Furthermore, the boundary between what falls under PHIR ethics and public health intervention ethics has not been clearly established (18)—a problem that is not uncommon and which arises in the fields of research on health policies and systems in Europe (34) and public health research in the USA (35). From our point of view, at least two factors contribute to this problem. First, contrary to biomedical or clinical health research, the ethical normativity of population health intervention research has yet to be formalized, as further described below. Second, the ethical normativity relating to public health interventions is significantly implicit rather than explicit (18). This uncertainty in the determination of PHIR ethics and in its delineation of intervention ethics renders the interrelation and management of these two PHIR normativities more complex and clouds the limits of ethical responsibility of PHIR researchers.

The 'Tri-Council Policy Statement: ethical conduct for research involving humans' (33) does not offer many operational responses for applying health research principles to PHIR (24,36). This raises the question of how research ethics committees assess PHIR protocols. Do they feel sufficiently equipped to address the ethical considerations of PHIR? On the central point of equity, the Tri-Council Statement (33) deals with equity principally by examining research participation, but it does not examine the purpose of the research and the other aspects of the research process. No guidelines are provided to PHIR researchers in this regard. This situation is raised by Guichard and Ridde (37) in their commentary regarding the strategy of the Canadian Institutes of Health Research in terms of equity in the financing of research. Noting that this strategy fails to ask the researchers to take into account health equity in their research work, the authors identify a possible discrepancy between financed research and the social responsibility of research in terms of population health.

In light of these insufficiencies and incoherencies and their consequences, we suggest that the ethical principles of PHIR be quickly addressed in order to develop a consensus regarding guiding principles. Areas of overlap between the scope of the normativity of PHIR ethics and intervention ethics must then be determined, including their impact on the manner in which the ethics of the examined PHIR should be dealt with and developed. Progress in this direction would then enable the targeting of ethical considerations of the methods and objectives of PHIR, identification of the means of protecting the principles of justice, equity, and other principles in an area of study that emerges from an intervention, and prevention of any increase in, or potential establishment of, discrimination or vulnerabilities. The clarification of the areas of normativity could, furthermore, enable reflection on the scope of the responsibility of PHIR researchers.

In sum, it is important to develop an ethical view specific to PHIR from its inception to the analysis of its effects, including its elaboration. The development of its ethical dimensions could favor the establishment of rational solutions for the types of PHIR-related ethical questions and guide researchers and ethical research committees in the assessment of PHIR. Furthermore, an editorial on the means of improving the capacity of population health research recently indicated the urgent need to establish a general ethical framework for PHIR (38).

The need for a space in critical ethical reflection on PHIR

PHIR offers an opportunity to address the more upstream determinants of population health and their solutions. This happens in the context in which the researchers adopt a critical perspective (i.e., be reflexive, focus on the need for social change), address research issues that may identify the relevant moral and ethical problems (10,26), and become closely interested in the 'context–intervention' interactions by means of which the interventions increase health equity (22).

Ethics in PHIR must be examined in context and then further analyzed with concerned groups (39). The establishment of a common ethical and critical space for reflection on PHIR could facilitate the determination of values, the discussion of solutions to ethical research problems, and the ethical decision. Such place for interdisciplinary and inter-sectoral exchanges, especially where it implies—as it is often today the case—a virtual dimension, seems to be all the more desirable on account of the diversity of field situations and ethical values to be discussed. The ethics of PHIR in urban areas, rural areas, Indigenous communities, or global health represent many different contexts and may not be examined in the same manner, since historical and sociocultural realities, dynamics, and referents differ. At the same time, a newly emerging and urgent ethical perspective concerns cyber-security and the impact of the use of social media and artificial and robotic intelligence in PHIR on fundamental rights, the management of databases, the value of data, the distribution and use of information (40,41), and even on the relationship of researchers with populations and institutions.

Finding an adequate solution to PHIR ethics problems as well as an appropriate and acceptable response to these questions cannot be carried out alone. Searching for 'the balance between universal values and varied and evolving realities' (42) requires an open, ongoing, and transparent discussion between the various actors concerned and an understanding of all arguments. In order to maintain this balance, we propose a global, transdisciplinary, and inclusive approach to guide this ethical discussion concerning the values at stake in light of the processes concerning the implementation and definition of research purposes.

The search for such a balance is clearly not free from the difficulties represented by systemic limitations (e.g., time, financing terms, academic pressure) and the tensions between the regulatory ethical requirements and the requirements specific to PHIR and its implementation. As these difficulties result in compromises, they may have an impact on the quality of research and its results. Between truth, acceptance, and feasibility, PHIR choices may be difficult on moral and ethical levels. Appropriate mechanisms to strengthen ethical collaboration capacities, overcome the balance of power, resolve conflicts, and prioritize values may prove to be necessary.

PHIR processes raise controversies and questions that require collaboration and discussion to find solutions. For example, from a methodological perspective, the exclusion of population groups without justification undermines the principle of justice (35,43,44). This exclusion may take various forms such as rejecting citizen participation in health impact assessment (45). With respect to terminology, the choice of terms and the meaning ascribed to them is subject to discussion, such as the use of the term 'vulnerable' and its definition (35). From an analytical perspective, the use of certain categories such as 'race' (27,46) is also not unanimous. The intervention—the focus of the research—is itself a source of controversy with regard to its potentially intrusive or discriminatory nature (14,47). A space for critical ethical reflection uniting groups with varying rationalities may enable progress to be made on these issues.

The purpose is to contribute to facilitating the inclusion of appropriate ethical principles, both in the objective and in the process of PHIR, and to address persisting social inequalities in health (e.g., in Canada, life expectancy at birth is 12 years lower in areas with a large concentration of Inuit) (3) in order to strengthen the scope of PHIR regarding health equity.

The creation of a space for critical ethical reflection may constitute a starting point for developing a culture of ethics in PHIR in Canada where institutional research and training infrastructures favor an implicit code of ideas and critical ethical dialogue in line with a health equity perspective.

Developing competence in ethics for researchers in PHIR

We believe that the quality of any dialogue on ethics is dependent on the competence of people who engage in such discussion, notably their sensitivity and capacity to reflect. Reflexivity can enable an understanding of how the practice of ethics may be implemented in research (48–51). Adopting a ‘reflexive and pragmatic concept of ethics’ (50) where ‘the independent judgement of actors and dialogue [. . .] on the meaning and purpose of the practices are valued’ (52), we define the ethical competence in PHIR as follows: a complex value-based competence, which is manifested through concrete field experiences in PHIR where it is used to highlight the underlying ethical issues. This position on ethical competence is different, although not opposed to that of Riley *et al.* (8) who define it as a relevant group of ethical principles applied to the research process.

According to the participants in the PHIR Ethics Day, the development of ethical competence is based more on experience acquired in the field and from wider reflexivity on ethical and philosophical issues in the population and public health field and related research than on a predetermined ethical framework, which echoes the vision of Upshur (53). Thus, various types of elements pertaining to values, sensitivity, beliefs, attitudes, and behavior would be used to identify and respond to ethical questions arising in PHIR.

In order to fuel reflection about the meaning of ethical competence in PHIR, the key elements raised that day were classified into three large categories: knowledge, interpersonal skills, and know-how. Their content was the subject of global reflection focused on the objective of PHIR (1) and on principles relating to the reduction in social health inequalities and in the production of health equity (2,54,55), as well as the principles surrounding the consideration and participation in PHIR of populations in a vulnerable context (56). The principles of inter-sectoral action and the participating processes contributing to the integration of health considerations in all policies (57), as well as the Sustainable Development Goals (58) as vectors of sustainability, also stimulated reflection.

The interdisciplinary ethical reflection also highlighted three levels: micro-ethics (ethics in research practice, dialogue ethics), meso-ethics (procedural ethics), and macro-ethics (research in social issues) (48,49). This overall reflection oriented the development of a preliminary ensemble of interwoven elements of ethics competence in PHIR, which are organized by main categories and levels in Table 1. This table brings to light the predominance of micro-ethical dimensions in PHIR, as well as the peculiar presence of macro-ethics. The first category of elements (knowledge) falls under the knowledge of key principles, approaches, and frameworks in population health and the understanding of PHIR's objective. The second category (interpersonal skills) refers to the mental state, the values, and the vision that guide researchers, and which define their relations with others and morally prepare them in their commitment to improving health and reducing social health inequalities. The third category (know-how) deals with the behaviors adopted to benefit health equity. It encompasses (a) the practices, which expressly define research values, integrate ethical principles in the stages and processes of PHIR where applicable, identify the risks and implications of ethical challenges for the health of populations, and find balanced solutions with partners; (b) the capacity to defend values and research choices and their ethical implications; and (c) the capacity to evaluate the ethical scope of research on a broad scale. The reflection on ethical competence in PHIR and what it comprises must be continued and thoroughly studied. We believe that the development and maintenance of the elements of competence such as those proposed in this article are essential but are currently insufficiently considered and supported by institutions (e.g., universities, research

Table 1. Ethical competence in population health intervention research (PHIR): preliminary ensemble of elements by main categories and levels.

	Micro	*Meso*	*Macro*
Knowledge	• Understand the ethical principles related to research activities with socioeconomically disadvantaged populations/ organizations/institutions • Understand PHIR values and purposes	• Analyze and better adapt research projects to the characteristics and needs of socioeconomically disadvantaged populations/organizations/institutions	• Understand the principles related to social justice in public health interventions, to the reduction of social health inequalities, and to the production of health equity • Understand the principles of integrating 'health in all policies'(57)
Interpersonal skills	• Exercise ethical sensitivity by: ○ Recognizing one's own values and the values of the intervention's target populations and PHIR partners ○ Recognizing the power dynamics between the research stakeholders (researchers, participants, partners) that impact PHIR and the population health ○ Recognizing the knowledge of vulnerable individuals ○ Being open-minded, empathetic, and humble • Adopt a reflective ethics stance for PHIR and its outcomes	• Develop cultural competency • Deepen interpersonal skills	• Have an overall vision of the social role of research • Recognize one's own social accountability as a PHIR researcher • Make a moral commitment to improve population health and reduce social, race, and gender health inequalities
Know-how	Demonstrate an ethical practice by: • Applying a health equity lens to intervention research activities • Making research values explicit and articulating the ethical challenges related to intervention research activities in collaboration with institutional and individual partners • Reframing the problem to identify: ○ ethical issues related to: - health inequalities (e.g., identifying the social and environmental determinants involved in the health situation of the population being studied and their intersection points; distribution of health risks) - impact on the health and well-being across the population of the intervention or the intervention strategy being studied, i.e., its potential to change the underlying conditions in terms of distribution of health risks and reducing social inequalities in health ○ sociocultural and political context ○ interests of the main players in the problem and solutions • Integrating ethical principles *in all PHIR processes*, including the functioning of the research team and the modalities of partnership, interdisciplinary, and inter-sectoral collaboration • Identifying balanced solutions to the ethical challenges in collaboration with the research partners	• Develop an ethical practice by integrating ethical principles (e.g., autonomy, beneficence and non-maleficence, social justice, common good, inclusion and social participation, informed consent, particularly for vulnerable people, equity and proportionality, balance between individual and collective rights) *in the stages of PHIR*: ○ research planning: formulating the research question and objectives, selecting the population, contextualizing the intervention, selecting approaches and methods, setting up a process for sharing, and applying knowledge ○ an analysis of the intervention effects on social inequalities in health ○ the interdisciplinary discussion and interpretation of outcomes ○ the validation of outcomes ○ health impact assessment	• Identify the risks and implications of ethical challenges for population health and health equity • Capacity to lead an ethics-based discussion about values, PHIR choices and their impacts, and the consequences of the interventions for population health and health equity • Capacity to assess the ethical scope of PHIR researcher decisions on a broad scale consistent with sustainable development

funders, organizations). Furthermore, recent experiences involving the supervision of graduate students show the need for special training directed toward the acquisition and strengthening of ethical competence in PHIR and its transversal integration throughout their course of study (59).

Conclusion

Just like the societies in which it is anchored, PHIR is constantly evolving. It must respond to complex population health issues and propose systemic, inclusive, and ethical solutions to current problems, notably upstream actions on the structural determinants of social health inequalities (60,61). The identification of guiding ethical principles in PHIR is a necessary first step. Developing ethics in PHIR requires means beyond traditional ethical frameworks in public health and the current ethical approach in health research. These means relate to the critical ethical discussion, the interdisciplinary and intersectoral collaboration, equity when participating in the discussion, as well as ethical competence, whose meaning must evolve. All together, these could enable fundamental questions relating to moral and ethical issues in PHIR to be addressed and acceptable solutions to any ethical problems encountered to be identified. The growing interest in PHIR ethics is not only a sign of the specific challenges in this research field but also of the accountability of researchers in making progress towards health equity. At a time when 'The Brussels Declaration on the Ethics and Principles for Science and Society Policy-Making' (62) considers public health requirements yet omits health equity, it would seem imperative to promote and facilitate ethical integration in PHIR. The theorization of a general ethical framework in PHIR supported by research institutions, the creation of a space for critical ethical reflection in PHIR, and the development of ethical competence with regard to reflexivity and training are essential in creating a culture of ethics in PHIR in Canada.

Acknowledgements

The authors gratefully thank Gilles Paradis, Professor and Chair of the McGill Department of Epidemiology, Biostatistics, and Occupational Health, for his comments on an earlier draft of this paper. Likewise, the authors thank the participants of the first Population Health Intervention Research Ethics Day who have thought critically about the ethical issues emerging in PHIR. In this text, the masculine gender includes the feminine and all other genders and is used without discrimination in order to simplify the text. An initial version of this paper was published in French in Éthique Publique, Revue internationale d'éthique sociétale et gouvernementale 2018; 20(2).

Declaration of conflicting interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The authors thank the Quebec Population Health Research Network (QPHRN) for its contribution to the financing of this publication.

ORCID iDs

Anne-Marie Hamelin https://orcid.org/0000-0001-8662-2043
Béatrice Godard https://orcid.org/0000-0003-1980-7755

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Examining the appropriateness and reliability of the strategy of the Kenyan Comprehensive School Health Program

Sachi Tomokawa[1,2], Takashi Asakura[2,3], Sammy M. Njenga[4], Doris Wairimu Njomo[4], Rie Takeuch[2,5], Takeshi Akiyama[2,6], Haruki Kazama[5], Alex Mutua[7], Walema Barnett[8], Hanae Henzan[9], Masaaki Shimada[5], Yoshio Ichinose[5], Yasuhiko Kamiya[5], Satoshi Kaneko[5], Kimihiro Miyake[1] and Jun Kobayashi[2,9]

Abstract: The Kenyan government established the Kenyan Comprehensive School Health Program (KCSHP) on the basis of Kenyan National School Health Policy. A KCSHP pilot project was carried out in eight primary schools in Mbita Sub-County of Homa Bay County in the Nyanza Region from 2012 to 2017. This pilot project provided health facilities and support for evaluation with a school health checklist, and organized teacher training on health education, a child health club, and school-based health check-ups. The present study aimed to examine the appropriateness and reliability of the strategy of the second KCSHP pilot project in Kenya. We analyzed data from self-administered questionnaires targeted at pupils in seventh-grade in the eight primary schools. The questionnaire consisted of questions on health-related knowledge, attitudes and practices, self-evaluated physical and mental health status, self-awareness of health control, subjective happiness, recognition on the importance of learning about health in school, absenteeism, and sense of school belongingness. The project contributed to improving health-related knowledge, attitudes and practices, self-evaluated health status, sense of school belongingness, recognition on the importance of learning about health in school, self-awareness of health control, and absenteeism. On the contrary, subjective happiness did not improve significantly.

Keywords: Africa, health education, health-promoting school, evaluation, developing county, school health policy, Kenya

1. Department of Sports and Health Sciences, Faculty of Education, Shinshu University, Nagano City, Nagano, Japan.
2. Japanese Consortium for Global School Health and Research, Nishihara, Okinawa, Japan.
3. Department of Education, Tokyo Gakugei University, Koganei-shi, Tokyo, Japan.
4. Kenya Medical Research Institute, Nairobi, Kenya.
5. Institute of Tropical Medicine, Nagasaki University, Nagasaki, Japan.
6. Department of Health Science, Nagano College of Nursing, Nagano, Japan.
7. Ministry of Health, Nairobi, Kenya.
8. Ministry of Education, Nairobi, Kenya.
9. Department of Global Health, School of Health Sciences, University of the Ryukyus, Nishihara, Okinawa, Japan.

Correspondence to: Sachi Tomokawa, Department of Sports and Health Sciences, Faculty of Education, Shinshu University, 6-Ro, Nishi Nagano, Nagano City, Nagano 380-8544, Japan. Email: sachitjp@shinshu-u.ac.jp

(This manuscript was submitted on 4 August 2019. Following blind peer review, it was accepted for publication on 9 March 2020)

Global Health Promotion 1757-9759; Vol 27(4): 78–87; 917976 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920917976 journals.sagepub.com/home/ghp

Introduction

Cost-effectiveness of school health activities has become a widely recognized concern worldwide. The effectiveness of school health activities is measurable in terms of not only improved health and nutritional status but also improved educational outcomes, reduced wastage, less repetition, and enhanced returns on education investments (1). For example, several researchers reported school-based health education had positive effects on health-related knowledge, attitudes, and practices (2,3). A study in Kenya reported school-based hand hygiene instruction and hand-washing promotion decreased student absenteeism (4). However, such individual interventions that handle a single issue may not be very effective (5). Apart from that, school health in low-income countries has often been realized through vertical programs focusing on only one or a few specific issues and has otherwise run into limitations (6).

Amid these circumstances, the World Health Organization (WHO) introduced health-promoting schools (HPS) as an approach to promoting health in pupils, school personnel, families, and entire communities through schools (7). The Focusing Resources on Effective School Health (FRESH) framework was then launched in 2000 (1). After the spread of FRESH, several developing countries formulated national school health policies (NSHPs) and aimed at achieving comprehensive school health (8–10). Evidence accumulated thus far supports the effectiveness of a comprehensive school health approach and suggests its prospects for improving a variety of indicators (11). Furthermore, a WHO technical report (12) emphasized the importance of promoting a comprehensive approach as an essential factor for striving to achieve school health nationwide.

In Kenya, the government launched a comprehensive school health policy in 2009 (8), and then established the Kenyan Comprehensive School Health Program (KCSHP). Additionally, both the Ministry of Education (MOE) (formerly Ministry of Education, Science and Technology) and Ministry of Health (MOH) (formerly Ministry of Public Health and Sanitation) adopted the National School Health Guidelines (13) and Kenya Comprehensive School Health Handbook (14) in 2009. The handbook describes the components of the KCSHP, such as situation analysis, making an action plan, monitoring and evaluation, and giving awards to schools with good performance in school health activities. The MOE and MOH additionally developed a school health checklist to evaluate the status of school health activities (14). Following this, a KCSHP pilot project was implemented in 30 schools in the Kilifi and Msambweni districts in 2012 (15), though it was not implemented at a national scale following the pilot. Against this backdrop, the Nagasaki University Institute of Tropical Medicine, MOE, and MOH decided to carry out another KCSHP pilot project in the Mbita Sub-County of Homa Bay County in the Nyanza Region.

As mentioned, school health promotion has become widespread and gained recognition as an effective practice worldwide. However, less attention has been paid to evaluation of the influence of NSHP implementations, particularly to evaluation in terms of children's health-related knowledge, attitudes and practices, absenteeism, and other psychosocial aspects.

Objective

The present study aimed to examine appropriateness and reliability of the strategy of the second KCSHP pilot project, focusing on health-related knowledge, attitudes and practices, self-evaluated physical and mental health status, self-awareness of health control, subjective happiness, recognition of the importance of learning about health in school, absenteeism, and sense of school belongingness.

Methods

Target areas and pupils

The project targeted four areas of Mbita Sub-County in Homa Bay County: Rusinga West, Rusinga East, Gembe West, and Gembe East. Only 48 primary schools in these areas had classrooms for enrollees in grades 1–8 in 2013. Among these 48, the project selected two in each area as target schools, for a total of eight, and targeted all seventh-grade pupils in these schools. Whereas the official languages of Kenya are English and Kiswahili, the study area was mainly the Luo settlement area, and the daily used language in the area is Luo. When creating a questionnaire, it is preferable to use the language of the target region, but Luo (Dholuo) is a spoken language and there is no uniform rule in the alphabet notation of Luo. Therefore, we decided to create a self-administered questionnaire for evaluation in English, and, consequently, we selected the pupils who could fully understand and answer the questionnaire in English as target pupils. In addition, the eighth grade is the highest grade, and, thus, students in eighth grade are the most familiar with English in the school. However, they have to prepare themselves for the national uniform examination to be held at the time of graduation. Therefore, we decided to target seventh-grade students so as not to place an additional burden on eighth-grade students. We conducted a one-year intervention with seventh graders repeatedly during the project period – namely, four consecutive years. The subjects of this study were all Luo. The number of pupils was 268 in 2013, 277 in 2014, 295 in 2015, and 304 in 2016. The average age of subjects was 14.0 ± 1.0 years in 2013, 14.0 ± 1.0 years in 2014, 13.9 ± 1.0 years in 2015, and 13.7 ± 1.0 years in 2016. Furthermore, the percentage of girls selected in each year was 51.9% in 2013, 49.8% in 2014, 49.8% in 2015, and 49.3% in 2016.

Project overview

The project was implemented from September 2012 to August 2017. Table 1 shows an overview of activities for each year. In its activities, the project involved a variety of stakeholders, including parents, local government offices, sub-county hospitals, and community health volunteers (CHVs). During the project, assessment of the status, prioritizing required activities, making an annual action plan, implementing the action plan, evaluation, and presenting awards were repeated each year.

Provision of health-related facilities

The project conducted an annual survey each year to collect information about health-related facilities in schools, and based on the survey results it provided the schools with facilities and materials, including equipment for building toilets and rainwater harvesting tanks, and cleaning equipment.

Assessment and evaluation with a school health checklist

The school health checklist, which had been developed by the MOE and the MOH, was used in status assessment before the start of the pilot project in 2013, and in the school-year-end evaluations of implementation status from 2014 to 2016. It consisted of the following eight components: 1) value and life skills; 2) gender issues; 3) child rights, child protection, and responsibilities; 4) water, sanitation, and hygiene; 5) nutrition; 6) disease prevention and control; 7) special needs, disability, and rehabilitation; and 8) school infrastructure and environment safety (13). An evaluation team comprising staff from the district offices of the MOE and the MOH visited each school to collect information by observing the schools and interviewing children, teachers, head teachers, and chairs of the school health committees. At the end of each year, schools received feedback from the project about the annual evaluation, and an awards ceremony was held to recognize schools based on the checklist scores.

Training for government officers, teachers, school committee chairs, and CHVs

The project provided four types of training, with different scopes and trainees as follows.

1. *Training on introducing evaluation using the school health checklist for principal stakeholders*

Education and health government officers, school committee chairs, head teachers, and teachers in charge of health-related issues were the target participants. The main components were methods for evaluating the status of school health implementation and means of making an action plan by referring to evaluation results. For the latter topic, teachers learned how to classify activities in order of priority, and what elements to include.

2. *Training to improve health education quality for head teachers and relevant teachers*

Table 1. Activities in the pilot project.

Activities		*2013*	*2014*	*2015*	*2016*	*2017*
Surveying and providing health-related facilities		• Situation survey • Providing toilet in three schools and water tank in two schools	• Situation survey • Providing toilet in four schools and water tank in four schools	• Situation survey • Providing toilet in two schools and water tank in two schools	• Situation survey • Providing toilet in three schools and water tank in two schools	• Providing toilet in one school and water tank in one school
Assessment and evaluation by school health checklist		• Pre-test and finalizing school health checklist • First assessment and evaluation using checklist • Feedback meeting	• Second assessment and evaluation using checklist • Feedback meeting • First awards ceremony	• Third assessment and evaluation using checklist • Feedback meeting	• Fourth assessment and evaluation using checklist • Feedback meeting • Second awards ceremony	• Third awards ceremony
Training for: • MOE and MOH officers • Teachers • Chairman of school committee • CHVs	KCHSP and School Health Checklist (SHC)	• Training for officers and teachers to introduce KCHSP and SHC • Training for chairman of school committee to establish school health committee	• Training for teachers on making action plans based on the results of SHC	• Training for teachers on making action plans based on the results of SHC	• Training for teachers and chairman of school committee on making action plans based on the results of SHC • Training for teachers on self-evaluation of SHC	
	Health Education (HE)			• Teacher training on how to create teaching materials	• Providing HE materials (board game) • Developing HE materials with teachers and officers (flip chart)	• Providing HE materials (flip chart)
	Child health club (CHC)	• Situation survey	• Situation survey • Teacher training for teachers and CHW on CHC	• Situation survey • Training for teachers, CHW on making action plans	• Situation survey • Monitoring by social networking service (SNS) - Facebook • Awarding good CHC practice	
	Health check-up (HC)	• Development of teacher training materials for HC • Training for officers and teachers on HC	• Training for CHW on HC	• Training for teachers and CHW on how to incorporate HC data into education		
Questionnaire survey		• Pre-test	• First survey	• Second survey	• Third survey	• Fourth survey

SNS: social networking service; CHC: child health club; SHC: school health checklist; CHW: community health worker.

The main topics were teaching methods on health and nutrition education. Participants learned how to create teaching materials and the importance of such education for raising health awareness among children and community members.

3. *Training to reactivate child health club (CHC) activities for head teachers and relevant teachers*

At the start, the project confirmed the CHC activities' concept and objectives. It then provided information on how to organize CHCs and the importance of children's participation in the activities.

4. *Training to introduce school-based health check-ups for relevant teachers and CHVs*

The project provided training on health check-ups in 2013 and 2015. In the first training in 2013, the project explained the objectives and methodology of school-based health check-ups to the participants (head teachers, relevant teachers, and CHVs). After that training, trained teachers began to measure the children's weight and height at least three times a year. In the 2015 training, teachers learned how to use health check-up data for health education.

Conducting questionnaires

Questionnaire development

The project developed an English self-administered questionnaire by referring to Kenyan Science textbooks (16) and exercise books (17,18). In the process of developing the questionnaire, we conducted a pretest and modified questions to better adapt them to the Kenyan context. The developed questionnaire consisted of questions inquiring on general information as well as closed-ended questions on health-related knowledge, attitudes and practices, health status (somatic symptoms) by self-evaluation, subjective happiness, sense of school belongingness, frequency of school absence, self-awareness of health control, and self-evaluated effectiveness of health education. We used questions asking accuracy regarding the health-related knowledge and questions asking frequency or degree regarding health-related attitude, practice, and other items.

Data collection and analysis

We used the data collected via questionnaires the project conducted each year from 2013 to 2016. Ordinal data were analyzed using a Mann–Whitney U test, and nominal data were analyzed using a chi-squared test to examine for significant differences among years. The level of significance was set at 0.05. Data analyses were conducted using IBM SPSS Statistics for Windows, version 21.0.

Ethical approval

The Kenya Medical Research Institute approved the present study (registration number: SSC PROTOCOL NO. 2916). The data used in this study were collected in the second KCSHP pilot project.

Results

Improvement of health knowledge

Table 2 shows percentages of correct answers for the questions on health knowledge, by school and by health topic, for 2013–2016. Regarding the results by school, there were no significant differences between the results in 2013 and 2016 for any school. However, percentages of correct answers of the eight schools in total were 62.9% in 2013 and 65.4% in 2016, a significant improvement (p = 0.029). Regarding the results by health topic, irrespective of the year, over 80% of pupils answered correctly for the questions on basic hygiene – namely, washing hands, using toilets, and oral health. Moreover, knowledge on HIV/AIDS testing and free treatment was significantly improved.

Improvement of attitudes, practices, somatic symptoms, self–awareness of health control, effectiveness of health education, and sense of school belongingness

Supplemental Table 1 shows improvements of attitudes toward health, health practices and somatic symptoms, self-awareness of health

Table 2. Percentages of correct answers for the questions on health knowledge, by school and health topic, for 2013–2016.

		Area	*2013*	*2014*	*2015*	*2016*	*Amount of change (2013–2016)*	p-*value*
By school	Uya	Rusinga West	63.0	65.3	66.7	63.0	0.0	0.826
	Agiro		70.1	63.2	70.6	72.7	2.6	0.381
	Lianda	Rusinga East	60.8	60.4	61.1	58.4	–2.4	0.583
	Nyamuga		69.1	77.4	70.3	70.8	1.7	0.501
	Nyamanga	Gembe West	61.5	68.9	62.4	66.8	5.3	0.181
	Kisui		63.4	63.5	63.6	62.3	–1.1	0.555
	Kamsama	Gembe East	66.7	78.9	80.5	67.7	1.0	0.615
	Nyawiya		55.3	56.0	54.0	58.8	3.5	0.293
	Eight schools in total		**62.9**	**56.0**	**69.6**	**65.4**	**2.5**	**0.029**
By health topic	Individual hygiene		37.3	43.7	36.6	42.1	4.8	0.243
	Washing hands		94.8	97.1	96.6	97.7	2.9	0.064
	Using toilet		92.5	96.0	95.9	96.1	3.6	0.068
	Oral health		85.8	81.9	85.4	86.8	1.0	0.722
	Water-borne diseases		75.0	75.5	74.9	62.8	–12.2	0.002
	Food pollution		54.1	53.8	54.2	53.6	–0.5	0.907
	Balanced diet		45.9	54.5	62.0	52.3	6.4	0.126
	Soil-transmitted helminth		76.5	77.6	83.4	81.3	4.8	0.163
	Prevention of malaria		73.5	73.6	81.0	79.9	6.4	0.069
	Treatment of malaria		66.8	73.3	66.4	71.7	4.9	0.531
	Schistosomiasis		23.1	27.8	22.0	28.0	4.9	0.457
	Danger of drug misuse		29.1	28.9	34.9	26.3	–2.8	0.246
	Danger of alcohol drinking		50.7	48.4	53.2	55.6	4.9	0.591
	Danger of smoking		25.0	26.7	26.8	27.0	2.0	0.372
	Reasons for child vaccination		61.2	60.3	62.7	64.8	3.6	0.441
	Child oral vaccination		69.8	74.7	71.2	72.7	2.9	0.203
	Test for HIV/AIDS		89.9	93.5	91.5	91.4	1.5	0.018
	Free treatment of HIV/AIDS		80.2	88.8	91.2	87.5	7.3	0.018

control, effectiveness of health education, and sense of school belongingness for 2013–2016. Averages of 14 items on attitudes in 2013 and in 2016 were 71.2% and 86.4%, respectively, marking a significant improvement ($p < 0.001$). Regarding practices, the average of the 12 items in 2016 was significantly improved compared with that in 2013. Regarding somatic symptoms, responses for all items in 2016 except menstrual irregularity were significantly improved compared with those in 2013. Responses for questions on effectiveness of health education and self-awareness of health control improved significantly after the implementation. The total score of school belongingness in 2016 was significantly increased compared with that in 2013.

Improvement of subjective happiness and frequency of school absence

Regarding subjective happiness, percentages of pupils who answered very happy were 74.3% in 2013, 80.5% in 2014, 74.6% in 2015, and 78.0% in 2016, marking no significant change among any of the implementation periods. Regarding frequency of school absence, percentages of pupils who responded that they had never been absent were 50.0% in 2013, 64.3% in 2014, 62.7% in 2015, and 67.1% in 2016. Significant improvement was thus between 2013 and 2016 ($p = 0.001$).

Discussion

This study examined the appropriateness and reliability of the strategy of the second KCSHP pilot project. The results showed the project contributed to improving not only knowledge, attitudes and practices, and self-evaluated physical and mental health status, but also sense of self-awareness of health control, school belongingness, recognition of the effectiveness of health education in school, and absenteeism.

Teacher training is an essential component of HPS (9,10,19). In this project, teachers received several training sessions. This may spur improvement of health education in school, and this improvement may also contribute to improving children's health knowledge, attitude, self-awareness of health control, and recognition of the importance of learning about health in school.

With the support of the project, some schools built toilets and water tanks for washing hands in school. As FRESH emphasized the importance of environmental support for promoting school health practices (1), activities for creating a hygienic environment may have contributed to improving children's health practices in this project.

Several studies have reported the effectiveness and importance of using a school health checklist and award system for promoting comprehensive school health (10,20). The importance of monitoring and evaluation was also reported in several studies (9,10,20). Assessment and evaluation with a school health checklist helps in recognizing essential and required minimum health and environmental conditions for promoting children's health (10). Award systems can also motivate teachers and communities to implement the activities (10,20). This project organized periodical evaluations using a checklist and feedback meetings, and an award system to motivate schools. The present study thus reinforces the effectiveness of the checklist and award system. Other studies have indicated that children's participation in health-related activities in school contributes to improving their health-related knowledge, attitudes, and practices (2,3). A WHO technical report on school health also reported the importance of children's, teachers', and communities' participation as an essential factor for disseminating school health (12).

Regarding health-related activities, a study reported the importance of promoting daily activities in school (21). In the Kenyan pilot project, schools conducted daily cleaning of toilets, classrooms, and promoted washing hands (22). Such daily activities may help improve children's attitudes and practices related to health. Generally, acquiring appropriate health-related knowledge, attitudes, and practices is an essential factor for improving one's health. Improvement in these areas may have impelled positive changes in children's health status in the present project as well. This Kenyan project promoted child-driven health activities through the CHC in school, where children took responsibility for certain activities, such as cleaning of toilets, classrooms, and treatment of drinking water. Schools additionally conducted cleaning activities in the community, and organized campaigns to raise awareness about health in both schools and communities (22). Some teachers reported children's socialization had been fostered through CHC activities (22). A report on HPS pointed out that child participation is not only a right of children and young people, but also beneficial to children's health and social and psychological development, as well as to society as a whole (23). This report highlighted the importance of decision-making by children in health-promotion activities in school (23). However, we could not evaluate whether children had participated in the decision-making of the CHC in this study. In future studies, it will be necessary to examine how children would be involved in CHC activities and the effect of the involvement on children's education and health outcomes.

Moreover, the questionnaire results indicated possible improvement in children's health-related knowledge, attitudes, and practices, and in their sense of school belonging. In fact, this project involved not only schoolteachers and children, but also chairs of school committees and the CHV. The project also organized activities by having education and health government officers work cooperatively (22). As several studies pointed out the importance of multiple stakeholders' involvement (10,19) and of joint efforts by both the education and health sectors for successful NSHP implementation (19), such cooperation may be the essential factor for successful implementation of the KCSHP.

Regarding academic performance, a study has reported children's health status influences their motivation and ability to learn (24). Sense of school belonging also predicts academic outcomes, including motivation, effort, and absenteeism (25). Generally, absenteeism is strongly related to children's poor academic achievement and dropping out. In this study, improvements in absenteeism and sense of school belonging were confirmed. Therefore, we have concluded that HPS activities of the project contributed to both health and educational improvements, although we could not directly examine the relationships between these factors in this project.

Meanwhile, we could not find significant change in children's subjective happiness. A previous study found family was the most influential factor on high school pupils' subjective happiness (26). Another study on primary school children reported confidential family relationships were one of the most influential factors (27).

Limitations

This study had several limitations. First, we were unable to set control groups. Second, we used only quantitative data for evaluation. Evaluation of a school health program generally needs not only quantitative data but also a synthesis of analysis of outcome, process, and data collected by mixed methods (28,29). Moreover, a previous study pointed out the importance of evaluating both health and educational outcomes in HPS activities (29). In a future study, it may be necessary to analyze qualitative data and conduct a process evaluation, considering both health and educational outcomes. Third, we could not evaluate how teachers implemented what they had learned from the project in their teaching or improvement of teachers' health-related knowledge, perception, and motivation toward health education. Related to that, one previous study reported that teachers' perception, motivation, and commitment were the essential factors for successful school health promotion (30). We therefore need to conduct further studies for evaluating changes in teachers' health-related knowledge, perception, motivation, and commitment toward health education, as well as how such changes influence the outcomes. Fourth, we could not evaluate children's participation in decision-making and its influence on the outcomes. A report emphasized the importance of keeping a balance between teacher's guidance and children's independence, teacher's professional development for facilitating children, and teacher's support for developing children's voluntary activities to promote child participation and increase the influence of children in decision-making (23). In further studies, we will need to examine children's participation considering these points. Fifth, a comprehensive school health approach should positively influence not only pupils and teachers, but also the entire community. This study, however, did not examine the project's effect on communities.

Despite those limitations, this study demonstrates the potential of a Kenyan school health program. The information obtained would be useful for nationwide dissemination of school health activities in Kenya. Confirming the broad effectiveness of a comprehensive school health program is an important finding for the future promotion of school health in many developing countries.

Conclusion

The results of this study indicate that a comprehensive school health project in Kenya contributed to improving not only health-related knowledge, attitudes and practices, and self-evaluated physical and mental health status, but also a sense of school belongingness, self-awareness of health control, recognition of the importance of learning about health in school, and absenteeism. Subjective happiness, however, did not improve significantly.

Acknowledgements

The authors would like to thank the MOH and the MOE in Kenya, pupils, teachers, parents, and all those who were involved in this project and study. This paper has been published with the permission of the Director General, KEMRI.

Declaration of conflicting interests

The author(s) declared no conflict of interest with regards to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the Ministry of Health, Labor and Welfare of Japan (Kosei Kagaku Research Grant, International Cooperation Research

Grant 24S2, 27S1). The study sponsor did not have any specific role in any procedure of this study.

ORCID iD

Sachi Tomokawa https://orcid.org/0000-0002-9856-6306

Supplemental material

Supplemental material for this article is available online.

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Psychosocial empowerment-based interventions for smoking reduction: concepts, measures and outcomes. A systematic review

Alessandro Coppo[1], Silvia Gattino[2], Fabrizio Faggiano[1], Luisella Gilardi[3], Paola Capra[3], Claudio Tortone[3], Angela Fedi[2] and Norma De Piccoli[2]

Abstract: Although empowerment is a widely used concept in health-related areas, its definition remains unclear. While there is evidence for the effectiveness of empowerment interventions in improving some psychosocial factors linked to health (e.g. patient self-care strategy, coping skills, access and effective use of health services) and some health outcomes like mental health and HIV/AIDS-related behaviour, other data appear to contradict this. Moreover, concepts, measures, and outcomes related to empowerment are operationalized in different ways. Using the case of tobacco control programmes, we wanted to explore: (a) how research on smoking reduction/prevention has conceptualized empowerment; (b) which measures and instruments have been used to assess behaviour outcomes and the empowerment process. We hypothesized that the transformative potential that characterizes empowerment is marginally considered.

A total of 18 studies reporting on the effect of prevention interventions on smoking and/or empowerment outcomes were reviewed. Two kinds of study were distinguished: (a) studies reporting behaviour outcomes without data about the impact on empowerment; (b) studies analysing the empowerment process. Among this latter type, some studies did not provide information about the specific behaviour (smoking), while others examined the impact of intervention on both smoking and empowerment. In about half of all studies, empowerment strategies were found to be effective in improving smoking outcomes, while no differences were found between intervention and control groups in the remaining studies. The present review suggests that pragmatic definitions of empowerment need to be developed in order to promote its transferability and evaluation.

Keywords: empowerment / power, evaluation, outcomes, smoking

Introduction

Empowerment refers to a process by which people, organizations, and communities gain mastery over their affairs (1); the term 'conveys both a psychological sense of personal control or influence and a concern with actual social influence, political power and legal rights' (p. 121). It is also viewed as both a value orientation for working in the community, and a theoretical model for understanding the process and consequences of efforts to exert control and influence over decisions that affect one's life, organizational functioning, and the quality of community life (2). Therefore, an essential aspect of empowerment is its focus on people, groups or community feeling and on their having a sense of control over their lives and

1. Department of Translational Medicine, Avogadro University, Novara, Italy.
2. Department of Psychology, University of Turin, Italy.
3. Dors – Piedmont Regional Health Promotion Documentation Centre – Asl TO3, Torino, Italy.

Correspondence to: Silvia Gattino, Department of Psychology, University of Turin, Via Verdi, 10, Torino, 10124, Italy.
Email: silvia.gattino@unito.it

(This manuscript was submitted on 18 June 2019. Following blind peer review, it was accepted for publication on 7 April 2020)

Global Health Promotion 1757-9759; Vol 27(4): 88–96; 929400 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920929400 journals.sagepub.com/home/ghp

the ability to change the socio-political environment to improve equity and quality of life (3). Rappaport (4) defines three fundamental components that enable people to master their own lives: *control, critical awareness*, and *participation. Control* refers to the ability to influence decisions that affect one's life; *critical awareness* is one's understanding of the functioning of the structures of power and decision-making processes, and how the resources are mobilized; *participation* relates to action to achieve desired and shared results. These dimensions indicate that empowerment is more than the sum of psychological constructs, such as self-esteem, self-efficacy, competency, locus of control, with which it is sometimes identified or overlapped. In other words, empowerment is a multi-level concept that refers to both the possibility of controlling one's own life and to democratic participation in the life of one's own community, often through the mediation of structures such as schools, neighbourhoods, churches and voluntary associations, reflecting the ecological nature of empowering processes (5).

Empowerment and health

The concept of empowerment elicits reflection and revision and, despite vagueness of terminology, it has become an integral part of health-related objectives. In health prevention and promotion programmes, empowerment is usually considered a process that enhances a sense of control (6) and any form of participation involving individuals, groups, and communities in order to improve health outcomes.

A specific aspect of empowerment in the health domain is patient empowerment, a 'process in which patients understand their role, are given the knowledge and skills by their healthcare provider to perform a task in an environment that recognizes community and cultural differences and encourages patient participation' (7). It focuses on an individual perspective and this perspective has been variously criticized. Marks and colleagues (8), for example, highlighted the risk of attributing only to the individual the responsibility for his/her own health conditions without considering the responsibility of social structures, such as health services, and social inequity. Moreover, an individual perspective on empowerment focuses on traits and risks while considering the ecological view only partially, and this may conflict with empowerment theory in general (9, 10).

There is evidence for the effectiveness of empowerment interventions in improving some psychosocial factors linked to health (e.g. patient self-care strategy, coping skills, access and effective use of health services) and some health outcomes like mental health and HIV/AIDS-related behaviour (11, 3), yet other data appear to contradict this. Because concepts, measures, and outcomes related to empowerment in the field of health are operationalized in different ways and because empowerment refers to diverse levels of analysis – individual, organizational, and community – several questions remain open: how is empowerment used in health promotion? Is it considered a tool or an outcome? How is the concept operationalized in the intervention, and at which level is it adopted in prevention interventions? Do empowerment-based interventions take an ecological perspective? Does the clinical perspective (i.e. patient empowerment) also involve the patient's environment? And, finally, are the transformative aspects of empowerment really put into practice or, in general, do interventions maintain the status quo of power distribution? (12). To address these issues, we will examine studies that evaluated interventions based on empowerment. We will focus on tobacco control programmes, since smoking prevention and cessation is the area of health promotion that has been most studied through different theoretical and intervention approaches. The present study will analyse: 1) how research on smoking reduction/prevention has conceptualized empowerment; 2) which measures and instruments have been used to assess behaviour outcomes and the empowerment process. We hypothesized that the use of empowerment in the health domain does not always refer to the transformative potential that characterizes it and, consequently, that the 'nature of power' is marginally considered (10).

Methods

For the presentation of methods adopted for the present review, we followed the preferred reporting items for systematic reviews and meta-analyses (PRISMA) statement (13).

Search strategy

We reviewed the literature published up to November 2018 to identify studies evaluating tobacco control programmes based on empowerment strategies; we did not indicate a starting date: the starting point is that established by the databases (see Annex 1, Electronic databases and keywords and results retrieved from each database).

No restrictions were made on study design evaluation or target population. Only papers published in English were included. Studies that did not describe an intervention were excluded.

Study selection

Title and abstract (and full sources where abstracts were not available) were screened by two reviewers to identify studies coherent with our objectives. A third reviewer resolved any disagreements. After retrieving the full texts of the studies that met the inclusion criteria, we extracted the data from each study independently and then entered them on a standardized form.

Data extraction

The full texts were read independently by two authors, to extract the target elements: *Reference Concept of empowerment*, reporting the principal core concept(s) to which the study authors refer. *Study Design*, the *General Target* to which the intervention was aimed, and the specific target (i.e. the actual *Participants*) involved in the intervention, were analysed for the number of participants and their characteristics. Moreover, the design of the *Intervention* was extracted as well as the measures of effectiveness and results of the impact on smoking or the impact on empowerment (*Measures*).

Data analysis

Different concepts of empowerment used by the authors were deduplicated and described. As for smoking behaviours (*Smoking Outcome*), interventions were described and the results were reported in supplemental tables (*Impact on Smoking*).

Results

Figure 1 illustrates the study selection process. The search strategy identified 18 studies: 12 reported the effect of intervention on smoking behaviour and 6 merely focused on outcomes related to empowerment processes. Two supplemental tables describe the study characteristics. Supplemental Table 1 lists the studies that measured the impact on smoking behaviour. Among these, six explored the effect of the intervention on both smoking and empowerment (14–19). Supplemental Table 2 presents the studies that focused only on empowerment processes.

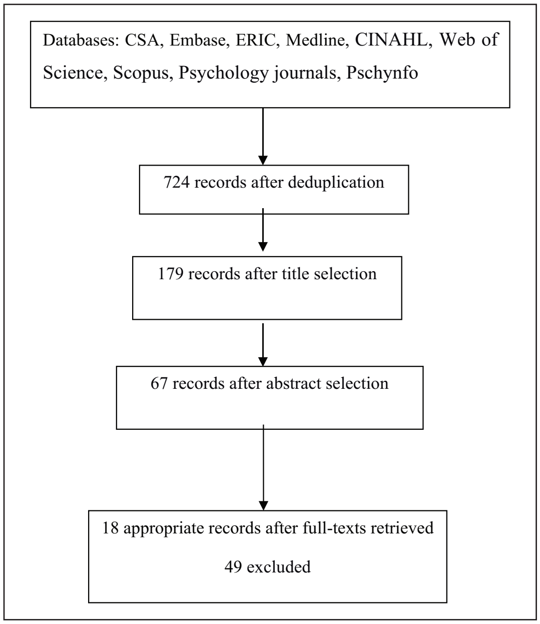

Figure 1. Study flow diagram.

Reference concepts

The studies used different definitions for empowerment depending on the context in which it was applied: *patient empowerment* (23), *empowerment counselling* (14), *parent empowerment* (15, 31), *psychological empowerment* (25), and *individual empowerment* (16, 18, 19). The five studies involving young people used the term *youth empowerment* (24, 27–30), and the four that assessed impact on the community adopted the concept of *community empowerment* (17, 20, 21, 26). Lin and colleagues (25) defined empowerment as an intrinsic motivation that manifests in four cognitions: meaning, competence, self-determination, and impact. Alwan and colleagues (22) used the concept of empowerment in a generic sense without further defining it. Other concepts cited in the articles

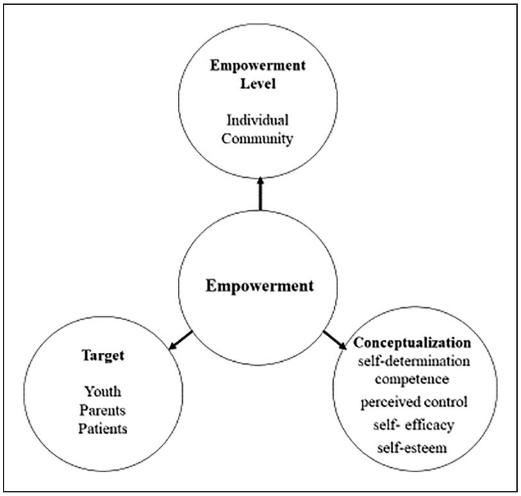

Figure 2. Reference concepts adopted in the selected articles concerning smoking prevention interventions adopting empowerment approaches.

ascribable to empowerment were *perceived control, self-efficacy*, and *self-esteem* (see Reference concepts in Supplemental Tables 1 and 2). Empowerment, therefore, has been used differently referring to the level of application, the target population and/or to a specific conceptualization (Figure 2).

Study design

Out of the 12 studies that reported an effect on smoking, four were randomized controlled trials (RCTs) (15, 18, 19, 23), three were pre-post design with a control group (21, 14, 17), and three were pre-post design without a control group (16, 22, 24). The one non-longitudinal research study (20) used a repeated cross-sectional design with a control group, while Lin and colleagues (25) undertook a survey. Two of the four RCTs evaluated second-hand smoke (SHS), one smoke free households (SFH) and one smoking cessation. Studies that focused on empowerment processes were of various designs: cross-sectional (27), case studies (29, 30), participatory research (28), and exploratory qualitative research (26, 31). The follow-up period for smoking cessation interventions ranged from one month to six years (from one to six months for SHS reduction) and between seven months and six years for prevention interventions.

Participants and targets

Five studies involved mainly young people (20, 27–30) and five studies involved only women: low-income women (14, 19); women at risk of cardiovascular disease (16); mothers (31); and pregnant women (18). Two studies involved families (22, 15) and one study involved patients at high risk of cardiovascular disease (23). Four studies had the general community as their target population (17, 21, 25, 26).

Characteristics of the empowerment interventions

The interventions exploring an effect on smoking outcomes varied in structure. Three were individual-based interventions (18, 23, 24) and five were small group-based interventions (14–16, 19, 22). Petoskey and colleagues (20), Lupton *et al.* (21), and Tetra Dewi *et al.* (17) reported community empowerment interventions involving the local community and its leaders to produce specific initiatives.

Two smoking cessation interventions (14, 16) were based on group sessions and telephone contact: one (23) sent recommendations by post or email and the other provided support via a mobile app (25). The interventions that focused on reducing SHS employed different strategies: one was group-based and involved families with children (15), one was counselling-based and targeted pregnant women (18), and two were multicomponent and involved primary school students (19, 22). Five of the six studies focused on community empowerment processes within specific programmes, and one on individual empowerment with the aim of informing the intervention design.

Outcome measures

Seven studies reported quantitative data and five used both qualitative and quantitative measures to estimate the impact of the intervention. Five studies focused on the process of empowerment with the use of qualitative measures and one used quantitative measures (27).

Among the six studies that evaluated both empowerment and smoking behaviour, Andrews and her team (14) explored the effect of the intervention on smoking cessation and other measures related to empowerment, such as social support, self-efficacy, and spiritual well-being. Herbert *et al.* (15) measured the effect of parent empowerment on the number of cigarettes smoked in the context of interventions promoting smoke-free homes (SFH) and smoke-free vehicles. Tetra Dewi and colleagues (17) explored smoking prevalence and community participation in low versus high socioeconomic status communities exposed to different levels of activity intensity; Chi and colleagues (18) assessed the effectiveness of an SHS prevention programme based on an expanded health belief model incorporating self-efficacy among pregnant women in a hospital setting. Alagiyawanna and colleagues (19) investigated the effect of interventions that promote self-efficacy with regard to rejecting SHS and smoking exposure at home. Finally, Ham and Kim (16) evaluated the impact of an intervention promoting empowerment in terms of knowledge, self-efficacy, and health-related quality of life and measured changes in smoking behaviour.

Among the studies that reported an effect only on smoking outcomes, Alwan and colleagues (22) measured SFH via interviews and ad hoc questionnaires. Lupton *et al.* (21) examined smoking reduction in relation to changes in clinical parameters (e.g. body mass index); Petoskey and colleagues (20) studied smoking prevention with regard to attitudes toward substance use and school, academic achievement, absenteeism, and cultural involvement, and Senesael and colleagues (23) evaluated smoking cessation and clinical data.

Only two studies measured empowerment by means of specific scales (15, 19). Other studies evaluated it indirectly by measuring dimensions such as self-efficacy, social support, spiritual well-being, and knowledge (see Impact on empowerment in Supplemental Tables 1 and 2). The number of activities generated by the coalitions and the number of participants who attended them were also used as a measure of the empowerment process in the community (17, 27, 28).

Smoking status was assessed via individual self-report in all studies that focused on this outcome. Differently, the four studies investigating interventions for SFH evaluated other outcomes: adoption of smoke-free rules, smoking prevalence at home, and prevalence of exposure to smoking.

Smoking outcome and impact on smoking

Twelve studies evaluated the impact of the intervention on smoking behaviour. Four focused on smoking cessation targeting specific populations: low-income women (14), young people (24), and patients with high risk of cardiovascular diseases (16, 23). No effects were found among high-risk patients, whereas the other studies showed a reduction in tobacco use after the intervention. Two studies that focused on the reduction of smoking in the community (17, 21) found no outcome in favour of the intervention group. The study that aimed at preventing the onset of smoking via a school programme reported no pre/post differences (20). Four studies were aimed at reducing SHS at home (15, 18, 19, 22), three of which showed a statistically significant effect of the intervention on smoking exposure.

Impact on empowerment

Of the 12 studies (6 in Supplemental Table 1 and 6 in Supplemental Table 2) that measured the impact on empowerment, 3 reported greater self-efficacy for the intervention group than the control group (14, 16, 18). The one study (17) that measured the number of activities reported an increase in interventions in the community. Finally, six studies (Supplemental Table 2) described only quantitative and/or qualitative aspects of participation in events and/or activities and/or groups. In one study (25), the effect of the intervention on empowerment was not studied, but rather whether empowerment could predict smoking cessation.

Discussion

Empowerment is widely used in prevention strategies, albeit with different connotations that preclude a common definition. We conducted this systematic review to assess the use of the theoretical construct of empowerment in interventions for tobacco use prevention or cessation, as well as the effect of prevention interventions on both indicators of empowerment and health outcomes. In general, two types of study can be distinguished: those that focus on the smoking outcome and those that focus on the intervention process. The former are both individual and community-based interventions and empowerment is considered a tool to achieve behavioural change; the latter include interventions involving target groups and communities, and focus on the development of community empowerment, active community engagement and participation. Wallerstein (3) summarized this difference in approach many years ago stating that: 'Empowerment is recognized both as an outcome by itself, and as an intermediate step to long-term health status and disparity outcomes' (p.4). In our view, studies that aim to evaluate the improvement of empowerment per se, without setting change as a specific objective, are less informative than studies that explore the entire causal chain from intervention to change in health or social outcomes and that use empowerment as a mediator.

About half of the interventions based on empowerment strategies were reportedly effective in improving smoking outcomes, while the remaining found no difference between the intervention and the control group. The only exception is interventions focused on SHS in which both smoking exposure reduction and empowerment outcomes were positively associated with the interventions. Because empowerment was effective in some studies but not consistently so, it cannot be considered as an effective stand-alone approach to reducing or eliminating tobacco use.

About the conceptualization of empowerment, the adopted measures and instruments, our review allows for drawing some conclusions about the use of empowerment in smoking prevention.

First, empowerment is conceptualized in several ways (32) that are consistent with the theoretical background. Therefore, we can consider these different conceptualizations consistent with the theoretical definition of empowerment. We have also pointed out that the interventions considered here operate mainly on a single level of analysis (individual, or group, or community), ignoring the multilevel dimension that is a fundamental characteristic of empowerment (33). Moreover, empowerment is defined in a generic way, often in conflict with other concepts, such as social support and level of participation.

Second, assessment of the efficacy of behaviour modification is challenging because of the diverse definitions of what empowerment means in the specific study context. Indeed, interventions here considered refer to several studies' design and outcome measures, according to the empowerment level and the target. We can consider that each intervention has an internal consistency including the theoretical model, the empowerment level, the target involved and the outcome measures (see Supplemental Tables 1 and 2). Analysing the interventions as a whole, it is not possible to detect a well-defined methodological framework within which its own peculiarities and heuristic value of empowerment can be seized.

Third, the transformative aspects of empowerment are rarely conceptualized and incorporated in the interventions. Among the studies reviewed here, only those that considered a large context (organization, community, and society) tried to develop an ecological perspective on empowerment and health. According to Franzblau and Moore (34), empowerment works through structural and social dynamics. To consider psychological empowerment only in terms of self-efficacy is reductive because it refers only to intrapersonal processes. In addition, self-efficacy is a sub process of empowerment (9) and not empowerment per se. Lastly, dealing with this concept merely at the individual level narrows the intervention into a clinical perspective, regardless of the ecological frame.

At the end of this review, we agree with Keys and colleagues (10) that it is ineffective to provide a singular definition of empowerment 'because of the multiple, and sometimes conflicting, circumstances in which the term is used' (p. 221). Anyway, the reference to Laverack (33) could offer a possible way to create syncretism among models, objectives, and interventions with different epistemological and conceptual frameworks. Since 'health promoters may face tension through the conduct of top-down programmes in which goals are usually predetermined, while simultaneously trying to incorporate practices of a bottom-up approach' (35, p. 353), Laverack's model can offer suggestions for connecting these dimensions.

Limitations

The studies reviewed here used many different concepts of empowerment and some did not explicitly mention empowerment, although it was indicated as a keyword. Therefore, some papers could have escaped selection, thus reducing the generalizability of our results. Furthermore, restriction to studies on tobacco prevention could have failed in identifying the most relevant examples of prevention based on empowerment. However, because tobacco is the single most relevant risk factor for health (36), at least in the developed countries, and the main challenge for any innovative prevention technology, we believe that our results can offer general reflections, also in other domains of health prevention and promotion.

Conclusions

From this general observation, we wish to offer scholars and practitioners some suggestions. A key element is to clarify and refine the theoretical definitions of empowerment referred to in the context of tobacco control in order to lead to more targeted interventions and to improve their transferability. Moreover, considering the intersections between the different levels of analysis and intervention is the basis for promoting the transformative trait of empowerment. In other words, it is important to specify whether the authors refer to the intersection between different levels of empowerment or whether their attention is particularly focused on a specific level (individual, psychological, community). Otherwise, the risk is overgeneralization of the concept, resulting in loss of meaning and effectiveness. It is encouraging that in about half of all the studies considered in the present review, empowerment strategies were found to be effective in improving smoking outcomes. In general, critical awareness, social support, increased self-efficacy of smoking cessation over time and participation are among the most effective factors for empowerment in smoking reduction in both individual-based or small group-based and group-based interventions. However, because empowerment was effective in some studies but not consistently so, the paper did not consider it as an effective stand-alone approach to reducing or eliminating tobacco use. It should be clearer for researchers and practitioners if, instead of using the label ‘empowerment’ in a generic way, specific factors related to this concept are put at the core of the search for efficacy in health promotion interventions.

Declaration of conflicting interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was partially supported by EU research project ‘Empowering Hospital’ (GA n. 664258).

ORCID iD

Silvia Gattino https://orcid.org/0000-0001-8127-6807

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*References marked with an asterisk indicate studies included in the review.

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Annex 1. Search strategy for each database

MEDLINE

Empowerment.mp OR “Power (Psychology)”/ AND “Tobacco Use Disorders”.mp OR “Tobacco Use Disorders”/ OR smoke.mp OR “Smoke”/ OR “Tobacco Use”.mp OR “Tobacco Use”/ OR smoking.mp OR Smoking/ OR “smoking cessation”.mp OR Smoking Cessation/ OR cigarettes.mp OR Tobacco Products/ OR tobacco.mp OR Tobacco/ OR “tobacco use cessation” OR “Tobacco Use Cessation”/ OR smok$.mp

285 Results

CENTRAL

empower* AND smok*

24 results

CINAHL

(MH empowerment OR TX empower*) AND (MH smoking OR smok* OR

MH tobacco OR (MH “Smoking Cessation Programs”) OR (MH “Smoking Cessation”)

203 results

EMBASE

(‘empowerment’/exp or empowerment) and ((‘smoking’/exp or ‘adolescent smoking’/exp or ‘smoking cessation’/exp or ‘tobacco dependence’/exp or smok*)

243 results

PSYCHINFO

(SU.EXACT(“Empowerment”) or EMPOWERMENT) AND (SU.EXACT(“Smoking Cessation”) OR SU.EXACT(“Tobacco Smoking” OR smoking cessation or tobacco or smoking or smoke))

303 results

PSYCHOLOGY JOURNALS

(SU.EXACT(“Empowerment”) or EMPOWERMENT) AND (SU.EXACT(“Smoking Cessation”) OR SU.EXACT(“Tobacco Smoking” OR smoking cessation or tobacco or smoking or smoke))

136 results

SCOPUS

KEY (“empowerment”) AND KEY (“community health services” OR “Decision Making” OR “Health Promotion” OR “Consumer Participation” OR “Health Education” OR “community mobilization”) AND KEY (“Smoking” OR “Tobacco Use” OR “Smoking Cessation”) AND (EXCLUDE (SUBJAREA, “PHAR”) OR EXCLUDE (SUBJAREA, “AGRI”) OR EXCLUDE (SUBJAREA, “ARTS”) OR EXCLUDE (SUBJAREA, “BIOC”)) AND (EXCLUDE (LANGUAGE, “German”)) AND (EXCLUDE (DOCTYPE, “ed”) OR EXCLUDE (DOCTYPE, “le”) OR EXCLUDE (DOCTYPE, “no”))

52 results

ERIC

(SU.EXACT(“Empowerment”) OR SU.EXACT(“Power”) OR Empowerment) AND (SU.EXACT(“smoking”) OR smoking OR smoke OR Tobacco OR Cigarettes OR Tobacco Use)

40 results

SOCIOLOGICAL ABSTRACTS

(SU.EXACT(“Empowerment”) OR SU.EXACT(“Power”) OR Empowerment) AND (SU.EXACT(“smoking”) OR smoking OR smoke OR Tobacco OR Cigarettes OR Tobacco Use)

72 results

SOCIOLOGICAL COLLECTION

(SU.EXACT(“Empowerment”) OR SU.EXACT(“Power”) OR Empowerment) AND (SU.EXACT(“smoking”) OR smoking OR smoke OR Tobacco OR Cigarettes OR Tobacco Use)

172 results

WEB OF SCIENCE CORE COLLECTION

You searched for: TOPIC: (empower*) *AND* TOPIC: (smok*)

Languages selected: English, French, German, Spanish

261 results

Original Article

Pro-equity legislation, health policy and utilisation of sexual and reproductive health services by vulnerable populations in sub-Saharan Africa: a systematic review

Muriel Mac-Seing[1,2], Kate Zinszer[1,2], Charity Oga Omenka[1,2],
Pierre de Beaudrap[3], Fereshteh Mehrabi[1,4] and Christina Zarowsky[1,2]

Abstract: Twenty-five years ago, the International Conference on Population and Development highlighted the need to address sexual and reproductive health (SRH) rights on a global scale. The sub-Saharan Africa region continues to have the highest levels of maternal mortality and HIV, primarily affecting the most vulnerable populations. Recognising the critical role of policy in understanding health population, we conducted a systematic review of original primary research which examined the relationships between equity-focused legislation and policy and the utilisation of SRH services by vulnerable populations in sub-Saharan Africa. We searched nine bibliographic databases for relevant articles published between 1994 and 2019. Thirty-two studies, conducted in 14 sub-Saharan African countries, met the inclusion criteria. They focused on maternal health service utilisation, either through specific fee reduction/removal policies, or through healthcare reforms and insurance schemes to increase SRH service utilisation. Findings across most of the studies showed that health-related legislation and policy promoted an increase in service utilisation, over time, especially for antenatal care, skilled birth attendance and facility-based delivery. However, social health inequalities persisted among subgroups of women. Neither the reviewed studies nor the policies specifically addressed youth, people living with HIV and people with disabilities. In the era of the sustainable development goals, addressing health inequities in the context of social determinants of health becomes unavoidable. Systematic and rigorous quantitative and qualitative research, including longitudinal policy evaluation, is required to understand the complex relationships between policy addressing upstream social determinants of health and health service utilisation.

Keywords: determinants of health, equity/social justice, maternal health, policy/politics, reproductive health, sub-Saharan Africa, systematic review

Introduction

At the 1994 International Conference on Population and Development (ICDP), the international community adopted the Programme of Action (PoA) which recognised sexual and reproductive health (SRH) as a fundamental right (1). This commitment was further renewed during the 2019 Nairobi Summit (2). Building

1. Department of Social and Preventive Medicine, School of Public Health, Université de Montréal, Montreal, Canada.
2. Centre de recherche en santé publique, Université de Montréal et CIUSSS du Centre-Sud-de-l'Île-de-Montréal, Montreal, Canada.
3. Centre Population et Développement (CEPED), Institut de recherche pour le développement, Paris, France.
4. Department of Health Management, Evaluation and Health Policy, School of Public Health, Université de Montréal, Montreal, Canada.

Correspondence to: Muriel Mac-Seing, Department of Social and Preventive Medicine, School of Public Health, Université de Montréal, and Centre de recherche en santé publique, Université de Montréal et CIUSSS du Centre-Sud-de-l'Île-de-Montréal, 7101, Parc avenue, 3rd floor, Montreal, Quebec, H3N 1X9, Canada. Email: muriel.k.f.mac-seing@umontreal.ca

(This manuscript was submitted on 10 October 2019. Following blind peer review, it was accepted for publication on 12 June 2020)

Global Health Promotion 1757-9759; Vol 27(4): 97–106; 941435 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920941435 journals.sagepub.com/home/ghp

on the Millennium Development Goal (MDG) 5 which focused on improving maternal health (2000–2015), the health-focused Goal 3 of the Sustainable Development Goals (SDG) (2015–2030) reaffirms the importance of 'universal access to sexual and reproductive health services, including [. . .] family planning, information and education, and the integration of reproductive health into national strategies and programmes (3)'. The SDG agenda on SRH rights (SRHR) catalyses both SDG 3 on health and SDG 5 on gender equality, beyond the MDG 5 objectives (3). Typically, SRHR not only focus on information and services related to contraception, maternal health and HIV/AIDS, but also on the sexual health of adolescents, abortion and gender-based violence (4). Despite notable improvements in several health outcomes from maternal mortality to HIV survival globally, the sub-Saharan African region did not see the same magnitude of change in these indicators. Compared to other regions worldwide, sub-Saharan Africa had the highest average maternal mortality ratio in 2017 (5) and HIV prevalence in 2018 (6).

Social determinants of health such as gender, wealth, and place of residence are reported to influence the accessibility of SRH services, while evidence has shown that structural determinants such as laws and policies, driven by socio-cultural values, can both promote SRHR and restrict the use of specific SRH services such as safe abortion (4). The Commission on Social Determinants of Health (CSDH) report (7) reminds us that social health inequities result from unjust distribution of power and resources as well as inadequate social policies which can worsen people's health (8), most affecting vulnerable populations. Despite the challenges of defining vulnerability and how best to measure it (9), there is an agreement that vulnerable populations share a complex confluence of common characteristics based on factors such as age, sex, ethnicity, education and wealth, which put them at a heightened disadvantage relative to other populations (10). One of the key CSDH recommendations was the promotion of a systematic contextual analysis of health disparities among populations (7). Policy approaches to reducing health inequities have been identified, such as 'targeting disadvantaged populations, closing the gaps between worse-off and better-off groups, and addressing the social health gradient across the whole population' (11). Considering the above conceptual and methodological context, we were interested in learning more about how the empirical literature addresses the interplay between legislation and policy adoption aimed at reducing health disparities between groups and health service utilisation among vulnerable populations. This paper reports a systematic review which aimed at examining the relationships between health equity-focused legislation and policy, and the utilisation of SRH services by vulnerable populations in sub-Saharan Africa.

Methods

We followed the structure of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Statement and used the PICO methodology: Population, Intervention, Comparator (when available), and Outcome (12) (Checklist 1-Supplementary material). The systematic review protocol is registered in the PROSPERO database (https://www.crd.york.ac.uk/PROSPERO/display_record.php?RecordID=106876&VersionID=1184126). We searched the following nine bibliographic databases: CINAHL, EBM Cochrane Systematic Reviews, Embase, Global Health, MEDLINE, Popline, Proquest Dissertations and Theses Global, Scopus and Web of Science. Search terms were developed based on the key concepts related to the research objective: 1) equity, defined as 'the absence of avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, or geographically' (13); 2) legislation, defined as any preparation and enactment of laws (14) and/or health policy, defined as any 'decisions, plans, and actions that are undertaken to achieve specific health care goals within a society' (15); 3) SRH service utilisation (1) referred to as antenatal care, facility-based delivery, contraception, safe abortion and prevention of mother to child transmission of HIV (PMTCT); 4) vulnerable populations, defined as 'groups who, because of their position in the social strata, are commonly exposed to contextual conditions that distinguish them from the rest of the population' (10) such as women, youth and the poor; and 5) countries in sub-Saharan Africa (Supplemental Figure 1). Inclusion criteria were original primary qualitative, quantitative and mixed methods studies which addressed the above research concepts, conducted and published between 1994 (year of the ICPD) and 2019 in sub-Saharan Africa, from both English and French peer-reviewed and grey literature. Search records were independently screened by authors (MMS, COO and KZ).

One author (MMS) extracted data from included studies and another (FM) reviewed them as per the following information: publication year, authors, countries in sub-Saharan Africa, research methods and design, type of legislation/policy adoption/implementation, population and number, type of SRH service utilisation, quantitative and/or qualitative results in SRH service use, and number of years before/after legislation/policy adoption. We analysed the study findings as per the type of legislation/policy which promoted SRH service utilisation per year and country; groups of the population that can be in situations of vulnerability; direction and significance of the SRH results in quantitative research designs, such as quasi-experimental designs which warrant analysis related to causal inferences (16); and quality of reporting in studies. Due to heterogeneity in study outcomes and findings, a meta-analysis was not considered. Rather, we conducted a narrative synthesis (17).

Two authors (MMS and FM) assessed the quality of studies through quality appraisal tools for different study designs, and a third author (KZ) spot checked. The Joanna Briggs Institute's Checklist for Quasi-Experimental Studies (18) was used to assess the quality of four types of quasi-experimental designs: Category A – without control groups, Category B – with control groups but without pretests, Category C – with control groups and pretests, and Category D – interrupted time-series (19). For cross-sectional studies, the Strengthening the Reporting of Observational Studies in Epidemiology-Combined tool was used (20). For mixed methods studies, the Mixed Methods Appraisal Tool was selected (21). Given the recommendations of the Cochrane Collaboration's tool for assessing risk of bias, quality scores were not used as they are not deemed appropriate (22). Since no primary qualitative studies were included in the review, no checklist assessing the rigour of qualitative studies was used.

Results

The initial search produced a total of 5414 references. Of those, 818 duplicates were removed. We then reviewed 4596 references of which 4538 references were discarded based on the inclusion criteria. At the eligibility phase, 58 studies were fully reviewed, of which 32 were finally included (Supplemental Figure 2), involving 14 countries in sub-Saharan Africa where the effects of adopted equity-focused SRH-related legislation and policy were examined. Ghana (*n* = 11) was the country mostly studied, followed by Kenya (*n* = 5), Burkina Faso (*n* = 4) and Mali (*n* = 4). Most studies focused on maternal health service utilisation, and a few examined abortion services, PMTCT, and postnatal care (Supplemental Figure 3). Of these 32 studies, 30 adopted quantitative designs and two studies employed mixed methods. No primary qualitative studies were included in the final phase as they did not meet the combination of inclusion criteria. Among the quantitative studies, there were 26 quasi-experimental studies, with the following study design categories: 11 were in Category A (without control groups) (23–33), four in Category B (with control groups but without pretests) (34–37), eight in Category C (with control groups and pretests) (38–45), and three in Category D (interrupted time series) (46–48). Four studies were cross-sectional (49–52). Among the two mixed methods study designs, one used a quasi-experimental of Category C design along with key informant interviews (53), and the second used a cross-sectional design combined with qualitative interviews (54). Supplemental Table 1 summarises the study characteristics.

Type of legislation and SRH services used

Among included studies, national legislation or policy adoption promoting the access to and utilisation of SRH services spanned the period from 1996 to 2013, with a concentration of studies conducted between 2000 and 2009 (Supplemental Figure 4). Most studies analysed SRH service utilisation from one to eight years before and one to eight years after legislation/policy adoption (23,25, 27,30,31,33,38,42–48) and between 1 and 14 years after legislation/policy adoption (26,28,29,32,34, 37,40,41,49–54). Two studies examined service utilisation two to four years before legislation/policy adoption at time point 1 and the same year at time point 2 (24,39). Two others assessed service use the same year as legislation/policy adoption (35,36). Twenty studies out of 32 examined maternal health-related policies which focused on eliminating or subsidising facility-based delivery (23,24,29–31, 38,41,42,44,45,48,51,53) and skilled birth attendant use (24,27–30), either through specific policies promoting these services or through national health care reforms (25), national health insurance schemes (27,37,46,54), and performance-based financing (40). Fourteen studies examined the effects on antenatal care service utilisation from the influence of maternal health fee exemptions or abolition (29,30,32,43,48,51,52), performance-based financing (40), specific reproductive health voucher programmes (35,44) and health insurance schemes (26,36,37,54). Two studies looked at the impact of abortion legislation on the use of safe abortion service (49) and contraception (50). Four other studies examined the effects of a reproductive health programme (35), performance-based financing (40), national health insurance (32), and exemption fees (32) or free health care (29) for pregnant women and lactating mothers on family planning and contraception. Five studies considered policy pertaining to caesarean sections (33,34, 45,47,53). To a lesser extent, postnatal care (35,43,44,52) and PMTCT (29,39) were studied.

Changes in SRH service utilisation

Most studies (27/32) used the four types of quasi-experimental designs. They examined a large range of multiple SRH outcomes (*n* = 46), and their findings varied in significance (Supplemental T able 2). Sixty percent (28/46) of the results found statistically significant positive increases following policy implementation in service utilisation, including family planning and contraception (32,35, 40), antenatal care (32,36,37), facility-based delivery (23,24,29,35,37,38,40,43,45,46,53), skilled birth attendant use (24,27–29), caesarean section (32,34,45,47,53), postnatal care (44) and PMTCT (39). Among these studies with positive results (statistically significant and improved outcomes), several examined the effects of abolition/reduction of service fees (23,29,32–34,38,43,45–47,53) and the implementation of national health insurance schemes (32,36,37). Eight studies found mixed results (i.e. a mixed of positive, negative, statistically significant and not statistically significant outcomes) on the use of antenatal care (40,43), facility-based delivery (26,42,44,48), skilled birth attendant use (25) and caesarean section (33). Ten others showed no significant results on the use of antenatal care (26,30,35,48), facility-based delivery (30,31,41,53), skilled birth attendants (30) and HIV testing during pregnancy (29). From all quasi-experimental study designs, no specific reporting on safe abortion care service utilisation was made.

Differential vulnerability in the utilisation of SRH services among population sub-groups

Despite the general trend of increased utilisation of SRH services following the adoption of legislation or health policy, disparities in service utilisation remained among sub-groups of women or vulnerable women. Women with no education and within the lowest wealth quintile were less likely to use antenatal care in Ghana even after fee exemption (52). Concerning the uptake of facility-based delivery, women who had some education (38), high school or higher education (24), those who were wealthier (24,35,40,41,46), residing less than 5 km away from a health facility (51) or living in less difficult terrain (29) tended to give birth in health facilities more often than the other groups of women. Related to caesarean section use, in some studies, less disadvantaged women benefited more from services (34,47,53), while one study in West Africa showed that non-educated women and those living in rural areas benefited most after policy adoption (45). A study conducted in Kenya found that women who were of Muslim/Other/No religion were more inclined to use family planning compared to women of Catholic faith (35). Besides sub-groups of women of reproductive age studied, a South African study examined the utilisation of contraception among adolescent mothers (50) and a Uganda study focused on HIV testing among pregnant women and their male partners (39). Included studies did not address other vulnerable populations as their primary targets or in explicit sub-analyses.

Quality of reporting in studies

Among the two mixed methods studies, only one of the five quality assessment criteria was addressed, which was related to the rationale for why a mixed methods design was important. Despite having reported the use of qualitative data collection techniques, both studies heavily focused on their quantitative results and interpretation. The other criteria on mixed quantitative and qualitative methods data integration, interpretation and management were not reported. Regarding the assessment of 27 quasi-experimental study designs, three main observations emerged. First, in eight studies, mostly using repeated cross-sectional surveys (23,29, 30,32,34,38,42,53), there was no indication that the independent variables occurred in time before the dependent variables (18), even though the year of legislation/policy adoption was known in all studies. Second, 14 studies did not include any control groups (23–33,46–48). Third, on a more positive side, six studies added multiple measurements at different time points before and after the intervention (23,39,43, 46–48). Concerning the five cross-sectional studies, none clearly reported efforts to address potential sources of bias such as controlling for confounding factors. Further, three studies (49,50,52) out of five did not clearly report how quantitative variables were handled in the analyses or statistically control for confounding factors. All cross-sectional studies acknowledged methodological limitations.

Discussion

To the best of our knowledge, this is the first systematic review to assess the scientific literature which examined the relationships between legislation or health policy and the utilisation of SRH services by vulnerable populations in sub-Saharan Africa. We found that the adoption of equity-focused legislation and policy promoted SRH service utilisation over time, mainly related to maternal health services among vulnerable populations of women, corroborating what has been reported in the literature (55–57). However, despite the passage of time since the ICPD promoting a wide range of SRH rights and services for all, a narrow scope of SRH focusing on maternal health service utilisation is observed. This may be explained by the emphasis of the MDG 5, from 2000 to 2015, to prevent and manage the ‘clustering of mortality around delivery’, and save women’s lives (58).

Promising pro-equity policy influence over SRH service utilisation

We found that policies promoting fee abolition or reduction and national health insurance schemes seemed to lead to increased trends in various types of SRH service utilisation and across groups of populations, including those less educated, less better-off and living in rural areas. These policies addressed social determinants such as education, wealth and place of residence across different groups and social gradients in the population (11). Despite promising improvements over time, social health inequities persisted within vulnerable populations based on the rich/poor, educated/non-educated and urban/rural divides. A systematic review of differences in maternal health service utilisation in low and middle income countries (LMIC) showed that living in urban areas and being better off economically positively influenced the use of skilled birth attendants and likelihood of delivering in a health facility, while economic status did not influence antenatal care uptake (59). The age and parity of mothers, as well as a woman’s education and that of her husband’s, have been described in the literature as factors for divergent outcomes in relation to antenatal care uptake (60), while societal norms and values (7), such as religion were reported as potential barriers for family planning use (61). Further, abortion laws remain very restrictive in most of the African continent with only South Africa and Cape Verde legally allowing women to request an abortion, under specific conditions (62). As for the utilisation of PMTCT services, barriers to policy translation into concrete changes could be partly explained by stigma and fear of HIV status disclosure to partners and family.

Important populations left behind

Studies included in this review excluded specific vulnerable populations. Sub-Saharan Africa is home to three of the world’s largest vulnerable populations, notably youth, people living with HIV and people with disabilities. Firstly, though several studies included various sub-groups of women in their reproductive age, the majority did not report any specific analysis pertaining to young people. Among young women, 37% and 45% are married before they reached 18 years old in Eastern and Southern Africa and Western and Central Africa, respectively (63). Over the past decades, single young women in sub-Saharan Africa have become more sexually active; this has important practical implications for SRH service utilisation by youth (64).

Secondly, the majority of people living with HIV worldwide live in sub-Saharan Africa, with women aged 15 and older representing 59% of new adult HIV infections in 2017 (65). Facing multiple challenges such as stigma and discrimination at family and community levels, the SRHR of people living with HIV are curtailed by laws criminalising the transmission or non-disclosure of HIV transmission, which jeopardise their SRH service utilisation (65). According to development aid assistance analyses from 2000 to 2013, HIV/AIDS has received the majority of external funding relative to other health sectors (66). The high level of foreign assistance to many sub-Saharan African countries where HIV was prevalent may have shrunk the domestic policy space for policy formation because of aid dependence (67).

Thirdly, people with disabilities represent approximately one billion people of the world's population, and 80% live in LMICs, including in sub-Saharan Africa (68). Literature has shown that people with disabilities experience barriers related to physical and communication accessibility, negative attitudes of health professionals, and financial costs when accessing SRH services (69,70). A systematic review and meta-analysis reported that adults with disabilities in sub-Saharan Africa, especially women, were at heightened risk for HIV (71). A recent study on the intersection between gender, disability, and poverty in Kenya reported that despite pro-poor policy promoting free maternal healthcare, women with disabilities were left behind (72). Although these three large groups stood out by their absence in this review, other vulnerable groups such as people living on the streets and sex workers were also missing. The use of conventional surveys measuring health disparities might not reach them or address their specific characteristics, which may explain this gap (4).

Limitations of the literature, PICO methodology and the study

This review highlighted limitations in the literature and the use of a classic PICO systematic review methodology to explore complex questions. The study itself also has several limitations. First, despite having adopted a systematic review process covering a 25-year period (1994–2019), our literature search resulted in only 32 studies. This demonstrates that the relationships between pro-equity legislation or health policy and the utilisation of SRH services by people in situations of vulnerability are largely unexplored in sub-Saharan Africa. Second, the positivist nature of the PICO methodology requiring a specific relation between various research question components could have precluded the inclusion of qualitative research studies. The standardised PICO requirements are often in contradiction with the more inductive nature of qualitative research. Third, our choice to review primary empirical research meant that we did not include realist and systematic reviews which may have led to other angles of analysis. Fourth, while most studies focused on the 'impact' aspect of the CSDH recommendation to evaluate health policy more effectively (7), none of the included studies looked at the effects of, for example, pro-poor tax policy, gender equality policy, or disability laws on the utilisation of SRH services among vulnerable populations. Finally, the quality assessment of studies suggested methodological weaknesses such as ambiguous temporality between independent and dependent variables in cross-sectional surveys (not related to when a legislation/policy was adopted versus when a study was implemented), selection and history, which potentially threaten the internal validity of studies (19).

Conclusion and implications for policy and research

In the SDG era with the motto 'leave no one behind', policy- and decision-makers need to revisit national legislation and policy implementation more critically and address a broader scope of SRH services beyond maternal health care to reach the SRHR targets of 2030 (4). In terms of policy, not only is it essential to remove financial barriers and reduce SRH service utilisation disparities among groups, but there is also an urgency to consider social determinants of health (7) so as to address the unequal distribution of socioeconomic factors such as income, education and place of residence (11). This calls for more integrated intersectoral action between the health, finance and economy, education and infrastructure sectors, for instance (11,73). The attainment of SRH universal coverage is multifaceted and depends upon the interplay of power structures (e.g. sexism, classism, etc.) which produce and perpetuate unequal health outcomes. An intersectional analysis can make health inequities more visible in relation to these power dynamics (74). Regarding research, this review also confirmed the need for more rigorous quantitative, qualitative and mixed methods research designs to answer to research questions emanating from complex policy and health system related contexts. Specifically, research strategies such as the case study approach, advances in impact evaluation, investigating policy and system change over time, cross-national analysis and action research are suggested for policy analysis and systems strengthening (75). Research should further examine prospectively or retrospectively the impacts of legislation/policy implementation on SRH service utilisation, over a period of at least 10 years (75). In conclusion, health policy and systems research should also be more 'people-centred', in particular focusing on the most vulnerable, in developing recommendations for policy- and decision-makers 'to address equity and social justice' more systematically (76).

Acknowledgements

We thank the Quebec Population Health Research Network (QPHRN) for its contribution to the financing of this publication. We also thank Sylvie Fontaine, Public Health Librarian, Université de Montréal, for her invaluable support in the development and validation of the search strategy.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: MMS received doctoral scholarship from the Fonds de Recherche du Québec - Santé, International Development Research Centre, and MOCHELASS/IMCHA Project.

ORCID iD

Muriel Mac-Seing https://orcid.org/0000-0001-5966-6702

Supplemental material

Supplemental material for this article is available online.

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Original Article

Exploring the evolution of health promotion in Namibia: opportunities and obstacles during the post-independence era

Mwakanyadzeni Abigail Chipare[1], **Roy Tapera**[2], **Ronald Farayi Pachawo**[3] **and James January**[3]

Abstract: Namibia is a Southern African country with social inequalities. This paper discusses the historical development of health promotion in Namibia. The country has achieved tremendous progress in public health after gaining independence in March 1990, with increased life expectancy, reduced tuberculosis and AIDS mortality due to high coverage of antiretroviral therapy (90%) in 2012, and a reduced under-five mortality rate, from 74 deaths per 1000 live births in 1990 to 50 in 2013. However, challenges still exist in achieving health for all. Non-communicable diseases such as cancer, diabetes and cardiovascular diseases are among the top 10 diseases and top 15 causes of death, with diabetes emerging as one of the greatest threats to health. Opportunities and obstacles for effective health promotion are discussed. In conclusion, health promotion in Namibia has the potential to improve the health of the populace.

Keywords: Health promotion, universal health coverage, Namibia

Introduction

Country profile

Namibia is situated in the south-western part of Africa, bordering with Angola to the north, Botswana to the east, Zambia and Zimbabwe to the northeast, South Africa to the south and the Atlantic Ocean to the west. It has a surface area of 824,116 km² and is a land of contrasts, with arid, semi-arid and savannah land (1). The country has a relatively young population, with 43% under the age of 15 years, and less than 4% over the age 65 years. Namibia's population resides mostly in rural areas, with 33% of people living in urban areas. It has a population density of 2.8 persons per square kilometre, making it the second least densely populated country in the world after Mongolia. Before independence, Namibia was ravaged by war, social and economic discrimination, and racial and ethnic enmity. Namibia was ruled by apartheid South Africa prior to independence and its societal structure mirrored apartheid South Africa (2). Namibia gained independence in March 1990 after a 24-year struggle for liberation; since then the country has enjoyed a stable multiparty democracy based on the rule of law. The policy of affirmative action strives to remove the inherited inequity in employment opportunities and socioeconomic status. Social initiatives such as the protection of human rights and access to health, education and training are being pursued vigorously to remove enormous social deficits. Namibia is an upper-middle-income country with an estimated gross national income per capita of US$5630. The economy grew by an average of 5.6% between 2012 and 2015, and the Human Development Index improved from

1. International University of Management, Windhoek, Namibia.
2. University of Botswana Faculty of Health Sciences, Gaborone, Botswana.
3. University of Zimbabwe College of Health Sciences, Harare, Zimbabwe.

Correspondence to: Mwakanyadzeni Abigail Chipare, International University of Management, Khomasdale Windhoek, Windhoek, 59, Namibia. Email: machipare@gmail.com

(This manuscript was submitted on 9 July 2019. Following blind peer review, it was accepted for publication on 8 May 2020)

Global Health Promotion 1757-9759; Vol 27(4): 107–113; 938765 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920938765 journals.sagepub.com/home/ghp

0.628 in 2014 to 0.640 in 2015. Life expectancy at birth is 65.2 years and the adult literacy rate is at 89% (3). The Gender Development Index improved from 0.981 in 2014 to 0.986 in 2015. Poverty in Namibia fell from 28.7% in 2009/10 to 18% in 2015/16. Thirty-two percent of women and 44% of female-headed households live below the poverty line. The unemployment rate in the country sits at 27.4%(4). For the substantial improvements made in the country since independence, former President Hifikepunye Pohamba was awarded the 2014 Ibrahim Prize. Announcing the 2014 Ibrahim Laureate in front of an audience comprising the diplomatic community, civil society representatives and the media at a press conference in Nairobi, Salim Ahmed Salim, the Chair of the Prize Committee, said:

> President Pohamba's focus in forging national cohesion and reconciliation at a key stage of Namibia's consolidation of democracy and social and economic development impressed the Prize Committee. His ability to command the confidence and the trust of his people is exemplary. During the decade of his Presidential mandate, he demonstrated sound and wise leadership. At the same time, he maintained his humility throughout his Presidency. During the decade of Hifikepunye Pohamba's Presidency, Namibia's reputation has been cemented as a well-governed, stable and inclusive democracy with strong media freedom and respect for human rights (3).

Background

The goal for Namibia's healthcare ministry is centred on shifting from a curative health system to preventive health (5). At independence, Namibia's Ministry of Health and Social Services (MoHSS) embraced the primary health care (PHC) approach to achieve the 'Health for All' goal (6). As an upper-middle-income country, Namibia is in a comparatively stronger financial position than most sub-Saharan African countries but still experiences challenges in attaining universal health coverage (7). The health ministry therefore identified the need to accord priority to health promotion and prevention, whereby there should be increased provision of health information, enhanced community involvement and intersectoral cooperation in public health programming (5). This paper aims to discuss the development of health promotion in Namibia, highlighting opportunities for scaling up health-promotion interventions and challenges that may arise in the process.

Development of health promotion

Health-promotion strategies have emerged as key in the Namibian healthcare sector. The strategies are aimed at militating against communicable diseases such as the HIV/AIDS crisis and non-communicable diseases (NCDs) such as cancer, diabetes, cardiovascular diseases and chronic respiratory illnesses, all of which are among the top 10 diseases and top 15 causes of death in Namibia. Diabetes alone is emerging as one of the greatest threats to health. This realization has led to concerted efforts to increase the population's access to health information to enable them to make decisions about their health, and all health practitioners have been encouraged to develop effective communication skills (8). In order for health-promotion interventions to be effective, appropriate and locally relevant communication strategies must be identified, which can then be transformed into public health action. Such transformations can be attained through utilization of various media platforms and healthcare provider communication. It is also necessary to strengthen the coordination of health-promotion activities through multisectoral involvement. Another important facet of strengthening health-promotion in the country relates to reforming training for public health practitioners, specifically around strategies for health education and health-promotion. Currently, the University of Namibia offers a bachelor's degree, a master's degree and a doctorate in public health. This will go a long way towards promoting the health of the populace. However, specialized cadres who would be employed in both public and private sectors as health-promotion practitioners are necessary, as is the case in other countries such as Botswana (9), South Africa (10) and Zimbabwe (11).

Progress in health post-independence

Namibia has witnessed great improvements in healthcare since independence. The improvement in key health indicators has been attributed to the government's commitment to invest in health. For instance, healthcare spending constitutes 13.5% of total government expenditure, just 1.5% short of Abuja-stipulated targets (15%). This makes it the highest healthcare spending in southern Africa (12). Despite all this, less than 20% of the population has healthcare insurance, with women being disproportionately affected (7). The public health system is therefore overburdened by the remaining 80% of the population that does not have health insurance. Another remarkable achievement pertains to the male/female increase in life expectancy at birth, which rose from 40.3 years in 1990 to 63 years in 2018, at an annual growth rate of 1.31% (13). The government also managed to reduce under-five mortality from 96.6 deaths per 1000 live births in 1967 to 44.2 in 2017 (14). In 2013 the maternal mortality ratio stood at 358 per 100,000 live births (13) This has since decreased to 195 per 100,000 live births in 2017 (15). Neonatal tetanus and polio have been eradicated due to improved vaccination coverage.

In 1990 the emphasis was on curative rather than preventive health (16). The MoHSS has since embraced the PHC approach to achieve the Health for All goal (6). Efforts have been undertaken to integrate traditional siloed programmes such as HIV/AIDS, malaria and tuberculosis (TB) into PHC. With the support of the United Nations Population Fund (UNFPA), the MoHSS has remodelled PHC service delivery from a parallel, fragmented model to a comprehensive, integrated, patient-centred approach. For example, a pilot project conducted at Epako Clinic in Gobabis (2011–2014) by UNFPA/Joint United Nations Programme on HIV and AIDS (UNAIDS) in partnership with MoHSS, integrated sexual and reproductive health services with HIV services in a model known as 'one nurse, one patient, one room'. Preliminary results found this integration reduced patient waiting times and nurse productivity, and reduced stigma and discrimination against those seeking HIV-related services (17).

The percentage of underweight children has declined in the last two decades, (25% in 1992 to 17% in 2006), though stunting increased from 27.5% in 1992 to 29% in 2006, and wasting increased from 7.5% in 1992 to 8% in 2006 (18). Resources were concentrated in urban areas, and decision making in the health sector was monopolized by whites. In 1990, life expectancy for whites was 69 years, while for blacks it was only 40.28; currently the life expectancy for blacks is 65.2 years.

In the first 6 months of independence, the new government was faced with the worst malaria epidemic on record, caused by the failure of the South African administration to continue a spraying programme in the transition period. In 1991, the MoHSS launched the National Malaria Control Programme, later renamed the National Vector-borne Disease Control Programme, to include other vector-born diseases like plague and schistosomiasis. The MoHSS has since undertaken a number of activities to improve disease management and vector control through the training of health workers and improved reporting via the health information system (HIS). Despite these efforts, the number of malaria cases continues to increase year on year. This increase may be due to improved reporting following the introduction of a new and more efficient HIS and to the expansion of the Primary Health Care Services directorate. A strong partnership is in place with the Ministry of Defence to provide personnel and logistical support for national malaria control activities, including indoor residual spraying (IRS) and epidemic response. Strong partnerships also exist with Society for Family Health (SFH), Development Aid from People to People (DAPP) and Anglican dioceses/Nets for Life, which provide support for both community information education and communication (IEC) material, and behaviour change communication) and community mobilization on long-lasting insecticidal net (LLIN) usage. Technical and programmatic support is provided by World Health Organization (WHO), UNICEF, and Southern Africa Malaria Elimination Support Team in all areas of malaria control (19).

Institutionally, the education system was also fragmented, on ethnic as well as racial lines, leading to a great waste of resources through duplication as well as extreme interracial inequalities. The Ovambo educational authority, with jurisdiction over almost half of Namibia's total population, had only US$122 to spend per pupil compared with the US$1450 per pupil spent by the white authority. In 1989, the former had a pupil/teacher ratio of 37/1 compared with 13/1 for white schools (16). In 2012 the pass rate for Grade 10 students who sat the Junior Secondary Certificate exam was 59%; in regions like Omaheke and Khomas, recorded pass rates were 37% and 44% respectively (20). The illiteracy rate for the country as a whole was 65% and almost a third of eligible students did not have access to primary schools.

Health-Promotion activities have been supported by various government public polices:

a. The National Health Policy Framework 2010–2020 emphasizes the right of all to enjoy good health through access to primary care and referral level services.
b. The Strategic Plan for Nutrition 2011–2015 emphasized improving the nutritional status of the population, focusing on children, women and people living with HIV and TB.
c. Vision 2030 places emphasis on the country being free of diseases of poverty and inequality, and on the majority of Namibians living healthy lifestyles and having equal access to comprehensive preventive and curative health services.
d. National Development Plan 4 emphasized the importance of further enhancing all citizens' quality of life and providing the economy with a productive workforce. By 2017, it was anticipated that all Namibians would have access to a quality health system, both in terms of prevention, cure and rehabilitation, which was characterized by an improvement in the healthy adjusted life expectancy from baseline 57 (2011) to 59 in 2017.
e. National Multisectoral Strategic Plan For Prevention and Control of Non-Communicable Diseases in Namibia 2017/18–2021/22: The MoHSS with support from WHO launched a strategy to coordinate a multisectoral response to prevent and control NCDs in 2017. The government of the Republic of Namibia developed this multisectoral strategic plan to reduce exposure to risk factors, enable health systems, line ministries and other stakeholders to play their part and work jointly in order to reach these national targets by 2025 and avert the high burden of mortality, disability and economic loss related to NCDs. According to a WHO estimate, NCDs accounted for 53% of the 14,000 total deaths in Namibia in 2012, which is higher than all the deaths from communicable diseases (e.g. HIV, TB, malaria), maternal and childhood diseases and nutritional disorders combined. About 21% of NCD-related deaths were due to cardiovascular diseases, 5% to cancers, 4% to diabetes mellitus, 4% to chronic lung diseases, 10% to injuries and 9% to other NCDs (21). Most premature deaths from NCDs are largely preventable by enabling all sectors, through public policies, to respond more effectively and equitably to NCD risk factors, namely tobacco use, unhealthy diets, physical inactivity, and the harmful use of alcohol.
f. The Health Promoting Schools initiative and the Smiling School Project were initiated to help school children achieve and maintain optimal oral health. Oral health modules were included in the training of nurses and teachers. The government further enhanced the provision of social welfare services to include treatment and rehabilitation of drug and alcohol abusers. The health ministry also runs outreach programmes to inform communities and promote responsible lifestyles and behaviours.

Health promotion is conducted through two separate directorates: Special Programmes and the Directorate of Primary Health Care Services under the ministry. The objective of the Directorate of Special Programmes is to reduce the impact of HIV/AIDS, TB and Malaria on the Namibian population. There are two divisions: Health Sector Response (health sector) and Expanded National AIDS Response Coordination (multisectoral). The functions of the directorate are to design, manage and direct policy development, strategic planning, resource mobilization coordination, facilitation, and the monitoring and evaluation of the national response across sectors. The directorate is also responsible for creating an enabling environment for people infected with and affected by HIV/AIDS, to ensure they enjoy equal rights in a culture of acceptance, openness and compassion. Prevention of new infections of HIV, sexually transmitted infections and TB is another of the directorate's mandates.

Health-promotion activities are also conducted through the Directorate of Primary Health Care Services' four divisions: Family Health, IEC, Disability Prevention and Rehabilitation, and Public and Environmental Health.

School health promotion is conducted under Family Health. The division is also responsible for improving quality, accessibility and coverage of preventive and promotive services with an emphasis on maternal and child health and family planning, nutrition, oral health and non-communicable and diet-related diseases.

The IEC division holds national responsibility for the dissemination of health information. The division is also responsible for preparing informative, educative health-promotion materials. Another mandate for the division is to mobilize communities to take promotive and preventive actions against their public health and welfare problems.

The Disability Prevention and Rehabilitation division is responsible for the prevention of deafness and hearing impairment as well as prevention of blindness.

The Public and Environmental Health division is responsible for environmental pollution control, port health-promotion, enforcing public health laws and regulations, promoting safe working places and monitoring occupational health-related injuries and diseases. This division is also responsible for rolling out the Malaria Strategic Plan 2010–2016. The country, through this department, has exceeded the targets set in Abuja at the World Health Assembly, and the Millennium Development Goals, as well as the global Roll Back Malaria targets to cut malaria morbidity and mortality by 2010. Because of the significant inroads made against malaria, Namibia is in a unique position to move towards eliminating the local transmission of malaria. The MoHSS, with the support of its partners, has implemented a strong malaria control programme, steadily improving the coverage and quality of indoor residual spraying, introducing LLINs, and increasing access to rapid malaria diagnosis and new effective artemisinin-based combination treatment.

The US President's Emergency Plan for AIDS Relief (PEPFAR) was introduced in Namibia in 2004 in partnership with the government of the Republic of Namibia. PEPFAR Namibia works very closely with the MoHSS in funding HIV prevention projects, and aligns all of its activities with Namibia's National Strategic Framework for HIV(22). PEPFAR also works in close collaboration with the ministries of Education and Gender, as well as with civil society organizations, the private sector, and other donors: UNAIDS, WHO and the Global Fund.

PEPFAR Namibia remains committed to working with the Namibian government to achieve the UNAIDS 90-90-90 targets, which means ensuring that 90% of all people living with HIV know their status, that 90% of people diagnosed with HIV are on antiretroviral therapy (ART), and that 90% of those on treatment achieve a suppressed viral load. This last 90 is the most important in terms of maintaining the health of infected individuals and stopping HIV transmission.

Treatment as Prevention (TasP) refers to HIV prevention methods that use ART in HIV-positive and HIV-negative persons to decrease the risk of HIV transmission (23). According to the Namibia Population-Based HIV Impact Assessment of 2017, 86% of its adult HIV population was virally suppressed, 96% of that group was on antiretroviral drugs and 91% of that group was virally suppressed (in other words, the nation hit 86-96-91 as per the UNAIDS target formula) (24). This translated to an overall viral suppression rate of 77%.

Public health challenges

According to the recent Demographic Dividend Study Report of 2018, Namibia still faces major health challenges, which include HIV/AIDS, TB, and elevated child and maternal mortality (25). In addition, NCDs are on the rise, although communicable diseases remain the primary drivers of morbidity and mortality in the country. Though HIV/AIDS and TB continue to account for the greatest number of deaths, the country has demonstrated strong commitment to reducing morbidity and mortality resulting from these conditions through the implementation of biomedical, behavioural and structural interventions (25). These interventions have resulted in reductions in HIV and TB incidence and increased ART coverage. However, universal ART coverage is yet to be realized. The directly observed therapy short-course strategy (DOTS) in Namibia has reportedly reached treatment success rates of 80% (26). The Prevention of Mother to Child Transmission programme, introduced in 2002, has also contributed immensely to the reduction of HIV incidence among children. Despite these gains, high TB/HIV co-infection remains a cause for concern and needs to be addressed. Another area of concern relates to the emergence of multidrug-resistant and extensively drug-resistant TB. Maintaining the expansion of DOTS from within health facilities to communities is necessary, following evidence to suggest that annual treatment success rates increased significantly following the introduction of community-based DOTS (26). Major causes of morbidity among children under 5 years of age are respiratory diseases and diarrhoea. Child malnutrition is very high, with 29% of children provision stunted, 17% underweight and 8% suffering from wasting. Malnutrition is also still rife in the country, with a recent study reporting that socio-demographic and maternal factors were key determinants of childhood stunting (27). In addition, NCDs such as cancer, diabetes and cardiovascular diseases remain in the top 15 causes of death in the country, with diabetes emerging as one of the greatest threats to public health.

Opportunities for health promotion

At grassroots level, the cadres responsible for health-promotion activities are the community-based healthcare workers. As no institution is responsible for training health-promotion officers at diploma or degree level, there is an opportunity to introduce relevant health-promotion courses that would strengthen existing structures and improve health outcomes.

Although the MoHSS provides a lot of health-promotion activities through healthcare providers and the involvement of other relevant ministries like the Ministry of Education, Arts and Culture, specific training programmes for health-promotion cadres are required, which would go a long way to improving health information provision for the population. Such cadres would not only aid the provision of health information, but should also be involved in developing relevant research and appropriate interventions for improving health outcomes. The existence of the School of Public Health at the University of Namibia also offers an excellent opportunity where health-promotion training could be strengthened. Evidence-based policies on health promotion need to be developed and tailored so that appropriate interventions can be instituted.

Conclusion

Health promotion in Namibia continues to be provided in an incipient manner, and development of public health-promotion activities in both the public and private sectors is therefore required. In order to achieve this, continual support for health-promotion activities is essential, especially with regards to training health-promotion professionals.

Declaration of conflicting interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Mwakanyadzeni Abigail Chipare https://orcid.org/0000-0003-1529-8199

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Primary school-based nutrition education intervention on nutrition knowledge, attitude and practices among school-age children in Ghana

Janet Antwi[1], Agartha Ohemeng[2], Laurene Boateng[3], Esi Quaidoo[2] and Boateng Bannerman[4]

Abstract: This study was performed to evaluate the effect of a six-week nutrition education intervention on the nutrition knowledge, attitude, practices, and nutrition status of school-age children (aged 6–12 years) in basic schools in Ghana. Short-term effects of nutrition education training sessions on teachers and caregivers were also assessed. Pre-post controlled design was used to evaluate the program. Intervention groups had significantly higher nutrition knowledge scores (8.8 ± 2.0 vs. 5.9 ± 2.1, $P < 0.0001$) compared to controls in the lower primary level. A higher proportion of children in the intervention group strongly agreed they enjoyed learning about food and nutrition issues compared to the control group (88% vs. 77%, $P = 0.031$). There was no significant difference in dietary diversity scores (4.8 ± 2.0 vs. 5.1 ± 1.4, $P = 0.184$) or in measured anthropometric indices (3.6% vs. 8.2%, $P = 0.08$). A marginally lower proportion of stunted schoolchildren was observed among the intervention group compared to the control group (3.6% vs. 8.2%, $P = 0.080$). Nutrition knowledge of teachers and caregivers significantly improved (12.5 ± 1.87 vs. 9.2 ± 2.1; $P = 0.031$) and (5.86 ± 0.73 to 6.24 ± 1.02, $P = 0.009$), respectively. Nutrition education intervention could have positive impacts on knowledge and attitudes of school children, and may be crucial in the development of healthy behaviors for improved nutrition status.

Keywords: Nutrition education, nutrition knowledge, attitude and practices (KAP), nutrition status, school-age children, Ghana, sub-Saharan Africa, dietary diversity score, school-based

Introduction

Childhood malnutrition remains a challenge and a major public health concern in sub-Saharan Africa (1). Nutrition education is now recognized as an essential catalyst for nutrition impact, and is demonstrably capable of improving dietary behavior and nutrition status on its own. It provides the nutrition knowledge, attitude and practices (KAP) to make wise dietary and lifestyle choices which may lead to optimum nutrition statuses (2). Several studies that have applied nutrition education interventions have reported positive impacts on the nutrition knowledge of school-age children (SAC) and their ability to differentiate adequate nutrition behaviors from inadequate (3,4). Some studies noted an increase in regular consumption of dairy products, vegetables and fruits (5–9) and Lee *et al.*

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1. Department of Agriculture, Nutrition and Human Ecology, Prairie View A&M University, USA.
2. Department of Nutrition and Food Science, University of Ghana.
3. Department of Nutrition and Dietetics, University of Ghana.
4. Nutrition Linkages Project, University of Ghana.

Correspondence to: Janet Antwi, Department of Agriculture, Nutrition and Human Ecology, Prairie View A&M University, 100 University Drive, Prairie View, TX 77446, USA. Email: jaantwi@pvamu.edu

(This manuscript was submitted on 23 December 2019. Following blind peer review, it was accepted for publication on 19 June 2020)

Global Health Promotion 1757-9759; Vol 27(4): 114–122; 945241 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920945241 journals.sagepub.com/home/ghp

(10) observed improved nutrition statuses from a long-term nutrition intervention program on a sample of SAC. A more recent study conducted among SAC girls in Egypt found that nutrition education significantly improved positive dietary habits such as eating breakfast regularly and snacking on fruits and vegetables (11). While SAC are at a critical age for forming good dietary habits and are an appropriate target for effective nutrition education interventions, there is limited information among this age group in Ghana. Most studies have focused on caregiver nutrition knowledge and the resulting nutrition impact on very young children (12,13).

Current sustainable development goals (SDG) along with previous millennium development goals (MDG) have continually focused primarily on children aged five years or under, notwithstanding a crucial necessity to tackle malnutrition among all populations (14,15). Although, children aged five or under serve as a leading surrogate for whole populations in the surveillance of countries' nutrition status, it is necessary to target expansive age groups. Yet, there is lesser extent of nutrition research and interventions of these global agendas among SAC (16), despite marked effects of nutritional status on their cognitive function and intelligence quotient, school achievement, and health (17,18). Studies such as these highlight the concurrence of undernutrition and overnutrition and the need for public health efforts to be tailored to tackling the double burden of malnutrition within similar populations (19).

In Ghana, countrywide data on the nutrition statuses of SAC are currently scarce; however, Danquah *et al.* (12) reported that 52.2% of SAC were stunted, while 46.5% were found to be underweight in the Ashanti region. More recently, Aryeetey *et al.* (20) reported overweight and obesity prevalence of 17% among Ghanaian SAC of ages 9–15 years. Over the years, there have been various school-based nutrition efforts such as the school feeding program incorporated into the primary school system in Ghana (21). Nevertheless, these efforts do not underscore the provision of nutrition knowledge and skills to the children that is integral to the attainment, adoption and maintenance of nutrition-enhancing behaviors at an early age (22–24). Therefore, the need for nutrition education as a prevention and/or intervention to address the double burden of malnutrition among SAC is becoming increasingly important.

The purpose of this study was to determine the impact of a nutrition education intervention on nutrition KAP and nutrition status of SAC in Ghana. It was hypothesized that nutrition education intervention would have a positive effect on nutrition KAP and nutrition status in the intervention groups compared to control groups.

Methods

Study design and area

This intervention study employed a pre-post controlled design to assess the effect of nutrition education that is incorporated into the existing physical education (PE) lessons on nutrition KAP and nutrition status among SAC aged 6–12 years in two areas in Ghana. The study also used a similar design to assess the short-term effect of nutrition education on the knowledge and perception of PE teachers and home-based caregivers in the intervention schools. The study was conducted from June 2018 through December 2018. The study areas were Dzorwulu in the Accra Metropolitan District, Greater Accra Region, and Asesewa sub-district in the Upper Manya Krobo district of the Eastern Region of Ghana.

Study population and sampling

The study population consisted of school-going children aged 6–12 years in grades 1–6, their primary home-based caregivers, and PE teachers in the study intervention schools. In each study area, two public basic schools were conveniently selected to be included in the study after obtaining permission from the respective district directorates of the Ghana Education Service. In both areas, one school was randomly assigned to the intervention group and the other to the control group. Using a 95% confidence rate, 4% error margin, and 80% power to detect a 10% significant difference ($P < 0.05$) in proportion in nutrition knowledge between intervention and control groups, the minimum required sample size was determined to be 86 (i.e., 86 in the intervention group and 86 in the control group). This was adjusted to 100 per school to account for non-responses.

- *Recruitment of school-age children and caregivers*

In the intervention school in the Greater Accra Region, the study was explained to home-based caregivers (i.e., family members, mainly parents of the school children) during Parent Teacher Association meeting and those with children within the target age group who consented by signing an informed consent form were recruited (*n* = 101). However, in the control school, all children within the study age group were given approval letters to be given to the caregivers to complete and return. All the children who returned the approved letters (*n* = 104) were recruited into the study. The two schools (one intervention group and one control group) in the Eastern Region had less than 100 children in the target age group, therefore each child who met the inclusion criteria and agreed to participate was recruited into the study (*n* = 146).

- *Recruitment of teachers*

A total of seven teachers who teach PE in the intervention schools were selected based on the inclusion criterion that the teacher was a PE teacher of the targeted study children.

Description of nutrition intervention

The Social Cognitive Theory framework was the basis for the nutrition education intervention for all participants in the intervention cohort. This theory holds that a substantial part of an individual's knowledge acquisition is based on their social context with interactions between personal characteristics, behavioral patterns, and environmental factors (25). The selected PE teachers in the two intervention schools were given a two-day training based on the modules taught to the children. The principal investigator interacted with and directed the teachers with instructions for implementation and delivery of each topic in the module, where information on nutrition for children was given; teaching aids and models were also supplied to assist in teaching. The intervention encompassed six nutrition topics including food groups, functions of food, food choices (breakfast and snacks), portion and serving sizes, physical activity, and food safety and personal hygiene. In addition, home-based caregivers received a one-day nutrition education training from the research team on similar nutrition topics to implement changes in nutrition choices at home. Each nutrition topic was taught to children for two hours each week for six weeks, in addition to the standard PE class. Approaches to emphasize nutrition concepts taught to the children included small group discussions, group works, hands-on activities, workbook assignments, singing sessions, and nutrition competitions. The control group received the standard PE curriculum by the Ministry of Education throughout the study period. The curriculum is mainly focused on physical fitness and is delivered through field-based physical activity.

Data collection procedures

Research assistants were well trained to administer the study tools and conduct measurements prior to commencement of data collection. All of the assessment tools and procedures were pre-tested in a similar population, at a different location, before the tools were implemented in the main study.

- *Sociodemographic information*

Information on age, gender, ethnicity, educational level, current class in school, occupation, marital status, income (adult participants only), religion, residence, and household size were obtained with a validated questionnaire.

- *Nutrition knowledge, attitude and practices (KAP) data*

The knowledge questions focused on five areas: food nutrient and function, food choices, nutrient deficiency, sources of nutrients, and food and energy. However, the specific questions differed for lower (grades 1–3) and upper (grades 4–6) primary school level children. All other parts of the questionnaire used were similar for all the children. The attitude and practice questions focused on four areas: food intake, diet quality, food choices, and food and health. To generate KAP scores for each participant, a correct answer to each question was assigned a value of one, and an incorrect answer was coded as zero. For each participant, all scores under this section were summed up and the total value was used to represent the KAP score for that person (school child, home-based caregiver, teacher). For the teachers and home-based caregivers, data was collected before and soon after (a few hours for caregivers, and at the end of the second training day for teachers). For the children, the post-intervention data collection occurred after six weeks of nutrition education intervention.

- *Dietary intake and food frequency*

The dietary intake data was gathered using single 24-hour recall and food frequency methods. Each child was asked to list and describe all foods and beverages consumed at school and at home in the past 24 hours, indicating the time and source of the food. Visual household measures and food models were used to help children estimate the amounts of foods and beverages consumed. The 24-hour recall information was used to calculate dietary diversity scores as a measure of nutrition practice using the Food and Agriculture Organization guidelines (26).

- *Anthropometric data*

Standing height was measured to the nearest 0.1 cm, without shoes, using a calibrated stadiometer and while wearing light clothes and without shoes, an electronic weighing scale was used to take weights to the nearest 0.1 kg. Each measurement was taken in duplicates and the average values were used for calculations of z-scores using the WHO AnthroPlus software. Stunting, underweight and wasting were defined in this study as height-for-age Z scores (HAZ), weight-for-age Z scores (WAZ) and weight-for-height Z scores (WHZ) $\leqslant -2$SD, respectively and BMI-for-age Z scores (BAZ) $\geqslant 2$SD and $\geqslant 3$SD as overweight and obesity, respectively.

Statistical analysis

The primary outcome of this study was nutrition KAP scores, with nutrition status as the secondary outcome. The maximum possible score for the nutrition knowledge assessment was 20; below the mean score was deemed low nutrition knowledge and above the mean score was deemed high nutrition knowledge. Paired *t*-test was employed in determining changes in nutrition knowledge, attitude, and dietary diversity pre- and post-intervention. The mean differences in study variables at pre- and post-intervention were compared between intervention and control groups using independent *t*-test and chi-square statistics. All data analyses were performed using SPSS version 20.0 and *P*-value of < 0.05 was considered statistically significant.

Results

Sociodemographic characteristics of school children and their caregivers

There were 351 school children included in the study, out of which 325 completed the post-intervention survey. With the exception of ethnicity ($P = 0.04$), all other baseline variables were similar between intervention and control groups. The overall mean age (± standard deviation) of the children was 9.6 ± 1.8 years, with about 70% of them between the ages of 9 and 12 years. About half (49.3%) of the study participants belonged to the Ga/Ga-Adangme tribe (Table 1). A total of 121 caregivers participated in this study, out of which 99 also provided post-nutrition education data. The mean age of the caregivers was 38.5 ± 10.8 years. On the average, every household consisted of three adults and three children below the age of 18. The majority of the caregivers who participated in the study were women (73.6%) and were the parents (81.8%) of the study children (Supplemental Table 1).

Nutrition knowledge, attitude and practices

At baseline, nutrition knowledge scores of school children were similar for the intervention and control groups. The six-week nutrition education intervention significantly improved the nutrition knowledge of children in both the lower and upper primary levels in the intervention group (Table 2). In addition, children in the intervention group had higher scores (8.8 ± 2.0 vs. 5.9 ± 2.1, $P < 0.0001$) compared to the controls in the lower primary level, and there was a tendency for the intervention children to have higher scores at the upper primary level (9.3 ± 3.0 vs. 8.5 ± 3.0, $P = 0.09$) when compared to their control colleagues.

Table 1. Demographic characteristics of study school children.

Variables	*Intervention* *n (%)*	*Control* *n (%)*	*Total* *n (%)*	*P-value*
Gender				0.18
Male	83 (47.20)	95 (54.30)	178 (50.70)	
Female	93 (52.80)	80 (45.70)	173 (49.30)	
Mean age n (mean ± SD)	176 (9.50 ± 1.85)	175 (9.70 ± 1.74)	351 (9.60 ± 1.80)	0.29
Age categories				0.58
6–8 years	55 (31.30)	50 (28.60)	105 (29.90)	
9–12 years	121 (68.80)	125 (71.40)	246 (70.10)	
Ethnicity				0.04
Ga/Ga-Adangme	89 (50.60)	84 (48.00)	173 (49.30)	
Ewe	36 (20.50)	31 (17.70)	67 (19.1)	
Akan	27 (29.10)	31 (17.70)	58 (16.50)	
Northern	24 (13.60)	20 (11.40)	44 (12.50)	
Other	0 (0.00)	9 (5.10)	9 (2.60)	
Area of residence				0.21
Within school community	99 (56.30)	110 (62.90)	209 (59.50)	
Outside school community	77 (43.80)	65 (37.10)	142 (40.50)	

Data were expressed as mean ± standard deviation (SD) or frequency (%). *P*-value is significant at < 0.05. Pearson chi-square for categorical variables and independent *t*-test for continuous variables.

Table 2. Nutrition knowledge of study children before and after intervention.

	Grades 1–3 (lower class)			*Grades 4–6 (upper class)*		
	Intervention	*Control*	*P-value*[1]	*Intervention*	*Control*	*P-value*[1]
Pre-intervention	6.8 ± 2.1	6.4 ± 2.2	0.19	8.2 ± 2.5	8.6 ± 3.0	0.35
Post-intervention	8.8 ± 2.0	5.9 ± 2.1	< 0.0001	9.3 ± 3.0	8.5 ± 3.0	0.09
***P*-value**[2]	< 0.0001	0.04		0.007	0.69	

Data were expressed as mean ± standard deviation. *P*-value is significant at < 0.05.

[1] Comparison of intervention and control groups using independent *t*-test.

[2] Comparison of pre- and post-intervention time points using paired *t*-test.

Teachers' nutrition knowledge, perception and self-efficacy improved at the end of the training session. The mean score of nutrition knowledge at the end of the training was significantly higher (12.5 ± 1.87 vs. 9.2 ± 2.1; $P = 0.03$) than the mean score before they received the training.

Overall, the nutrition knowledge of caregivers of children in the intervention schools improved after the intervention (mean score: 5.86 ± 0.73 to 6.24 ± 1.02, $P = 0.009$).

For nutrition attitudes, a higher proportion of children in the control group said that they enjoyed learning about food and nutrition issues at baseline; the reverse was reported at endline. Thus, a higher proportion of children in the intervention group said that they enjoyed learning about food and nutrition issues (88% vs. 77%, $P = 0.03$). On the other hand, a significantly higher proportion of children in the control group believed that eating healthy foods was only important during illness, compared to the intervention group (81% vs. 68%, $P = 0.02$).

Contrary to expectation, the dietary diversity score (measure of nutrition practice) of the

Table 3. Dietary diversity score for study children before and after intervention.

	Intervention	*Control*	*P-value*[1]
Pre-intervention DD	5.6 ± 2.1	4.7 ± 1.6	< 0.0001
Post-intervention DD	4.8 ± 2.0	5.1 ± 1.4	0.18
***P*-value**[2]	< 0.0001	0.01	

DD refers to dietary diversity score based on FAO guidelines of 13 food groups. Data were expressed as mean ± standard deviation. *P*-value is significant at < 0.05.

[1]Comparison of intervention and control groups using independent *t*-test.

[2]Comparison of mean scores calculated using FAO guidelines (pre- vs. post-intervention time points using paired *t*-test.

intervention group decreased over the study period, while that of the control group increased. Both of these changes were statistically significant within groups but not between groups (Table 3).

Nutrition status

There were no differences between the two study groups in terms of any of the anthropometric indicators that were assessed. Although there was a tendency for the intervention group to have a lower proportion of stunted children compared to the control group (3.6% vs. 8.2%, $P = 0.08$), six weeks is a narrow period to use to establish a significant HAZ effect post-intervention (Supplemental Table 2).

Discussion

The findings of our study showed that the nutrition education intervention produced statistically significant improvements in nutrition knowledge scores particularly among lower primary school children in the intervention group as compared to the control group at the end of six weeks. It could be that the lower primary school children were more responsive, hence this observation. Moreover, there were positive effects observed within the intervention group of the upper primary class with the pre- and post-measurements (Table 2). We also observed positive changes in attitude, but a not statistically significant decrease in practice using dietary diversity score (Table 3), in intervention compared to control groups. The improvement in nutrition knowledge and positive attitude is similar to findings in other studies which showed that nutrition knowledge and attitude is crucial in the development of healthy behaviors and increased self-efficacy (23,27–29).

Caregivers'—particularly mothers'—knowledge and attitudes of serving foods may impact children's attitude regarding practices (30–33). Although teachers improved their nutrition knowledge, our study did not focus on changes in the physical food environment at home or school in terms of food sold by food vendors to children (34,35). Social Cognitive Theory (SCT) includes reciprocal determinism as a relevant process among people's characteristics, their behaviors, and their environments to promote behavior change. Core constructs of SCT for individual outcome in knowledge acquisition for making changes are influenced by behavioral determinants that may be facilitators or barriers in achieving positive health behaviors (25). Consistent with SCT theories, we trained and included teachers and home-based caregivers to facilitate engagement with children. Teachers provided the information needed for knowledge acquisition and served as role models, while caregivers reinforced the knowledge acquired from school at home. However, the unchanged school and home food environments may have acted as a barrier to achievement of positive behavior practice. Befort *et al.* (36) reported that availability and accessibility to healthy foods is an important factor in promoting positive nutritional behavior. Moreover, a sufficient implementation period of about 10–15 hours' nutrition education intervention was required to achieve considerable effect in children's nutrition knowledge and attitude, and a minimum of 50 hours to produce behavioral changes (37,38). Thus, the decrease in practice using dietary diversity score observed in our study may be attributed to a combination of insufficient period of implementation and inadequate changes in the food environment.

Although stunting was the most prevalent nutritional deficit, there were no statistically significant changes in nutrition status—the secondary outcome of this study—between intervention and control groups. The lack of improvement in nutrition practices may have contributed to this observation. Children's good nutrition practices and dietary intake provide the energy and nutrients essential for growth and development and have direct positive effects on their weight and/or height, and overall health (39). In addition, the duration of the nutrition education intervention may have been inadequate to allow drastic changes in the weight and height of school children. Most nutrition education intervention studies that showed improvement in nutrition knowledge, dietary attitudes and habits with subsequent significant changes in wasting, stunting, or underweight status were conducted for a relatively longer period compared to this current study (34,39,40). Archibald, Graber and Brooks-Gunn (41) documented that during early childhood, the body grows at an alarming rate; however, the rate slows down for young children between ages 5 and 11 years and may occur in spurts throughout childhood, adolescence, and puberty (41–44). Our sample of primary school children was made up of more than 80% between the ages of 5 and 11 years.

An important strength of our study is the inclusion of home-based caregivers and teachers. Our study also contributes to the limited data available on the nutrition KAP and nutritional status of SAC in Ghana. There were some potential limitations that may have influenced the findings of our study. A methodological weakness of our study is not using the same sample recruitment techniques at all the schools. This was due to one school's inability to organize a PTA meeting within the study period, and unequal number of school children at two schools. The use of the self-reported 24-hour dietary recalls and food frequency may result in either over- or underestimation of actual dietary intakes. Due to time, financial and human resource constraints, the nutrition education was conducted for only one day for the caregivers and could not be extended to the entire school term for the primary school children, and did not take place for the school cooks/food vendors.

Conclusion

The findings of this study have further reinforced the school as an important learning environment to incorporate nutrition education for passing on nutrition knowledge and attitudes to primary school children which are essential to managing undernutrition and childhood obesity. Involving teachers and caregivers to enhance knowledge, in addition to improving dietary choices in the school and home food environments may be crucial. The findings may be valuable to policy makers in the education sector because they revealed that nutrition education incorporation into the primary school mainstream curriculum is feasible, and provide the strategies to achieve it.

Acknowledgements

We are indebted to our research assistants Patience Anku, Obed Harrison, Elizabeth Duah, Gloria Osei Owusu, Norincia Osei-Boateng, Deborah Amoah, Nancy Okai, Peace Mensah, Mary, Abigail, Francis and Michael of University of Ghana for their untiring support during data collection. We cherish the school principals, primary school teachers, school children, caregivers and school cooks/vendors of the four primary schools that participated for the immense contribution and support during the implementation of the study.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article. This work was supported with funding from the Institute of International Education (IIE) through the Carnegie African Diaspora Fellowship Program (CADFP) to JA and AO to undertake this research. The IIE or CADFP had no influence in the design, data collection, analysis or writing up of the study.

Research ethics approval

The study was conducted in accordance with the Declaration of Helsinki (1964) and was approved by the College of Basic and Applied Sciences, University of Ghana Institutional Review Board (IRB, {study # ECBAS 029/17-18}) and State University of New York at Oneonta IRB (study # 529).

ORCID iD

Janet Antwi https://orcid.org/0000-0002-8270-7717

Supplemental material

Supplemental material for this article is available online.

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Original Article

Adoption and impact of improved cookstoves in Lambayeque, Peru, 2017

Maribel A. Díaz-Vásquez[1], Rosa J. Díaz-Manchay[1], Franco E. León-Jiménez[2], Lisa M. Thompson[3], Karin Troncoso[4] and Virgilio E. Failoc-Rojas[5]

Abstract:
Introduction: Approximately three billion people in Asia, Africa, and the Americas cook with biomass, cleaner cooking technologies with the potential to reduce household air pollution exposure. It is necessary to assess the adoption and long-term use of these stoves, measure perceived benefits among users, and use this information to provide feedback to programs that are implementing new cooking technologies. The aim of this study is to determine the level of adoption and impact of improved biomass cookstoves in the rural area of Lambayeque, Peru, in 2017.
Methods: A descriptive cross-sectional study was conducted. A total of 52 homes were surveyed in the districts of Pacora and Íllimo where improved biomass stoves were introduced between 2005 and 2013. A questionnaire for the assessment of adoption and impact indexes proposed by the *Global Alliance for Clean Cookstoves* was applied. The STROBE checklist was used.
Results: The mean number of years with the improved biomass cookstove was 9.1 (standard deviation: 2.9); 51.9% always used the improved stove, and 34.6% never used it due to destruction during the El Niño phenomenon in 2017. The median impact index was 5.62; 19.2% had a very good/good adoption. The median adoption index was 6.5; 25% had a very high/high impact. The use of the traditional or open fire biomass stove persisted in 61.5% of the houses.
Conclusion: The adoption and impact of improved biomass cookstoves were acceptable, but traditional stove use persisted in more than half of the houses. Households used a mix of different stove technologies. Gas stoves were used more frequently for breakfast or dinner, while the traditional biomass stoves were used for larger lunchtime meals.

Keywords: Air pollution, biomass, petroleum, rural health

Introduction

Approximately three billion people in Asia, Africa, and the Americas cook with biomass (wood, animal waste, agricultural waste) and coal (1). Nearly 55% of the global burden of disease due to air pollution comes from cooking fires mostly in low-socioeconomic status homes, when using

1. Faculty of Medicine, Universidad Catolica Santo Toribio de Mogrovejo, Chiclayo, Peru
2. Faculty of Medicine, Universidad San Martin de Porres-Filial Norte, Chiclayo, Peru
3. Nell Hodgson Woodruff School of Nursing, Emory University, Atlanta, USA
4. Pan American Health Organization, Washington, DC, USA
5. Universidad San Ignacio de Loyola, Vicerrectorado de Investigación, Unidad de Investigación para la Generación y Síntesis de Evidencias en Salud, Lima, Perú

Correspondence to: Virgilio E Failoc-Rojas, Universidad San Ignacio de Loyola, Vicerrectorado de Investigación, Unidad de Investigación para la Generación y Síntesis de Evidencias en Salud, Avenida la Fontana 501, La Molina, Lima 051, Peru. Email: virgiliofr@gmail.com

(This manuscript was submitted on 29 October 2019. Following blind peer review, it was accepted for publication on 26 June 2020)

Global Health Promotion 1757-9759; Vol 27(4): 123–130; 945248 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920945248 journals.sagepub.com/home/ghp

inefficient biomass cookstoves (2–5), as these fuels are burned in inefficient conditions, causing indoor air pollution (6).

Using improved biomass fuel stoves can reduce air pollution in the homes (7). These cookstoves burn mainly firewood, they use a combustion chamber to increase efficiency, and typically have chimneys that remove smoke from the house. Some improved cookstoves have been shown to reduce suspended particulate matter and carbon monoxide by half (8,9).

At the 23rd World Conference on Health Promotion in 2019, the theme was: 'Waiora: promotion planetary health and sustainable development for all (10)', of which the main message was that we should identify opportunities to reduce household air pollution while mitigating global climate change (11).

The Clean Cooking Alliance supports global programs that introduce cleaner cooking technologies with the potential to reduce exposure to air pollution in homes (5). Since the mid-20th century, improved cookstove programs were implemented to reduce deforestation (5,12). However, it is necessary to evaluate the adoption of improved cookstoves and their impact on the health and wellbeing of their users. The aim is to verify if the user likes and uses the adopted stove, and to understand if users would acquire the same stove again (12). Until now, the success of improved cookstoves has been measured by the number of stoves distributed, but there are few studies of their sustainability (13). Evaluation of the program promotion needs to identify if households use the improved cookstoves. It is known that despite the promise of improving stoves to reduce these impacts, adoption rates at the population level are relatively low (14).

It is necessary to assess the adoption and long-term use of these stoves to measure perceived benefits among users, and use this information to provide feedback to programs that are implementing new cooking technologies. Knowledge of favorable and unfavorable factors is crucial for program monitoring and sustainability efforts. This study aimed at determining the level of adoption and impact of improved cookstoves in a rural area of Lambayeque, on the north coast of Peru, in 2017, after the Coastal 'El Niño' weather phenomenon of 2017.

Methods

Design and study subjects

A descriptive, cross-sectional study using consecutive sampling was conducted. This study followed the STROBE guidelines for reporting observational studies (see STROBE statement in the supplemental material). This project used a community-based participatory research framework, together with members of the university, regional government, and primary care physicians. A total of 52 families were interviewed in the districts of Pacora and Illimo in Lambayeque, in northern Peru. Improved cookstoves (ceramic material, and fireplace and iron kitchens) provided by a non-governmental organization were installed in these districts between 2003 and 2013. Families who used improved cookstoves for more than two years were included. No sampling technique was used because all of the 52 families were surveyed; all families lived in low-socioeconomic status rural areas. By the Peruvian definition, the head of the household is defined as 'the person that the family recognizes as such and who in terms of income contributes mostly to the family budget, is older and lives in the home (15).

We used a questionnaire designed by the Global Alliance for Clean Cookstoves, measuring the extent to which the improved stoves have been integrated into the lives of users (12), resulting in the development of the adoption index (AI) and impact index (II). This questionnaire was validated with families from the Purepecha region in Mexico (13).

Survey

The questionnaire measures two indexes:

1) An AI, which depends on four variables: frequency of use of the cookstove (FCS), condition of the cookstove (CCS), level of satisfaction of user (LSC), and interest in replacing with similar cookstove (IRS). Each variable is multiplied by a coefficient that reflects the weight that this variable will have on the total value of the index. Indicative values for each variable are proposed in Supplemental Table 1. The formula for the AI is, therefore, as follows: AI = 4(FCS) + 3(CCS) +

2(LSCS) + 1(IRS). The result is scored from 1 to 10, where 1–4 is very bad adoption, 5–6 is bad adoption, 7–8.5 is regular adoption, 8.5–9 is good adoption, and 10 is very good adoption (12).

2) An II, which depends on eight variables: frequency of the use of the improved cookstove (FCS), frequency of the use of the traditional stove (FTS), frequency of use of other fuels to cook (FOF), level of satisfaction with the traditional stove (LSTS), changes in the location of the traditional stove (CLTS), perceived health improvements (PHI), perceived saving of fuel (PFS), and quantity of cooking technologies used (TS) (12). Each variable is multiplied by a coefficient that reflects the weight that this variable will have on the total value of the index. Indicative values for each variable are proposed in Supplemental Table 2. The formula for the II is as follows: II = 2(FCS) + 2(FTS) + 1(LSTS) + 1(PHI) + 1(PFS) + 1(TS). The result is scored from 1 to 10, where 1–4 is very bad impact, 5–6 is bad impact, 7–8.5 is regular impact, 8.5–9 is good impact, and 10 is very good impact (12).

The questionnaire was applied by nurses trained in scientific studies and was carried out in at least two home visits to correctly collect the information.

In the present study, the outdoor kitchen (open fire) is mentioned to be used as traditional stove, the stove installed by the non-governmental organization is mentioned to serve as an improved cookstove, and mixed technology is the term applied to the use of two or three types of stoves, including a liquefied petroleum gas (LPG) stove.

Statistical analysis

Descriptive statistics were applied, calculating absolute and relative frequencies for categorical variables. Data normality was assessed using skewness, kurtosis and the Shapiro–Wilk test. Age and time in the house were normally distributed, so they are presented as averages and standard deviations (SDs). Income was not normally distributed, so it was presented as median and interquartile range.

There was no data loss or incomplete data in the evaluation of the study. The STATA 14 (StataCorp LP, College Station, TX, USA) program was used for statistical analysis.

Ethical aspects

The Universidad Santo Toribio de Mogrovejo's Institutional Review Board issued approval to conduct our study (408-2017-USAT-FMED). The presidents of the ecological committee of the villages (elected by the citizens who benefited with the improved stoves of Pacora and Illimo, independent of governmental and non-governmental organizations) were contacted to give their permission to conduct this study with villagers. Visits to the households were conducted and the survey was applied after receiving written informed consent. Interviewers communicate the main findings to participants and gave educational fliers about impacts on health of traditional cookstove smoke, and about how to give maintenance to improved cookstoves.

The results of this study were explained to the participants who were given educational material about the effects of smoke from traditional cookstoves on health, and the maintenance that should be provided to improved cookstoves.

Results

Demographic characteristics

The sample was composed of 52 families, in which the head of household from each home was interviewed. Most of respondents were women (78.9%) (41), with a mean age of 51.2 years (SD: 13.9 years). Thirteen (25%) were older adults (over 60 years of age). The median number of family members was 4 (range = 3–7) and 38 (73%) were nuclear families. More information is presented in Table 1.

Use of improved biomass cookstoves

The mean years with the improved cookstoves was 9.1 ± 2.9 years; 49 (94.3%) had the stove for six or more years; 26 (50%) stated that they had repaired the stove at least once.

Regarding the use of the improved stove, 27 (51.9%) reported that they always used it, and 18 (34.6%) stated that they never used it (15 families used it as a platform to build an open fire, or a traditional cookstove). Thirty-three families (63.4%) had stoves that had been destroyed;

Table 1. General characteristics of surveyed families in Lambayeque, Peru.

Numerical variables	*Mean*	*SD*
Age (years)	51.3	13.9
Time in the house (years)	27.2	12.6
Income (US dollars/monthly)*	156.3	101
Categorical variables	*N*	*%*
Sex		
Female	41	78.8
Male	11	21.2
Educational stage		
None	7	13.5
Elementary	30	57.6
High school	11	21.2
Higher education	4	7.7
Housing		
Adobe	29	55.8
Noble material	23	44.2

SD: standard deviation.
*Expressed in median and interquartile range.

22 (42.4%) had them repaired, and three (5.8%) kept the stove in perfect condition.

It is worth noting that 45 (86.6%) of the participants reported being satisfied or very satisfied with the improved cookstove, 47 (90.3%) would use it again, and 21 (40.4%) who declared to be satisfied reported having the stoves destroyed.

Of the 34 participants who used the improved stove, 32 (94.1%) reported health improvement (such as reduction of respiratory and gastric diseases and better self-perception of health).

Other stoves in use

Twenty (38.4%) reported use of both traditional and LPG cookstoves, while 12 (23.1%) reported use of improved cookstoves and LPG stoves; three families used traditional, improved, and LPG cookstoves.

Thirty-two people (61.5%) were still using the traditional cookstove, either alone or with other stove technologies (see Table 2). Of those, 19 (52.4%) used the traditional cookstove every day. Twelve respondents (37.5%) used the traditional

Table 2. Types of cooking technology used by families in Lambayeque.

Technologies	*N*	*%*
Traditional and LPG	20	38.4
Improved and LPG	12	23.1
Only traditional	9	17.3
Only improved stove	8	15.4
Traditional, gas, and improved	3	5.8

LPG: liquefied petroleum gas.

Table 3. Impact and adoption index of improved cookstoves in Lambayeque.

Adoption index	*N*	%
Good/very good	10	19.2
Average	21	40.4
Poor/very poor	21	40.4
Index of impact	*N*	%
High/very high	13	25.0
Average	12	23.1
Low/very low	27	51.9

cookstove inside the house. Despite the high use of the traditional cookstove, 30 participants (93.8%) reported not being satisfied with the stove.

Adoption and impact indexes

The median AI was 6.5, with an interquartile range of 3–8.3 (classified as regular adoption).

The median II was 5.6, with an interquartile range from 4.3 to 9.3 (classified as low impact). The information described in Table 3 was obtained after categorizing adoption and impact.

Discussion

Average and poor adoption of improved cookstoves were predominant in this study, and impact was overall low. This is similar to a study carried out in Puno, Peru. In that study, although improved cookstoves and clean fuels like LPG were available, adoption and sustained use were low (3). This is probably because families cannot or do not invest in the maintenance of the new stoves, even though the stoves were built after reforestation activities to be more accessible, and their implementation included follow-up visits for two years. Several important aspects such as household priorities, traditions, and needs should be assessed when examining the adoption of a new technology in a population to ensure sustainable use over the time (16). Assistance given to people in poor areas of Peru, without a previous analysis of the needs and possibilities of the inhabitants, could affect prioritization of investment to repair the stoves.

We demonstrated that 94.1% of the participants who used improved cookstoves reported health improvement. This is similar to the results presented by Briceño and Díaz (17), who found that two years after the provision of improved cookstoves, participants recognized that the stove reduced respiratory diseases and other afflictions attributed to cooking, such as back pain from bending over fires (17).

Improved stoves may save time with cooking activities and possibly reduce fuel use (17). In another study in Peru, 97% of study participants perceived a health improvement, and 89% identified improvement in quality of life compared to those who used traditional cookstoves or open fires (8). Biomass smoke from traditional stoves produces a chronic inflammatory status together with the activation of metalloproteins and reduction of mucociliary mobility, which significantly increases the risk of suffering from respiratory diseases (18,19). The replacement of these traditional stoves with improved cookstoves reduces this smoke, resulting in a perception of enhancement (20). Nevertheless, this 'satisfaction' is a subjective point of view of the people interviewed and is one of the questions included in the II.

In the present study, 63.4% had stoves that were reported to be in poor condition, and 94.6% of the participants reported having stoves for more than six years, leading to stove deterioration. Literature has shown that after three years of acquiring an improved stove, deterioration affects the stove function, compromising fuel savings and increasing emissions (8). In this study, only 50% had repaired the stove at least once. A factor that could influence stove performance is that families could not afford to repair the improved cookstoves. Median salary with an average monthly income of US$156.3 was probably too low to prioritize stove repairs. Another possible explanation for the deterioration of the stoves could be the El Niño Phenomenon of 2017, which affected the study area with flooding, and led to the destruction of homes and stoves (21). This study was carried out six months after this phenomenon.

The AI was based on the report of the use of the improved cookstove, level of satisfaction, condition of the stove, and whether the stove will be built again. The results of our survey indicated that the conditions of most of the stoves was poor, with 63% responding that stoves were destroyed or not used. However, the level of satisfaction and the desire to possess a functioning improved cookstove indicated that people perceive the benefits of this technology, even among those in 18 homes that never used the improved cookstoves. This finding merits a future study to understand the reasons why households do not use improved stoves. Lack of maintenance is a key consideration among those who continued using the cookstove. Improved cookstoves in this region have an average useful life of five to eight years, which indicates that they should be replaced with a new stove after an average of nine years of use. This highlights the importance of developing diffusion strategies for long-term alternatives that consider the needs of the population, including access to spare parts and repair services.

The II is based on frequency of use of the improved cookstoves, frequency of the use of the traditional stove, use of other fuels, change in the placement of the traditional stove, satisfaction with the traditional stove, perception of health improvements, perception of fuel saving, and quantity of stoves used. The results of the survey indicate that families used the traditional stove frequently, but also used other technologies such as the LPG stove. This greatly reduces the impact of improved cookstoves because the change is not highly perceived. If people perceive the benefit of LPG, the use of the improved cookstoves could be diminished. These results are understandable if we consider that 94% of the stoves were in poor conditions or destroyed after nine years of use. Furthermore, the government of Peru started to distribute kits of LPG stoves and provided a small allowance to very low-socioeconomic status families. Nevertheless, compelling results in this index were the perceptions of the benefits of improved cookstoves. Most of the people considered that these stoves improved health and conserved firewood use compared to the open fire.

Mixed use of fuels and technologies is common in this area of Peru; 38.4% of the participants reported they used traditional stoves and gas, and 23% used improved cookstoves and gas. Adoption and impact measurement of improved stoves is difficult because users do not simply switch from one cooking technology to another or from one fuel to another completely. There is a transition process in which the use of open fire stops and the use of the improved cookstoves and other fuels are adopted (12). Rhodes (8) found that 53% of families that received LPG stoves considered that the cooking time was less, but 92% continued using a traditional stove (8). In our study, this may be due to several reasons, mainly the destruction of improved cookstoves during El Niño Phenomenon when the families resumed use of traditional stoves (21,22). The habit of cooking over open fires, the easy access to fuel (firewood), and the scarce economic resources have a marked impact on the persistent use of traditional cooking, gas use, or both. Reports demonstrate that these communities appreciate the taste of food cooked with firewood, compared to food prepared with LPG (23). This remains a major barrier for the use of clean fuels such as LPG. A traditional stove, which may be less costly than LPG, remains a barrier to the adoption of LPG (20). Therefore, programs should not only provide access to improved cookstoves, but should ensure regular maintenance of improved cookstoves and LPG stoves.

This cross-sectional study may have biases such as selection and reporting. Households were selected from areas where there were health promoters, but included all households. The households that participated in our study may not be representative of all rural Peruvian households that have participated in a stove program, and households wishing to participate in a stove program may differ from the average rural Andean household. However, we believe that our results are broadly generalizable to the Peruvian rural Andean context, since we include a large number of households from a representative region. In addition, our results and exposures are self-reported, which may overestimate the actual use of the improved cookstoves. One limitation of this study is the period of study – the abandonment of improved cookstoves may have resulted from the El Niño Phenomenon and might not have been driven only by the natural decline in cookstove usage.

It is necessary to include homes within their respective communities and stove programs within their society to achieve the adoption and sustained use of clean fuels. Quantitative and qualitative studies about important factors that ensure adoption and impact are needed, including the maintenance and replacement needed for sustainable use (24). Cultural aspects, such as cooking practices, competing local priorities, and economic means of poor communities, which are the target of stove programs, should also be explored.

The use of the cleanest fuels (e.g. LPG, electricity) and improved cookstoves (e.g. chimney stoves, efficient combustion of biomass) are necessary in rural communities (18,25). Emphasis should be focused on reducing the use of traditional stoves and messages should be developed so that behavior change leads to the sustained use of LPG, electricity, or wood-saving improved stoves. Ultimately, this would contribute to health improvement and may reduce global warming.

Conclusion

In our study, distributed improved cookstoves were adopted by 65% of families. Although most of these stoves were destroyed or reported to be in poor condition, this is expected since stoves were built approximately nine years ago without a follow-up program to ensure maintenance. These findings show that it is very important that governments develop policies that assist low-socioeconomic status families with maintenance of the improved cookstoves and clean cooking technologies to improve human health and wellbeing.

The provision of improved cookstoves allows people to participate with government and non-government organizations, and the commitment is reciprocal. In addition, health education is provided, people have control of their own health, and there is also commitment to the environment; consequently, there is a link between the use of improved cookstoves and health promotion.

Relevance to clinical practice

Reducing the use of firewood will require strategies that consider the preferences of the population of users and their aptitude for maintaining the stoves in good conditions and replacing stoves at the end of their useful lives. Stove programs should be supported by policy makers at the national level.

What does this paper contribute to the wide global clinical community?

The impact of improved biomass cookstoves on people's perception of health is positive. Improved cookstoves were well adopted initially. However, due to flooding in the region, many of these cookstoves were destroyed and not rebuilt. Governmental policies and programs must ensure access and ongoing maintenance for improved cookstoves and clean fuels. Community nurses should integrate public health messages when working with community members to encourage the sustained use of clean cook stoves, including clean fuels like LPG and electricity in rural areas.

ORCID iDs

Maribel A. Díaz-Vásquez https://orcid.org/0000-0002-7950-8805
Rosa J. Díaz-Manchay https://orcid.org/0000-0002-2333-7963
Franco E. León-Jiménez https://orcid.org/0000-0002-9418-3236
Virgilio E. Failoc-Rojas https://orcid.org/0000-0003-2992-9342

Declaration of conflicting interests

The authors have no conflicts of interest to declare.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

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The food of life: an evaluation of the impact of cash grant receipt and good parenting on child nutrition outcomes in South Africa and Malawi

Lorraine Sherr[1], Kathryn J. Roberts[1], Helen Mebrahtu[1], Mark Tomlinson[2,3], Sarah Skeen[2] and Lucie D. Cluver[4,5]

Abstract: Social protection interventions (inclusive of cash grant receipt and care provision) have been found to be effective in response to some of the negative implications of the HIV epidemic on children and families. This study explores the impact of cash grant receipt and care provision (operationalised as good parenting) on child nutritional outcomes. In this cross-sectional study, 854 children and younger adolescents (5–15 years) and caregivers affected by HIV, attending community-based organisations in South Africa and Malawi, were interviewed. Interviews comprised inventories on socio-demographic information, family data, cash grant receipt and child nutrition. Parenting was measured using a composite scale. Logistic regression and marginal effects analyses were used to explore the associations between differing levels of social protection (none; either cash or good parenting; cash and good parenting) and child nutritional outcomes. One hundred and sixty children (20.3%) received neither cash nor good parenting; 501 (63.5%) received either cash or good parenting and 128 (16.2%) received both cash and good parenting. In comparison to no intervention, receipt of either cash or good parenting was significantly associated with child non-stunting, the child having sufficient food, and the child not looking thin. Three (3/7) nutritional outcomes showed increased improvement amongst children receiving both cash and good parenting care including child-reported non-hunger, child non-stunting and parental report of sufficient food. Marginal effects analyses further identified an additive effect of cash and good parenting on child nutritional outcomes. This study indicates that receipt of combined cash and good parenting, when compared to cash grant receipt alone, has positive effects on nutrition-related child outcomes.

Keywords: Cash transfer, care, good parenting, social protections, nutrition, South Africa, Malawi

Introduction

Food and nutrition play a key role in the complex impact of HIV infection at the household level (1). Patenaude *et al.* (1) provided evidence that antiretroviral treatment (ART) commencement had a distinct impact on household food security, noting that ART commencement was associated with both adult and child missed meals. Although this study could not clearly identify the mechanism for food

1. Institute for Global Health, University College London, London, UK.
2. Institute for Life Course Health Research, Department of Global Health, Stellenbosch University, Stellenbosch, South Africa.
3. School of Nursing and Midwifery, Queens University, Belfast, UK.
4. Centre for Evidence-Based Intervention, Department of Social Policy & Intervention, University of Oxford, Oxford, UK.
5. Department of Psychiatry and Mental Health, University of Cape Town, Cape Town, South Africa.

Correspondence to: Lorraine Sherr, Institute for Global Health, University College London, London, NW3 2PF, UK. Email: l.sherr@ucl.ac.uk

(This manuscript was submitted on 12 July 2019. Following blind peer review, it was accepted for publication on 19 August 2020)

Global Health Promotion 1757-9759; Vol 27(4): 131–140; 957598 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920957598 journals.sagepub.com/home/ghp

insecurity, the authors call for policy consideration to redress this issue (1). Such policy could potentially include cash grants to the household, or the availability of quality care provision, both of which have been shown to improve child outcomes generally, and nutrition as well as child development specifically. The recent sustainable development goals (SDGs) have indicated that ending hunger (SDG2) is of fundamental importance to long-term human development.

There is solid evidence that child development can be negatively affected by stunting and malnutrition (2,3). The effects of malnutrition can be long-lasting (4). When food insecurity and HIV co-exist, the effects on both child development and child behaviour can be dramatic (5). HIV has implications for child and adolescent development. This is true for children and adolescents living with HIV, HIV-exposed uninfected children and adolescents, and for children and adolescents living in households where at least one adult is infected with HIV – such associations are often exacerbated by poverty, unemployment, parenting challenges and food insecurity (6). However, there is an absence of studies investigating the developmental and behavioural outcomes of insufficient nutrition in sub-Saharan Africa where there is often high rates of poverty, nutritional challenge and co-occurring HIV infection amongst children and families. Likewise, there remains a paucity of literature addressing food insecurity of children and adolescents infected with or affected by HIV; a systematic review of interventions for severe acute malnutrition in young children identified 68 studies on the topic (7) – none of which covered children infected or affected by HIV.

Cash transfers as a form of social protection have been proposed as a highly effective intervention to alleviate poverty and to reduce child and adolescent exposure to risk. Amongst adolescents, where there is considerable HIV risk behaviour associated with poverty (such as transactional sex), analyses have shown that cash transfers can break the cycle of such risk behaviours. Furthermore, when care is provided in addition to cash transfers, this more robust combination package has been found to have increased effectiveness in relation to adolescent risk behaviour (8). Within this study by Cluver *et al.* (8), the outcome measures of interest were adolescent sexual risk behaviours (i.e. transactional sex, age-disparate sex, early sexual debut, and condomless sex). When it comes to younger children and young adolescents, such outcomes are not yet an issue. Predictors of adolescent risk-taking have been shown to be linked to a variety of factors including cognitive development, educational risk and poverty (and thus by proxy poor nutrition) (9). Such exposures may be on the pathway to risk, and early intervention for children and younger adolescents may avoid such risk pathways.

Cash transfers have been specifically evaluated as an intervention to improve nutrition outcomes, with mixed results (10,11). A trial conducted in Burkina Faso, found that seasonal transfers did not result in a significant decrease in malnutrition as such; the authors suggested the need to examine complementary interventions in the pursuit of improved nutritional outcomes (10,12). However, a similar intervention in Niger was found to be effective (13). Various forms of cash transfer provision have been studied in terms of impact on different nutrition outcomes (including wasting, stunting, height-based growth, food security, hunger) and at different stages (14). Timing and amount of cash transfers have been shown to be important variables. The evidence regarding the impact of conditional cash transfers on child nutritional outcomes within sub-Saharan Africa is beginning to be summarised (15). However, there is now a need to examine combination interventions within a broader social protection paradigm, to identify specific combinations of social protection that provide maximum traction for improved child nutritional outcomes. Cash transfers, and cash plus good-quality care have been shown to be related to educational risk reduction and positive cognitive development in childhood in studies of HIV-infected and -affected groups (16,17). Yet to date, there is no single study that has explored the impact of cash and cash plus care on nutrition outcomes for children and younger adolescents in sub-Saharan Africa. Cash transfers are seemingly most effective when they form part of a complex basket of provision for individuals. Supplements to cash have been studied to include good parenting (16,17), good clinic care, and support (18,19). This study explores the effect of cash transfers and combined cash receipt and care provision (operationalised as good parenting) on child and young adolescent (5–15 years) nutritional outcomes.

Methods

Procedure

In this cross-sectional study, consecutive child and young adolescent attenders (aged 5–15 years) and their primary caregivers were interviewed independently by trained data collectors using questionnaires administered using mobile phone technology (20). Full study information was provided. Informed written consent was obtained from all primary caregivers, and assent from all children within the study. Questionnaires, for both children and caregivers, included a range of study-specific questionnaires and standardised measures relating to health, wellbeing, cognition, nutrition and socio-demographic information. All study information, consent forms and questionnaires were translated into Zulu Xhosa and Chewe as appropriate and back translated for administration.

Measures

Socio-demographic characteristics

Demographic characteristics (child/adolescent age, gender, HIV status) were obtained using caregiver reports. The type of household that the child/adolescent lived in was also obtained using caregiver reports (i.e. house/flat, a shack, on the street), and responses were dichotomised into formal (house/flat) versus informal (shack/street) housing. Household wealth was assessed using an item from the Demographic and Health Survey (DHS) focusing on the number of household assets (21). Caregivers were asked to identify how many household items they owned: refrigerator, stove, television, radio, telephone, mobile phone, computer, internet, car, and bicycle. Number of assets were scored on a scale between 0 and 10 (scoring 1 point for each asset owned), with higher scores representing a greater number of assets.

Cash grant receipt

Grant receipt was determined by caregiver reports. Caregivers were asked whether they received any of the following grants into the household: state pension, retirement pension, disability grant, child support grant, foster care grant, care dependency grant or any other cash transfer support. Grant receipt was dichotomised with regard to whether any grant was received versus no grants received.

Care receipt: good parenting

Care within the context of this study was defined as ‘good parenting’. A measure of good parenting has been used within pre-existing studies associated with this data (12). The good parenting measure was operationalised based on a composite index of 10 items made up of both child/adolescent and caregiver responses. Children/adolescents within the study reported on four items drawn from the Child Status Index tool (22) including whether they received praise, whether they felt that they belonged in their home, whether they received treats and whether adults hugged children as well as praised them. Caregivers reported on six items drawn from the Parent–Child Conflict Tactics Scale (23) including provision regarding consistent care, the use of positive discipline (i.e. taking away privileges, explaining what children did wrong) and the absence of emotional or physical violence towards the child. All items were given a binary score (yes/no). The index was scored from zero to 10, with higher scores reflecting more positive parenting practices (12). The index was dichotomised within the study with a score of eight or above being identified as ‘good-enough parenting’ (n = 101) and those scoring below eight (n = 732). No participants scored 10 and only one participant scored nine, therefore eight was chosen as a cut-off to reflect a high enough standard of parenting.

Nutrition outcomes

Seven measures of nutrition were used as outcome measures and included both child/adolescent and caregiver reports. Children and young adolescents within the study reported whether they had gone to bed hungry the previous night, an item drawn from the Child Status Index tool (22). This item was given a binary score of yes/no. Measures of age, height and weight, were used to develop standardised World Health Organization measures of height-for-age, weight-for-age and weight-for-height. These items were used to assess malnutrition: whether children were stunted, wasted or underweight (<-2 z-score). These measures were given a binary score (i.e. yes – stunted, no – normal growth). Caregiver report was also used to establish child food status (whether the child has sufficient food all of the time, regularly, less food than needed, or regularly no food to eat) based on an item drawn from the Child Status Index (22). This item was dichotomised to distinguish sufficient food all of the time ($n = 515$) versus not ($n = 339$). Caregivers also reported on whether the child was small for their size and whether the child looked thin – items drawn from the nutrition and growth domain of the Information and Action Tool (24). These items were given a binary score (i.e. yes – child is thin, no – normal growth). All items were recoded to focus on positive nutritional outcomes, that is, Did you go to bed hungry last night? (1 = no, 0 = yes).

Participants

The study sample included children and young adolescents (5–15 years; $n = 854$) and their primary caregivers ($n = 854$). Data collection was undertaken between 2013 and 2014 as part of the Child Community Care Study, which aims to track children and families affected by HIV who attend community-based organisations within South Africa and Malawi. Five hundred and eighty-eight community-based organisations (524 in South Africa and 64 Malawi) were identified as all funded child providers by 11 partner organisations (AIDS Alliance, Stop AIDS Now, Diana Memorial Fund, Firelight Foundation, Bernard van Leer foundation, REPSSI, World Vision, Comic Relief, Help Age, Save the Children and UNICEF). All 588 identified community-based organisations were stratified by geographical location and funding partners and 28 (24 in South Africa and 4 in Malawi) were randomly selected. All 28 community-based organisations agreed to participate. Ethical approval was obtained from University College London Research Ethics Committee (reference number 1478/002) and Stellenbosch University Health Research Ethics Committee (reference number N10/04/112) and authorised by each of the funding partners of the various community-based programmes in each respective country.

Statistical analyses

All analyses were carried out using Stata v.13 (25). Differences between those who received a household cash grant and those who did not receive any grant were explored with regard to socio-demographic characteristics inclusive of seven measures of child nutritional status using chi-square and *t*-tests. Results are reported using mean and standard deviations (SD) for continuous variables, and frequency percentages for categorical variables. A series of logistic regression models were used to examine the associations of cash or parenting support and combined support (represented by indicator variables using no support as the reference category) with nutritional outcomes. Model 1 shows the unadjusted univariate associations between cash and parenting support and nutritional outcomes. Model 2 includes potential covariates identified as being associated with both the exposure variables (cash and parenting support) and the outcome variables (nutritional status). Model 3 uses interaction terms to assess the potential multiplicative effects of cash and care on nutritional outcomes. Marginal effects models were also used to explore the additive effects of combined cash and care receipt on child nutrition outcomes. Probability predictions with 95% confidence intervals (CIs), adjusted for covariates, are presented. Covariates identified with strong associations ($p < 0.2$) with both predictor and outcome variables were included within the models. Covariates included were child gender, child age, child HIV status, number of household assets, and for the model exploring the association between cash and parenting support and child size, type of child home was also included in the model. Unadjusted and adjusted odds ratios (ORs and aORs, respectively) with 95% CIs are reported and *p*-values with thresholds of <0.05, <0.01, <0.001 were used.

Results

Six hundred and twenty-four children and young adolescents lived in a household in receipt of a cash grant, while 230 received no cash grants. Table 1 below sets out comparison of socio-demographic and nutrition outcomes for those receiving cash grants compared to those not receiving cash grants. There were no gender differences according to grant receipt. Younger children and children from South Africa were significantly more likely to be in receipt of a grant ($t = 3.74$, $p = 0.0002$ and $\chi^2 = 477.8$, $p < 0.001$, respectively). One hundred and fifteen

Table 1. Descriptive characteristics of the sample and nutritional outcomes stratified by cash grant receipt.

	Total (n=854) n(%)	*Cash grant received (n=624) n(%)*	*No cash grant received (n=230) n(%)*	*χ2 or t, p-value*
Gender				
Female	439 (52.3)	322 (73.4)	117 (26.7)	0.13, 0.72
Male	400 (47.7)	289 (72.3)	111 (27.8)	
Age (years)	*M* = 10.21 (SD 2.80)	*M* = 9.99 (SD 2.80)	*M* = 10.80 (SD 2.73)	3.74, 0.0002
Country				
South Africa	708 (82.90)	624 (88.14)	84 (11.86)	477.8, <0.0001
Malawi	146 (17.10)	0 (0.00)	146 (100.0)	
HIV status				
HIV positive	115 (13.47)	69 (60.00)	46 (40.00)	17.3, <0.0001
HIV negative/unknown	737 (86.30)	555 (75.31)	182 (24.69)	
Type of home				
Formal	689 (86.56)	481 (69.81)	208 (30.19)	13.47, <0.0001
Informal	107 (13.44)	93 (86.92)	14 (13.08)	
No. household assets	*M* = 3.90 (SD 1.93)	*M* = 4.38 (SD 1.58)	*M* = 2.60 (SD 2.16)	13.16, <0.0001
Went to bed hungry last night				
Yes	89 (11.18)	39 (43.82)	50 (56.18)	39.88, <0.0001
No	707 (88.82)	535 (75.67)	172 (24.33)	
Child stunted				
Yes	193 (23.34)	108 (55.96)	85 (44.04)	38.33, <0.0001
No	625 (76.41)	489 (78.24)	136 (21.76)	
Child wasting				
Yes	56 (6.82)	31 (55.36)	25 (44.64)	8.98, 0.003
No	765 (93.18)	565 (73.86)	200 (26.14)	
Child underweight				
Yes	33 (9.79)	20 (60.61)	13 (39.39)	7.71, 0.005
No	304 (90.21)	247 (81.25)	57 (18.75)	
Food status				
Child is well fed	515 (60.30)	438 (85.05)	77 (14.95)	135.8, <0.0001
Child eats regularly sometimes	210 (24.59)	90 (42.86)	120 (57.14)	
Child has less food to eat than needed	118 (13.82)	89 (75.42)	29 (24. 58)	
Child regularly has no food to eat	11 (1.29)	7 (63.64)	4 (36.36)	
Child small for size				
Yes	96 (11.24)	61 (63.54)	35 (36.46)	4.99, 0.03
No	758 (88.76)	563 (74.27)	195 (25.73)	
Child looks thin				
Yes	81 (9.48)	40 (49.38)	41 (50.62)	25.51, <0.0001
No	773 (90.52)	584 (75.55)	189 (24.45)	

children in the sample (13.5%) were recorded as living with HIV. These children were significantly less likely to receive a grant than HIV-negative children ($\chi^2 = 17.3$, $p < 0.001$). On the nutritional variables, there were significant differences according to cash grant receipt on child-reported hunger, stunting, wasting, weight, food status, child size and child appearance (see Table 1).

Table 2. Logistic regression models exploring predictors of child nutrition outcomes.

	Went to bed not hungry last night (n = 720)	*Child not stunted (n = 635)*	*Child not wasting (n = 777)*	*Child not underweight (n = 309)*
	OR (95% CI)	*OR (95% CI)*	*OR (95% CI)*	*OR (95% CI)*
Model 1				
No cash, no care (*n* = 160)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Either cash or care (*n* = 501)	2.80 (1.74–4.52)***	2.59 (1.76–3.82)***	2.40 (1.31–4.39)**	2.61 (1.08–6.32)*
Cash plus care (*n* = 128)	7.14 (2.71–18.80)***	4.44 (2.43–8.12)***	2.94 (1.14–7.57)*	6.00 (1.52–23.70)**
Model 2				
No cash, no care	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Either cash or care	1.59 (0.92–2.76)	2.09 (1.36–3.22)***	1.36 (0.68–2.71)	1.81 (0.68–4.84)
Cash plus care	3.75 (1.33–10.53)**	3.15 (1.64–6.04)***	1.29 (0.45–3.70)	4.10 (0.96–17.48)
Model 3				
No cash, no care	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Cash	2.12 (1.17–3.84)*	2.38 (1.52–3.74)***	1.38 (0.66–2.90)	1.87 (0.68–5.17)
Care	0.77 (0.37–1.62)	1.23 (0.64–2.34)	1.29 (0.45–3.72)	1.52 (0.34–6.88)
Interaction – cash × care	2.53 (0.75–8.53)	1.12 (0.48–2.65)	0.73 (0.18–2.98)	1.44 (0.20–10.40)

OR: odds ratio; CI: confidence interval.

$^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

Model 1: Univariate regression analyses showing associations of cash grant receipt, good parenting and combined cash and good parenting with child nutrition outcomes.

Model 2: Multivariable regression analyses showing associations of cash grant receipt, good parenting and combined cash and good parenting with child nutrition outcomes controlling for other predictors: child gender (female), age (years), HIV status (HIV+), and number of household assets.

Model 3: Multivariable regression analysis showing the interaction between cash grant receipt and good parenting controlling for other predictors: child gender (female), age (years), HIV status (HIV+), and number of household assets.

From the data, 160 children and younger adolescents (20.3%) received neither cash nor parenting above the cut-off for good parenting. A further 501 children (63.5%) received either cash or parenting above the cut-off score. Finally, a group of 128 children (16.2%) received both cash transfers plus good parenting above the cut-off score.

Multivariable regression analyses showing associations of cash, good parenting and combined cash and good parenting with child nutrition outcomes were carried out, controlling for other predictors including child gender, age, HIV status, number of household assets and type of home. These data are set out in Tables 2 and 3.

These tables set out both univariate and the multivariable regression analyses examining predictors for the seven nutrition measurements. With no cash and no care set as the reference category, receipt of either cash or parenting care was significantly associated with the child not being stunted, the child having sufficient food, and the child not looking thin. Three of the nutritional outcomes showed increased improvement amongst children receiving both cash transfers plus good parenting care above the cut-off. Rates of child-reported non-hunger increased from aOR: 1.59 (95% CI: 0.92–2.76) when receiving either cash or care, to aOR: 3.75 (95% CI: 1.33–10.53) when receiving both. Child non-stunting increased from aOR: 2.09 (95% CI: 1.36–3.22) to aOR: 3.15 (95% CI: 1.64–6.04), and parent-reported sufficient food from aOR: 3.38 (95% CI: 2.16–5.28) to aOR: 5.78 (95% CI: 3.16–10.60).

Table 3. Logistic regression models exploring predictors of child nutrition outcomes using Child Status Index food security domain.

	Child has sufficient food (n = 515)	*Child size appropriate (n=758)*	*Child does not look thin (n = 773)*
	OR (95% CI)	*OR (95% CI)*	*OR (95% CI)*
Model 1			
No cash, no care (*n*=160)	1 (Ref)	1 (Ref)	1 (Ref)
Either cash or care (*n*=501)	5.79 (3.87–8.66)***	1.42 (0.84–2.40)	3.54 (2.10–5.99)***
Cash plus care (*n* = 128)	11.77 (6.72–20.60)***	1.62 (0.77–3.40)	4.32 (1.84–10.16)***
Model 2			
No cash, no care	1 (Ref)	1 (Ref)	1 (Ref)
Either cash or care	3.38 (2.16–5.28)***	1.40 (0.78–2.53)	2.00 (1.09–3.67)*
Cash plus care	5.78 (3.16–10.60)***	1.60 (0.71–3.60)	2.15 (0.84–5.56)
Model 3			
No cash, no care	1 (Ref)	1 (Ref)	1 (Ref)
Cash	3.64 (2.30–5.76)***	1.54 (0.83–2.83)	2.07 (1.08–3.99)*
Care	2.34 (1.19–4.57)*	0.96 (0.41–2.26)	1.78 (0.68–4.64)
Interaction – cash × care	0.70 (0.30–1.60)	1.12 (0.38–3.32)	0.59 (0.16–2.16)

OR: odds ratio; CI: confidence interval.

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

Model 1: Univariate regression analyses showing associations of cash, good parenting and combined cash and good parenting with child nutrition outcomes.

Model 2: Multivariable regression analyses showing associations of cash, good parenting and combined cash and good parenting with child nutrition outcomes controlling for other predictors: child gender (female), age (years), HIV status (HIV+), and number of household assets. The analyses showing the association between cash receipt, good parenting and combined cash and good parenting with child size also controls for child's type of home (living in informal housing).

Model 3: Multivariable regression analysis showing the interaction between cash grant receipt and good parenting controlling for other predictors: child gender (female), age (years), HIV status (HIV+), and number of household assets. The analyses showing the association between cash receipt, good parenting and child size also controls for child's type of home (living in informal housing).

Controlling for all covariates, potential multiplicative effects of cash and care were explored using interaction terms in logistic regression models. The exponential coefficients (OR) of such interactions are presented. No statistically significant interactions were apparent, indicative of no multiplicative effects (see Tables 2 and 3). To explore potential additive effects of cash and care, estimates of the predicted probability of each nutritional outcome were calculated, controlling for all predictor variables (see Figure 1). Predicted probability of child-reported non-hunger was 86% when neither cash grant receipt nor sufficiently good parenting were received, 91% with either form of intervention, and upon receipt of both a cash grant and good parenting, 96% of children reported non-hunger. Similar patterns are shown for measures of non-stunting (65%, 79% and 85%, respectively), the child being of an appropriate weight (85%, 91% and 96%, respectively), caregiver reports of sufficient food access (36%, 65% and 76%, respectively), and the child being of an appropriate size (86%, 90% and 91% respectively). Predicted probability of child non-wasting was found to be 93% when neither cash grant nor sufficiently good parenting were received, 95% upon receipt of either a cash grant or good parenting and 94% upon receipt of a cash grant and good parenting. Predicted probability of having a child who looked to be of an appropriate size was 89% when neither a cash grant nor sufficiently good parenting were received, 94% upon receipt of either intervention, and remained at

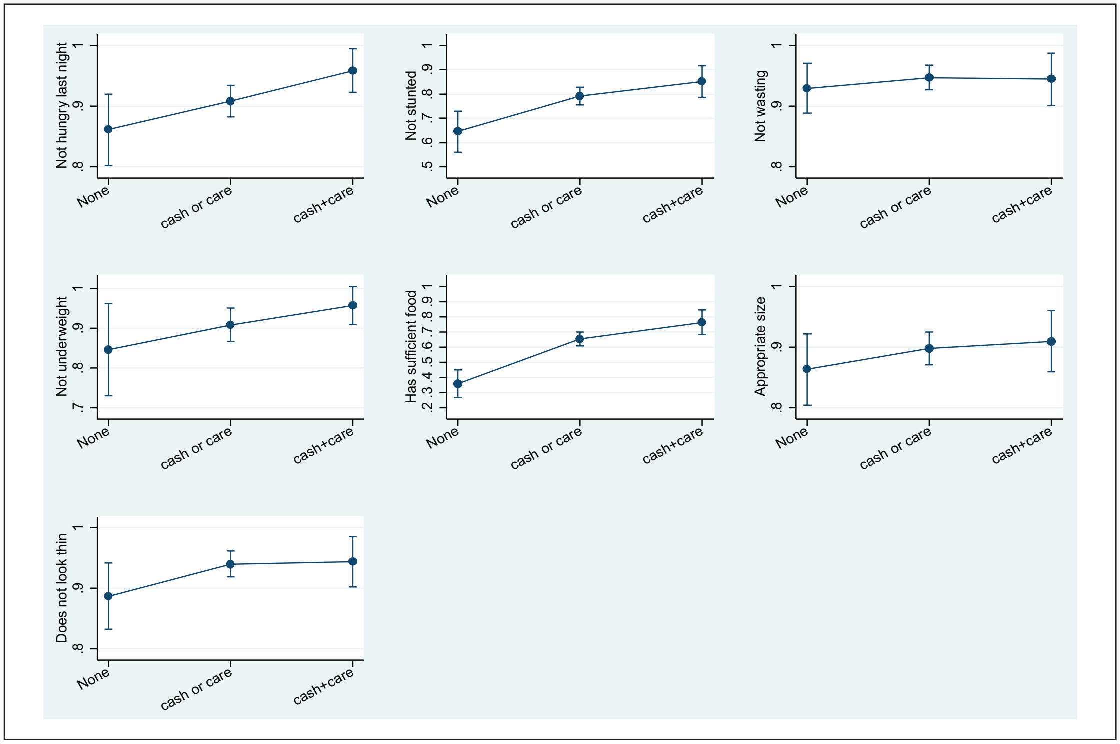

Figure 1. Marginal effects model testing for additive effects of cash and good parenting receipt on child nutrition outcomes. Adjusted for child gender, child age, child HIV status, number of household assets and, for the model exploring the association between cash and parenting support and child size, type of child home. None: no cash or care.

94% when both interventions were received (see Figure 1).

Discussion

This study uses a large sample of community-identified children and young adolescents in two countries in sub-Saharan Africa (South Africa and Malawi) to explore the impact of cash grant receipt and care provision (operationalised as good parenting) on child nutritional outcomes. Within the analyses, different levels of social protection (i.e. cash grant receipt/care provision) were explored: neither cash or care, either cash or care, and cash and care. Provision of social cash transfers and parenting support were found to be strongly and independently associated with improved child nutritional outcomes. Either cash or good parenting was a significant predictor of improved child status in five of the seven nutrition outcomes. Over and above these effects, combining cash plus care was a significant predictor for three of the seven nutrition outcomes. For some outcomes, either cash grants or good parenting was sufficient to improve the situation – with no added combination effect. The combination of provision did not enhance the positive effect for all measures, but did for three, notably child-reported hunger, child stunting and child food sufficiency.

The SDGs have rightly identified the need for more robust lenses to examine child development, more robust interventions to avoid silos, and more comprehensive planning to ensure maximising human potential. Our data show a clear possible pathway for utilising well-established interventions in concert with each other to extend the impact, enhance the reach and to allow for synergies in programming. When single interventions are not effective, there is a constant search for new novel interventions. However, our data suggest that well-tried interventions may well be effective and the novelty is providing them in combination.

The study is not without limitations. This study utilises cross-sectional data and future research may be necessary to explore these findings within longitudinal, more controlled and randomised designs. Our data are limited to two settings, and generalisation to other settings may need to be explored. Our parenting measures were a composite measure, and although these were solid within the evaluation, more robust and additional validated measures could be used in the future. Our data also focuses on children and younger adolescents, and it should be noted that the age range of the sample (5–15 years) focuses on different developmental periods (childhood and early adolescence). As such, the impacts of nutrition and good parenting may have differing effects across developmental periods. It is therefore important for future studies to explore effects across different developmental periods inclusive of infancy and childhood, younger and older adolescence.

However, these data suggest that the overall wellbeing of children can be greatly enhanced by combining two established social protection measures. When cash grant programmes are considered, a complex model should be envisaged where parenting interventions may help to supplement the efficacy of cash grants and impact on nutrition-related child outcomes. Some earlier studies have examined the relative benefits of child stimulation interventions on child outcomes and found these to be effective with long-term follow-up. These data would suggest that to optimise the impact, cash grants should be given in combination. Cash plus care seems to be a viable future pathway, specifically in areas of high deprivation, high poverty, and high HIV burden.

Declaration of conflicting interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethical approval

Ethical approval was obtained from the ethics boards of University College London (reference number 1478/002) and Stellenbosch University (reference number N10/04/112).

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: LDC is supported by the European Research Council (ERC) under the European Union's Seventh Framework Programme (FP7/2007-2013)/ERC grant agreement no. 313421 and the Philip Leverhulme Trust (PLP-2014-095). KJR is supported by a studentship from the Economic Social Research Council. The upcoming child community care study follow-up of these children into adolescence is supported by the UKRI GCRF Hub on Accelerating Achievement for African Adolescents. This study was funded by Sweden Norad through a nesting agreement with Helpage.

ORCID iD

Kathryn J. Roberts https://orcid.org/0000-0003-1200-5362

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Promoting the health of children and young people who migrate: reflections from four regional reviews

Jill Thompson[1], Hannah Fairbrother[1], Grace Spencer[2], Penny Curtis[1], Christa Fouche[3], Karen Hoare[4], Deirdre Hogan[5], Jacqui O'Riordan[5], Bukola Salami[6], Melody Smith[4], Bethany Taylor[1] and Victoria Whitakker[1]

Abstract: Calls to enhance the health of migrant population sub-groups are strengthening, with increasing evidence documenting the relationship between migration and health outcomes. Despite the importance of migration to global health promotion, little research has focused on the health experiences of young migrants. As part of a Worldwide University Network project, we completed four systematic reviews examining the existing evidence base on the health experiences of children and young people who migrate. In this commentary, we share commonalities with the international evidence but also reflect on some of the challenges, omissions and limitations. These insights expose significant gaps and methodological shortcomings in the evidence – providing space for new research that seeks to identify the influences on migrant children's health.

Keywords: migration, children and young people, global health promotion, systematic review

Introduction

Whilst migration is not a new phenomenon, over the last decade there have been significant shifts in the types and patterns of migration across the globe (1). Recent estimates suggest that 36 million children, including refugee, asylum-seeking children and young people live outside their country of birth (2,3). International migration presents new challenges and opportunities for health promotion, with evidence suggesting both positive and negative influences on health (1,4). The 'healthy migrant effect', for example, reflects the health advantage that *some* migrants have over the native-born population (5). Other evidence points to negative impacts, including poorer mental health and higher prevalence of certain infectious diseases (6). Migration is thus a key social determinant of health with implications for global health promotion. Indeed, a recent World Health Organization report underscores the need to promote the health of all migrants, including children and young people (7). In order to do so, there is a need to deepen our understanding of the particular health priorities and experiences of migrant populations, and crucially from the perspectives of children and young people (8).

Against this background, in 2016/17 we undertook four regional systematic reviews (Europe,

1. The School of Nursing & Midwifery, Barber House Annexe, Sheffield, UK.
2. School of Education and Social Care, Anglia Ruskin University, Chelmsford, Essex, UK.
3. School of Education and Social Work, University of Auckland, Auckland, New Zealand.
4. School of Nursing, University of Auckland, Auckland, New Zealand.
5. School of Applied Social Studies, University College Cork, Cork, Ireland.
6. Faculty of Nursing, University of Alberta, Edmonton, AB, Canada.

Correspondence to: Jill Thompson, The School of Nursing & Midwifery, Barber House Annexe, Sheffield S10 2TN, UK. Email: Jill.thompson@sheffield.ac.uk

(This manuscript was submitted on 9 May 2019. Following blind peer review, it was accepted for publication on 3 October 2019)

Global Health Promotion 1757-9759; Vol 27(4): 141–144; 888452 Copyright © The Author(s) 2019, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975919888452 journals.sagepub.com/home/ghp

Africa, Americas, Western Pacific) to examine the existing evidence base on the health experiences of children and young people who migrate. Developing knowledge of children's own migration and health experiences is imperative to global health promotion efforts and in line with the UN Convention on the Rights of the Child (9). Migrant children reflect a diverse population group and the reasons for their migration (economic/forced, [un]accompanied) are likely to shape their health experiences and outcomes in different ways. In this commentary, we share the insights and challenges found in our reviews, including the limits to the current international evidence base. These shortcomings signpost some important implications for the advancement of global health promotion research and practice.

Overview of the reviews

Four systematic reviews were conducted across the following geographical regions: Europe, Western Pacific, the Americas and Africa. The primary aim of each review was to explore the existing evidence base on the health experiences of young migrants from their own perspectives. Review methods are reported in full elsewhere (10). Each review focused on peer-reviewed journal articles published in English that reported data generated directly from children (up to 18 years) who had migrated across national borders during their own lifetimes. Searches were conducted between June 2016 and March 2017. Titles, abstracts and then full texts were screened by the same team of researchers to ensure consistency. Quality of full texts was assessed using the Mixed Methods Appraisal Tool (11). In total we identified 46 qualifying papers from the European Region, 10 from the African region, 52 from the Americas and 11 from the Western Pacific region. Most papers were quantitative with some qualitative or mixed methods studies. Owing to the different health outcomes and different measures drawn on within the quantitative papers, we did not meta-analyse the results, choosing instead to place more emphasis on the narrative synthesis. More detail on the specific findings of the narrative synthesis can be found elsewhere (10).

Key themes across the four regions

In the following section, we share insights into the reviewed literature to highlight overarching themes and to identify potential knowledge gaps for future global health research.

Children's migration status and reasons for migration

During initial scoping of the literature, we noted consistent under-reporting of children's migration status, which was a primary reason for rejecting papers during the review process. Children's migration status was most often proxied by the status of their parents or guardians. Indeed, migration research has traditionally obscured children's experiences and the key factors shaping their experiences throughout migration (10,12). However, recent work demonstrates the importance of research 'with children and from a child's perspective' (13) and the recognition of children as 'active agents' (14), both to better understand their experiences and to create more evidence-driven solutions for these young populations. Together, this highlights the imperative to design research which opens up opportunities for children to share their experiences and understandings.

There was also significant variance in the classification of first-generation migrant children, with some studies identifying first-generation children as those born outside of their host country, while other studies reported on those born in the host country, but with foreign-born parents. Nearly all studies focused on older children (e.g. adolescents), exposing gaps in research with younger migrant children. For example, 32 of the 47 articles in the European review reported on data generated with children aged between 10 and 18 years. The differential definitions and classifications of children's migration status and ages thus made it difficult to draw comparisons across studies and the four regions.

Among the included studies, unsurprisingly, the four regions differed in terms of who the migrant children were and the reasons for their migration. In the European and Western Pacific reviews, most studies were concerned with refugees and asylum-seekers. Within the Americas, the focus was on first-generation migrants, recently arrived temporary migrants, and refugees. In contrast, the African studies largely focused on children based in camps for internally displaced people. Again, these different migration patterns and contexts presented difficulties in synthesising findings and understanding the impacts of different forms of migration on children's experiences.

Health experiences

Across all four regions, most studies adopted a biomedical approach to migrant children's health, with a particular focus on risk factors and negative health outcomes. European and Western Pacific studies focused on key public health priorities including diet and obesity, alcohol, smoking and substance misuse, with an additional focus on sexual health. Studies from all regions explored children's mental health extensively. In line with the biomedical approach, children were largely constructed as being at risk of negative health outcomes (particularly depression, anxiety and behavioural problems). In fact, there was a general tendency to overlook protective factors and possibilities for understanding children's strengths and resilience. Just one European (15) and one African study (16) focused on children's resilience. In the Americas, only three papers specifically examined protective factors (17,18,19) while two Western Pacific studies highlighted children's agency and assets (20,21). By framing the work from a health-enhancing, salutogenic perspective (22), this research could have strong implications for health promotion efforts with migrant children.

Another common descriptor of young migrants' health experiences was the process of acculturation (23). Studies from the Americas strongly focused on the expectation that migrant children would 'acculturate' by adjusting their behaviour to the norms of North American and Canadian societies (24). Whereas acculturation was viewed as contributing to migrant children's wellbeing and a necessary part of the migratory process in the Americas, studies focusing on acculturation within the European context focused on the 'healthy migrant' paradox and how children's health status diminished the longer they had spent in their host country (25). Western Pacific studies provided further evidence of the negative effects of acculturation and significantly, the impacts that social exclusion and lack of integration can have on young migrants' wellbeing. These latter studies highlighted the importance of place in addressing forms of stigma and discrimination and supporting young people's sense of belonging in new contexts.

Concluding thoughts

In this commentary, we have sought to share some key insights drawn from four regional systematic reviews on the health experiences of migrant children. Each review has limitations, including the possibilities for missing relevant evidence because of the inclusion criteria (e.g. studies only published in English). Significant difficulties were encountered with the narrative synthesis of the evidence because individual studies used different definitions and classifications of migration status, children and young people, and understandings of health. Furthermore, our quality assessment of the papers revealed significant shortcomings in the methodological approach of many of the studies.

Yet these limitations also provide important insights about the status of the international evidence base. A consistent feature across the research is the tendency to view children and their migration status as an appendage to their parent or guardian (12) and to frame migrant children's health from a largely biomedical, risk-based perspective. The lack of research that engages directly with children currently limits our understandings of their own health perspectives and experiences, including the ways their migration trajectories have shaped their health both positively and negatively. Research that considers migrant children's agency and assets would be a valuable contribution to the current discourse. Our reviews reveal the urgency of addressing this gap in order to develop effective and appropriate health promotion responses.

Declaration of conflicting interests

The authors declare that there is no conflict of interest.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Funding for this work was provided through a grant from the World Universities Network.

ORCID iD

Jill Thompson https://orcid.org/0000-0001-9256-1208

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Health promotion strategy as part of Vision 2050 in Oman: the way forward

Halima Al Hinai[1], Khuloud Al Mufarji[2], Huda Al Siyabi[2], Zahir Al Anqoudi[3], Rashid Al Saadi[4] and Salah Al Awaidy[5]

Abstract:

Introduction: Non-communicable diseases (NCDs) have become a significant cause of morbidity and mortality in Oman. The adoption of unhealthy and sedentary lifestyles associated with rising income is trending with a large number of individuals and is contributing to the emergence of substantial health issues. Ultimately, the incidence of NCDs has increased considerably. This review aims to define strategies that can help in attaining Oman's national health promotion goals.

Results: The current health promotion strategies have not been adequate or sufficient to meet the national Health Vision 2050 of Oman.

Conclusion: Unsafe behaviors and unhealthy lifestyles that led to a significant increase in NCDs have emerged in Oman. Careful re-planning and continuous monitoring and evaluation of health promotion activities are necessary for effective implementation of health policies, with the ultimate goal of reducing the NCD burden in Oman.

Keywords: health promotion, health professionals, health policies, non-communicable diseases, NCD, Oman

Introduction

The health system in Oman is characterized by its universal coverage. The total health expenditure accounts for about 2.7% of the gross domestic product. The government owns and runs the health system, and covers around 81% of the entire expenditure (1).

In 2012, the 'Health Vision 2050' was developed to conceptualize how the health system in Oman would evolve in the future, between now and the year 2050. The principles established in that document are: the need to provide quality services, focus on measurable outcomes, emphasize disease prevention, and be patient-focused. One of the major challenges facing the health system in Oman is the notion that there is an epidemiological shift from communicable diseases to non-communicable diseases (NCDs) (2,3). The main behaviors associated with NCDs are smoking, insufficient physical activity, unhealthy diet, and mental stress (defined as the degree to which you feel overwhelmed or unable to cope as a result of pressures that are unmanageable, leading to disease) (4). In 2000, a study showed that 10.7% of adult males in Oman smoked daily (any form of tobacco); this proportion increased to 14.3% in 2008 (5).

This comprehensive survey also showed that 63% of the adult population typically attained the

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1. Directorate General of Planning and Studies, MOH, Muscat, Masqat, Oman.
2. Directorate General of Primary Health Care, MOH, Muscat, Masqat, Oman.
3. Directorate General Health Services Ad Dhakhilya, MOH, Nizwa, Oman.
4. Directorate General Health Services South Batinah, MOH, Masanah, South Batinah, Oman.
5. Office of Health Affairs, MOH, Muscat, Oman.

Correspondence to: Salah Al Awaidy, Office of Health Affairs, MOH, PO Box 393 PC 100, Muscat, 113, Oman.
Email: salah.awaidy@gmail.com

(This manuscript was submitted on 24 October 2019. Following blind peer review, it was accepted for publication on 6 January 2020)

Global Health Promotion 1757-9759; Vol 27(4): 145–149; 909115 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920909115 journals.sagepub.com/home/ghp

physical activity goals as recommended by WHO (150 minutes of moderate intensity physical activity per week). Notably, the study also revealed that 24% of Omani adults are obese, 32% are overweight, 6% are underweight, and 28% are anemic. Twenty-six percent have reported that they eat enough fruits and vegetables. The fact that there is a high prevalence of NCDs in Oman is further complicated by the number of diabetic and hypertensive patients (52% and 75%, respectively). In addition, the death rate of NCDs is projected to increase by 15% between 2010 and 2020 (6). This is quite alarming for preventable diseases.

Non-communicable diseases which are associated with lifestyle risk factors such as obesity, diabetes mellitus, hypertension, hyperlipidemia, metabolic syndromes, smoking and lack of physical activity represent a challenge facing any regional or global health system. Diabetes is a major and growing health problem in Oman. Studies have shown that the prevalence of diabetes is increasing. Two National Surveys of diabetes and one World Health Survey, conducted in 1991, 2000 and 2008, showed that the prevalence increased from 9% to 11% to 12%, respectively, among adults over 20 years of age (6). Thus, NCDs pose many challenges facing the health system in Oman, impacting the quality of life and ultimately the economic system of the country.

Health promotion is associated with human development, as the health of an individual is a critical factor in the progress and growth of the state, and with the emergence of NCDs in Oman, it has become a major challenge (1). The comprehensive programs that have been developed to address the increasing incidence of NCDs have needed to focus on prevention and address the current and future behavioral risks at the population level (7). Hence, the aim of this review is to highlight the lessons learned to date regarding health promotion strategies and propose the steps necessary to reach and instill a sustainable community lifestyle that leads to the decrease of NCDs.

Methodology

Data record reviews on NCDs from the Ministry of Health (MOH) officials have provided information to assess the situation in Oman (1). The information, including vital health indicators and disease burden of NCDs, were analyzed. We performed an online search for articles published on health promotion in Oman from Medical Journal, Pubmed®, Elsevier, EMBASE®, and Scopus prior to 2018. We also reviewed reports on health promotion in Oman and the 'Health Vision 2050 of Oman' (2).

Non-communicable disease burden in Oman

In 2018, NCDs accounted for 72% of all deaths in Oman, of which cardiovascular diseases alone accounted for 36%, followed by cancer (11%), diabetes (8%), and chronic respiratory diseases (2%) with similar trends in morbidity (1).

Apart from cardiovascular diseases, NCDs like diabetes mellitus, hypertension, obesity, and hypercholesterolemia are on the rise. The International Diabetes Federation Report of 2010 has placed Oman in eighth place with regard to the prevalence of diabetes (13.4%) and has projected an increase to 14.9% by 2030. Likewise, the prevalence of hypertension has increased from 27% in 1995 to 40% in 2008. Cancer has been found to cause 9.9% of out-of-hospital deaths in Oman. Between 1996 and 2015, 21,000 cases of cancer were registered by Omani nationals, with an average of 1050 cases per year and an equal frequency of cases of men and women (51% and 49%, respectively) (8). However, most of these diseases are preventable simply by eliminating the risk factors linked to the disorders, such as the use of tobacco products, unhealthy dietary practices, and physical inactivity (6,8,9).

Health promotion in Oman: the current status

Oman has seen a remarkable improvement in various social indicators over the past four decades, such as an increase in access to health care, in literacy and improved employment opportunities. Since 1970, Oman has also witnessed progress in the area of health services and improved community facilities (1,2). The national health policy of Oman includes universal health care and considers health a fundamental right for every citizen. The use of all health services at the point of delivery is free for all citizens and is offered at subsidized rates for non-nationals. The system provides preventive, promotional, and rehabilitative services across the country free of cost, and works to continuously develop policies and monitoring tools (10).

Oman has already implemented some substantive components of health promotion. For years, health education has been included in all health services and programs of Oman, which has allowed for the effective dissemination of health information to the relevant communities. The Oman MOH established the Institute of Public Health in 1990, where a two-year diploma course is offered in Health Instruction for health educators and counselors. A total of 170 health educators have graduated from this program and are now spread across the governorates' health institutions.

Additional preventive measures have been taken to improve the quality of life at the population level. In 2004, a multi-sectoral national health education committee was established. Its activities focus on creating awareness of various health issues. The MOH realizes the importance of modulating the social determinants of health. Thus, in 2006, the Ministry set up the Department of Community-Based Initiatives to regulate health promotion in Oman. Some of the major health promotion initiatives taken up by the Ministry include the following:

- The Municipality Month Annual Award (since 1985) furthers the execution of modern community-based projects by the municipalities.
- The promotion of community support groups spreads awareness among the people regarding various health issues.
- The establishment of Willayate Health Committees (in 1990) decentralized authority in the region, making way for 18 projects based on nutrition, maternal and child health, elderly care, non-communicable disease prevention, and maintaining a healthy lifestyle.
- The health-promoting schools initiative was set up in Oman in 2004 (11).
- The healthy villages and healthy cities initiatives have been implemented in 30 Willayat (districts).
- The Nizwa Healthy Lifestyle Project (since 1990) has focused on adopting community-based initiatives for the promotion of a healthy lifestyle. This project has been shown to successfully disseminate new and innovative ideas within the community, and today is used as a reference project for further development projects.

The MOH also noticed an increase in physical activity during leisure time between 2001 and 2010, as well as a significant decrease in the use of tobacco during this time (12).

Health promotion services in Primary Health Care of Oman

The primary health care (PHC) setting in Oman undoubtedly has unique and broad access to the population due to the geographical distribution of clinical services across the country. It is sufficiently recognized as a potentially important setting for the effective promotion of physical activity. Every general practitioner, staff nurse, and counselor provides an opportunity to promote behavior change to every individual attending the service. Special attention is immediately given to individuals with chronic disease risk factors. The health care workers are involved in a considerable range of activities including counseling, tailored exercise advice, tailored exercise, support, and follow-up; furthermore, they raise awareness about physical activity and its health benefits, the level of physical activity necessary for sedentary patients who have been categorized by screening as the moderate and high-risk groups, and chronic disease risk factors (i.e. overweight, obesity, essential hypertension, diabetes).

Health promotion challenges still to be addressed in 'Health Vision 2050 of Oman'

There are limitations in inter-sectoral and multi-sectoral cooperatives. Additionally, there are limited resources and information available to implement these health initiatives and better interpret the needs of individual populations. There is also a lack of social organization within the Ministry of Health regarding health promotion. There is a rapid emergence of unhealthy behaviors and social changes within the population of Oman. This demands an increased participation in health promotion by both the public and private sectors. There is limited staffing, which needs to be addressed in order to serve the community better during disasters and disease pandemics.

Health promotion has been proven successful in addressing some of the health-related interventions in Oman. It historically presents the public with a holistic view, providing a means to collectively address all relevant issues, determinants, and factors. The Ottawa Charter of Health Promotion champions three different methods of health promotion (13). These are advocacy for health, enabling citizens to achieve their full health potential, and allowing for the pursuit of health by different factions of society. These methods are realized by five priority action groups for health promotion: (i) building healthy public policy, (ii) creating supportive environments, (iii) strengthening community action, (iv) developing personal skills, and (v) reorienting health services (13–15).

The foremost action for the 'Health Vision 2050 of Oman' should be to critically review progress and reevaluate challenges on a regular basis, with a focus on key issues that could prevent reaching lower NCD prevalence targets. Some important first steps should be: i) establish a National Health Council for the promotion of wellness policies; ii) provide appropriate human resource capacity for promoting health services and training to health officials; iii) address social determinants of health using methods such as reorienting health services, creating a supportive environment, building health policies, and advocating for health promotion through social marketing; v) develop health promotion offices and update community-based health strategies; vi) evaluate health promotion policies; and vii) develop finance mechanisms for the sustainability of health promotion. The principles governing these objectives of health promotion must include: considering health as a fundamental right of every human being, making effective healthy choices, building the capacity of the community as a whole, building inter-sectorial partnerships, and adapting to evidence-based approaches for the collection of up-to-date information (15).

Two models of health promotion were considered in planning for national health promotion in Oman.

The North Karelia project

The project aimed at preventing cardiovascular ailments in North Karelia, Eastern Finland. It was established in 1972, at a time when North Karelia experienced a high rate of deaths due to coronary heart diseases. The project sought to address the risk factors associated with heart disease, such as a reduction in smoking or the use of tobacco, the early diagnosis and prompt treatment of hypertension, and the consumption of low-fat products. Following implementation of the project, there was a sharp decrease in the smoking rate of residents. It fell from 52% (of males) in 1972 to 31% in 1997. Dietary habits likewise changed; currently less than 5% of the population uses butter on bread, resulting in a reduced mean serum cholesterol level. The project included a comprehensive evaluation, and has acted as an exemplary program, applicable both internally and internationally (16).

Isfahan healthy heart program

This is a comprehensive community-based intervention program launched in 1999 and underway until 2006. Its objective was to control and prevent NCDs in Isfahan (a rural area), Najafabad (an urban area), and Arak (a developing country setting) in Iran. A major change in the prevalence of heart disease was noted in Isfahan, where significant changes were made in dietary habits, such as the replacement of hydrogenated fat with vegetable oil. Increased knowledge about healthy lifestyles was noted in physicians, nurses, and health professionals, and contributed to the success of the program. These results show the effectiveness of these programs in attaining short-term improvements in lifestyle and risky population behavior (17).

The way forward and conclusion

Oman scored highly in certain risk factors for NCDs, including smoking, body weight, elevated blood pressure, and to a lesser extent, increased blood glucose levels associated with uncontrolled diabetes. The critical challenge of aggressively combatting these diseases is effectively addressing unsafe behaviors and unhealthy lifestyles at the population level.

The future of the health promotion strategy of Oman is based on the best-practices information gathered from local field experts, evidence from the health promotion literature, and on promising innovation. This base offers the best opportunity to enhance the quality of life for the population of Oman; it builds on the strengths and capacities of the existing system and merely ensures the following major elements for critical success are forcibly incorporated and adopted by all stakeholders. The strategic directions are to focus on short-term interventions, including: capacity building for promoting health across all related sectors; effective and evidence-based health promotion as it is critical to fostering better health outcomes; a more responsive health system and greater community involvement in quality of life issues; public communication initiatives and allocated appropriate mechanisms for the financing of health promotion to ensure sustainability of health promotion efforts. It is also necessary to focus on long-term interventions, such as prevention programs and services to include interventions and activities designed to increase the information needed to make healthier choices and to change the behaviour or skills of targeted risk groups, and social marketing approaches. This calls for an urgent shift in health care services from acute treatment to need-based treatment modules, with a greater focus on health promotion and disease prevention as a fundamental goal of the 'Health Vision 2050 of Oman.'

Acknowledgements

We are highly indebted to Ahmed Al Saidi, Ali Al Hinai, and Allison Seeger for their guidance and support.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Salah Al Awaidy https://orcid.org/0000-0001-5112-3893

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A 'whole systems' approach to reduce sugar-sweetened beverage consumption: issues for global health promotion through a small island lens

Angela M. Jackson-Morris

Abstract: Reducing sugar-sweetened beverage (SSB) consumption is a prominent strategy to reduce sugar intake and non-communicable disease (NCD) risk worldwide. Recommended measures encompass policy, environmental modification, health literacy, reformulation and taxation. This commentary draws from an intervention to reduce SSB consumption in a remote, rural context with high intake and under-developed alternatives and health literacy. The island of St Helena introduced SSB taxation from 2014, yet impact appeared limited. In 2018, supply and demand measures for substitute products were developed, alongside a taxation increase. Preliminary data indicate a shift away from SSB towards non-sugar beverages (artificially sweetened beverages (ASB) and tap water). Issues for global health promotion include the specific manifestation of social and commercial determinants of health in remote and rural contexts, integrated multifaceted strategies to provide supporting conditions for policies such as SSB taxation to deliver impact, and the role of ASB to reduce SSB in high consumption contexts.

Keywords: Behaviour change, chronic disease/non-communicable disease, determinants of health, health promotion, nutrition, rural, sugar-sweetened beverage

In 2015, the World Health Organization published guidelines to reduce free sugar intake (1) and global nutrition plans have prioritised reducing sugar-sweetened beverage (SSB) consumption (2). Evidence indicates an association with obesity, cardiovascular and metabolic disease and cancer (3), and consumption is increasing, particularly in rapidly urbanising economies. SSB replacements have been encouraged by policy, taxation, reformulation guidance and alternative beverage promotion (4). Population level policies and programmes to reduce SSB consumption in a number of countries and sectors have included artificially sweetened beverages (ASB) as a sweet non-sugar option (5,6).

ASB are a commercial SSB alternative, using synthetic, non-nutritive sweeteners (NNS). The impact of NSS and ASB on health has received attention as the sugar reduction imperative has grown, and research has been prominently debated. ASB have been advocated based on evidence suggesting they may beneficially substitute for SSB, provide benefits related to non-communicable diseases and assist in weight management (7). Research design limitations and inconsistencies have frustrated definitive recommendations (8), and methodological problems and high risk of bias in some studies have resulted in partial, polarised discussion (9). Long-term, prospective, comprehensive evidence in 2019 strengthened the case for population benefit and addressed questions relating to particular subgroups (10). This commentary draws on one island's experience to highlight issues for health promotion globally: preconditions for effective sugar taxation; remote and rural product availability; and the role of ASB in transitioning from sugar.

[Formerly] Health Directorate, St Helena Government, Jamestown, St Helena.

Correspondence to: Angela M. Jackson-Morris. Email: ajacksonmorris@gmail.com

(This manuscript was submitted on 29 June 2019. Following blind peer review, it was accepted for publication on 19 March 2020)

Global Health Promotion 1757-9759; Vol 27(4): 150–153; 918587 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920918587 journals.sagepub.com/home/ghp

St Helena is a self-governing UK Overseas Territory (UKOT) in the South Atlantic. Non-communicable diseases account for a large burden of ill health and mortality, with one-fifth of the population diabetic, and half of adults assessed as hypertensive. A 2018 Health Promotion Strategic Framework was developed to create a community environment more supportive of health. High SSB consumption was one priority. Almost half of islanders consumed carbonated SSB several times per week, alongside a reportedly high intake of non-carbonated SSB and home-made syrups. Addressing sub-optimal water intake was one aspect, yet substituting consumption entirely to water appeared unrealistic. Local people reported shunning tap water due to quality, colour and flavour issues, and substituted with SSB, fruit juice and bottled water, reflecting similar experiences elsewhere (11).

Islanders had acquired a progressively 'sweeter tooth' over recent decades as processed product imports had increased. Limited availability of sweet, non-sugar, non-calorific substitute beverages was identified as one barrier to reducing SSB consumption. To illustrate: pre-intervention, one wholesaler sold on average 3,000 cans per week of the leading SSB, and 40 of its ASB alternative. Shorter ASB shelf lives were problematic as products could reach expiry after transnational shipping and previously had been destroyed at financial loss. Importers perceived ASB to be a minority demand and had been reluctant to increase supply. Consumers had perceived ASB as unobtainable, awareness about adverse effects of sugar on health was limited, and the 'aware' minority were wary of NNS due to negative media reports.

St Helena adopted a 'sugar tax' on carbonated SSB in 2014, yet prior to 2018, SSB import volume did not decline. 'Loss leading' by retailers (spreading tax across products) was reported, and supply of alternative products did not increase. Public engagement about the health rationale was limited and the tax was commonly perceived as a revenue-raising measure. In April 2018 the SSB tax was increased and applied also to fruit juice.

Developing non-sugar beverage availability and enhancing health literacy regarding SSB and substitute options were identified as essential to reduce SSB consumption. The largest importer merchants had the greatest scope to expand alternative beverage supplies and were approached to participate in a 'health partnership'. Partners agreed to increase supply and range of non-sugar drinks, including ASB (carbonated, diluted and flavoured waters). Shelf-labelling and posters featuring local people, alongside community-wide media and information, were used to inform and encourage substitution from SSB to non-sugar options, including water and ASB. Non-sugar drinks were also embedded in wider food environment strategies, including institutional food policies and food outlet menu adaptations.

Sales data provide a recognised metric to measure consumer purchasing behaviour and a robust proxy for dietary behaviour shift (12). However, several evaluation challenges were present. Not all partners could provide sales data; formats varied and required manual processing. Non-intervention merchant sales data as a 'control group' proved unobtainable, besides the smaller merchants being strongly influenced by the supply and retail patterns of the intervention merchants who were their wholesale suppliers. A 'time-series design' offered a more limited means to assess pre- and post-intervention impact.

Aggregated SSB sales declined by 18.4% during the intervention compared to the previous year. Partner merchant imports and sales accounted for a substantial proportion of the island's supply, suggesting that the overall quantity of SSB purchases decreased. ASB sales increased substantially across all partners (mean 61.1%) and represented a larger proportion of all soft drinks sales compared to the previous year (6.3%). Bottled 'mineral' water sales, however, experienced a small mean decline (- 4.7%). Population survey data from 2018–2019 (13) provided a means to triangulate with the sales data, showing self-reported water consumption ($\geqslant$ 2 times daily) increased by 13%; people consuming several carbonated SSB per week declined by 13.4%, 'never consumption' increased by 2%, and 'occasional only' consumption increased by 15.4%. The figures are notable especially as the 2019 survey took place in a period of lower ASB availability compared to the intervention due to seasonal and supply issues.

What learning does this island experience offer for SSB reduction?

SSB taxation can be a powerful tool to reduce consumption (14), yet until 2018 St Helena's SSB tax neither reduced import volume nor addressed non-sugar beverage availability or cost. The World Health Organization recommend SSB taxation as part of a multifaceted approach, rather than a stand-alone measure (15). The 2018 intervention delivered increased substitute beverage availability and community engagement to encourage substitution, and appears to have provided the necessary supporting conditions for St Helena's tax to deliver impact (16). Most published food retail interventions have taken place in settings where substitute products could be obtained from local or national supply systems. This was not possible for St Helena, as a small, remote, import-reliant island, yet it is suggested that addressing environmental and social factors such as availability of non-'energy-dense nutrient-poor' (EDNP) products and health literacy may be critical preconditions for measures such as taxation to achieve impact more generally. The twin concepts of 'food deserts' – dearth of healthy products (17) and 'food swamps' (18) – EDNP saturation, have been linked particularly to remote and rural locations as well as underserved urban communities globally. Ensuring access to healthier food and beverage products for people in these communities would appear to be a critical accompaniment to national policy such as SSB taxation, both from an effectiveness perspective and as an element of the 'right to health' (19).

The intervention sales data and population survey results together suggest that consumption began shifting away from SSB and consumption of ASB and tap water increased. Lack of control data to compare what happened to non-intervention merchant SSB sales is a limitation, because in April 2018 the tax on these drinks was increased. Several factors suggest that the supply-demand intervention was a key factor in increasing sales and consumption of various substitutes. These were: poor ASB supply between 2014 and 2018 despite the tax; the tax only addressed carbonated drinks, yet sales of all ASB types increased; without a comparative price analysis it was unclear if the SSB tax increase had actually increased their shelf prices; and merchants reported that, notwithstanding the tax increase, SSB remained cheaper to import.

The importance of reducing SSB consumption is widely agreed, yet the role of NNS and ASB as substitutes is debated. For St Helena, the goal was to replace and reduce SSB intake using various substitutes: promoting water as the primary drink, and ASB as a sweet occasional alternative. It was anticipated that water sales would grow, however bottled water sales declined slightly. ASB flavoured water sales had grown substantially, yet this appeared to directly substitute for the previously popular SSB flavoured waters rather than representing a switch from mineral water, and population survey data indicated that self-reported water consumption increased markedly. This suggests greater tap water usage, potentially as inflation/cost of living increases made bottled water less attractive, and as schools and some employers installed water fountains. Policy recommendations also included reducing the tariff on imported water and developing bottled island mineral water.

This example suggests that a multifaceted 'whole systems' approach, addressing environmental and social factors, can enhance the impact of policies such as product taxation. The findings add to the literature that identifies ASB as a helpful part of an SSB reduction strategy, and draw attention to contexts of high consumption where awareness and availability of alternatives is underdeveloped.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Angela M. Jackson-Morris https://orcid.org/0000-0001-8348-7077

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Developing leadership in dentists and schoolteachers to improve oral health inequalities

Valerie Wordley[1] **and Raman Bedi**[2]

Abstract: With oral diseases affecting people of all ages in every country of the world, new approaches are necessary to remove inequalities in oral health and increase access to oral health education. With over 1 billion children attending school, developing dental leadership skills not only in dental professionals but also in schoolteachers will help to spread oral health prevention messages effectively, implement healthy habits at a young age and impact a greater proportion of the global population to improve their oral health.

Keywords: Leadership, oral health, schoolteachers, oral health inequalities

Introduction

Within this decade, we must prioritise reducing dental inequalities to end the spiralling problems associated with poor oral health. This problem is on a global health scale. With over half the world's population suffering from oral disease (1), there is an urgent need for better oral health literacy across all populations. The emerging generation of young dental professionals are highly skilled, communicative and capable of driving forward new initiatives that will improve world oral health, but what they need are the skills to lead the way forward. Dental leadership training is needed to equip not only these professionals but also schoolteachers to become first-class leaders and advocates for oral health. Only through robust and cross-sectoral dental leadership occurring in parallel can we finally eliminate oral health inequalities worldwide.

Oral diseases: the need for integration

Oral diseases are a neglected pandemic affecting people of all ages in every country throughout the world (2). Vulnerable populations and high-risk groups such as children, the elderly, those who are medically compromised and those with lower incomes and education levels may have greater difficulty in accessing oral health services. They will also be more likely to suffer from oral infections (3). This is a costly public health issue: globally it has been estimated that direct treatment costs owing to oral disease are US$298 billion per year (4).

The mouth and the body cannot continue to be compartmentalised. We desperately need new population-based approaches making the maximum use of limited existing resources. In some regions dental professionals are scarce and cannot singlehandedly promote oral health without the help of allied health professionals. On an upstream level, dental public health capacity must be increased worldwide so that oral health can become an integrated part of public health, particularly within Universal Health Coverage programmes to ensure accessible care to all. There is an acknowledged lack of oral health leadership and integration in lesser developed parts of the world (5); however, it is

1. Global Child Dental Fund, London, UK
2. King's College London, London, UK

Correspondence to: Raman Bedi, Global Child Dental Fund, Norfolk Building Rooms G03-G30A and B, Surrey Street, London, WC2R 2ND, UK. Email: raman.bedi@kcl.ac.uk

(This manuscript was submitted on 23 February 2020. Following blind peer review, it was accepted for publication on 8 May 2020).

Global Health Promotion 1757-9759; Vol 27(4): 154–156; 938763 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920938763 journals.sagepub.com/home/ghp

surprising to note that even a developed country such as France does not have a Chief Dental Officer nor an active dental public health system (6).

Within the next few decades, 80% of the ageing world population will reside in developing countries where there is limited access to healthcare, let alone oral healthcare (7). Here we need to train sufficient dental workforces to avoid unsustainable overseas reliance. Community-based initiatives with an integrated focus will become essential in promoting healthy lifestyles. Radical action is needed to highlight the fact that oral health shares the main risk factors of other non-communicable diseases and thus needs a more prominent place on the global health agenda (8). However, despite all of this, the authors argue that oral health inequalities will never be fully eradicated without a more widespread approach, that is, through dental leadership.

Leadership training for dental professionals

The global cadre of dental health professionals has been, up until now, an unharnessed force for positive change. Dentists are extremely well placed to deliver positive and engaging oral health messages to their local communities. It has already been documented how effective senior dental leadership programmes can transform oral health on a national level (9); however, unlike other professions, leadership in dentistry is not a skill that has historically been emphasised at a grassroots level. Without leadership skills, how can we hope to drive forward change and diminish inequalities?

Traditionally, dental schools have not prepared dentists of tomorrow to be agents of change. Dental public health faculties within dental schools must start to better shape the training and thinking of young dentists as they enter the profession. Leadership must underpin the heart of dental curricula so that dentists may become leaders of oral health in the wider community. Dentists need to become more involved in wider public health agendas so they can advocate and collaborate with their public health colleagues.

Dental advocacy and the drive to improve oral health literacy must target every community in the world to reach the people who need it the most. Dental leaders must have the communication skills to clearly and simply advocate how to improve oral health at grassroots level. However, health professionals cannot be solely relied upon to rally the message that oral health is a part of general health. If we can educate and empower care-givers about oral health from the very first day of their child's life, we can hope to end the spiral of oral disease repeating through generations.

School teachers eliminating dental inequalities

Poor child oral health worldwide combined with insufficient oral health knowledge and limited access to dental care means that, more than ever, schoolteachers must possess basic oral health knowledge and advocacy skills to lead their local communities to better health. Schoolteachers are at the forefront of the battle to implement good oral health behaviours and minimise inequalities from a very young age. They have a multifaceted role in the community as educators, caregivers, leaders and role models. Since over 1 billion children spend a significant proportion of childhood in schools, they are a vital platform in fostering oral health education (10).

Educating schoolteachers and school nurses in basic oral health and leadership is vital to implementing healthy behaviours early on in a child's life. The authors believe that all schoolteachers must, at the very minimum, understand the fundamentals of oral health. That is, toothbrushing, diet, fluoride, the importance of regular dental examinations and what to do in trauma cases. This is the first pillar of dental leadership in schools. Oral health inequalities can also be greatly minimised in children if daily toothbrushing and prevention becomes an integral part of the school day. This should be an initiative led and owned by schools. In Mexico City, for example, daily supervised toothbrushing in schools has been mandatory since 2016 (11).

A second pillar of dental leadership is knowing how to effectively communicate knowledge to children and parents. Learning persuasion and influence skills is crucial in providing a positive and constructive influence on young children during key developmental and habit-forming stages. The dental profession must seek to focus on educating schoolteachers in parallel to dental professionals about oral health leadership. Some dental leadership programmes for dentists and schoolteachers have been developed to date (12); however, the authors call for greater attention and action towards recognising the potential of both groups working together to overcome oral health inequalities.

Conclusion

There is a gulf between dental professionals and the populations most needing access to dentistry. We need to bridge the gap between our vast knowledge and resources as a profession and the global population. Through dental leadership involving both health professionals and school teachers, we can improve the oral health knowledge level of the world, eliminate inequalities and sustainably prevent the suffering that accompanies poor oral health.

Declaration of conflicting interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

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Towards a better integration of social sciences in arbovirus research and decision-making: an experience from scientific collaboration between Cuban and Quebec institutions

Mabel Carabali[1], Dennis Pérez[2,3], Stephanie Degroote[3,4], Alicia Reyes[2],
Jay S. Kaufman[1] and Valery Ridde[3,4]

Abstract: In 2017, the Institute of Tropical Medicine Pedro Kourí, University of Montreal Public Health Research Institute, and McGill University joined efforts to provide scenarios for scientific exchange and knowledge dissemination about the social science contribution on arboviral research. This commentary describes the scientific collaboration between Cuban and Canadian (Quebec) institutions, illustrating the need and opportunities to facilitate research and effective decision-making processes for arboviral prevention and control, going beyond traditional biomedical aspects. We organized a set of scientific activities within three international events conducted in Cuba between 2017 and 2018. Given the collaborating institutions' expertise and the knowledge gaps in arboviral research, we selected three main thematic areas: social determinants and equity, community-based interventions and use of evidence for decision-making. The partnership shows that interdisciplinary collaboration and the use and integration of quantitative and qualitative methods from the social sciences is essential to face the current challenges in arbovirus research.

Keywords: scientific collaboration, arboviruses, social determinants of health, community-based interventions, evidence use, Cuba, Canada

Introduction

Arboviruses such as dengue continue to increase globally, with 3.9 billion people at risk of infection in 120 countries (1). An acute re-emergence of arboviruses, including a continued increase of dengue and the introduction of chikungunya and zika, has been observed lately in the Americas region (2). Although research on these arboviruses is dominated by epidemiology and biomedical sciences (1,3,4), a common denominator in both clinical research and evaluation of vector control strategies is the consideration of arboviruses as diseases of poverty (5–7). Thus, the increasing burden of arboviral diseases can, in part, be considered a result of malfunctioning structural social factors related to society, the environment, and the individual (8–10).

There is a growing consensus that methods in the social sciences can enhance global health research, including the understanding of processes influencing vector-borne diseases (2,4,6,7,11). Furthermore, integrating the social sciences into global health research results is useful when the research considers

1. Department of Epidemiology, Biostatistics and Occupational Health, McGill University, Montreal, Canada.
2. Institute of Tropical Medicine Pedro Kourí (IPK), Havana, Cuba.
3. University of Montreal Public Health Research Institute (IRSPUM), Montreal, Canada.
4. French Institute for Research on Sustainable Development (IRD), Centre Population et Développement (CEPED) and Université de Paris, INSERM SAGESUD, Paris, France.

Correspondence to: Mabel Carabali, Department of Epidemiology, Biostatistics and Occupational Health, McGill University, 1020 Pine Avenue West, Montreal, QC H3A 1A2, Canada. Email: mabel.carabali@mail.mcgill.ca

(This manuscript was submitted on 3 September 2019. Following blind peer review, it was accepted for publication on 11 June 2020)

Global Health Promotion 1757-9759; Vol 27(4): 157–163; 943859 DOI: 10.1177/1757975920943859 journals.sagepub.com/home/ghp

issues about equity, social justice, and community-based interventions (8,12). Although such integration requires cross-cultural and multidisciplinary approaches, very few scenarios highlight the contributions of the social sciences to reduce the research gaps (6,10). Likewise, the added value of integrating methods from the social sciences to improve decision-making on interventions for prevention and control of arboviruses is not always emphasized (6,10,12).

This commentary paper describes a scientific collaboration between Cuban and Canadian (Quebec) institutions. We illustrate the need and opportunities for joint and cross-cultural efforts to facilitate research and effective decision-making process for the prevention and control of arboviral diseases, going beyond the traditional biomedical aspects.

Institutional scientific collaboration

Since 2017, the Institute of Tropical Medicine Pedro Kourí (IPK), the University of Montreal's Public Health Research Institute (IRSPUM), and McGill University School of Population and Global Health (SPGHMG) have developed a multidisciplinary collaboration that aims to increase the integration of social sciences in arboviral research. The institutional (IPK-IRSPUM-SPGHMG) partnership initiated from previous collaboration between individuals at the abovementioned institutions. Agreement to begin the collaboration started with informal but explicit expressions of willingness to work collaboratively. The activities initiated without any specific source of funding and, therefore, the members developed a work plan to be submitted for funding to different Canadian and Cuban agencies. Given the expertise of the collaborating institutions and previously identified knowledge gaps in our research and the literature on arboviral research (9,10,12–14), we selected three main work thematic areas: social determinants of health and equity, community-based interventions, and knowledge transfer. The objectives of the collaboration were (a) to provide scenarios to highlight the contributions of social sciences into research in global health, and (b) to promote the scientific exchange and knowledge dissemination between researchers from Quebec, Cuba, and the international academic community. Therefore, given the target audience and the opportunity to focus on arboviral research, we selected three international events conducted in Cuba between 2017 and 2018 to answer to our scientific collaboration objectives.

Thematic areas

Social determinants and social epidemiology methods

Worldwide, the heaviest burden of arboviruses is reported in low socioeconomic settings, areas with limited access to potable water, high population density, and where the environmental conditions favor the presence of *Aedes* mosquitoes (8,9). Despite the incidence of notified diseases being similar across different socioeconomic groups during outbreaks, mortality rates and some severe outcomes are higher among people at the bottom of the socioeconomic distribution during interepidemic periods (8,12).

Our scientific exchange, particularly from the discussion of lessons learned and research gaps throughout the participation in the different scientific activities, allowed the identification of common challenges related to the analysis of social determinants on arboviruses such as: (i) misclassification of the socioeconomic exposure and outcomes due to limitations of reliable socioeconomic measures and limitations on arboviral diagnosis, and (ii) robust evaluation of interventions due to the absence of control groups and non-randomized interventions. Likewise, we identified a lack of integrative work and application of available quantitative or qualitative methods, even within our own institutions.

Social epidemiology favours the integration of social sciences into population health research, and promotes the assessment of poverty, access to health care, and the evaluation of health systems in the context of arboviruses. It also contributes to decreasing the potential for biases and ensures the generation of robust evidence. Therefore, given the strength of the McGill University team on quantitative social epidemiologic methods, we shared a theoretical background (15) and some empirical results (12,16) throughout the activities. As methodological tools to mitigate such challenges, we proposed the use of quasi-experimental designs, propensity score techniques, and models accounting for measurement error in the analysis of health inequalities on arboviruses.

Community-based interventions

Community-based interventions (CBIs) are increasingly seen as opportunities to achieve effective, locally adapted vector control (17). CBIs usually encompass, interventions in which at least one component targets the community. Participation of its members ranges from being merely recipients of technocratic control efforts to being truly empowered. Empowerment, defined as the process through which individuals, groups and communities are provided with decision-making skills to impact their lives, serves as a vehicle for tackling collectively the roots and causes of social inequalities that affect people's health (18).

Empirical research conducted by IPK and IRSPUM in Cuba and Burkina Faso showed that empowerment is feasible and culturally adaptable. In both settings, empowerment proved to be effective for vector reduction (16,19). Particularly, Cuban studies showed that this approach might not only curb vector infestation but also have an impact on dengue transmission (20). However, social determinants of health were not always taken into consideration in all cases.

Through the IPK-IRSPUM-SPGH collaboration, we identified and reduced important learning needs on social determinants of health and equity, their application to arboviruses, and the link with community participation. This highlights the need for: (i) pooling existing participatory tools to frame empowerment strategies within an equity perspective, for example Reflex-ISS (21) and Comprehensive Participatory Planning and Evaluation (22); and (ii) more systematization of experiences that lead to refining a theory of change for empowerment.

Information for decision-making

An ever-growing body of scientific literature is published every year on arboviruses. However, the integration of the resulting evidence remains somehow limited. Knowledge transfer bridges the gap between research and decision-making, not only with governmental institutions but also within academia. Nonetheless, there is also a need for much better training of researchers and decision-makers in effective tools such as policy dialogues and policy briefs, to contribute to a better uptake and more instrumental use of evidence. Moreover, there is a need to continue and intensify training for public health researchers and to recruit experts with strong quantitative and qualitative social science skills into public health intervention teams. Unfortunately, our academic and public health intervention institutions around the world are not yet sufficiently focused on these goals.

As our experience showed, international collaboration could be a solution to develop these skills through academic exchanges that also allow a better understanding of the role of different contexts in the evolution of the social determinants of arboviruses. The political responses are obviously different from one context to another, and it is through these sustained and tenuous exchanges between scientists and decision-makers that we can collectively better address these scourges. However, skills alone are not sufficient for effective policy interventions. It is also necessary to have sufficient funding, political will, and available partners who are able to work with confidence and mutual respect.

Scientific activities and venues

The IPK-IRSPUM-SPGHMG's scientific activities and the venues for our collaborative approach are described below and summarized in the Table 1.

The first activity was the *Workshop on social determinants of health, equity and community participation in arboviral diseases* conducted within the 15th edition of the International Dengue Course (Havana, Cuba; August 2017). The Dengue course is a biennial capacity-building scenario that provides updates on entomology, epidemiology, and clinical aspects of dengue, chikungunya, and zika to health professionals from Latin America, Africa, and Asia. The theoretical session of the workshop provided different definitions and frameworks. During the practical sessions, the IPK-IRSPUM-SPGH and other invited institutions exchanged tools (22) and proposed the application of methodological approaches (5,15,16) to tackle issues on design and data analysis of arboviral studies with a multidisciplinary group of 30 participants.

Second, we organized the symposium *Contributions of the social and behavioural sciences*

Table 1. Activities conducted as part of IPK-IRSPUM-SPGHMG scientific collaboration, 2017–2018.

Venue	*15th International Dengue Course/August 2017*	*Congress 80th Anniversary of IPK/ December 2017*	*Cuban Health Convention/ April 2018*
Activities	*A theoretical-practical workshop*	*A symposium*	*Two round tables*
Objective	To integrate, for the first time, the theme of social determinants of health and its quantitative analysis in the practical session of the Dengue course.	To provide the opportunity for researchers to share their experiences, specifically on the contribution of integrating social sciences in the development of complex research projects, including economic studies on arboviruses.	To propitiate a space for the participating researchers to discuss the research results of current projects and to share future perspectives of collaborations.
Collaboration main themes	Basic concepts of social determinants, equity, and community participation. Quantitative and qualitative approaches and tools to assess social determinants of health and health equity for arboviral diseases. Community-based interventions and participatory tools for targeting social determinants and health inequalities.	Social determinants of health, health economics and arboviruses. Economic studies for *Aedes aegypti* control and community participation. Intervention, replication, and dissemination studies on empowerment strategies for dengue prevention.	Use of social epidemiology tools to inform decision-making on arbovirus control. Evidence on the contribution of translation research, implementation fidelity, and cost-effectiveness assessment in *Aedes aegypti* control reforms in Cuba.
Other themes	PAHO's Regional efforts for strengthening communication capacity to address community needs in *Aedes aegypti* control.	Methodological approaches to social communication management in vector control. An international collaboration for knowledge synthesis on vector-borne diseases in urban settings: example of one scoping review and research priorities. Theoretical and methodological approaches from the social sciences for the evaluation of health programs and interventions.	Lessons learned from social communication strategies in *Aedes aegypti* control and dengue prevention in Cuba. Challenges and recommendations from dengue prevention and control staff in Dominican Republic.
Audience	Experts, academics, decision-makers, program managers, health providers in the fields of dengue and arboviral diseases from Latin America, Africa, and Asia.	Academics and professionals from different disciplines working on infectious disease prevention and control.	Academics, professionals, decision-makers, knowledge users, and implementers in the field of vector control.
Other invited institutions	Cuban National Institute of Hygiene, Epidemiology and Microbiology (INHEM), Latin-American Faculty of Social Sciences of Havana University (FACSO-Cuba), PAHO Regional Office.	INHEM, Cuban National Public Health School WHO/PAHO Regional Office, University of North Carolina, Institute of Tropical Medicine in Antwerp (ITM).	Cuban MOH, Cuban Health Promotion and Disease Prevention Unit, University of Florida.

to research in global health as part of the 80th Anniversary of IPK Congress (Havana, Cuba; December 2017). The congress was a forum for more than 300 participants from 20 countries to discuss the epidemiology, diagnosis, prevention, and control of arboviruses, HIV/AIDS, and tuberculosis, among other infectious diseases. The symposium articulated some of IPK-IRSPUM-SPGHMG and WHO/PAHO's experiences on social determinants, health economics, and arboviruses. The team from IPK presented the results of intervention, replication, and dissemination studies on empowerment strategies for dengue prevention conducted in Cuba (19,23). IRSPUM conducted a pre-congress introductory course on scoping reviews and built on research priorities concerning vector-borne diseases in urban settings that resulted from an international collaboration project for knowledge synthesis (24).

Finally, at the Cuban Health Convention (April 2018), we organized two round tables: *Facing arbovirus: lessons learned from social research* and *How to impact from social science research the decision-making on arboviruses*. The Convention, organized by the Cuban Ministry of Health (MOH), was an opportunity to exchange experiences and lessons learned on applied social science beyond biomedical arboviral research. The Ministry of International Relations and Francophonie (MIRF) of Quebec co-funded these activities, which increased the visibility of the IPK-IRSPUM-SPGHMG collaboration in the field and enriched the discussion with external international researchers and decision-makers, allowing us to advocate for more knowledge use by the Cuban National Unit of Vector Control.

Summary of collaborative outcomes

In addition to the oral and poster presentations at the described venues and the scientific manuscripts (including this commentary), the IPK-IRSPUM-SPGHMG collaboration has resulted in several other relevant outcomes.

As a result of our collaboration, the workshop including social epidemiologic methods to assess health inequalities on arboviral diseases, initiated in 2017, has been institutionalized in consecutive versions of the IPK-Dengue and Arboviruses course. This workshop evolved to a theoretical-practical course in the 2019 version of the IPK-Dengue and Arboviruses course, integrating qualitative and quantitative methods of assessment of health inequality and the teaching and exchange of methods for community-based interventions for dengue control. This course is now part of the main training offered by the IPK-Dengue-Arboviruses course to the attendees of this international event (25).

Likewise, to address the identified knowledge gaps on the field of arboviral research, we combined efforts and strengths from each team to develop new and continuing collaborations. The IPK and the IRSPUM initiated a collaboration for assessing the extent and manner to which current literature on arbovirus deals with the components and functioning principles of CBIs. The IPK team initiated a review on acceptability of *Aedes aegypti* control strategies. Members of the collaboration were co-applicants and obtained a grant from the Canadian Institute of Health Research (CIHR) to conduct a community-based cluster randomized trial for vector control in Brazil. Recently, the team finalized the writing of a protocol for a new project on social communication for arboviruses prevention with gender perspective and intersectionality, for which the team is seeking funding through international non-governmental organizations.

Finally, the team compiled some of the scientific evidence of the contribution of social sciences in implementation science, which was partially obtained through the IPK-IRSPUM-SPGHMG collaboration. This compilation of evidence was recognized with an award by the Cuban Academic of Science in 2019 (26) and, also in 2019, a special issue of the IPK's Journal was dedicated entirely to articles illustrating the contribution of Social Science Research.

Conclusion

The IPK-IRSPUM-SPGHMG collaboration showed the benefits of studying the role of social determinants and health inequalities, and of conducting robust quantitative and qualitative analyses that can contribute to understanding and successfully intervening on arboviruses. It is here that the use of the social sciences becomes essential and that institutional but also, and above all, interdisciplinary collaboration is relevant to meet this challenge.

Acknowledgements

We would like to acknowledge the following people and organizations for their participation in the scientific exchange activities throughout the IPK-IRSPUM-SPGH collaboration: Linda S. Lloyd and Christian Morales (Pan-American Health Organization—PAHO), Claire Barrington (University of North Carolina—UNC), Patrick Van der Stuyft (Institute of Tropical Medicine in Antwerp—ITM), Helena Chapman (University of Florida), María del Carmen Zabala (Facultad Latinoamericana de Ciencias Sociales de la Universidad de La Habana—FLACSO-Cuba), Adolfo Álvarez (Instituto Nacional de Higiene, Epidemiología y Microbiología—INHEM), Susett Pérez (Unidad de Promoción de Salud y Prevención de Enfermedades—Prosalud), Kate Zinszer (IRSPUM), María Guadalupe Guzmán, Marta Castro and Yisel Hernández (IPK). Mabel Carabali holds a Banting-Best Canadian Graduate Studies Doctoral Scholarship from the Canadian Institutes of Health Research (CIHR). Dennis Pérez holds a Post-doctoral award from the Fonds de Recherche du Québec—Santé (FRQS).

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research received partial funding from the Quebec Government. Specifically, the Quebec-Cuba cooperation and the Ministere des Relations Internationales et de la Francophonie (MRIF) provided funds for the participation of Cuban and Quebec researchers on the third phase of the collaboration (Grant: RI000456).

ORCID iD

Mabel Carabali https://orcid.org/0000-0002-9171-0483

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Book Review

W Isaranuwatchai, RA Archer, Y Teerawattananon and AJ Culyer (eds), *Non-communicable disease prevention: best buys, wasted buys and contestable buys*, Open Book Publishers: Cambridge, UK, 2019. DOI: 10.11647/OBP.0195, 184 pages, hardback £28.95 (ISBN 978-1-78374-864-8), paperback £18.95 (ISBN 978-1-78374-863-1), PDF £0 .00 (ISBN 978-1-78374-865-5).

Non-communicable disease (NCD) accounts for more than 70% of global deaths and is the top killer in high-, middle- and low-income countries. SDG3 aims to cut by one-third premature mortality from NCDs by 2030, and the World Health Organization (WHO) has recommended a package of evidence-based ‘Best Buys’ to assist countries in effectively achieving this target with a seven to one return on investment. Unfortunately, the implementation and progress have been seriously slow. Lack of political commitment and insufficient technical and operational capacity were listed as the key challenges in the WHO report. In the preparation meeting of the 2019 Prince Mahidol Award Conference (PMAC) on ‘The Political Economy of NCDs: A Whole of Society Approach’, this book was proposed and partially funded by PMAC.

The target audience are people working on/in health systems at all levels regarding how to manage and apply cost-effectiveness evidence to generate highest-possible impact and value under their specific local contexts. Authors argue that due to the complex nature of NCD interventions, a Best Buy can turn out to be a Wasted Buy, and the cost-effectiveness in one country cannot be directly transferred to another country. They present a cost-effectiveness plane to define different Buys, based on their local costs and effectiveness. They further propose and elaborate the SEED Tool (Systematic thinking for Evidence-based and Efficient Decision-making) as a framework for NCD policy managers to handle complex real-world situations with five stepwise considerations (i.e. theoretical background, quality of current evidence, applicability of evidence, cost and budget impact, and political and professional buy-in) to assess each candidate intervention on its possibilities of being a Best Buy or Wasted Buy for implementation. There are 58 examples from 38 countries of different income levels and geographic regions for practicing these five considerations with enriching details or procedures to help arrive at a decision under each step. It also addresses issues on political buy-in with one chapter on the process of cross-sectoral involvement and one on deliberative processes for shared uncertainty and credibility.

Three among the four editors are from the Health Intervention and Technology Assessment Program of Thailand’s Ministry of Public Health, and Professor Culyer is Emeritus Professor of Economics at the University of York and Chair of the Board of the International Decision Support Initiative. The authors are experts in policy development from different types of institutions, regions, and countries, and with different levels of seniority.

This book can be a quick hands-on resource for field people and may serve as a ‘glocalizing’ translator to apply WHO’s Best Buys with a local lens. However, one concern is that prevention and control of NCDs might be most powerful with a comprehensive package of multiple interventions to create concerted effectiveness through synergies between interventions (such as advocacy media campaigns to support legislation on smoking bans), and thus separate assessment on individual interventions (such as media campaigns) might fail to take such benefit (and necessity) into consideration. Nevertheless, this book goes beyond the traditional border of health technology assessment to embrace political economy from a scientific ground and is a timely tool to support the global march towards the achievement of SDG3.

Shu-Ti Chiou
Yang-Ming University, Taipei
Cheng Hsin General Hospital, Taipei
Editorial Board Member, GHP

ORCID iD

Shu-Ti Chiou https://orcid.org/0000-0002-6994-1891

DOI: 10.1177/1757975920931599 journals.sagepub.com/home/ghp

Abstracts

Analysis of community response capacity to develop health-promotion initiatives

M. Á. Villanueva-Borbolla, E. Cervantes-Ortega and M. Campos-Rivera

Objective: To analyze the capacity of community response (CR) to obesity, diabetes, and hypertension (ODH) for the development of health-promotion initiatives in a community of Nahuatl origin in Mexico.
Materials and methods: This study was based on the Community Response Capacity Model (in Spanish, MCRC), with a qualitative approach. We interviewed eight key informants. We assigned dimensional values using the MCRC scale and used content analysis to understand the factors involved in CR.
Results: The stage of CR identified was 'vague awareness' (value 3). Elements that make community involvement difficult were identified.
Discussion: Assessing CR is essential for generating appropriate strategies. MCRC turned out to be useful for delving into ODH as a social phenomenon in a contest such as that of the community of Xoxocotla. Qualitative analysis was indispensable for understanding CR and the necessary considerations for generating effective initiatives. (Global Health Promotion, 2020; 27(4): 187–197)

Barriers and facilitators for healthy eating and physical activity in pregnant women with overweight and obesity

E. Orozco, S. Pacheco, A. Arredondo, C. Torres and O. Resendiz

Objective: Identify barriers and facilitators around healthy diet and physical activity in pregnant women with overweight and obesity who live in socially and economically vulnerable environments, highlighting socioeconomic and cultural determinants.
Methodology: Qualitative longitudinal study, in which interviews were conducted with pregnant women selected from a prospective cohort in Mexico. The study used a semi-structured interview guide that explored barriers and facilitators to maintaining a healthy diet and to be able to carry out physical activity. The interviews were transcribed and coded in Atlas Ti, generating 23 thematic codes.
Results: There are contextual and social barriers and facilitators that predispose women to a higher risk of suffering overweight and obesity during pregnancy. Limited awareness about healthy diet and conditions of social vulnerability stand out, as does a sense of fragility in women that increases their sedentariness.
Conclusions: In the design and implementation of health-promoting interventions, it is crucial to consider cultural and socioeconomic barriers and facilitators around healthy diet and physical activity during pregnancy, in order to develop public health interventions that prevent overweight and obesity in pregnant women. (Global Health Promotion, 2020; 27(4): 198–206)

Context of background, self-perception, and expectations of incarcerated youth

M. M. Barnetche and L. S. Cornejo

There is a notable rise in crime committed by youths, posing a difficulty in distinguishing between, on the one hand, proper criminal activity, and on the other hand, deviant behavior comprising customs, traditions, and socioeconomic conditions, or the habitual environment in which youths developed in their early years.
To better understand the perceptions and context of the background of incarcerated youth, a study was developed considering the norms of the Council for International Organizations of Medical Sciences. Within this framework, interviews were conducted with 28 young men and 4 young women residing in the socio-educational centers of the Juvenile Penal Area of the Province of Cordoba, Argentina.
The analysis of the information used Fundamental Theory (sampling, constant comparative method) and Triangulation of researchers.

Global Health Promotion 1757-9759; Vol 27(4): 165–166; 972262 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920972262 journals.sagepub.com/home/ghp

The youth in the study belong to extended families, in which the figure of the stepfather stands out. Family activities are split between school for the small children and work for the head of the household. The youths report good family relations and are close with their siblings; they do not accept the imposition of boundaries. They have not completed their studies, for bad conduct or for lack of interest. Regarding their friends, they differ by origin (school and/or neighborhood) and social class. 'The corner' emerges as a meeting place in the neighborhood. Sports emerge as a theme in their free time.

They have work experience, including illicit activities, which brings them income for buying things they like and/or supporting their families. This work serves as a learning space. They describe themselves as caring and good-natured, in contrast to their actions.

In regard to leaving their institution, they have expectations for formal work, studying, and a change in their behavior motivated by maternal affection. While these youths may come from diverse contexts, incarceration reveals desires and behavioral changes which, upon leaving incarceration, will be conditioned by their context. (Global Health Promotion, 2020; 27(4): 207–214)

Que faudrait-il pour que la promotion de la santé prenne au sérieux le racisme structurel ?

Sume Ndumbe-Eyoh

La prise de conscience raciale dans la population qui s'est élevée en réponse au meurtre de George Floyd, un homme noir, le 25 mai 2020, par Derek Chauvin, un officier de police blanc à Minneapolis, et qui s'est amplifiée par les voix incessantes du mouvement « Black Lives Matter », de nombreux militants, de communautés et d'intellectuels, est sans doute différente de tout ce que nous avons vu dans le passé. Dans ce moment de vérité (en particulier dans les pays du Nord), après des siècles d'oppression et d'exploitation raciale et de résistance des personnes racialisées par opposition, que faudrait-il pour que le domaine de la promotion de la santé prenne le racisme au sérieux ?

Sur le racisme

Le racisme est un système social puissant et organisé qui imprègne tous les aspects de la vie culturelle, économique et politique aux niveaux local, national et mondial. Le racisme est un système culturel et social organisé par lequel le groupe racial dominant crée un ordre de valeur humaine, différencie et catégorise les gens en « races » et utilise son pouvoir pour définir la réalité et allouer les ressources de façon inéquitable. La race est une construction sociale, elle est imaginée. C'est par le racisme qu'une signification est attachée aux groupes raciaux, à travers de puissantes idéologies, valeurs, politiques et pratiques. En fin de compte, la suprématie Blanche et la Blanchité surévaluent « The Ways of White Folks » (1) et nous dévalorisent tous. Le racisme structurel est sanctionné par les États par l'action ou l'inaction des politiques publiques et par les institutions – privées, publiques et sans but lucratif. Le racisme interagit avec d'autres systèmes et institutions, influant sur ces systèmes et étant à son tour influencé par eux.

Loin d'être accidentel, le racisme est ancré dans les systèmes, les politiques et les pratiques. En son cœur, le racisme détruit les âmes et les corps en exposant constamment les Noirs, les Autochtones, et les personnes de couleur (NAPDC – BIPOC en anglais) à des conditions qui sont délétères pour la santé. Les inégalités raciales se manifestent au-delà des frontières nationales, au sein des nations, aux niveaux sous régional et local. Les inégalités entre les pays continuent de refléter la domination et le pouvoir substantiel des pays dominants blancs par rapport à ceux exercés dans les pays du Sud, dont beaucoup ont été colonisés et continuent d'être stigmatisés par les politiques néolibérales impériales mises en œuvre. Dans des États colonisateurs comme le Canada, les États-Unis (É.-U.), l'Australie et la Nouvelle-Zélande, les peuples autochtones sont exposés à une violence coloniale raciste continue conduisant à des injustices sanitaires et sociales inacceptables (2). À Toronto, au Canada, 83 % des cas de COVID-19 étaient des personnes de couleur, alors même qu'elles ne représentent qu'à peine plus de la moitié de la population de la ville (3). La moins bonne santé des Afro-Brésiliens est liée à la ségrégation résidentielle (4). #sayhername, une campagne basée aux États-Unis, met en lumière la violence policière perpétrée à l'encontre des femmes et des filles noires. (5). Tout cela pour dire qu'il ne manque pas de preuves que le racisme est un défi urgent qui doit être abordé maintenant avec clarté et conviction.

Silences et exclusions de nos disciplines et inclusions incomplètes

Malgré les appels passés (6–9), le domaine de la promotion de la santé n'est pas encore pleinement engagé dans le combat contre l'omniprésence du racisme, en particulier son impact sur la santé de la société ni en faveur des solutions pour éliminer ce racisme. La promotion de la santé contemporaine

Senior Knowledge Translation Specialist, National Collaborating Centre for Determinants of Health, Antigonish, Nova Scotia, Canada.

Correspondance à : Sume Ndumbe-Eyoh, Senior Knowledge Translation Specialist, National Collaborating Centre for Determinants of Health, Antigonish, Nova Scotia 5000, Canada. Email : seyoh@stfx.ca

Global Health Promotion 1757-9759; Vol 27(4): 167–170; 972621 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920972621 journals.sagepub.com/home/ghp

semble supposer que parce que la discipline s'enracine dans l'équité et la justice sociale, l'accent est forcément mis sur le racisme structurel. Dans la pratique cependant, le béhaviorisme en matière de santé et les approches individualistes et néolibérales continuent de dominer (6,10–15). Dans un examen récent de 249 revues de santé publique à fort impact, seulement 14 d'entre elles avaient des articles intéressants et le racisme institutionnel était un concept fondamental dans seulement 16 articles (16). Même les approches qui ont des orientations plus structurelles, comme le discours dominant sur les déterminants sociaux de la santé, souvent n'incluent pas une analyse nuancée du racisme structurel (c'est à dire des propositions d'action qui nomment et mettent en cause explicitement le racisme comme un déterminant fondamental de la santé). De plus, lorsque des théories (comme l'intersectionnalité) qui ont un objectif déclaré de libération des femmes noires et autochtones, se déplacent lentement dans le champ de la promotion de la santé, les objectifs libérateurs des peuples noirs et bruns sont parfois décentrés. Pour citer Patricia (17), « Ils chantent notre chanson, mais nous ne la reconnaissons pas ».

Dans les établissements d'enseignement, l'engagement limité des professeurs racialisés (18) contribue au manque de perspectives critiques en promotion de la santé. La désignation de problématiques de racisme et d'injustice raciale par des professeurs racialisés en poste est souvent perçue comme une démarche intéressée plutôt que comme un programme de recherche légitime (18). Cela se reflète dans les compétences en promotion de la santé qui n'incluent pas de connaissances et capacités spécifiques à propos du racisme. Cela a des retombées sur le programme d'enseignement, et une incidence sur l'éducation à la promotion de la santé. Les programmes inscrivent des promoteurs de la santé qui ne comprennent pas bien que le racisme est un problème sanitaire et social légitime et qui sont mal préparés pour proposer et élaborer des actions de promotion de la santé visant à éliminer le racisme.

Que faut-il faire pour avancer ?

Si nous acceptons le fait que le racisme est un système, qui intervient dans tous les autres systèmes, nous reconnaissons que nous avons tous un rôle à jouer dans nos activités quotidiennes en promotion de la santé. Nous devons ensuite investir de façon proactive pour veiller à ce que les sites de production de connaissances, d'éducation et de pratique de la promotion de la santé défendent et fassent progresser les intérêts et le bien-être des communautés noires, autochtones et racialisées (8,9). Il faut que la promotion de la santé se demande « quel est son intérêt dans le maintien de la suprématie des Blancs et des « façons de faire des Blancs » ? Sommes-nous prêts à continuer de créer et de maintenir des systèmes et des pratiques qui nuisent et finissent par tuer ou sommes-nous prêts à prendre le racisme au sérieux ? »

En mettant de manière explicite l'accent sur le racisme culturel, structurel et institutionnel et la Blanchité, on peut orienter l'éducation, la recherche et la pratique en promotion de la santé. Les promoteurs de la santé doivent développer dans toutes les sphères où ils opèrent une conscience raciale profonde qui reconnaît la place centrale de la race et du racisme dans la vie de tous les jours (9,19). Cela requiert un changement de vue, en laissant tomber les approches « aveugles aux couleurs » ou neutres sur le plan racial pour regarder en face les manifestations contemporaines du racisme qui ne sont pas arbitraires et mystérieuses, mais systématiques et reconnaissables. Les inégalités raciales cessent alors d'être considérées comme fortuites mais bien comme le produit naturel de normes, de valeurs et d'actions racistes oppressives. En faisant cela, on renverse les idées reçues dans la vie quotidienne qui tendent à maintenir et à renforcer la domination blanche et les inégalités raciales (20). Les approches de lutte contre le racisme de même que les approches critiques sur les questions raciales doivent être intégrées dans les compétences et les programmes de promotion de la santé afin de contribuer à la formation d'un nouveau bassin de promoteurs de la santé profondément impliqués dans la lutte contre le racisme dans l'ensemble du champ de la promotion de la santé.

Fondamentalement, la promotion de la santé doit critiquer et élargir ses racines et ses pratiques en tant que discipline. A ce titre, l'autocritique de la promotion de la santé doit passer par un examen sérieux des conventions de la promotion de la santé, celles qui tiennent pour acquises les vérités et les méthodes de travail et les implications que celles-ci ont sur la compréhension par la société de la race et du racisme et les actions visant à éliminer les injustices raciales (9). Les autocritiques montrent comment le racisme épistémique, culturel et structurel se manifeste au travers de la recherche, de la pratique et des politiques en promotion de la santé, que ce soit par des silences, des exclusions ou des inclusions erronées. L'autocritique de la discipline par différentes approches critiques de la race (8) ouvre la voie à l'élaboration d'approches de promotion de la santé transformatrices ayant un potentiel émancipateur pour les Noirs, les Autochtones et les personnes de couleur. La promotion de la santé doit s'engager dans des approches théoriques et épistémiques qui se concentrent résolument sur les connaissances et les perspectives des Noirs, des Autochtones et d'autres personnes de couleur dans les activités de production de connaissances à l'échelle nationale et mondiale. Cela doit coïncider avec des critiques de la Blanchité et de sa dominance dans la production et l'utilisation des connaissances dans les milieux de recherche et de pratique. En tant que chercheur, sur quelles traditions des disciplines étudiées vous appuyez-vous et vous êtes-vous engagé(e) en faveur des critiques des spécialistes des questions raciales dans ces disciplines ? Votre recherche porte-t-elle sur la façon dont le racisme affecte les processus de production de santé ? Est-ce que cela va au-delà du simple fait de dire que la race compte pour souligner comment le racisme et la racialisation opèrent pour faire en sorte que la race effectivement compte ?

La pratique de la promotion de la santé doit proposer et mettre en œuvre des politiques et des programmes qui investissent dans les communautés racialisées tout en renonçant aux systèmes de suprématie blanche. Les actions qui s'enracinent dans les pratiques antiracistes de décolonisation exigent des investissements substantiels dans l'éducation, le revenu et la réduction de la pauvreté, l'emploi, la vie dans les quartiers et le logement, le climat et la santé planétaire et d'autres déterminants critiques de la santé des Noirs, des Autochtones et des personnes de couleur (21,22). Il faut transformer l'élaboration des politiques publiques, la gouvernance, le monde politique, l'élaboration, la mise en œuvre et l'évaluation de programmes, ainsi que d'autres mécanismes par lesquels le pouvoir et l'influence sont exercés afin qu'ils ne puissent plus servir d'outils pour reproduire les iniquités raciales, mais qu'ils puissent être plutôt utilisés comme des occasions d'envisager et de produire des sociétés racialement équitables.

Les connaissances et les projets d'action de toutes sortes en promotion de la santé ne peuvent être neutres ; ils peuvent soit maintenir les normes actuelles d'iniquités raciales généralisées, soit les remettre en question sérieusement. La promotion de la santé doit poursuivre deux agendas distincts mais complémentaires : comprendre l'impact et les expériences du racisme sur la santé dans son sens le plus large et développer la science et la pratique de la lutte contre le racisme en promotion de la santé. (23) La promotion de la santé doit choisir la voie de la lutte contre le racisme structurel et les inégalités raciales abyssales qu'il va forcément engendrer, car le fait de simplement l'inclure dans des systèmes racialement oppressifs ne suffira pas.

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Résumés

L'influence de la culture sur l'alimentation en pleine conscience : les traditions et les valeurs telles qu'elles sont vécues par les parents mexico-américains et blancs non hispaniques d'élèves de l'enseignement primaire

R. Méndez, K. Goto, C. Song, J. Giampaoli, G. Karnik et A. Wylie

Objectif : Examiner les perceptions de l'alimentation en pleine conscience et de l'éducation parentale à l'alimentation en pleine conscience parmi des parents d'élèves de l'enseignement primaire.
Méthodes : Quatre groupes de discussion thématiques ont été formés avec 19 parents mexico-américains et 13 parents blancs non hispaniques d'enfants fréquentant une école primaire de Californie du Nord.
Résultats : Les thèmes qui se sont dégagés de cette recherche incluaient les traditions alimentaires lors des repas, les perceptions de l'alimentation en pleine conscience, de l'éducation parentale à l'alimentation en pleine conscience et du contrôle des portions, les pratiques d'éducation parentale à l'alimentation en pleine conscience à travers le jardinage, et l'éducation parentale à l'alimentation en pleine conscience avec les aliments traditionnels. Les participants mexico-américains ont identifié la préparation d'aliments traditionnels comme étant une part importante de leurs pratiques d'alimentation en pleine conscience et d'éducation parentale à l'alimentation. Les participants mexico-américains ont également mis en avant l'importance de recourir à leurs sens pour apprécier les aliments. Tous les participants, à la fois mexico-américains et blancs non hispaniques, ont souligné l'importance d'impliquer les enfants dans le jardinage et la préparation des repas. Les parents mexico-américains avaient des perceptions différentes de celles des participants blancs non hispaniques pour ce qui était du contrôle des portions de nourriture.
Conclusions : Cette étude montre l'importance de la pleine conscience dans les pratiques plus larges liées à l'alimentation telles que le jardinage, la préparation des repas et la préservation des traditions alimentaires dans les pratiques d'alimentation en pleine conscience. D'autres recherches sont nécessaires pour mieux comprendre la manière dont la culture détermine et affecte ces pratiques alimentaires dans différents groupes culturels. (Global Health Promotion, 2020; 27(4): 6–14)

L'évolution de la promotion de l'activité physique. Entrons-nous dans une ère liquide ?

K. Abu-Omar, P. Gelius et S. Messing

Afin de lutter contre les facteurs de risque des maladies non transmissibles, la promotion de l'activité physique est devenue de plus en plus pertinente. Cet article met en avant les récents développements dans ce domaine, en adoptant une perspective basée sur les concepts de modernité liquide et de vie liquide de Zygmunt Bauman. Cinq tendances de la promotion de l'activité physique sont identifiées : (Tendance 1) l'extension des recommandations en matière d'activité physique qui sont passées d'une focalisation étroite sur l'exercice à un concept plus large avec des directives prônant l'exercice sur 24 heures; (Tendance 2) le nombre croissant de groupes de population ciblés par ces recommandations; (Tendance 3) la montée des efforts de promotion de l'activité physique à l'échelle mondiale; (Tendance 4) l'émancipation de la promotion de l'activité physique qui, de sujet complémentaire, est devenue une question de santé publique à part entière; et (Tendance 5) le conflit permanent entre le sport, la santé et d'autres secteurs à propos de qui doit avoir le premier rôle dans la promotion de l'activité physique. A partir de ces développements, l'activité physique pourrait être qualifiée de `liquide' au sens de Bauman, c'est-à-dire comme étant difficile à cerner et en constante évolution. (Global Health Promotion, 2020; 27(4): 15–23)

Global Health Promotion 1757-9759; Vol 27(4): 171–182; 972637 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920972637 journals.sagepub.com/home/ghp

« Je pense que l'une des façons d'aider est de sensibiliser » : les perceptions qu'ont les enseignants primaires des maladies cardiovasculaires au Nigéria

K. Udeh, C. Nwakasi et J. Fulton

L'augmentation de l'incidence et de la prévalence des maladies non transmissibles est une préoccupation majeure pour la santé mondiale. Les maladies cardiovasculaires (MCV) représentent le pourcentage le plus élevé des décès liés à des maladies non transmissibles, et les pays à faibles et moyens revenus (PFMR) connaissent le fardeau de MCV le plus important. La compréhension des connaissances et des perceptions des MCV et de leurs facteurs de risque dans un PFMR tel que le Nigéria pourrait jouer un rôle important dans la promotion de la santé cardiovasculaire et améliorer les plans destinés à réduire les décès liés aux MCV. Une étude qualitative a été menée à l'aide d'entretiens semi-structurés dans le but d'acquérir une compréhension approfondie de certaines visions personnelles et socioculturelles des MCV et de leurs facteurs de risque. Les participants étaient des enseignants du primaire préalablement sélectionnés dans le sud-est du Nigéria. Une approche d'analyse thématique a été utilisée pour l'analyse des données. Les résultats de l'étude incluent la connaissance de la maladie cardiaque, les causes et les facteurs de risque perçus des MCV, la spiritualité, et les mesures à suivre. Dans l'ensemble, la connaissance des MCV dans ce contexte s'est avérée liée à la nature psychosociale des participants; pour être efficaces, les interventions devraient prendre ces facteurs en considération. Par exemple, les politiques de santé destinées à la sensibilisation et à l'éducation pour la santé en matière de MCV devraient être conçues de manière à aborder certaines des questions de croyances, de valeurs et de religion, comme cela est indiqué dans l'étude. (Global Health Promotion, 2020; 27(4): 24–31)

L'utilisation de technologies pédagogiques dans la promotion de la santé cardiovasculaire des enfants : une revue systématique

F. B. Chaves Costa, A. M. F. Catrib, J. G. de Oliveira Branco, R. O. de Sales, G. B. da Silva Junior, A. P. V. Abdon et L. P. C. M. de Almeida

Objectif : Le but de cette étude était d'examiner l'efficacité des technologies pédagogiques pour la promotion de la santé cardiovasculaire chez les enfants.
Méthodes : Une revue systématique a été réalisée au moyen d'une recherche dans les bases de données Biblioteca Virtual de Saúde, Coordenação de Aperfeiçoamento de Pessoal do Nível Superior, EBSCOHost Information Services, et US National Library of Medicine - National Institutes of Health, en utilisant les descripteurs : « play » (jeu) et « plaything » (jouet), « cardiovascular diseases » (maladies cardiovasculaires), « child » (enfant), et « health promotion » (promotion de la santé), entre 2012 et 2019.
Résultats : Huit articles ont été sélectionnés pour cette revue. Les technologies identifiées étaient basées sur des interventions à faible niveau technologique, telles que des ateliers de jeu, utilisant des outils tels que CARDIOKIDS, le programme SI!, MOVI-2, et des activités avec des outils numériques variés comme Fooya!, Fit2PlayTM, et le programme d'exergaming consacré au vélo.
Conclusions : Il convient de souligner que toutes les interventions analysées étaient efficaces et que celles qui impliquaient de jouer étaient mieux acceptées par les enfants. (Global Health Promotion, 2020; 27(4): 32–41)

Capital social, genre et santé : une analyse ethnographique des femmes d'un bidonville de Mumbai

A. Gundewar et N. P. Chin

Objectif : Des études quantitatives ont démontré que le capital social pouvait impacter la santé communautaire de manière positive, mais les explorations qualitatives des facteurs qui interviennent dans cette relation sont insuffisantes. De plus, tandis qu'à l'échelle mondiale, les pauvres sont de plus en plus concentrés dans les villes des pays à faibles et moyens revenus, la majeure partie de la littérature sur le capital social et la santé examine ces variables dans des contextes occidentaux ou ruraux. Quant aux études qui considèrent l'impact des constructions sociales telles que la race, le genre ou la classe sur la création de capital social et son opérationnalisation dans la promotion de la santé, elles sont encore moins nombreuses.

Notre étude visait à aborder ces manques de la littérature à travers une exploration ethnographique du capital social parmi des femmes vivant à Kaula Bandar (KB) – un bidonville marginalisé sur la côte est de Mumbai, en Inde. Nous avons ensuite cherché à identifier de quelle manière ces femmes mettaient à profit leur capital social pour promouvoir la santé au sein de leurs foyers.

Méthodes : Il s'agissait d'une étude qualitative à méthode mixte impliquant l'observation des participantes et 20 entretiens individuels semi-structurés approfondis sur une période de neuf mois. Les notes de terrain et les transcriptions des entretiens ont été analysées manuellement pour repérer les contenus et les thèmes récurrents.

Résultats : Nous avons trouvé que les femmes de KB dépendaient fortement du capital social d'attachement à la fois pour la survie quotidienne et la survie en temps de crise sanitaire, mais que les contextes locaux de genre et de pauvreté entravaient vivement la capacité des femmes de cette communauté à développer des formes de capital social – c'est-à-dire, relationnel ou instrumental – susceptibles d'être mises à profit pour la promotion de la santé au-delà de la survie immédiate.

Conclusions : Ces résultats illustrent les difficultés spécifiques au contexte que rencontrent les femmes vivant dans des zones urbaines pauvres dans leurs efforts pour développer le capital social et promouvoir la santé au sein de leurs foyers et de leurs communautés. Des études qualitatives communautaires sont nécessaires pour identifier les forces au niveau macro et micro, telles que l'oppression par rapport au genre et à la classe, dans lesquelles s'inscrivent ces difficultés. Le fait d'aborder directement ces inégalités structurelles augmente de manière significative le potentiel de promotion de la santé à travers la formation du capital social. (Global Health Promotion, 2020; 27(4): 42–49)

Utiliser photovoice pour comprendre le contexte du dépistage du cancer du col de l'utérus dans les communautés défavorisées de l'Inde rurale

P. Adsul, S. Nayaka, R. Pramathesh, S. Gowda, P. Jaykrishna, V. Srinivas et P. Madhivanan

Le cancer du col de l'utérus est le second cancer le plus fréquemment diagnostiqué chez les femmes en Inde, et les estimations actuelles indiquent de faibles taux de dépistage. Pour mettre en œuvre des programmes de dépistage réussis axés sur la population, il existe un besoin urgent d'examiner les croyances sociales et culturelles chez les femmes qui vivent dans des communautés défavorisées. Une approche participative novatrice axée sur la communauté et appelée photovoice a été utilisée auprès de 14 femmes âgées de 30 à 51 ans et vivant dans des villages ruraux et tribaux autour de Mysore, dans le Karnataka, en Inde. On a formé chaque participante aux techniques de photovoice, on lui a remis un appareil photo numérique, et on lui a demandé de prendre des photos de ses réalités quotidiennes susceptibles d'influencer ses intentions de se soumettre à un dépistage du cancer du col de l'utérus. Pendant 6 mois, les participantes ont pris un total de 136 photos, et ont participé à 42 entretiens individuels et à deux discussions en groupe. Ces données ont permis d'identifier les croyances spécifiques qui prévalent dans la population cible et ont été organisées selon le modèle comportemental intégré. Certaines femmes ont rapporté un manque de vulnérabilité perçue au cancer du col de l'utérus tandis que d'autres ont mentionné la nature mortelle du cancer en tant que maladie et croyaient qu'aucun examen de dépistage ne les empêcherait de mourir si elles étaient destinées à avoir un cancer. Les maris, les belles-mères et leurs pairs au sein de la communauté avaient une influence importante sur l'identité sociale des femmes et influençaient leurs intentions de participer aux examens de dépistage. Le recours à des soins de santé était associé à un fardeau économique, non seulement en termes de dépenses engagées auprès des services de soins de santé, mais aussi en termes de jours de travail manqués ou de congés sans soldes pris pour recourir à des soins de santé alors qu'elles étaient asymptômatiques. Plusieurs étapes ont été proposées pour l'action, notamment : l'identification de liens ou d'intervenants communautaires, l'organisation régulière d'activités communautaires destinées à sensibiliser au cancer du col de l'utérus, et l'éducation des hommes et des autres membres de la famille aux problématiques de santé des femmes. Les résultats de l'étude peuvent théoriquement aider à concevoir et à développer des efforts pédagogiques pour motiver les femmes à se faire dépister, et documenter les recherches futures afin de mieux comprendre les disparités. (Global Health Promotion, 2020; 27(4): 50–58)

Baser la conception de l'évaluation sur le modèle socio-écologique de la santé : un cadre logique pour l'évaluation d'une initiative nationale de communication en faveur de la vaccination systématique au Kirghizistan

R. Schiavo, U. B. Roy, L. Faroul et G. Solodunova

La vaccination systématique (VS) des enfants est une intervention de santé publique hautement efficace pour la prévention des maladies infectieuses. En dépit de taux de vaccination élevés, une étude sur les connaissances, attitudes et pratiques (CAP) menée en 2018 par le Fonds des Nations Unies pour l'Enfance (UNICEF) a constaté une pratique croissante du refus de la vaccination chez les parents et les principaux prestataires de soins, de même que des groupes dans lesquels la couverture vaccinale est significativement plus faible dans certaines provinces. De plus, un rapport de l'évaluation conjointe publié en 2018 par l'Alliance mondiale du vaccin (Global Vaccine Alliance, GAVI) a mis en évidence une diminution de 96,1 % à 92 % des taux de vaccination chez les enfants âgés de moins d'un an pour certains vaccins. En conséquence, l'UNICEF mène une initiative nationale de communication destinée à accroître les taux de VS au Kirghizistan. Cette initiative comprend le renforcement des compétences de communication interpersonnelle des agents de santé locaux, l'amélioration de la qualité et de l'exactitude de la couverture médiatique par le biais d'efforts adaptés pour sensibiliser les médias kirghizes, et favorise l'engagement communautaire pour donner la parole aux champions locaux, et engager les parents hésitants et ceux qui refusent la vaccination. L'UNICEF a également conclu un partenariat avec une équipe de recherche pour la phase de conception d'un cadre de référence approprié pour l'évaluation. Basé sur le modèle socio-écologique (MSE) de la santé, ce cadre de référence reconnaît l'interconnexion entre le changement comportemental, social et politique, et inclut non seulement des indicateurs spécifiques aux activités (indicateurs de processus), mais aussi des indicateurs des progrès, des résultats et de l'impact afin de documenter les résultats obtenus auprès des groupes et des parties prenantes clés à différents niveaux du MSE, et, au bout du compte, sur les taux de vaccination au Kirghizistan. Le cadre de référence reflète l'importance d'une approche intégrée et à multi-niveaux de la conception des interventions et des communications, et intègre le MSE avec un modèle logique qui connecte différentes composantes de l'initiative. Cet article présente le cadre de référence pour l'évaluation, y compris ses implications pour l'évaluation des programmes de santé destinés aux enfants, et d'autres interventions de santé publique, de communication et de développement international. (Global Health Promotion, 2020; 27(4): 59–68)

Développer la culture de l'éthique dans la recherche interventionnelle en santé des populations au Canada

A-M. Hamelin, C. Caux, M. Désy, A. Guichard, S. Ouédraogo, M-C. Tremblay, B. Vissandjée et B. Godard

La recherche interventionnelle en santé des populations (RISP) est un domaine particulier de la recherche en santé qui vise à générer des connaissances contribuant à l'amélioration durable de la santé des populations en favorisant la mise en œuvre de solutions intersectorielles adaptées aux réalités sociales. Malgré les questions éthiques qui augmentent nécessairement son ordre du jour, l'éthique de la RISP n'est pas encore

très structurée. Des difficultés éthiques non résolues peuvent limiter l'attention qu'elle porte à l'équité en santé. Cette contribution vise à présenter certaines de ces questions et à inviter les chercheurs à développer une culture de l'éthique dans la RISP. Trois manières complémentaires sont proposées : développer un concept éthique spécifique à ce domaine, promouvoir un espace conjoint pour la réflexion critique sur l'éthique de la RISP, et développer les compétences éthiques dans la RISP, ce pour quoi un cadre de référence préliminaire est proposé. (Global Health Promotion, 2020; 27(4): 69–77)

Examiner la pertinence et la fiabilité de la stratégie du programme complet de santé en milieu scolaire du Kenya

S. Tomokawa, T. Asakura, S. M. Njenga, D. W. Njomo, R. Takeuch, T. Akiyama, H. Kazama, A. Mutua, W. Barnett, H. Henzan, Ma. Shimada, Y. Ichinose, Y. Kamiya, S. Kaneko, K. Miyake et J. Kobayashi

Le gouvernement kenyan a mis en place le programme complet de santé en milieu scolaire du Kenya (Kenyan Comprehensive School Health Program, KCSHP) sur la base de la politique nationale kenyane pour la santé à l'école. Un projet pilote du KCSHP a été mené dans huit établissements d'enseignement primaire du district de Mbita, dans le Comté de Homa Bay, région de Nyanza, entre 2012 et 2017. Ce projet pilote a fourni des installations de santé et un soutien à l'évaluation avec une liste de vérification sur la santé à l'école, et a organisé la formation des enseignants en matière d'éducation pour la santé, de même qu'un club de santé pour les enfants, et des bilans de santé réalisés en milieu scolaire. La présente étude visait à examiner la pertinence et la fiabilité de la stratégie du second projet pilote du KCSHP au Kenya. Nous avons analysé les données issues de questionnaires auto-administrés ciblant les élèves de septième année dans les huit écoles primaires. Le questionnaire comportait des questions sur les connaissances, les attitudes et les pratiques liées à la santé, l'état de santé physique et mentale auto-évalué, la conscience propre du contrôle de la santé, le bonheur subjectif, la reconnaissance de l'importance de l'apprentissage de la santé à l'école, l'absentéisme, et le sentiment d'appartenance à l'école. Le projet a contribué à améliorer les connaissances, les attitudes et les pratiques liées à la santé, l'état de santé auto-évalué, le sentiment d'appartenance à l'école, la reconnaissance de l'importance de l'apprentissage de la santé à l'école, la conscience propre du contrôle de la santé, et l'absentéisme. En revanche, le bonheur subjectif ne s'est pas amélioré de manière significative. (Global Health Promotion, 2020; 27(4): 78–87)

Des interventions psychosociales fondées sur l'autonomie pour réduire le tabagisme : concepts, mesures et résultats. Une revue systématique

A. Coppo, S. Gattino, F. Faggiano, L. Gilardi, P. Capra, C. Tortone, A. Fedi et N. De Piccoli

Bien que l'autonomisation soit un concept largement utilisé dans les domaines liés à la santé, sa définition reste imprécise. S'il existe des données concernant l'efficacité des interventions visant à renforcer l'autonomie pour améliorer certains facteurs psychosociaux liés à la santé (par ex. stratégie d'autonomie des patients, capacités d'adaptation, accès et utilisation efficace des services de santé) et certains résultats de santé tels que la santé mentale et les comportements par rapport au VIH/SIDA, il semble que d'autres données viennent les contredire. En outre, les concepts, les mesures et les résultats liés à l'autonomisation sont mis en œuvre de différentes manières. En utilisant le cas des programmes de lutte antitabac, nous avons voulu examiner : (a) de quelle manière la recherche sur la réduction/prévention du tabagisme a conceptualisé l'autonomisation; (b) quelles mesures et quels instruments ont été utilisés pour évaluer les résultats en termes de comportement et le processus d'autonomisation. Nous avons formulé l'hypothèse selon laquelle le potentiel transformateur qui caractérise l'autonomisation est considéré de façon marginale.

Nous avons examiné un total de 18 études rapportant les effets d'interventions de prévention sur le tabagisme et/ou sur les effets produits par le renforcement de l'autonomisation. Deux types d'études ont été distingués :

(a) les études rapportant des résultats en termes de comportement sans données concernant l'impact sur l'autonomisation; (b) les études analysant le processus d'autonomisation. Parmi ce dernier type, certaines études ne fournissaient pas d'informations sur le comportement spécifique (tabagisme), tandis que d'autres examinaient l'impact de l'intervention à la fois sur le tabagisme et sur l'autonomisation. Dans environ la moitié de l'ensemble des études, les stratégies de renforcement de l'autonomisation pour améliorer les résultats par rapport au tabagisme, tandis qu'aucune différence n'était observée entre les groupes d'intervention et de contrôle dans le reste des études. Cette revue suggère la nécessité de développer des définitions pragmatiques de l'autonomisation afin de promouvoir sa transférabilité et son évaluation. (Global Health Promotion, 2020; 27(4): 88–96)

Législation en faveur de l'équité, politiques de santé et utilisation des services de santé sexuelle et reproductive par les populations vulnérables en Afrique subsaharienne : une revue systématique

M. Mac-Seing, K. Zinszer, C. Oga Omenka, P. de Beaudrap, F. Mehrabi et C. Zarowsky

Il y a vingt-cinq ans, la Conférence internationale sur la population et le développement a mis en évidence la nécessité d'aborder les droits à la santé sexuelle et reproductive (SSR) à l'échelle mondiale. L'Afrique subsaharienne continue à présenter les taux de mortalité maternelle et de VIH les plus élevés, qui affectent principalement les populations les plus vulnérables. Conscients du rôle essentiel des politiques pour comprendre la santé des populations, nous avons effectué une revue systématique des recherches primaires originales ayant examiné les relations entre des législations et des politiques axées sur l'équité et l'utilisation des services de SSR par les populations vulnérables en Afrique subsaharienne. Nous avons consulté neuf bases de données bibliographiques afin de trouver des articles pertinents publiés entre 1994 et 2019. Trente-deux études menées dans 14 pays d'Afrique subsaharienne satisfaisaient aux critères d'inclusion. Elles portaient sur l'utilisation des services de santé maternelle, que ce soit au travers de politiques spécifiques de réduction/suppression des coûts, ou au travers de réformes des soins de santé et de régimes d'assurance destinés à accroître l'utilisation des services de SSR. Dans la plupart de ces études, les résultats montraient que les législations et les politiques liées à la santé promouvaient une augmentation progressive de l'utilisation des services, en particulier pour ce qui était des soins anténataux, des accouchements assistés par du personnel qualifié et des accouchements en établissements hospitaliers. Cependant, des inégalités sociales de santé subsistaient dans des sous-groupes de femmes. Ni les études examinées ni les politiques n'abordaient de manière spécifique les jeunes, les personnes vivant avec le VIH et les personnes atteintes de handicap. À l'ère des objectifs de développement durable, il devient inévitable d'aborder les inégalités de santé dans le contexte des déterminants sociaux de la santé. Des recherches quantitatives et qualitatives systématiques et rigoureuses, y compris l'évaluation longitudinale des politiques, sont nécessaires pour comprendre les relations complexes entre les politiques qui abordent les principaux déterminants sociaux de la santé et l'utilisation des services de santé. (Global Health Promotion, 2020; 27(4): 97–106)

Examiner l'évolution de la promotion de la santé en Namibie : opportunités et obstacles après l'indépendance

M. A. Chipare, R. Tapera, R. F. Pachawo et J. January

La Namibie est un pays du sud de l'Afrique qui présente des inégalités sociales. Cet article aborde le développement historique de la promotion de la santé en Namibie. Le pays a réalisé d'énormes progrès en santé publique après avoir obtenu son indépendance en mars 1990, avec une augmentation de l'espérance de vie, une diminution de la mortalité due à la tuberculose et au SIDA grâce à une large couverture par la thérapie antirétrovirale (90%) en 2012, et une diminution du taux de mortalité chez les moins de cinq ans qui est passé de 74 décès pour 1000 naissances vivantes en 1990 à 50 en 2013. Cependant, des obstacles subsistent pour parvenir à la santé pour tous. Les maladies non transmissibles telles que le cancer, le diabète et les maladies cardiovasculaires figurent parmi les 10 maladies les plus fréquentes et parmi les 15 causes principales de décès, tandis que le diabète est en train de devenir l'une des plus importantes menaces pour la santé. Les opportunités et les obstacles à une promotion de la santé efficace sont discutées. En conclusion, la promotion de la santé en Namibie a le potentiel d'améliorer la santé des populations. (Global Health Promotion, 2020; 27(4): 107–113)

Une intervention d'éducation nutritionnelle à l'école primaire portant sur les connaissances, les attitudes et les pratiques nutritionnelles chez les enfants scolarisés au Ghana

J. Antwi, A. Ohemeng, L. Boateng, E. Quaidoo et B. Bannerman

Cette étude a été réalisée afin d'évaluer l'effet d'une intervention d'éducation nutritionnelle de six semaines sur les connaissances, les attitudes et les pratiques en matière de nutrition, et sur l'état nutritionnel des enfants scolarisés (âgés de 6 à 12 ans) dans des écoles élémentaires au Ghana. Les effets à court terme de séances de formation à l'éducation nutritionnelle sur les enseignants et les soignants ont également été évalués. Une comparaison avant-après l'intervention a été utilisée pour évaluer le programme. Les groupes d'intervention présentaient des scores de connaissances nutritionnelles significativement plus élevés (8,8 ± 2,0 contre 5,9 ± 2,1, $P < 0,0001$) comparativement aux groupes de contrôle dans le niveau primaire inférieur. Une proportion plus élevée d'enfants du groupe d'intervention était tout à fait d'accord pour dire qu'ils aimaient bien apprendre sur les questions d'alimentation et de nutrition comparativement au groupe de contrôle (88 % contre 77 %, $P = 0,031$). Aucune différence significative n'a été observée pour les scores de diversité alimentaire (4,8 ± 2,0 contre 5,1 ± 1,4, $P = 0,184$) ni pour les indices anthropométriques mesurés (3,6 % contre 8,2 %, $P = 0,08$). Une proportion légèrement plus faible d'élèves présentant un retard de croissance a été observée dans le groupe d'intervention comparativement au groupe de contrôle (3,6 % contre 8,2 %, $P = 0,080$). Les connaissances nutritionnelles des enseignants et des soignants se sont améliorées de manière significative (12,5 ± 1,87 contre 9,2 ± 2,1; $P = 0,031$) et (5,86 ± 0,73 à 6,24 ± 1,02, $P = 0,009$), respectivement. Une intervention d'éducation nutritionnelle est susceptible d'avoir des impacts positifs sur les connaissances et les attitudes des enfants scolarisés, et pourrait être essentielle au développement de comportements favorables à la santé pour un meilleur état nutritionnel. (Global Health Promotion, 2020; 27(4): 114–122)

Adoption et impact de réchauds de cuisine améliorés à Lambayeque, au Pérou, en 2017

M. A. Díaz-Vásquez, R. J. Díaz-Manchay, F. E. León-Jiménez, L. M. Thompson, K. Troncoso et V. E. Failoc-Rojas

Introduction : Environ trois milliards de personnes à travers l'Asie, l'Afrique et les Amériques ont recours à des technologies de cuisson plus propres utilisant la biomasse, susceptibles de réduire l'exposition à la pollution de l'air dans les foyers. Il est nécessaire d'évaluer l'adoption et l'utilisation à long terme de ces réchauds de cuisine, d'en mesurer les bénéfices perçus auprès de leurs utilisateurs, et d'exploiter ces informations pour fournir des avis aux programmes qui mettent en œuvre de nouvelles technologies de cuisson. Le but de cette étude était de déterminer le niveau d'adoption et l'impact de réchauds de cuisine à biomasse améliorés dans les zones rurales de Lambayeque, au Pérou, en 2017.
Méthodes : Une étude intersectorielle descriptive a été menée. Au total, 52 foyers ont été interrogés dans les districts de Pacora et d'Íllimo, où des réchauds de cuisine à biomasse améliorés ont été introduits entre 2005 et 2013. Un questionnaire destiné à l'évaluation des indices d'adoption et d'impact proposé par l'Alliance mondiale pour des réchauds de cuisine propres (l'Alliance globale pour les réchauds écologiques) a été administré. La liste de contrôle STROBE a été utilisée.
Résultats : Le nombre moyen d'années avec les réchauds de cuisine à biomasse amélioré était de 9,1 (écart type : 2,9); 51,9 % utilisaient toujours le fourneau amélioré, et 34,6 % ne l'utilisaient jamais parce qu'il avait

été détruit par le phénomène El Niño en 2017. L'indice médian d'impact était de 5,62; 19,2 % présentaient une très bonne/bonne adoption. L'indice médian d'adoption était de 6,5; 25 % présentaient un impact très élevé/élevé. L'utilisation du réchauds de cuisine traditionnel ou du réchauds de cuisine à biomasse en feu ouvert persistait dans 61,5 % des foyers.

Conclusion : L'adoption et l'impact des réchauds de cuisine à biomasse améliorés était acceptable, mais l'utilisation des réchauds de cuisine traditionnels persistait dans plus de la moitié des foyers. Les foyers utilisaient un mélange des différentes technologies de cuisson. Les réchauds de cuisine à gaz étaient plus fréquemment utilisés pour le petit déjeuner ou le dîner, tandis que les réchauds de cuisine à biomasse améliorés étaient utilisés pour les repas de midi, plus importants. (Global Health Promotion, 2020; 27(4): 123–130)

L'aliment de vie : une évaluation de l'impact de l'octroi d'allocations en espèces et de bonnes pratiques parentales sur les résultats nutritionnels des enfants en Afrique du Sud et au Malawi

L. Sherr, K.J. Roberts, H. Mebrahtu, M. Tomlinson, S. Skeen et L. D. Cluver

Les interventions de protection sociale (y compris l'octroi d'allocations en espèces et la prestation de soins) se sont avérées efficaces pour répondre à certaines des implications négatives de l'épidémie de VIH sur les enfants et les familles. Cette étude examine l'impact de l'octroi d'allocations en espèces et de la prestation de soins (mise en œuvre comme bonne pratique parentale) sur les résultats nutritionnels des enfants. Dans cette étude intersectorielle, on a interrogé 854 enfants et adolescents (âgés de 5 à 15 ans) ainsi que des soignants affectés par le VIH et fréquentant des organisations communautaires en Afrique du Sud et au Malawi. Les entretiens comprenaient le recueil d'informations socio-démographiques, de données familiales, de données sur les allocations en espèces et sur la nutrition des enfants. Les bonnes pratiques parentales étaient mesurées à l'aide d'une échelle composée. La régression logistique et des analyses des effets marginaux ont été utilisées pour examiner les associations entre différents niveaux de protection sociale (aucune; soit allocations, soit bonnes pratiques parentales; allocations et bonnes pratiques parentales) et les résultats nutritionnels des enfants. 160 enfants (20,3 %) ne bénéficiaient ni d'allocations ni de bonnes pratiques parentales; 501 (63,5 %) bénéficiaient soit d'allocations, soit de bonnes pratiques parentales; et 128 (16,2 %) bénéficiaient à la fois d'allocations et de bonnes pratiques parentales. Comparativement à l'absence d'intervention, le fait de bénéficier soit d'allocations, soit de bonnes pratiques parentales était associé de manière significative à des enfants ne présentant pas de retard de croissance, disposant d'une alimentation suffisante, et ne présentant pas de maigreur. Trois (3/7) résultats nutritionnels ont montré une amélioration plus importante parmi les enfants bénéficiant à la fois d'allocations et de bonnes pratiques parentales, notamment l'absence de faim rapportée par les enfants, l'absence de retard de croissance et l'alimentation suffisante rapportée par les parents. Des analyses des effets marginaux ont en outre identifié un effet supplémentaire des allocations et des bonnes pratiques parentales sur les résultats nutritionnels des enfants. Cette étude indique que le fait de bénéficier à la fois d'allocations en espèces et de bonnes pratiques parentales, comparativement au seul octroi d'allocations en espèces, avait des effets positifs sur les résultats des enfants en termes de nutrition. (Global Health Promotion, 2020; 27(4): 131–140)

Commentaire

Promouvoir la santé des enfants et des jeunes qui migrent : les réflexions issues de quatre revues régionales

J. Thompson, H. Fairbrother, G. Spencer, P. Curtis, C. Fouche, K. Hoare, D. Hogan, J. O'Riordan, B. Salami, M. Smith, B. Taylor et V. Whitakker

Les appels à l'amélioration de la santé de sous-groupes de populations migrantes se renforcent, avec de plus en plus de données probantes qui documentent la relation entre la migration et les résultats de santé.

Malgré l'importance des migrations pour la promotion de la santé mondiale, peu de recherches se sont penchées sur les expériences de santé des jeunes migrants. Dans le cadre d'un projet du Réseau mondial des universités (Worldwide Universities Network, WUN), nous avons réalisé quatre revues systématiques de la base de données probantes existante sur les expériences de santé des enfants et des jeunes qui migrent. Dans ce commentaire, nous présentons les points communs des données probantes internationales, mais nous réfléchissons également à certaines des défis, des omissions et des limites. Ces éléments de compréhension montrent des manques significatifs et des lacunes méthodologiques au niveau des données probantes – ce qui laisse la place pour de nouveaux travaux cherchant à identifier les influences sur la santé des enfants migrants. (Global Health Promotion, 2020; 27(4): 141–144)

La stratégie de promotion de la santé comme partie intégrante de la Vision d'Oman à l'horizon 2050 : la voie à suivre

H. Al Hinai, K. Al Mufarji, H. Al Siyabi, Z. Al Anqoudi, R. Al Saadi et S. Al Awaidy

Introduction : Les maladies non transmissibles (MNT) sont devenues une cause significative de morbidité et de mortalité à Oman. L'adoption de styles de vie sédentaires et défavorables à la santé associée à une augmentation des revenus se répand auprès d'un grand nombre d'individus et contribue à l'émergence de problématiques de santé conséquentes. Au final, l'incidence des MNT a considérablement augmenté. Cet examen vise à définir des stratégies susceptibles d'aider à atteindre les objectifs nationaux d'Oman en termes de promotion de la santé.
Résultats : Les stratégies de promotion de la santé actuelles n'ont pas été appropriées ni suffisantes pour parvenir à la vision nationale d'Oman pour la santé à l'horizon 2050.
Conclusion : Oman a vu émerger des comportements à risque et des styles de vie défavorables à la santé qui entraînent une augmentation significative des MNT. Pour une mise en œuvre efficace des politiques de santé, avec pour objectif final de réduire le fardeau des MNT à Oman, il s'avère nécessaire de planifier à nouveau de manière minutieuse les activités de promotion de la santé, et de les surveiller et évaluer en continu. (Global Health Promotion, 2020; 27(4): 145–149)

Une approche systémique pour réduire la consommation de boissons sucrées : des problématiques pour la promotion de la santé mondiale à travers le prisme d'une petite île

A. M. Jackson-Morris

La réduction de la consommation de boissons sucrées est une importante stratégie pour réduire la consommation de sucre et le risque de maladies non transmissibles (MNT) à travers le monde. Les mesures recommandées comprennent les politiques, la modification environnementale, la littératie en santé, la reformulation et la taxation. Ce commentaire s'appuie sur une intervention destinée à réduire la consommation de boissons sucrées dans un contexte rural isolé qui en présentait une consommation élevée avec des alternatives et une littératie en santé sous-développées. L'île de Sainte-Hélène a introduit la taxation des boissons sucrées à partir de 2014, avec cependant un impact apparemment limité. En 2018, des mesures par rapport à l'offre et à la demande de produits de substitution ont été développées, parallèlement à une augmentation des taxes. Les données préliminaires indiquent une diminution de la consommation des boissons sucrées au bénéfice des boissons non sucrées (boissons édulcorées et eau du robinet). Les problématiques pour la promotion de la santé mondiale comprennent la manifestation spécifique des déterminants sociaux et commerciaux de la santé dans des contextes ruraux isolés, des stratégies multidimensionnelles intégrées pour fournir des conditions favorables aux politiques telles que la taxation des boissons sucrées afin qu'elles aient un impact, et le rôle des

boissons édulcorées pour diminuer les boissons sucrées dans les contextes où elles sont fortement consommées. (Global Health Promotion, 2020; 27(4): 150–153)

Développer un leadership chez les dentistes et les enseignants pour améliorer les inégalités de santé bucco-dentaire

V. Wordley et R. Bedi

Dans la mesure où des maladies bucco-dentaires affectent des personnes de tous âges dans tous les pays du monde, de nouvelles approches sont nécessaires pour éliminer les inégalités de santé bucco-dentaire et accroître l'accès à l'éducation pour la santé bucco-dentaire. Avec plus de 1 milliard d'enfants scolarisés, le développement de compétences en leadership en matière de santé dentaire non seulement auprès des professionnels de la santé bucco-dentaire, mais aussi auprès des enseignants permettra de diffuser de manière efficace les messages de prévention en santé bucco-dentaire, de mettre en place des habitudes saines dès un jeune âge, et d'atteindre une plus grande proportion de la population mondiale afin d'améliorer sa santé bucco-dentaire. (Global Health Promotion, 2020; 27(4): 154–156)

Vers une meilleure intégration des sciences sociales dans la recherche et la prise de décisions sur les arbovirus : une expérience de collaboration scientifique entre les institutions cubaines et québécoises

M. Carabali, D. Pérez, S. Degroote, A. Reyes, J. S. Kaufman et V. Ridde

En 2017, l'Institut de médecine tropicale Pedro Kourí, l'Institut de recherche en santé publique de l'Université de Montréal, et l'Université McGill ont collaboré pour fournir des scénarios d'échange scientifique et de diffusion des connaissances au sujet de la contribution des sciences sociales à la recherche sur les arbovirus. Ce commentaire décrit la collaboration scientifique entre les institutions cubaines et canadiennes (Québec), illustrant la nécessité et les opportunités de faciliter les recherches et les processus de prise de décisions efficaces pour la prévention et le contrôle des maladies arbovirales, au-delà des aspects biomédicaux traditionnels. Nous avons organisé une série d'activités scientifiques au sein de trois événements internationaux menés à Cuba entre 2017 et 2018. Étant donné l'expertise des institutions collaboratrices et le manque de connaissances dans la recherche sur les arbovirus, nous avons sélectionné trois principaux domaines thématiques : les déterminants sociaux et l'équité, les interventions communautaires, et l'utilisation des données probantes pour la prise de décisions. Ce partenariat montre que la collaboration interdisciplinaire de même que l'utilisation et l'intégration de méthodes quantitatives et qualitatives issues des sciences sociales sont essentielles pour faire face aux difficultés actuelles dans la recherche sur les arbovirus. (Global Health Promotion, 2020; 27(4): 157–163)

Analyse de la capacité de réponse communautaire pour développer des initiatives de promotion de la santé

M. Á. Villanueva-Borbolla, E. Cervantes-Ortega et M. Campos-Rivera

Objectif : analyser la capacité de réponse communautaire (RC) envers l'obésité, le diabète et l'hypertension (ODH) pour le développement d'initiatives de promotion de la santé dans une communauté d'origine náhuatl au Mexique. **Matériel et méthodes :** étude basée sur le Modèle de Capacité de Réponse Communautaire (MCRC) avec une approche qualitative. Nous avons interrogé huit informateurs clés. Nous avons réalisé l'assignation de valeurs à chaque dimension identifiée par le MCRC qui pourrait avoir une incidence sur la RC, en utilisant l'échelle

du modèle. Nous avons également réalisé l’analyse de contenu de façon à comprendre les facteurs impliqués dans la RC.
Résultats : l’étape de RC identifiée a été celle de « sensibilisation vague » (valeur 3). On a reconnu les éléments qui entravent la participation de la communauté.
Discussion : la valorisation de la RC est essentielle pour générer des stratégies appropriées. Le MCRC a été utile pour approfondir la problématique de l’ODH comme phénomène social dans un contexte comme celui de Xoxocotla. L’analyse qualitative a été fondamentale pour comprendre la RC et les considérations nécessaires pour générer des initiatives efficaces. (Global Health Promotion, 2020; 27(4): 187–197)

Obstacles à une alimentation saine et à l’activité physique et éléments facilitateurs chez les femmes enceintes en surpoids et obèses

E. Orozco, S. Pacheco, A. Arredondo, C. Torres et O. Resendiz

Objectif : identifier les obstacles et les éléments facilitateurs par rapport à un régime équilibré et à l’activité physique auprès de femmes enceintes en surpoids et obèses qui vivent dans une situation de vulnérabilité sociale et économique, en soulignant des déterminants socioéconomiques et culturels.
Méthode : une étude qualitative longitudinale qui a enquêté sur des femmes enceintes choisies à partir d’une cohorte prospective au Mexique. Une feuille de route semi-structurée pour les entretiens a été appliquée pour explorer les obstacles au suivi d’un régime équilibré et à la réalisation d’une activité physique et les éléments facilitateurs. Les entretiens ont été transcrits et codifiés en utilisant le programme ATLAS.ti, ce qui a généré 23 codes thématiques.
Résultats : il existe bien des obstacles et des éléments facilitateurs contextuels et sociaux qui prédisposent à un plus grand risque d’être en surpoids ou obèses pendant la grossesse. Il en ressort des connaissances limitées sur ce qu’est un régime équilibré, des conditions de vulnérabilité sociale, ainsi qu’un sens de fragilité chez ces femmes qui augmentent leur sédentarité.
Conclusions : dans la conception et la mise en œuvre d’interventions en promotion de la santé, il est primordial de prendre en considération les obstacles et les éléments facilitateurs culturels et socioéconomiques par rapport à une alimentation saine et à la réalisation d’une activité physique pendant la grossesse, afin de développer des interventions de santé publique qui favorisent une plus grande prévention du surpoids et de l’obésité auprès des femmes enceintes. (Global Health Promotion, 2020; 27(4): 198–206)

Contexte d’origine, perception de soi et attentes des jeunes en situation d’emprisonnement

M. M. Barnetche et L.S. Cornejo

L’augmentation des délits commis par des jeunes est notable et il est difficile de faire la distinction entre l’activité délictuelle proprement dite et un comportement déviant développé à partir de coutumes, traditions, conditionnements socioéconomiques ou du milieu habituel où ils évoluent depuis leurs premières années de vie. Afin de connaître les perceptions et la signification du contexte d’origine des jeunes en situation d’emprisonnement, on a réalisé une recherche qualitative en tenant compte des normes du Conseil des Organisations Internationales des Sciences Médicales. Des entrevues ont été réalisées avec un cadre prévu auprès de 28 hommes et 4 femmes logés dans les centres socioéducatifs de l’ « Area Penal Juvenil » de la Province de Córdoba, en Argentine.
L’analyse de l’information a été réalisée par théorisation ancrée (échantillonnage théorique, méthode comparative constante) et triangulation des chercheurs.
Les jeunes de l’étude appartiennent à des familles de type élargi, où y apparaît la figure du beau-père. Les activités de la famille se partagent entre l’école pour les petits, et le travail pour le chef de famille. Ils parlent

d'une bonne relation familiale, de confiance entre frères et sœurs, et n'acceptent pas l'imposition de limites. Ils n'ont pas fini leur scolarité pour mauvaise conduite et/ou par manque d'intérêt. Par rapport à leurs amis, ils différent selon d'où ils proviennent (école et/ou quartier) et la classe sociale. « Le coin » apparaît comme le lieu de rencontre dans le quartier. Les sports apparaissent aussi pour le temps libre.

Ils ont une expérience de travail, activités illicites incluses, avec une signification différente : un revenu pour acheter ce dont ils ont envie et/ou pour aider la famille, et un espace d'apprentissage. Ils se décrivent comme bienveillants et solidaires, ce qui contredit leurs actions.

En ce qui concerne leur sortie de l'institution, ils ont des attentes liées au travail formel, à la scolarité et à un changement de comportements motivé par l'affection maternelle. Bien que ces jeunes soient issus de différents contextes, la situation d'enfermement révèle la construction de changements de comportements et d'aspirations qui seront conditionnés par leur contexte au moment de leur sortie. (Global Health Promotion, 2020; 27(4): 207–214)

¿Qué se necesita para que la promoción de la salud tome en serio al racismo estructural?

Sume Ndumbe-Eyoh

El creciente aumento de una conciencia pública sobre la raza – a raíz del asesinato de George Floyd, un hombre negro, cometido por el oficial de policía blanco Derek Chauvin en Mineápolis (Estados Unidos) el 25 de mayo del 2020 –, luego acentuado por las incesantes voces del movimiento Black Lives Matter (Las Vidas Negras Importan), de numerosos activistas, de comunidades e intelectuales, puede ser algo que nunca se había visto. En este periodo de revisión de cuentas (especialmente en el norte del planeta), que refleja siglos de opresión y explotación racial al tiempo que se ve una resistencia de los pueblos racializados, ¿qué se necesita para que el campo de la promoción de la salud tome en serio al racismo?

Sobre el racismo

El racismo es un sistema social organizado y poderoso que se infiltra en todos los aspectos de la vida cultural, económica y política, en los ámbitos local, nacional y mundial. El racismo es un sistema cultural y social organizado a través del cual el grupo racial dominante crea un orden de valor humano, diferencia y categoriza la gente en 'razas' y utiliza su poder para definir la realidad y asignar recursos de manera desigual. La raza es una construcción social, es imaginada. Es a través del racismo que se les atribuye un significado a los grupos raciales, mediante poderosas ideologías, valores, políticas y prácticas. Básicamente, la supremacía Blanca y la Blancura sobrevaloran "los caminos de los blancos" (1) y nos desvalorizan a todos nosotros. El racismo estructural es sancionado por los estados a través de la acción o la inacción en las políticas públicas y de manera similar por las instituciones privadas, públicas y sin ánimo de lucro. El racismo interactúa con otros sistemas e instituciones, influenciándolos y, a su vez, siendo influenciado por ellos.

Lejos de ser accidental, el racismo está engranado en los sistemas, políticas y prácticas. En su núcleo, el racismo destruye almas y cuerpos consistentemente, exponiendo a las personas negras, indígenas y de otras comunidades de color (BIPOC, en inglés) a condiciones que resultan perjudiciales para la salud. Las inequidades raciales se manifiestan más allá de las fronteras, entre naciones, a niveles subregionales y locales. Las desigualdades entre países no cesan de reflejar el dominio y el poder sustancial de los dominados por blancos en comparación con aquellos del sur del planeta, muchos de los cuales fueron colonizados y continúan siendo difamados a través de políticas imperiales neoliberales. En estados colonizadores como Canadá, Estados Unidos, Australia y Nueva Zelanda, los pueblos indígenas están expuestos a una violencia colonial racista aún en curso, que lleva a inaceptables inequidades sociales y de salud (2). En Toronto (Canadá), las personas de color constituyen el 83 % de los casos de COVID-19 a pesar de que ellas representan poco más de la mitad de la población de la ciudad (3). La segregación residencial se ha relacionado con una salud más precaria para los afrobrasileños (4). #sayhername, una campaña que comenzó en Estados Unidos, enciende los reflectores sobre la violencia policial contra mujeres y niñas negras (5). En pocas palabras, no faltan pruebas de que el racismo es un desafío urgente que debe ser abordado ahora con claridad y convicción.

Silencios disciplinarios, exclusiones e inclusiones incompletas

A pesar de los llamados que se han hecho (6–9), el campo de la promoción de la salud aún debe lidiar completamente con la omnipresencia del racismo, particularmente su impacto en la salud de la sociedad

Senior Knowledge Translation Specialist, National Collaborating Centre for Determinants of Health, Antigonish, NS, Canada.

Correspondencia a: Sume Ndumbe-Eyoh, Senior Knowledge Translation Specialist, National Collaborating Centre for Determinants of Health, Antigonish, NS, Canada. Correo: seyoh@stfx.ca

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y con las soluciones para eliminarlo. La promoción de la salud contemporánea parece asumir que con una base disciplinaria en la equidad y la justicia social se le apunta automáticamente al racismo estructural. En la práctica, sin embargo, continúan dominando las conductas orientadas hacia la salud y los enfoques individualistas y neoliberales (6,10–15).

En una revisión reciente de 249 publicaciones de alto impacto en salud pública, en solo 14 se encontraron artículos relevantes y apenas 16 artículos trataban el racismo institucional como tema central (16). Incluso los enfoques con orientaciones más estructurales, como el discurso corriente sobre los determinantes sociales de la salud, fallaron con frecuencia al incluir un análisis matizado del racismo estructural (esto es, propuestas de acción que explícitamente nombren e impliquen el racismo como un determinante fundamental de salud). Además, cuando las teorías (entre ellas la de la interseccionalidad) que tienen el objetivo expreso de la liberación de mujeres negras e indígenas, avanzan lentamente hacia la promoción de la salud, las metas liberadoras para los pueblos negros y morenos se ven algunas veces descentradas. En palabras de Patricia (17): "Ellos están cantando nuestra canción, pero nosotros no la reconocemos".

En entornos educativos, el compromiso limitado de los profesores universitarios racializados (18) contribuye a la escasez de perspectivas críticas en la promoción de la salud. Cuando el profesorado racializado está presente, su denominación de cuestiones sobre el racismo e injusticia social es vista con frecuencia como en su propio beneficio y no como un programa legítimo de investigación (18). Esto se refleja en las competencias de la promoción de la salud que no incluyen las aptitudes y conocimientos sobre el racismo y que se extienden al currículo, creando un impacto en la educación de la promoción de la salud. Los programas están matriculando promotores de la salud a quienes les falta entender el racismo como un problema social y de salud legítimo y quienes están mal preparados para proponer y desarrollar acciones de promoción de la salud que eliminen el racismo.

El camino por seguir

Si aceptamos que el racismo es un sistema, implicado en y por otros sistemas, aceptamos entonces que todos tenemos un papel para desempeñar en nuestras actividades cotidianas de promoción de la salud. Debemos invertir proactivamente en asegurarnos que los sitios donde se produce el conocimiento, la educación y la práctica de la promoción de la salud fomenten los intereses y el bienestar de las personas negras, indígenas y de otras comunidades racializadas (8,9). La promoción de la salud debe preguntar "¿Cuál es nuestro interés en defender la supremacía blanca y los "caminos de los blancos"? ¿Estamos preparados para continuar creando y manteniendo sistemas y prácticas que hacen daño y hasta matan, o estamos listos para tomar con seriedad al racismo?"

Un enfoque explícito en el racismo cultural, estructural e institucional y en la Blancura ayuda a orientar a la educación, a la investigación y a la práctica de la promoción de la salud. Los promotores de la salud deben desarrollar en todas las esferas una conciencia profunda de la raza que reconozca su centralidad y la del racismo en la vida cotidiana (9,19). Esto requiere desplazarse desde los enfoques neutrales de la raza o que no ven colores hacia una visión de las manifestaciones contemporáneas del racismo que no son arbitrarias ni misteriosas sino sistemáticas y conocibles. Entonces, las inequidades raciales dejan de verse como algo aleatorio para ser vistas como el producto natural de normas, valores y acciones opresivas racistas. Hacer esto subvierte las suposiciones de la vida cotidiana que tienden a mantener y reforzar el dominio blanco y las inequidades raciales (20). Los enfoques críticos sobre las cuestiones raciales y los que luchan contra el racismo deben insertarse en las competencias y en los currículos de la promoción de la salud para contribuir a la formación de un nuevo perfil de promotores de la salud profundamente implicados en la lucha contra el racismo en todo el espectro del campo de la promoción de la salud.

En su núcleo, la promoción de la salud debe criticar y expandir sus raíces y sus prácticas disciplinarias. Una autocrítica disciplinaria de la promoción de la salud examina activamente las convenciones de la promoción de la salud que dan por sentadas las verdades y los métodos de trabajo y las implicaciones que tienen sobre la comprensión societal de la raza y el racismo así como las acciones para eliminar las injusticias raciales (9). La autocrítica expone cómo el racismo epistémico, cultural y estructural se manifiesta a través de la investigación, la práctica y las políticas de promoción de la salud pública, ya sea a través de silencios, de exclusiones o de inclusiones erróneas. Una autocrítica disciplinaria a través de una serie de enfoques críticos sobre la raza (8) proporciona un camino para el desarrollo de un enfoque transformador de la promoción de la salud con un potencial emancipatorio para las personas negras, indígenas y de otras comunidades de color. La promoción de la salud debe comprometerse con los enfoques teóricos y epistémicos que se concentran activamente sobre los conocimientos y las perspectivas de las personas negras, indígenas y de otras comunidades de color en actividades de producción de conocimiento nacionales y mundiales. Esto debe coincidir con las críticas de la Blancura y su dominio en la producción y uso del conocimiento en entornos de investigación y práctica. Como investigador(a), ¿a qué tradiciones disciplinarias ha recurrido y se ha comprometido con las opiniones de académicos(as) críticos(as) de la raza en estas disciplinas? ¿Su investigación examina cómo el racismo afecta los procesos generadores de salud? ¿Esto va más allá de simplemente afirmar que la raza importa para subrayar cómo el racismo y la racialización funcionan para hacer que la raza importe?

La práctica de la promoción de la salud debe proponer e implementar políticas y programas que inviertan en las comunidades racializadas y que estén despojadas de los sistemas de la supremacía blanca. Las acciones que radican en las prácticas antirracistas de la descolonización claman por inversiones sustanciales en educación, el ingreso y reducción de la pobreza, empleo, vivienda, clima y salud planetaria, así como otros determinantes importantes de la salud para las personas negras, indígenas y de otras comunidades de color (21,22). Se debe transformar la elaboración de políticas públicas, la gobernanza, las políticas, el desarrollo, la implementación y la evaluación de programas, así como otros mecanismos a través de los cuales se ejercen el poder y la influencia, de manera que estos dejen de servir como herramientas a través de las cuales se reproducen las injusticias raciales, sino que en cambio sean utilizados como oportunidades para concebir y producir sociedades racialmente equitativas.

El conocimiento de la promoción de la salud y los proyectos de acción de todo tipo no pueden ser neutrales. Estos deben, ya sea defender las normas actuales que generalizan las inequidades raciales, o desafiarlas activamente. La promoción de la salud tiene que contribuir con dos proyectos distintos pero complementarios: entender el impacto y las experiencias del racismo en la salud en su sentido más amplio y desarrollar la ciencia y la práctica del antirracismo en la promoción de la salud (23). La promoción de la salud debe escoger el camino de la lucha contra el racismo estructural y las inequidades raciales abismales que está diseñado para crear. La sola inclusión en sistemas racialmente opresivos no será suficiente.

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Análisis de la capacidad de respuesta comunitaria para desarrollar iniciativas de promoción de la salud

María Ángeles Villanueva-Borbolla[1], **Eugenia Cervantes-Ortega**[2]
y Marisol Campos-Rivera[3]

Resumen:
Objetivo: analizar la capacidad de respuesta comunitaria (CR) hacia la obesidad, diabetes e hipertensión (ODH) para el desarrollo de iniciativas de promoción de la salud en una comunidad de origen náhuatl en México.
Material y métodos: estudio basado en el Modelo de Capacidad de Respuesta Comunitaria (MCRC) con abordaje cualitativo. Entrevistamos ocho informantes clave. Realizamos la asignación de valores por dimensión utilizando la escala del MCRC y el análisis de contenido para comprender los factores involucrados en la CR.
Resultados: la etapa de CR identificada fue de "concientización vaga" (valor 3). Se reconocieron los elementos que dificultan el involucramiento de la comunidad.
Discusión: valorar la CR es imprescindible para generar estrategias apropiadas. El MCRC resultó útil para profundizar en la ODH como fenómeno social en un contexto como el de Xoxocotla. El análisis cualitativo fue indispensable para comprender la CR y las consideraciones necesarias para generar iniciativas efectivas.

Palabras clave: salud de poblaciones indígenas, participación de la comunidad, promoción de la salud, política pública, obesidad, diabetes mellitus

Introducción

En México, de acuerdo con la Encuesta Nacional de Salud y Nutrición más reciente, las cifras de obesidad y diabetes continúan sin disminuir (1). El creciente número de políticas públicas y programas para desacelerar dicha problemática, no ha tenido el impacto deseado.

Para lograr lo anterior se requiere sumar la voluntad política de élites gubernamentales, la demanda de la sociedad civil organizada local y la participación de la población general. A esto se le conoce como "efecto cascanueces" (2). La promoción de la salud, desde su conceptualización, enfatiza dichos aspectos para lograr avances a largo plazo (3). Por ello, es de suma importancia que la investigación y acción en salud pública tenga un enfoque social, colectivo y político. Sin embargo, hasta ahora los esfuerzos se centran en el nivel individual (4).

Asimismo, es importante conocer el panorama y situación a nivel local. Esto permitiría identificar las estrategias más apropiadas (5) y el involucramiento de la población en la respuesta hacia la obesidad y diabetes.

1. Instituto Nacional de Salud Pública, Cuernavaca, Morelos, México.
2. Instituto Nacional de Salud Pública, Ciudad de México, México.
3. Universidad de Quintana Roo, Chetumal, Quintana Roo, México.

Correspondencia a: Marisol Campos-Rivera, División de Ciencias de la Salud, Universidad de Quintana Roo, Av. Erick Paolo Martínez S/N, Magisterial, 17 de Octubre, Chetumal, Quintana Roo, 77039, México. Email: marisol.campos@uqroo.edu.mx

(Este manuscrito fue presentado el 25 de mayo de 2019. Tras revisión por pares, fue aceptado para la publicación el 28 de octubre de 2019)

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El Modelo de Capacidad de Respuesta Comunitaria (MCRC) es un planteamiento metodológico que propone el cambio comunitario basado en la cultura, recursos y capacidad de respuesta local para plantear soluciones viables. Concibe que las intervenciones exitosas son aquellas que generan estrategias apropiadas a la etapa de capacidad de respuesta en la que se encuentra cierta población (6). Sus bases teóricas provienen del modelo transteórico del comportamiento y de teorías de procesos a nivel comunitario y acción social que valoran el progreso grupal (7).

El MCRC define la capacidad de respuesta comunitaria (CR) como la etapa de preparación de un grupo organizado para accionar frente a alguna problemática (6). Es decir, el grado de movilización y sensibilización de la población para transformar la realidad. Dentro del MCRC, la CR se divide en nueve etapas progresivas: 1) Sin consciencia sobre la problemática; 2) Resistencia; 3) Concientización vaga; 4) Pre-planeación de soluciones; 5) Preparación y planeación; 6) Iniciación de acciones; 7) Estabilización; 8) Expansión de acciones evaluadas y modificadas con miras a la sostenibilidad; y 9) Apropiación e involucramiento (6).

El Modelo ha probado ser útil para sustentar el diseño de estrategias comunitarias "a la medida", que hagan frente a la problemática de obesidad y sobrepeso (7–14). Se ha demostrado su pertinencia en poblaciones de origen indígena para la atención de obesidad y enfermedades cardiovasculares (7,15). Su uso con respecto a dichos temas se ha documentado poco en países de mediano y bajo ingreso (14).

En el 2010, el Instituto Nacional de Salud Pública (INSP) junto con la población de Xoxocotla[1], Morelos, inició el diseño de un modelo de atención en salud, sustentable y participativo (MASS-P), dirigido a mitigar la obesidad, diabetes e hipertensión (ODH). El interés surgió a partir del reconocimiento de dicha problemática por parte de un grupo de mujeres de la comunidad y de investigadoras del INSP. El MASS-P inició con un diagnóstico situacional sobre ODH para conocer la posición de la comunidad respecto al tema, sus iniciativas, recursos y barreras; dentro de las herramientas utilizadas se empleó el MCRC (6).

Como otras comunidades rurales y de raíces indígenas del país, Xoxocotla alberga riqueza cultural y de biodiversidad. Al mismo tiempo experimenta una situación de marginación y pobreza económica. En 2010, el 53% de sus habitantes no tenía acceso a servicios públicos de salud (16). El acceso al agua es limitado, la actividad agrícola ha disminuido y sus pobladores han tenido que buscar otras fuentes de ingreso y migrar. El cambio en la organización social, de aquella basada en la producción agrícola a una que depende de la prestación de servicios y la comercialización, ha ido a la par del incremento de los casos de ODH.

El objetivo del presente estudio es analizar la capacidad de respuesta comunitaria (CR) hacia ODH en un contexto como el de Xoxocotla para desarrollar iniciativas de promoción de la salud.

Material y Métodos

Se trata de un estudio basado en el Modelo de Capacidad de Respuesta Comunitaria (6) para analizar la CR hacia ODH. Este incluye un abordaje cualitativo y contempla los siguientes procedimientos:

Identificación de problemática, comunidad e informantes

Consideramos que la problemática a ser indagada sería la presencia de ODH en la localidad. Como comunidad definimos a la población total de Xoxocotla.

Para identificar a los/las informantes clave utilizamos la técnica bola de nieve (17), tal como se describe a continuación. En el diagnóstico situacional se realizó una encuesta de salud relacionada a la ODH con una muestra aleatorizada de 323 personas de la comunidad. Algunas de ellas se seleccionaron, por conveniencia, para participar en entrevistas a profundidad y grupos focales con el propósito de conocer su experiencia con respecto a la ODH. Estas personas nos contactaron con otras que también participaron en dichas técnicas de investigación. A cada una se le preguntó, quiénes, dentro de la localidad, tendrían una perspectiva del tema a nivel comunitario. De esta manera identificamos a los/as primeros/as informantes clave, mismos/as que nos refirieron con otros/as.

La selección de informantes para este estudio fue por conveniencia (17). Se consideraron los siguientes criterios de inclusión: haber sido referida como una persona con conocimiento sobre el tema a nivel comunitario; rol de liderazgo moral o formal en la comunidad; ejercer un cargo en sectores de educación, salud y gobierno, así como representar diversos segmentos complementarios; y tener mínimo seis meses viviendo en la localidad y/o en su función o cargo.

Realización de entrevistas

Entrevistamos ocho personas, de las cuales dos eran mujeres. Una de las mujeres ejercía el rol de responsable de la cocina comunitaria; la segunda era técnico docente del Instituto Nacional de Educación de Adultos (INEA). En cuanto a los seis hombres sus áreas de trabajo eran las siguientes: Centro de Salud ($n = 2$), medicina tradicional ($n = 1$), centro cultural ($n = 1$), delegación municipal ($n = 1$) y comercio ($n = 1$). Todos/as, excepto el médico tradicional, hablaban español con fluidez. La mayoría, excepto los dos hombres que trabajaban en el Centro de Salud, eran habitantes de Xoxocotla. Ellos, al igual que la mujer de la cocina comunitaria no hablaban la lengua náhuatl.

Utilizamos la guía de entrevista propuesta por el MCRC (6). Cada entrevista fue grabada y transcrita, previo consentimiento informado. Las entrevistas se llevaron a cabo en diciembre 2010, en el lugar conveniente para cada informante.

Análisis

Seguimos la metodología de análisis del MCRC (6) con algunas modificaciones, como se describe a continuación:

I. Asignación individual de valores a cada dimensión. El MCRC identifica seis dimensiones que inciden en la CR: a) Esfuerzos comunitarios; b) Conocimiento de la comunidad sobre los esfuerzos; c) Liderazgo; d) Clima comunitario; e) Conocimiento de la comunidad sobre la problemática; y f) Recursos (6). El primer paso consistió en asignar valores a cada dimensión en cada entrevista, utilizando una escala del 1 al 9. Esto se realizó de manera independiente por dos investigadoras. A diferencia de lo propuesto en el MCRC (6), los valores se asignaron de acuerdo con una de las modalidades descritas en el cuadro I. Cada valor está vinculado a una afirmación que corresponde a una de las etapas de CR.
II. Promedio de valores por dimensión. Al terminar el análisis individual se discutieron los valores asignados. Las investigadoras decidían si modificar o mantener el valor considerado inicialmente. Luego, de manera independiente, cada investigadora: 1) sumó los valores para cada dimensión asignados en todas las entrevistas; 2) dividió el resultado entre el número de informantes (ocho)[2], obteniendo un promedio. El valor final de cada dimensión se obtuvo promediando ambas cifras.
III. Cálculo del valor de CR. El valor resultó de la cifra total de las dimensiones, dividido entre seis[3], y redondeado hacia abajo.
IV. Análisis de contenido. A la par de la asignación de valores las investigadoras identificaron fragmentos relacionados a las dimensiones de la CR. Se identificaron categorías y los contenidos se codificaron (17), para luego ser vaciados en matrices. Lo anterior permitió generar los hitos que caracterizaron cada dimensión y sus relaciones, así como profundizar en la comprensión de los factores involucrados en la CR.

El estudio fue aprobado por los Comités de Investigación y de Ética en Investigación del INSP.

Resultados

La CR hacia ODH se encontraba en la etapa de “concientización vaga” (valor 3). De acuerdo con el MCRC ello significa que “la mayoría de la población siente que hay una preocupación local, pero no hay una motivación inmediata para hacer algo al respecto (6)”.

En cuanto a las dimensiones encontramos que, pese a que existían algunos esfuerzos comunitarios[4], los/as informantes consideraron que dichos esfuerzos no eran conocidos por la población y no se reflejaban en la comprensión que tenía ésta sobre ODH. Asimismo, dichos esfuerzos se desarrollaban con recursos limitados, ajenos a la comunidad. Se identificó la carencia de liderazgo. El clima comunitario resultó no ser propicio para los esfuerzos que se llevaban a cabo. Los hallazgos para cada dimensión se detallan en el cuadro II.

A partir del análisis de contenido, observamos la relación entre las diferentes dimensiones, como describimos a continuación.

Cuadro I. Modalidades de asignación de valores para conocer la etapa de capacidad de respuesta comunitaria hacia la obesidad, diabetes e hipertensión en Xoxocotla, Morelos, 2010.

Modalidad de asignación de valores	
1. Encontrar el punto que mejor describiera la situación entre dos valores. Una vez teniendo una idea general de la opinión del o la informante, y considerando sus particularidades, la investigadora asignaba, a partir de la escala, el valor vinculado a la afirmación que describiera mejor la situación. El valor no siempre era un número entero, sino que se acercaba o alejaba con decimales, dependiendo de la tendencia de la opinión del o la informante. En los casos en que el discurso se ubicaba entre dos valores, pero se inclinaba más hacia uno, los decimales indicaban dicha tendencia. *Ejemplo para la dimensión E: Conocimiento de la comunidad sobre la ODH* La o el informante expresó que algunos miembros de la comunidad tenían conocimiento de la problemática pero eran pocos quienes reconocían los signos y síntomas o existía confusión sobre éstos. El discurso fluctuaba entonces entre el valor 3 vinculado a la afirmación "sólo algunas personas en la comunidad tenían conocimiento de la problemática" y el valor 4 vinculado a la afirmación "algunos miembros de la comunidad reconocían los signos y síntomas pero faltaba información". En ese caso el puntaje se posicionó a la mitad de ambos valores, es decir, en el 3.5.	**2. Identificar segmentos del discurso y asignar a cada uno de estos un valor.** Para cada dimensión, la investigadora asignaba un valor a cada fragmento de la entrevista de acuerdo a la afirmación que correspondía. De esta forma, una dimensión podía tener varios valores en una sola entrevista. Los valores finales se promediaron y se tuvo un valor global por dimensión para cada informante. *Ejemplo para la dimensión E: Conocimiento de la comunidad sobre la ODH* *Primer fragmento de entrevista 1*: (este tema de la obesidad, de la diabetes, y de la hipertensión es) Alarmante por. . . alguna información que tenemos ya de adultos, también hay una población ya muy fuerte de gente con diabetes, por cuestiones también de obesidad. *Segundo fragmento de entrevista 1*: (Las personas dicen) "'Es la buena vida, y por eso estoy así'. Pero no se dan cuenta que eso les va a crear problemas el día de mañana, porque finalmente están comiendo muchas grasas. . . Entonces, yo siento que sí nos hace falta mucha información." La investigadora, considerando que la persona entrevistada tiene conocimiento, asignó al primer fragmento el valor 5 vinculado a la afirmación "los miembros de la comunidad saben que los signos y síntomas de la problemática ocurren localmente, y la información general está disponible". Al segundo fragmento le asignó el valor 1 vinculado a la afirmación "la ODH no es vista como un problema", considerando lo que la persona refiere sobre la comunidad.

Recursos insuficientes que generaban esfuerzos poco útiles y desconocimiento de la población sobre estos y ODH

Se identificó que los recursos carecían de planeación y evaluación, y no se destinaban para acciones de prevención y difusión fuera del Centro de Salud. Asimismo, había desactualización del personal de salud y exclusión de los recursos culturales y territoriales.

> . . . no le das el espacio que necesita el paciente. Sí haría más falta la relación médico-paciente, más estrecha. . . . ayudaría mucho. Pero por la sobrecarga de trabajo [lo que hacemos es decirles]: ¿Sabe qué? Aquí está su medicamento, tómeselo. Nos vemos en un mes. Haga ejercicio y coma sano. Y ya [. . .] No es que los médicos o las enfermeras no lo quieran hacer, porque sí se dan sus espacios para dar las pláticas (Hombre, Centro de Salud).

Esfuerzos focalizados e incompatibles culturalmente que fomentaban desconocimiento y actitud discordante para la participación

Según los testimonios de las/os informantes, la focalización de esfuerzos a un sector acotado de la población y poco llamativos, impedía que las personas se acercaran a ellos; en caso de hacerlo, la

Cuadro II. Definición y resultados de las dimensiones de la capacidad de respuesta comunitaria. Xoxocotla, Morelos, diciembre de 2010 (Versión abreviada). La versión completa del Cuadro II puede ser consultada en la publicación digital del artículo.

Dimensión y su definición	*Valor asignado dentro de la escala y su significado*[1]	*Hitos relevantes de la dimensión de acuerdo a las y los informantes*
A. Esfuerzos comunitarios. Existencia de programas y políticas que atienden la ODH.	**Valor 4.4:** Algunas personas en la comunidad se han reunido y han iniciado discusiones para desarrollar esfuerzos comunitarios para atender la ODH.	• Esfuerzos comunitarios calificados como poco útiles. • Reconocimiento de esfuerzos institucionales del sector salud y desarrollo social. • Esfuerzos institucionales dirigidos a jefas de familia, con participación obligatoria y asistencia por interés económico. Cobertura insuficiente por falta de recursos humanos. Orientados a personas que ya vivían con la condición de salud. No incluían la cultura local ni problematizaban el tema como parte de una realidad más compleja.
B. Conocimiento de la comunidad sobre los esfuerzos. Incluye la accesibilidad a estos.	**Valor 2.9:** La comunidad no conoce los esfuerzos para atender la ODH.	• Desconocimiento de los esfuerzos existentes por el grueso de la población. • Poca relevancia de los programas para las personas. • Acceso solo para personas inscritas a los programas del Centro de Salud. • Poca difusión de los esfuerzos por parte de los servicios de salud, y limitada a las instalaciones del Centro de Salud con técnicas poco atractivas. • La fuerte carga de trabajo del personal impedía el espacio para atender dudas, explicar claramente y construir una relación más estrecha.
C. Liderazgo. Apoyo de las acciones en torno a ODH de las y los líderes designados y miembros influyentes de la comunidad	**Valor 2.6:** Quienes se perciben como líderes no consideran la ODH como una problemática en la comunidad.	• Carencia de liderazgo para responder a la ODH. Emergieron dos posturas: a) Liderazgo potencial pero con condiciones inapropiadas para la activación de iniciativas, tales como: falta de organización y espacio para convocar y reunir a las personas; cambio en cada periodo administrativo del personal que ocupaba puestos de instancias gubernamentales; falta de estructura y vinculación; y nulo reconocimiento hacia los/as médicos/as tradicionales. b) Las y los líderes locales no mostraban interés en los esfuerzos existentes. Las personas de instituciones gubernamentales en materia de salud no problematizaban el tema como consecuencia de la pobreza, la violencia y/o las prácticas culturales.

(Continuación)

Cuadro II. (Continuación)

Dimensión y su definición	*Valor asignado dentro de la escala y su significado*[1]	*Hitos relevantes de la dimensión de acuerdo a las y los informantes*
D. Clima comunitario. Actitud prevalente en la comunidad acerca de la ODH.	**Valor 2.1:** La actitud prevaleciente en la comunidad es: "no hay nada que podamos hacer", "solo otros/as están en circunstancias de hacerlo", o "no consideramos que deba cambiar".	• Actitud de desesperanza de la población con respecto a la ODH. • Existencia de otros temas prioritarios para la población (violencia y pobreza) que limitaban su capacidad de respuesta. • Visibilización incipiente de la ODH. • Percepción de la ODH como una problemática que no les correspondía atender, ya que debían atender otros asuntos más urgentes. • Falta de adecuación cultural de las actividades para atender la ODH.
E. Conocimiento de la comunidad sobre ODH. Incluye causas, consecuencias y cómo impacta la comunidad.	**Valor 3.1:** Pocas personas en la comunidad tienen algún conocimiento acerca de la problemática de ODH.	• Conocimiento parcial sobre ODH, en ocasiones considerándolas mitos o de origen divino. Si reconocían los síntomas, no sabían qué hacer al respecto. • Mayor tendencia a acudir a la medicina tradicional. Solo con diagnóstico de ODH se acercaban a los servicios de salud. • Poca consciencia sobre la problemática, la cual generaba desinterés de la población en participar en los esfuerzos institucionales para atenderla.
F. Recursos relacionados a ODH. Disponibilidad de recursos locales para apoyar los esfuerzos.	**Valor 2.7:** No existen recursos locales disponibles para atender la problemática de ODH.	• Poca disponibilidad de recursos institucionales para apoyar esfuerzos. • Falta de planeación y evaluación de los recursos de manera institucional. • Recursos institucionales dedicados al tratamiento, no a la prevención. • Personal de salud desactualizado que requería capacitación (habilidades de facilitación de talleres y manejo de grupo) y sensibilidad cultural. • Pocos grupos independientes buscaban atender el tema y los recursos obtenidos eran utilizados para un pequeño sector de la población. • Falta de consideración de recursos existentes en la comunidad, como: alimentación originaria, medicina tradicional, espacios y actividades culturales y recreativas (danza y teatro).

[1] El significado del valor asignado es una traducción literal de la escala utilizada en el manual de MCRC (6)

incompatibilidad cultural de las estrategias no permitía una comprensión de la problemática y sus causas. A su vez, el desconocimiento sobre el origen y causas de ODH generaba fatalismo y sensación de poco control. Ello se traducía en una actitud de desesperanza y de abandonarse a la suerte del destino, sin intención de participar en los esfuerzos existentes.

> [. . .] nosotros manejamos gente de Oportunidades [. . .] y la gente de población abierta, se hace a un lado o una apatía. . . como no reciben ningún beneficio, cree que no necesita saber de este tipo de programas [. . .] son varios grupos blanco, pero en sí, la madre de familia es la principal [en el tema de ODH]. . . (Hombre, centro de Salud).

> La gente dice: No, no es por eso. No es por lo que dices. Es que de por sí, ya Dios dijo que así va a ser. Ya la gente se deja caer (Hombre, Médico tradicional).

> Dicen: No, pues, estoy gorda, estoy llena de vida. . . no le dan la importancia necesaria. O dicen: De algo me he de morir (Mujer, INEA).

> A través de las pláticas de *Oportunidades*. . . A ellas les informan. . . Pero todo es como en la escuela, una tarea que no alcanzas a comprender. . . es como algo que le pasa a alguien. . . ¡Pero que a mí, en lo personal, me afecte, o que yo [haga] algo que me haga cambiar todo eso!, no (Mujer, Cocina comunitaria).

Actitud de falta de control hacia ODH

De acuerdo con los/as informantes, la población se percibía a sí misma desprovista de elementos necesarios para resolver la ODH, y asumía que la solución estaba en manos de otros actores. Dicha actitud provenía de la identificación y priorización de otros problemas prevalentes en la comunidad – violencia y pobreza. Sin embargo, resultaba también del desconocimiento de la comunidad sobre ODH y la falta de esfuerzos que incluyeran estrategias promoviendo la capacidad de acción.

> La gente necesita saber más sobre su salud, pero a veces es renuente en cuestión de que ve otras necesidades. . . eso es lo que hace que la persona se aleje. No es tanto el que no quiera saberlo, sino que le da prioridad a otras cosas (Hombre, Centro de Salud). Aquí, dice la gente: lo que necesitamos es comer y conseguir cómo comer. . . y lo demás, pues. . . va más allá de nuestras posibilidades, de nuestra capacidad (Mujer, Cocina comunitaria).

Liderazgo no participativo e invisibilidad de ODH en la agenda pública

Las y los informantes refirieron falta de involucramiento, o un análisis poco realista por parte de las personas consideradas líderes en el tema. Algunos/as señalaron que existía potencial de liderazgo en materia de ODH, así como recursos, pero no condiciones apropiadas para activar iniciativas, tales como: falta de organización y espacio para convocar y reunir a personas; cambio de personal de instancias gubernamentales en cada periodo administrativo; falta de estructura y vinculación; y exclusión de los/as médicos/as tradicionales quienes podrían tener un papel clave en dicha activación. Otras/os plantearon que quienes podrían considerarse líderes no mostraban interés en los esfuerzos existentes, y no veían la ODH como prioridad. Agregaron que las personas de instituciones de salud no problematizaban el tema como consecuencia de la pobreza, la violencia y las prácticas culturales que dificultaban cambios en la manera de pensar y hacer.

En el entendimiento de las/los informantes existía una noción de integralidad para comprender la salud; asumían que la problemática debe trabajarse desde diferentes ámbitos, no aisladamente, respondiendo a un significado de bienestar y salud acorde a la cultura de los pueblos originarios. Reconocieron que no hay un espacio común donde se dialogue sobre el tema y señalaron la necesidad de incluir otro tipo de saberes, como la medicina tradicional, en iniciativas institucionales.

> No es solamente implementar una acción, sino que varias para ir entretejiendo, ¿por qué no se hace? [. . .] las instituciones trabajan de manera aislada (Hombre, Delegación municipal).

> Una estructura familiar donde por falta de efectivo, de afectividad, haya un problema

> psicológico hacia la familia, un índice con respecto al alcoholismo y lo reviertan en comer demasiado, por el mismo estrés, por los mismos problemas, genere obesidad (Hombre, Centro de Salud).

Discusión

El análisis permitió profundizar en las dimensiones que definen la CR hacia ODH. Entender los elementos que habría que movilizar para pasar de la etapa de concientización vaga a la de discusión de soluciones, resultó esencial para generar estrategias de promoción de la salud “a la medida” para el caso de Xoxocotla.

Al igual que otros (9,14), este estudio demuestra que en comunidades en situación de marginación existe un grado bajo de movilización comunitaria y sensibilización con respecto a ODH. Estos resultados no se asemejan con los encontrados en poblaciones en condiciones más favorables (14).

Uno de los hallazgos más relevantes es que, desde la mirada de los/as informantes, la ODH no representaba una problemática prioritaria para la población. Cuando las personas viven en situación de violencia y pobreza, la percepción del riesgo de vivir con ODH y sus consecuencias es baja y, por lo tanto, su motivación para llevar a cabo acciones al respecto. Esto mismo fue encontrado en una comunidad de Sudáfrica con situación de desventaja social (14).

De acuerdo con la teoría de percepción de riesgo (18) no es la falta de información lo que hace que las personas vean o no un riesgo, sino las prioridades de acuerdo a sus condiciones de vida. En México, un alto porcentaje de la población vive cotidianamente otra clase de vicisitudes y carencias que ocupan la atención de las personas - por ejemplo, carencia por acceso a la alimentación (20.4%), ingreso inferior a la línea de bienestar (48.8%), carencia por acceso a la seguridad social (57.3%) (19) y violencia de pareja hacia las mujeres (43.9%) (20). En el 2019, el 67.2% de la población adulta consideró la inseguridad como el problema más importante que le aquejaba, así como el desempleo (32.8%) y el aumento de precios (28.1%) (21).

Consideramos importante rescatar la noción de integralidad para comprender la salud. Es necesario subrayar la inseparabilidad de la salud y la cultura, incluyendo en esta última la equidad financiera (22). Trabajar la disminución y prevención de ODH desde la idea de bienestar y salud como se conceptualiza desde la cultura local, es imprescindible para tener avances.

Los resultados brindan evidencia sobre la importancia de impulsar la organización comunitaria. Deben privilegiarse los espacios de intercambio de saberes, la reflexión crítica para la transformación, así como la distribución equitativa del saber, el poder y los recursos para el mejoramiento de las condiciones de vida en las que se expresa la salud (23). Tiene sentido entonces trabajar desde enfoques comunitarios en poblaciones con raíces indígenas y organización agrícola, que poco a poco incorporan formas de vida de una sociedad industrializada; como es el caso de Xoxocotla.

Limitaciones y fortalezas del estudio

Durante la entrevista, los/las informantes no aclararon a qué se referían cuando hablaban de “la comunidad”. Al definirla como población habitante de Xoxocotla, existe el riesgo de presuponer homogeneidad y, en consecuencia, no considerar características particulares de los grupos que pudieran conformarla. Sin embargo, el análisis de contenido permitió la diferenciación de grupos dentro de la propia comunidad, a la que hacían referencia los/as informantes en su discurso. Los valores para cada dimensión se asignaron tomando en cuenta dicha distinción. Aun así, sugerimos que en estudios futuros se pida a cada informante definir a qué se refiere con “la comunidad”. En su reflexión sobre el MCRC, Kesten y colaboradores (5) resaltan la relevancia de hacer dicha pregunta, ya que permite una mejor contextualización (5).

El análisis cualitativo resulta una de las principales fortalezas del estudio. Pocos artículos han publicado el soporte cualitativo para el valor de la CR (8) y mostrado la relación que existe entre las dimensiones. Los hallazgos cualitativos permitieron identificar necesidades de la comunidad percibidas por los/las informantes clave y generar conocimiento para crear estrategias apropiadas. Entre los estudios que utilizan el MCRC, el presente es uno de los pocos que presentan un análisis cualitativo detallado y sistemático (5,12).

Este es el primer artículo en México que documenta el uso del MCRC y el segundo en un país latinoamericano. Por ello resulta un gran aporte para la investigación y la acción en torno a ODH. Aun cuando los hallazgos corresponden a una comunidad particular, ofrecen una perspectiva diferente para indagar y enfrentar la ODH.

Conclusiones

Tal como se ha demostrado en otros estudios (12), encontramos que la valoración de la CR es fundamental. Ello permitirá: generar estrategias "a la medida" de la comunidad, desarrolladas con y por la gente local; así como considerar las causas estructurales de ODH y los temas emergentes de la población. En casos como el de Xoxocotla, resultó clave para crear acciones que trascendieran el fatalismo que dificultaba la participación social, y promovieran la acción-reflexionada (23,24).

Aun cuando se ha destacado la importancia de la participación social para lograr la salud de la población (23,25), este estudio proporciona evidencia sobre elementos que dificultan el involucramiento de la comunidad. Las políticas públicas y programas para atender la obesidad y comorbilidades resultarían más fructíferas de contemplar lo anterior, así como la realidad local e institucional, las formas de organización comunitaria, y los recursos presentes en el territorio social y cultural.

En concordancia con los hallazgos, los principios de la promoción de la salud y lo discutido hasta aquí, recomendamos lo siguiente para generar acciones encaminadas a fortalecer la movilización comunitaria y sensibilización con respecto a ODH:

- Diagnósticos comunitarios ampliados y participativos ligados a la acción.

Debe incluirse la valoración de las capacidades comunitarias, así como de las formas de aprendizaje y organización de los grupos e instancias, y no solo de sus déficits y problemáticas de salud (26).

Para que dichos diagnósticos sean participativos y ligados a la acción, es imprescindible organizar espacios donde las voces de diferentes sectores de la población se escuchen y se genere una reflexión crítica para la transformación (4). Un ejemplo claro es el "Programa Salud en los Barrios" en Cataluña. Este ha demostrado que aun en situación de vulnerabilidad, los grupos deciden cómo transformar la realidad desde la acción comunitaria, a partir del diagnóstico participativo de salud (4).

- Planeación y evaluación de programas locales, intersectoriales y con participación social.

Es indispensable realizar esfuerzos "a la medida" que reflejen la situación a nivel local (5). En todo el proceso debe incluirse la mirada de la población, y la acción de sectores que afecten directamente la dimensión colectiva de la salud (4). Para lo anterior, deben promoverse la vinculación y los espacios incluyentes, así como considerar recursos locales valiosos para fortalecer a la comunidad, tal como la alimentación originaria, medicina tradicional y espacios de promoción de la cultura. Resulta imprescindible invertir en esfuerzos para actualizar al personal operativo en temas relacionados a ODH, a la diversidad cultural y a las habilidades de comunicación. En el caso de unidades de salud donde se atiendan personas de pueblos originarios, debe profundizarse en los saberes de la medicina tradicional y tender alianzas que permitan un tratamiento conjunto. Ampliar la cantidad de personal asignado que atienda a la población y los tiempos de consulta, evitaría consultas por complicaciones. El aumento del presupuesto gubernamental asignado a la prevención de ODH, y una adecuada planeación y evaluación en el primer nivel, favorecerían todo lo anterior.

En el caso de Xoxocotla, estas consideraciones nos permitieron desarrollar estrategias culturalmente sensibles, y acordes a la comunidad para su fortalecimiento. Generamos iniciativas de sensibilización, a la par de alternativas viables a nivel personal y colectivo, teniendo como eje principal el involucramiento de las personas.

En cuanto a la pertinencia del uso del MCRC, consideramos que aporta información útil para el diseño de iniciativas. Para atender las limitaciones identificadas en este y otros documentos (5,27,28) es importante hacer modificaciones como las realizadas en este estudio.

Agradecimientos

A las personas de Xoxocotla que compartieron su tiempo y saberes, así como el apoyo de los Servicios de Salud de Morelos, particularmente al personal del Centro de Salud en la localidad. Agradecemos a Izchel Cosio Barroso por su colaboración en la generación de datos y comentarios al manuscrito.

Declaración de conflicto de intereses

Ningún conflicto declarado.

Financiación

Este estudio fue financiado por Fondos Mixtos Conacyt-Morelos (clave MOR-2009-CO2-120654).

ORCID iD

María Ángeles Villanueva-Borbolla https://orcid.org/0000-0002-7657-1729

Material complementario

Este artículo tiene material complementario disponible en línea.

Notas

1. Xoxocotla es una localidad del estado de Morelos ubicada al sur de México; constituye uno de los primeros asentamientos en la región y forma parte de los pueblos nahuas. Su nombre significa el lugar de los ciruelos agrios. Hasta 2010 contaba con 21,074 habitantes.
2. Una de las entrevistas careció de una comunicación efectiva ya que el informante tenía como lengua dominante el náhuatl y un manejo básico del español. Por ello, una de las analistas consideró que para las dimensiones A y F no se tenían los elementos necesarios para asignar un valor. Para estas dos dimensiones la suma de los valores asignados se dividió entre siete, no entre ocho que fue el número total de informantes.
3. Seis es el número de dimensiones que componen la CR.
4. Entendemos por esfuerzos comunitarios, aquellas acciones o programas dirigidos a atender ODH.

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Barreras y facilitadores para una alimentación saludable y actividad física en mujeres embarazadas con sobrepeso y obesidad

Emanuel Orozco, Selene Pacheco, Armando Arredondo
Christian Torres y Oscar Resendiz

Resumen:
Objetivo: identificar barreras y facilitadores sobre dieta saludable y actividad física en mujeres embarazadas con sobrepeso y obesidad que viven en entornos de vulnerabilidad social y económica, destacando determinantes socioeconómicos y culturales.
Metodología: estudio cualitativo longitudinal, donde las entrevistadas corresponden a mujeres embarazadas seleccionadas de una cohorte prospectiva en México. Se aplicó una guía semiestructurada de entrevista que exploró barreras y facilitadores para llevar una dieta saludable y poder realizar actividad física. Las entrevistas se transcribieron y codificaron en Atlas Ti, generando 23 códigos temáticos.
Resultados: existen barreras y facilitadores contextuales y sociales que predisponen un mayor riesgo de padecer sobrepeso y obesidad durante el embarazo. Destacan conocimientos limitados sobre una dieta saludable, condiciones de vulnerabilidad social, así como un sentido de fragilidad en las mujeres que incrementa su sedentarismo.
Conclusiones: en el diseño e implementación de intervenciones en promoción de la salud es fundamental considerar las barreras y facilitadores culturales y socioeconómicas sobre alimentación saludable y actividad física durante el embarazo, para desarrollar intervenciones de salud pública que favorezcan una mayor prevención de sobrepeso y obesidad en mujeres embarazadas.

Palabras claves: barreras, facilitadores, alimentación saludable, obesidad materna

Introducción

El sobrepeso y la obesidad representan riesgos para la salud de las mujeres embarazadas y sus hijos en países de ingreso medio como México. Se sabe al respecto que una embarazada con sobrepeso incrementa sus probabilidades de aborto espontáneo, enfermedad hipertensiva del embarazo, diabetes gestacional y la conclusión prematura el embarazo (1). Al mismo tiempo, la obesidad de la madre es un factor predictor de Enfermedades crónicas no transmisibles (ECNT) en la edad adulta de los infantes, independientemente de su alimentación postnatal (2). También se ha demostrado que los hijos de madres obesas podrían padecer problemas déficit de atención, hiperactividad, así como desórdenes alimenticios y problemas psicológicos en la adultez (3). Asimismo, existe mayor riesgo en madres obesas de depresión, cesárea, defectos fetales y anormalidades congénitas, mientras que para sus hijos es mayor el riesgo de mortalidad perinatal (4).

Resulta sugerente que abordajes cualitativos destacan que la experiencia del sobrepeso y la obesidad en las personas que la padecen deriva en situaciones de vulnerabilidad en entornos escolares y laborales, así como en diversas presiones sociales y de los servicios de salud para modificar la dieta y la actividad física que no necesariamente se traducen

Instituto Nacional De Salud Pública, Cuernavaca, Mexico.

Correspondencia a: Armando Arredondo, Instituto Nacional De Salud Pública, Av. Universidad 655, Cuernavaca, 62100, México. Email: armando.arredondo@insp.mx

(Este manuscrito fue presentado el 6 de agosto de 2019. Tras revisión por pares, fue aceptado para la publicación el 9 de enero de 2020)

Global Health Promotion 1757-9759; Vol 27(4): 198–206; 904701 Copyright © The Author(s) 2020, Reprints and permissions: http://www.sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/1757975920904701 journals.sagepub.com/home/ghp

en hábitos saludables (5). Estas situaciones combinadas con aspectos de género plantean retos relevantes para comprender la experiencia de la obesidad, dado que algunas poblaciones femeninas con sobrepeso expresan frustración con sus hábitos alimenticios y con la idea de que el embarazo y el cuidado de los niños son de las principales causas de sobrepeso y obesidad para ellas, prefiriendo este grupo intervenciones en salud que tengan objetivos de mejorar peso y talla en el mediano plazo (6). Estudios que han explorado creencias negativas sobre el sobrepeso y la obesidad durante el embarazo destacan más efectos negativos en la figura de la madre que de su descendencia, siendo minoritario el grupo que logra cambios en la alimentación y la actividad física (7).

Buena parte de estas deficiencias suelen ser más agudas en países en vías de desarrollo, para los cuales se ha establecido que los daños a la salud descritos son consecuencia de fenómenos estructurales donde los efectos negativos de la transición nutricional han sido más marcados en países de ingreso medio como Brasil, China, India y México (8). Sobre este particular se ha mostrado que el consumo inadecuado de energía, proteínas y micronutrientes por parte de las madres durante el embarazo incrementa el riesgo de obesidad de su descendencia, la cual es más acentuada en las niñas (9).

Algunos de los factores mayormente asociados con el riesgo de padecer obesidad en la infancia son el peso al nacer, la obesidad de los padres, la duración del sueño, el consumo de alimentos densamente energéticos y bebidas azucaradas, el abandono temprano de la lactancia materna y el tiempo frente al televisor (10). Para el caso del peso al nacer y la obesidad de los padres, se ha señalado que estos factores predisponen mayormente la obesidad cuando se conjugan con variables socioeconómicas (11). Algunas de las más relevantes como nivel educativo, ingreso o pertenecer a alguna minoría étnica se han asociado significativamente con el sobrepeso de las madres y sus productos (12). También se ha sugerido que aparte de factores ambientales relacionados con la oferta de alimentos en los lugares de residencia de madres con sobrepeso, son variables sociales como las características de la vivienda, estatus marital, consumo de tabaco y el contar con apoyo social, las que se asocian con mayor significancia con el sobrepeso de madres y sus productos (13). Revisiones sistemáticas muestran que los patrones descritos tienen expresiones más negativas en países y contextos de menores ingresos socioeconómicos (14), en donde se ha observado ganancia excesiva de peso en gestantes de bajo ingreso, con acceso restringido a servicios de salud (15).

Resulta relevante que diversas mujeres identifican más barreras que facilitadores para modificar estilos de vida durante el embarazo, lo que les impone mayores retos para cambiar hábitos asociados a las complicaciones del embarazo, la falta de conocimientos específicos, la falta de apoyo social y la necesidad de aprobación y compromiso (16).

En países como México el sobrepeso y la obesidad afectan a más del 70% de la población adulta, teniendo esta epidemia mayor incidencia en la población femenina de distintos grupos de edad. Dados los riesgos descritos de padecer obesidad durante embarazo, el objetivo de este artículo es caracterizar las percepciones sobre factores de riesgo del sobrepeso y la obesidad durante el embarazo relacionados con la alimentación saludable y la actividad física en mujeres mexicanas embarazadas con sobrepeso y obesidad. Con ello se espera contribuir al análisis de las barreras y facilitadores que identificaron las mujeres estudiadas para disminuir la amenaza de los riesgos referidos.

Material y métodos

Se integró una submuestra a conveniencia de 38 mujeres de la cohorte NUTTSEA (17, 18) a quienes se les aplicó una entrevista semiestructurada. Esta cohorte inició con 400 mujeres reclutadas después de la semana 24 de embarazo para seguimiento en el proyecto "*Análisis intercultural integral del efecto de la transición nutricional en factores biológicos y socioeconómicos que determinan riesgos de enfermedades metabólicas en los hijos recién nacidos de madres obesas*". Para reclutar a estas personas en el estudio se les realizó una llamada telefónica para acordar una cita en el Hospital General de Temixco, que era el lugar en donde llevaron su control prenatal. A las participantes se les solicitaron datos personales y de contacto y se integró un directorio administrado por dos personas, para coordinar las citas y el seguimiento.

La guía de entrevista fue diseñada para explorar temáticamente la atención médica del embarazo, la autovaloración de la dieta, el acceso a alimentos, la lactancia materna, las percepciones de la actividad física durante el embarazo, barreras para la dieta saludable y la actividad física durante el embarazo y, el rol de los servicios de salud y de la red social en el acceso a servicios o a información sobre hábitos saludables sobre el embarazo. Las entrevistas fueron transcritas después de realizadas sustituyendo los nombres de las informantes por claves y borrando los audios una vez resguardados los textos de las transcripciones.

Después de realizadas las entrevistas fueron transcritas y la información se ordenó para realizar un análisis inductivo con el software Atlas ti Versión 5. Para ello se procedió a realizar una codificación libre creando códigos específicos para ordenar la información. Los códigos empleados fueron: Actividad física embarazo, Actividad Física rutinaria, Alimentación en el embarazo, Antecedentes heredofamiliares, Autoevaluación de calidad dieta, Barreras alimentación saludable, Barreras atención médica, Complicaciones embarazo, Disponibilidad alimentos, Estado del neonato, Experiencia del embarazo, Inicio alimentación sólida, Lactancia materna, Motivación para actividad física Orientación actividad física Servicios de Salud, Orientación actividad física Red Social, Orientación nutricional red social, Orientación nutricional Servicios de Salud, Percepción dieta saludable, Sobrepeso obesidad en padres, Uso de fórmula y Valoración de la calidad.

Resultados

Las percepciones documentadas se agruparon en alimentación saludable y actividad física durante el embarazo. En ambos casos se describen las percepciones sobre ambas, las fuentes informativas de donde provienen, así como las barreras y oportunidades identificadas para fortalecerlas.

Percepciones sobre alimentación saludable durante el embarazo

La Tabla 1 en el material complementario describe los elementos centrales sobre la percepción de la dieta saludable y algunas de las fuentes de información expresadas en los términos de las informantes entrevistadas, destacando una serie de convencionalismos genéricos sobre su significado, así como la influencia de medios de comunicación, redes sociales y los servicios médicos en su elaboración.

Nociones sobre dieta saludable durante el embarazo

Casi la totalidad de las informantes respondieron con atributos genéricos sobre las características de una dieta saludable, expresados como algo ideal. Una de las modalidades a destacar es la proveniente de la publicidad en medios masivos donde se consumen "*frutas y verduras*", y donde las porciones de lo que se come son moderadas. También se expresaron como argumentos complementarios el disponer de "*alimentos bajos en grasa y ricos en fibra*" y se agregaron horarios y el número de veces que deben consumirse alimentos al día.

Una factor que influyó favorablemente en una dieta saludable fue el estado de salud de las informantes, habiéndose expresado situaciones donde asumieron un régimen alimenticio prescrito por personal de salud, destacando un sentido prohibitivo que las informantes le imprimieron a su cambio de hábitos. Ello derivó en expresiones de privación y sacrificio hacia la ingesta de determinados alimentos, como las presentadas en la Tabla 1 en el material complementario. Esta noción resultó contrastante con una minoría de informantes que más familiarizadas con regímenes alimenticios, quienes expresaron mayor capacidad para normalizar el consumo frecuente de alimentos de origen natural.

Fuentes de información sobre la dieta saludable durante el embarazo

Las informantes refirieron como fuentes de información medios masivos, redes sociales como amistades y familia, y servicios de salud, respectivamente. Sugirieron que es abundante la información sobre alimentación saludable, siendo una fuente primaria el sistema educativo, para lo cual se expresaron contenidos que forman parte de libros de texto de educación básica.

Lugar destacado en los testimoniales ocupó la referencia a argumentos mercadológicos, destacando las dos expresiones contenidas en los alimentos y promocionales publicitarios y que teóricamente favorecen decisiones sobre la alimentación saludable: "*Aliméntate sanamente*" y "*Consume frutas y verduras*". Fue igualmente complicado para las informantes dar ejemplos específicos de cada una.

Las redes sociales de las informantes y su nivel educativo jugaron un papel relevante en cuando a conocimientos y prácticas para una alimentación saludable. En el caso de las redes sociales, se observa una influencia marcada de otras mujeres como madres y suegras, si bien las referencias incluyeron también personajes comunitarios como parteras y vecinas. Dado que la mayoría de las informantes tenían en promedio alrededor de 22 años, la influencia de sus madres fue muy referida en torno a la noción de dieta saludable, sobre todo la idea de que la dieta saludable debe ser variada, y que deben combinarse tiempos y tipos de alimentos.

Un hallazgo fundamental para este análisis fue haber identificado en el discurso de las entrevistadas, elementos que vinculan la mala nutrición con padecimientos como el sobrepeso o la obesidad. Las referencias aportadas enfatizaron no sólo temas relacionados con los riesgos de las madres a nivel gestacional, sino también cuestiones de alimentación que podrían ser problemáticas para ellas y sus hijos. También destacó haber identificado en algunas madres la noción de que su composición corporal puede transmitirse a sus productos en la etapa gestacional, con la idea que un recién nacido con sobrepeso o macrosómico expresa de alguna manera la fisonomía de su madre.

Barreras y facilitadores para una alimentación saludable

Los resultados sobre barreras y facilitadores para una dieta saludable durante el embarazo se describen en la Tabla 2 en el material complementario. Las barreras se relacionaron con situaciones vinculadas a las propiedades de los alimentos, a preferencias familiares y de personas con influencia decisoria en los hogares, y con cuestiones socioeconómicas. Los facilitadores se vincularon con beneficios para la descendencia, así como por la influencia potencial de la familia y los servicios médicos.

Barreras para una dieta saludable durante el embarazo

La problemática de no poder seguir una dieta saludable durante el embarazo y otras etapas de la vida en las mujeres entrevistadas se relacionó con aspectos culturales y económicos, como puede verse en la Tabla 2 en el material complementario. En el primer caso se reportaron creencias y tabús sobre algunos grupos y hábitos alimenticios, y con la influencia de la red social. En el segundo se destacaron barreras relacionadas con el poder de pago y la disponibilidad de alimentos.

Uno de los componentes culturales más destacados fue el conflicto entre lo que las madres consideraron que deberían comer y sus prácticas alimenticias cotidianas. Esta situación deja entrever nociones genéricas sobre la alimentación saludable que compiten contra preferencias en donde tienden a predominar alimentos no saludables.

Estas barreras se expresaron como referencias explicitas al disgusto por comer verduras y legumbres, a la idea de que los alimentos deben estar acompañados con soda dada la falta de aceptación familiar de agua simple, y a las preferencias de miembros de la familia sobre determinados alimentos o bebidas. También influyeron la disponibilidad de alimentos en la familia y la influencia de los gustos alimenticios de las madres en las preferencias de sus hijos.

Las consideraciones económicas ocuparon un papel destacado. Estas barreras incluyeron aspectos de tiempo para preparar alimentos y el contar con recursos económicos para hacer las compras correspondientes. En el primer caso se reportaron situaciones en donde la preparación de alimentos tiende a ser demandante cuando la madre desempeña alguna actividad remunerativa o bien donde las preferencias alimenticias al seno del hogar comprometen su propia alimentación. Esta problemática fue más aguda en las entrevistadas que cursaron complicaciones durante el embarazo y en las que presentaron mayor sobrepeso durante el control prenatal.

Facilitadores para una alimentación saludable durante el embarazo

Un hallazgo relevante de la investigación realizada fueron las referencias a la dieta saludable como un factor protector durante el embarazo, en donde las madres mismas pueden generar beneficios potenciales para ellas y sus hijos mediante el cuidado de su alimentación.

La red social y los hábitos familiares pueden facilitar igualmente mejores oportunidades para lograr una alimentación saludable durante el embarazo y otras etapas de la vida. Desde la perspectiva de algunas informantes, la socialización y el apoyo familiar resultan significativos para poder desarrollar buenas prácticas alimenticias.

Llamó la atención que las referencias a la influencia de los servicios de salud en una dieta saludable como parte del control prenatal hayan sido escasas, debido a que las pláticas en las consultas resultaron insuficientes. En este sentido, diversas informantes expresaron disponibilidad para recibir orientación, habiendo expresado la necesidad de mayor consejería por parte del personal de salud.

Percepciones Sobre Actividad Física Durante El Embarazo

Los resultados sobre esta temática se describen en la Tabla 3 en el material complementario. Si bien la mayoría expresó que la actividad física es benéfica para la salud de la madre, llamó la atención haber documentado que el embarazo incrementa su fragilidad, limitándola durante el embarazo por regla general. Las fuentes de información expresadas fueron la publicidad, las redes sociales y familiares y la propia búsqueda individual de información en medios electrónicos.

Nociones de actividad física durante el embarazo

La indagatoria sobre la actividad física mostró la creencia generalizada que ésta implica la práctica de algún deporte o actividad rutinaria intensa, como puede verse en la Tabla 3 en el material complementario. Al asociarla al embarazo las opiniones se dividieron en dos grupos, siendo el primero en donde se expresó la noción que la actividad física es benéfica porque reduce riesgos asociados al sobrepeso y crear condiciones favorables para el parto. Por su parte, el segundo fue en donde no es recomendable durante el embarazo.

Una idea generalizada en el primer grupo fue que la actividad física favorece el trabajo de parto, haciéndolo más eficiente. Las informantes en esta condición reportaron haber reducido la intensidad de su actividad cotidiana, dando paso a actividades muy moderadas, sobre todo caminar por periodos que abarcaron entre los 20 minutos y alrededor de una hora. Ubicamos dentro de este grupo a un número reducido de mujeres que tuvieron complicaciones durante su embarazo, en cuyo caso el reposo fue prescrito médicamente.

Fuentes de información sobre actividad física durante el embarazo

Las informantes refirieron tres fuentes de información descritas en la Tabla 3 en el material complementario: los medios de comunicación, sus redes sociales y familiares, y los servicios de salud en donde atendieron su embarazo. En el caso de los medios de comunicación destacó la referencia a promocionales, que algunas informantes consideraron accesibles y útiles.

En el caso de quienes refirieron realizar actividades más intensas, destacó la influencia de las redes familiares en materia de consejería y guía práctica para la realización de algunas rutinas dirigidas a hacer llevadero el embarazo y el parto. Llamó la atención en este grupo la referencia de recomendaciones prevenientes de parteras tradicionales.

Dado que las informantes entrevistadas llevaron control prenatal, fueron amplias también las referencias en donde los proveedores de servicios les recomendaron realizar actividad física. Los mensajes captados de parte de los proveedores fueron positivos en cuanto a sus beneficios. En este sentido, las mayores restricciones provinieron de personal de salud. En lo general fueron pacientes con embarazo de alto riesgo, o que padecieron alguna enfermedad grave durante el embarazo como la preclamsia, quienes refirieron haberse limitado en este rubro.

También se documentó que más allá de las recomendaciones recibidas por parte de los medios, la red social o bien los proveedores de servicios salud, en muchas ocasiones el propio estado de ánimo o de salud de la madre influyó en la decisión de no realizar actividad física.

Barreras y facilitadores para la actividad física durante el embarazo

Estas valoraciones en los términos en que fueron expresadas se encuentran descritas en la Tabla 4 en el material complementario, en la cual se muestra que las barreras para la actividad física durante el embarazo se relacionaron con aspectos de motivación, autoestima, actividades cotidianas e influencia de la red social. Por su parte, los facilitadores se vincularon con la valoración del caminar, el disponer de alguna compañía, recibir consejería de los servicios médicos y contar con facilidades para realizarla.

Se identificaron barreras relacionadas con el nivel individual, la red social y el entorno de residencia de las madres, para la realización de actividad física durante el embarazo. Dentro de los factores individuales se identificó como limitante la falta de motivación, la cual se acompañó de referencias a situaciones limitantes cuando no se contaba con compañía para realizar actividad física.

Aparte de la falta de motivación fue referido el sentir vergüenza o incomodidad, sobre todo para realizar actividad física de manera grupal o en espacios donde acude gente entrenada. Otro factor individual expresado por algunas informantes fue la falta de tiempo, problemática que tendió a acentuarse cuando las madres reportaron desarrollar actividades domésticas o remunerativas.

En el caso del entorno se documentaron dos situaciones particulares. En la primera se destacó que el entorno familiar influye en que el trabajo doméstico durante el embarazo fuera visto como una forma de actividad física. En la segunda se expresaron limitaciones de espacios e infraestructura para practicarla, así como problemas de inseguridad pública. Un determinante fundamental para la interrupción de la actividad física durante el embarazo fue el estado de salud de la madre, en donde se expresaron situaciones que llevaron a las madres a optar por el reposo ante amenazas a su embarazo.

Facilitadores de la actividad física durante el embarazo

Las oportunidades para promocionar la actividad física durante el embarazo se relacionaron con su amplia valoración de las modalidades leve o moderada, así como la influencia de la red social de las informantes y con la consejería provista por proveedores de servicios de salud.

En el caso de la valoración positiva de realizar actividad física leve o moderada, la gran mayoría de las informantes reportaron el caminar como una forma de ejercitarse con amplia receptividad. El rango de tiempo referido por la mayoría como recomendable osciló entre 20 y 40 minutos, resaltando diversos beneficios, sobre todo para el trabajo de parto.

Diversos testimonios favorecieron identificar que aparte de las recomendaciones brindadas a las embarazadas por parte de sus parientes, resultó muy importante el contar con alguna persona acompañante para reforzar las caminatas como una práctica que favorece un embarazo saludable.

La consejería provista en los servicios de salud resultó ser relevante para diversas informantes, quienes reportaron haber seguido indicaciones por parte de los diversos proveedores que les brindaron atención. Resultó igualmente favorable el deseo de bajar de peso para recuperar la forma previa al embarazo, así como aprovechar cuando se cuenta con facilidades para realizar actividad física.

Discusión

El análisis realizado sugiere que existen valoraciones y creencias positivas sobre la alimentación saludable y la actividad física durante el embarazo en el grupo de mujeres entrevistadas. No obstante, para el caso de la alimentación saludable se expresó un conflicto marcado para poder seguirla entre el consumo de alimentos de origen natural contra los procesados, en donde predominaron los segundos. Por su parte, para el caso de la actividad física llamó la atención la creencia de que, si bien es un factor protector de la salud de las madres y sus bebés, ésta aumenta la fragilidad de las mujeres cuando se combina con el embarazo.

Se considera que los hallazgos descritos tienen implicaciones relevantes para contextos similares de América Latina y otras regiones del mundo, dada la asociación que se ha establecido entre dieta y actividad física durante el embarazo, con el riesgo de padecer una ganancia excesiva de peso en esta etapa. Así lo muestran los resultados de la Cohorte Viva con población norteamericana (19), en la cual se buscó identificar factores modificables para esta problemática, siendo los más relevantes la dieta saludable y la actividad física durante el embarazo los que tuvieron mejor asociación con un riesgo reducido de ganar peso excesivo durante el embarazo.

La relevancia del análisis realizado sobre creencias acerca de la dieta y la actividad física durante el embarazo se debe a la presencia de barreras y facilitadores que pueden ser retomados para el diseño de intervenciones mas exitosas.

Tales evidencias, son aportes relevantes para los programas de promoción de la salud y detección oportuna de prediabetes y pre-hipertension en mujeres embarazadas, pero también para fortalecer los programas dirigidos a todos los pacientes que no han podido controlar ambas enfermedades en comorbilidad con la enfermedad metabólica (20, 21).

Algunos de sus principales resultados son coincidentes con otros estudios cualitativos que las analizan por separado, describiendo la manera en que las creencias condicionan comportamientos durante el embarazo que pueden ser protectores para las madres y su descendencia. Para el caso de la alimentación saludable se han descrito creencias protectoras sobre todo para la madre (22). Para el caso de la actividad física se ha señalado que las mujeres suelen representarla como un factor para prevenir el sobrepeso y facilitar el trabajo de parto, y que la influencia de diversos miembros de la parentela juega un papel relevante para su práctica (23).

En materia de fuentes de información, los resultados de nuestro estudio destacan medios de comunicación, redes familiares y personales, y servicios médicos como las más relevantes para la promoción de percepciones favorables y desfavorables sobre alimentación saludable y la actividad física durante el embarazo. Buena parte de estos resultados coinciden con un estudio realizado en Inglaterra (22), el cual muestra para el caso de la actividad física que una buena parte de mujeres entrevistadas reportaron haber recurrido en primer lugar a revistas o libros, mientras que amistades y parentela ocuparon también un papel relevante proveyendo orientación a la embarazada.

Dado que en México la población de más bajos ingreso es la que reporta una mayor exposición a factores de riesgo para sobrepeso relacionados con el consumo de bebidas azucaradas y alimentos densamente calóricos, se considera relevante considerar el efecto potencial de políticas públicas para desalentar o disminuir su consumo. Tal es el caso del impuesto a bebidas azucaradas, mismo que ha influido en el decremento de su ingesta (23). Esta medida combinada con los ajustes al etiquetado frontal nutrimental, podrían tener efectos protectores en mujeres embarazadas con características similares a las que participaron en la Cohorte NUTTSEA.

Una dimensión central para las temáticas analizadas fueron las redes sociales de las informantes, habiéndose observado para la dieta saludable que éste es un factor que influyó como influencia para adoptar hábitos alimenticios con predominio de alimentos de origen natural, manejo adecuado de porciones y una idea de provisión de bienestar para la madre durante el embarazo. Las redes también jugaron un papel destacado para el caso de la actividad física, habida cuenta de las expresiones de que la influencia de parientes y la compañía la favorecieron. Estos resultados corroboran los hallazgos de otros estudios realizados con población latina que destacan la relevancia de las diversas formas de apoyo que proveen las redes para favorecer estilos de vida saludables durante el embarazo (24).

El análisis realizado muestra que las barreras para una dieta saludable durante el embarazo destacaron las referencias a la disponibilidad deficiente de alimentos saludables, las preferencias alimenticias de diversos miembros de la familia y la falta de recursos económicos. Para la actividad física durante el embarazo se expresaron temas de falta de motivación, las actividades domésticas o productivas de la madre y la falta de orientación de los servicios de salud.

Por su parte, los facilitadores para la dieta saludable durante el embarazo identificados fueron la voluntad de cambio, así como la influencia de las redes familiares y de los servicios de salud. Para la actividad los facilitadores fueron la valoración positiva de la actividad física, el tener compañía para realizarla y contar con facilidades para realizarla cerca del lugar de residencia.

Los resultados obtenidos muestran que las variables contextuales tienen un peso marcado en el riesgo de padecer sobrepeso y obesidad durante el embarazo. Destacan en primer lugar las condiciones socioeconómicas, las cuales imponen limitaciones relevantes a las madres para adquirir productos saludables a bajo costo (25). Sobre el articular se observó en campo una mayor disponibilidad de alimentos procesados con precios estandarizados, en contraste con alimentos naturales de origen animal y vegetal cuya disponibilidad fue más limitada, los cuales tuvieron una mayor fluctuación de precios (26). Las condiciones socioeconómicas de las mujeres con quienes se trabajó en terreno sugieren para el caso mexicano que las barreras y oportunidades para la actividad física durante el embarazo requieren de un mayor empoderamiento y mejora de la autoestima de las mujeres para una toma de decisiones más autónoma y asertiva .

En cuanto a la actividad física, se considera un hallazgo relevante de este estudio la percepción de fragilidad asociada al embarazo, con lo cual se expone a las mujeres a un sedentarismo inducido por esta condición. En contraste con esta percepción, las referencias sobre una actividad física de baja o moderada intensidad como agente protector de la salud y facilitador de parto parecen estar favoreciendo en la práctica una mayor actividad física. Situaciones de un orden más cotidiano como la referencia a la realización de trabajo doméstico, la baja autoestima y la falta de compañía han sido documentadas como limitantes que coinciden con nuestros resultados para el caso estudiado (26). Destacó en el presente análisis que mujeres que tuvieron una infancia y adolescencia activas, fueron quienes expresaron menores reservas para una actividad más intensa, como trotar o nadar.

Conclusiones

Es fundamental profundizar en las nociones sobre alimentación saludable y actividad física durante el embarazo, para desarrollar intervenciones que favorezcan una mayor prevención de sobrepeso y obesidad en mujeres gestantes. Variables del entorno social de las gestantes pueden contribuir a generar una mejor respuesta a nivel de la provisión de servicios médicos y la mejora de la oferta alimentaria y las facilidades para realizar actividad física en zonas de bajo ingreso. Es fundamental el rol del apoyo social ante barreras relacionadas con la disponibilidad de alimentos saludables y la actividad física durante el embarazo.

Declaración de conflicto de intereses

Ningún conflicto declarado.

Financiación

Este estudio fue financiado por el Consejo Nacional de Ciencia y Tecnología México (fondo 0028453).

Material complementario

Este artículo tiene material complementario disponible en línea.

ORCID iD

Armando Arredondo https://orcid.org/0000-0002-2768-9966

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Contexto de procedencia, autopercepción y expectativas de los jóvenes en situación de encierro

Maria Marcela Barnetche[1] y **Lila Susana Cornejo**[2]

Resumen: Es notable el incremento de delitos protagonizados por jóvenes, siendo difícil distinguir entre la actividad delictiva propiamente dicha y un comportamiento desviado de costumbres, tradiciones, condicionamientos socioeconómicos, o el medio habitual en el cual se desarrollan desde sus primeros años de vida. Para conocer las percepciones y significado del contexto de procedencia de jóvenes en situación de encierro, se desarrolló una investigación cualitativa considerando las normativas del Consejo de Organizaciones Internacionales de las Ciencias Médicas. Se realizaron entrevistas con marco pautado a 28 varones y 4 mujeres alojadas en los centros socioeducativos del Área Penal Juvenil de la Provincia de Córdoba, Argentina. El análisis de la información se realizó a través de la Teoría Fundamentada (muestreo teórico, método comparativo constante) y Triangulación de investigadores. Los jóvenes del estudio integran familias del tipo extendida, donde surge la figura del padrastro. Las actividades de la familia, se dividen entre la escuela para los pequeños y laborales para el jefe de familia. Refieren buena relación familiar; confianza con hermanos, no aceptan puesta de límites. No han cumplimentado la escolaridad, por mala conducta, y/o falta de interés. Referido a sus amigos, diferencian según procedencia (escuela y/o barrio) y clase social. "La esquina" aparece como lugar de encuentro en el barrio. Los deportes surgen para el tiempo libre. Presentan experiencia laboral, incluyendo actividades ilícitas, de diferente significación: renta para adquirir sus gustos y/o ayuda familiar y como espacio de aprendizaje. Se describen bondadosos y solidarios, contraponiéndose a su accionar. Para el egreso de la institución, tienen expectativas relacionadas al trabajo formal, escolaridad y cambio de conductas motivada por afecto materno. Si bien estos jóvenes provienen de contextos diversos, la situación de encierro revela la construcción de cambios conductuales y anhelos, que al egreso serán condicionados por su contexto.

Palabras clave: autopercepción, jóvenes, situación de encierro

Introducción

El notable incremento de hechos delictivos protagonizados por jóvenes y adolescentes, se ve reflejado en el ingreso de jóvenes asistidos en los centros socioeducativos del área penal juvenil de la Provincia de Córdoba. Estudios realizados en este contexto demuestran, que si bien, la población varía, el número de jóvenes se mantiene constante o en aumento. Esto provoca una alarma social, siendo poco factible distinguir entre lo que constituye la actividad delictiva propiamente dicha y un comportamiento desviado de las costumbres, tradiciones, condicionamientos socioeconómicos en

1. Universidad Nacional de Córdoba Facultad de Odontología, Córdoba, Argentina.
2. Universidad Nacional de Córdoba, Facultad de Odontología, Córdoba, Argentina.

Correspondencia a: Maria Marcela Barnetche, Universidad Nacional de Córdoba, Facultad de Odontología, Haya de la Torre S/N, Córdoba 5000, Argentina. Email: marcebarnetche@yahoo.es

(Este manuscrito fue presentado el 2 de mayo de 2019. Tras revisión por pares, fue aceptado para la publicación el 18 de noviembre de 2019)

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que viven, o lo que sería más preocupante, que estas conductas se constituyan en un modo de vida, un medio normal y habitual, en el cual se desarrollan desde su nacimiento y sus primeros años de vida (1).

La personas se definen a sí mismas en base a su sistema de autopercepción, el mismo se construye con conceptos, actitudes, deseos, expectativas, voliciones, y valoraciones de la persona, estructurados en un todo organizado y dinámico que a partir de una realidad externa adquiere en el sujeto, autonomía para la toma de decisiones (2).

En ese sentido los recursos económicos, condiciones de trabajo, desigualdades en los servicios sanitarios, la educación, etc. tienen una influencia decisiva en los comportamientos individuales y colectivos (3).

Por su parte el Centro Latinoamericano y del Caribe de Demografía (CELADE) integrante de la Comisión Económica para América Latina y el Caribe (CEPAL) define a la vulnerabilidad social como "la combinación de: a) eventos, procesos o rasgos que entrañan adversidades potenciales para el ejercicio de los distintos tipos de derechos ciudadanos o el logro de los proyectos de las comunidades, los hogares y las personas; b) la incapacidad de respuesta frente a la materialización de estos riesgos; y c) la inhabilidad para adaptarse a las consecuencias de la materialización de estos riesgos (4)." Esquemáticamente la CEPAL (4) representa a la vulnerabilidad social como:

Vulnerabilidad social = exposición a riesgos
+ incapacidad para enfrentarlos +
inhabilidad para adaptarse activamente

Desde el enfoque de vulnerabilidad social se aspira a comprender los fenómenos estructurantes de la sociedad, los recursos de las personas como activos físicos, humanos sociales, la capacidad de acción y los riesgos a los que se exponen los actores sociales. Para Kaztman, el nivel de vulnerabilidad de un hogar se relaciona con la posesión de activos. Esto significa la disponibilidad de recursos para la mayor conveniencia y la mejor utilización de las oportunidades que la coyuntura en la cual se desenvuelve, le brinda (5).

La vulnerabilidad es un concepto dinámico asociado principalmente con la pobreza sobre la que impactan otros elementos vulnerabilizantes como el aislamiento, la inseguridad, la indefensión, la desconfianza, las presiones positivas/negativas, provenientes del exterior o del interior del sujeto. La vulnerabilidad social es una característica cambiante que incide en el sistema autoperceptivo del sujeto, el que varía de acuerdo a la experiencia y la edad. Díaz (2) siendo la adolescencia el momento en que se configura el esquema adulto de la percepción de la realidad.

En este trabajo nos propusimos conocer las percepciones y significado del contexto de procedencia de los jóvenes alojados en los centros socioeducativos del área penal juvenil de la Provincia de Córdoba, Argentina.

Metodología

Se desarrolló una investigación cualitativa teniendo en cuenta las normativas del Consejo de Organizaciones Internacionales de las Ciencias Médicas (CIOMS) (6). A los fines de indagar acerca de contexto de procedencia, la autopercepción y expectativas futuras que poseen jóvenes institucionalizados en los centros socioeducativos del penal juvenil de la Provincia de Córdoba, se aplicó la técnica de entrevista guionada (7) a 32 jóvenes, de 14 a 18 años de ambos sexos, alojados por un período no menor a seis meses en los centros socioeducativos del Complejo Esperanza. (predio de 52 hectáreas ubicado fuera del ejido de la Ciudad de Córdoba; en el km 14,5, del Camino de 60 cuadras, en el que se encuentran cuatro centros educativos: Módulo I (ex Horizontes), Módulo II (Ex Nuevo Sol), Módulo III (Ex Pasos de Vida), Módulo IV (Ex San Jorge), que alojan a varones de 12 a 20 años, en conflicto con la ley penal de la Provincia de Córdoba El centro que aloja a jóvenes mujeres, en esas circunstancias es el CESAM, que en el momento de realizar este estudio se encontraba en el Barrio Nueva Córdoba de la Ciudad.

Las entrevistas a cargo de una única investigadora, se llevaron a cabo en forma individual, en los consultorios de los equipos técnicos (psicólogos y trabajadores sociales), de los distintos centros, en un único momento con una duración aproximada de 50 minutos. Se realizó el planteamiento sucesivo de las directrices temáticas derivadas de los objetivos de la investigación y de la evolución de la entrevista: perfil sociodemográfico, antecedentes laborales, tiempo libre, grupo de pares, grupo familiar, costumbres, pautas culturales de contexto.. Las entrevistas fueron grabadas, simultáneamente se registró, durante la microsituación, las impresiones, sensaciones, actitud de los jóvenes y características en un diario de campo.

Luego se obtuvo el corpus específico con la transcripción literal posterior a la transcripción de las entrevistas, dichas acciones fueron realizadas por la investigadora a cargo.

El análisis de la información se realizó a través de la Teoría Fundamentada (muestreo teórico, método comparativo constante (8), en forma individual y luego en conjunto con otros investigadores (triangulación)

Por último, cabe señalar que se han utilizado códigos alfanuméricos para mostrar los casos que sustentan los resultados presentados en este trabajo.

Resultados

Características sociodemográficas del grupo en estudio

En un estudio marco, realizado en los centros socioeducativos del penal juvenil de la Provincia de Córdoba, del que se desprende el presente trabajo, participaron 70 jóvenes, 94% varones y 6% mujeres, de 14 a 18 años, con una edad media de 16,91±1,11, siendo el 37% de 18 años. El 34% de ellos han concluido el nivel primario de educación, 69%, son residentes en la Ciudad de Córdoba y el 69% poseen antecedentes laborales del tipo informal (1,9,10). El 29% pertenece a familia tipo nuclear; el 26% tipo monoparental; sólo el 1% de ellos residieron, por decisión judicial, en instituciones de bien público. El rol de jefe de familia es ejercido en un 36% por la madre, el 33% el padre/padrastro, hermanos el 6%, 25% por abuelos/tíos; con ocupación del tipo informal el 67%. El 36% de los jefes de hogar tiene nivel de instrucción primario completo (1,9,10).

El 93% de los jóvenes participantes de la investigación habitan en casas de construcción del tipo tradicional; cuentan con agua de la red pública el 90% y el 81% disponen de transporte urbano con paradas próximas a sus hogares (1,9,10).

El proceso de análisis del corpus y las notas de campo registradas mostraron con gran riqueza las distintas formas en que perciben sus contextos de procedencia y se autoperciben los jóvenes en situación de encierro y cuáles son sus expectativas para el momento de recuperar la libertad.

Contexto de procedencia de los jóvenes en situación de encierro

Los jóvenes del estudio integran familias del tipo extendida, donde surge la figura del padrastro.

> Con mi vieja y mis hermanos. Somos seis, tres varones y tres mujeres. .. Después mi mama me presento, supuestamente, al novio de ella, todo y nos fuimos a vivir a Cosme. . . En Pilar, vivía con mi mama y mi hermano de 20 años y mi sobrinito de 2 – 3 añitos. Y mis otros hermanos están juntados, son más grandes que yo; mucho más grandes que yo (N0005, varón, 15 años).

Las actividades realizadas por los integrantes de la familia, se dividen entre la escuela para los más pequeños y laborales para el jefe de familia, que recae tanto en la madre como en el padre.

> Son tres hermanas más chicas. Tienen 16, 12y 10. Todas van a la escuela". . ."Mi mama en una pollería, ahí en la ruta, y mi papa en una fábrica metalúrgica camino a Monte Cristo (G0004, varón, 18 años).

Refieren una buena relación con la familia; más confianza con los hermanos, pero no aceptan la puesta de límites.

> Con mi hermano, el más grande, tiene 26. Ahora se fue a vivir a otro lado, ahí cerca del barrio nomás. Con mis papas también me llevo bien, con los dos, pero a veces no les hacía caso (H0002, varón, 17 años).

Escolaridad

Estos jóvenes *no han cumplimentado con los niveles de escolaridad, entre los motivos de interrupción* emerge la mala conducta, y la falta de interés por las actividades escolares:

> . . . por moquero, porque no iba. . . Y por quedarme en otro lado, lo que menos hacia era quedarme en el colegio (B0007, varón, 16 años).

> . . . tenía mala conducta, así, y me echaban, y yo volvía, así y me recibían. Y después me volvían a echar hasta que me fui, porque estaban hablando de mí, así, que me echaban que se yo, y bueno, y que yo volvía. Y yo escuche, así, que me estaban sacando el cuero y bueno me fui (M0009, varón, 15 años).

Grupo de pares

En cuanto a *sus amigos*, marcan diferencia según la *procedencia (escuela y/o barrio) y clase social*.

> De la escuela y del barrio" . . . "No, nunca porque como que no eran de la misma clase de sociedad. Si como que la escuela era. . . tenía más clase y estos eran muy negros así. Y como que no compartían así. Nunca se juntaron (V0039, varón, 17 años).

"La esquina" aparece como *lugar de encuentro en el barrio* para el grupo de pares:

> A todos lados no íbamos, andábamos en todo juntos" . . . "Nada, nos quedábamos en la esquina después salíamos así, a echar moco. Y a veces salíamos a bailar, pero cada tanto, no éramos de eso (G0004, varón, 18 años).

Los deportes surgen como *ocupación del tiempo libre*: . . . "yo jugaba mucho a las bochas antes y me gustaba mucho jugar a las bochas. . . (F0008, varón, 18 años)."

Actividades Laborales

Los jóvenes presentan en su mayoría *experiencias de actividades laborales*, las cuales refieren diferentes significaciones.

Como una *actividad rentada para adquirir sus gustos y ayuda familiar*: "de todo un poco – piensa- me vestía, le daba a mi mama y nada más (F0003, varón, 16 años)."

Como rebusque: "Y uno aprende, se la rebusca. Acá también hice taller (Mr0001, varón, 18 años)."

Como *espacio de aprendizaje en acompañamiento de un adulto*:

> Mi hermano es el encargado de ese taller, y mi hermano tiene el taller de él. Y él me enseñó . . . . Cristian, mi hermano el más grande, aclara. Hay un par de cosas que yo miraba y aprendía y otras cosas que no entendía y le preguntaba a él (B0007, varón, 16 años).

Surge también, *la obtención de dinero, a través de actividades ilícitas*, para el "bardo[1]":

> Me la bardeaba. Con esa compraba ropa y con lo que robaba me la bardeaba en joda. Para que no se dieran cuenta en mi casa. Con la plata del trabajo compraba ropa, todo eso . . . Y la otra me la bardeaba en joda, hoteles, y esas cosas . . . Ah compre un auto nomás, con la plata que robaba pero supuestamente la había encontrado (G0004, varón, 18 años).

Autopercepción de su forma de ser

Cuando los jóvenes del presente estudio describen su forma de ser lo hacen en relación al otro.

> Yo soy nada que ver como los otros chicos que están ahí a dentro. Una cosa que no me gusta es que me charlen y si no me gusta charlar, no me gusta que me charlen. Y la otra es que si me están charlando, me la aguanto. Me pueden estar hartando, charlándome y no le digo nada (N0005, varón, 15 años).

> No, si, a mí no me pueden decir nada, es al pedo, no doy bola (Mr0001, varón, 18 años).

> A mí me da lo mismo, nací así y voy a morir así. No cambiaría Nada. . . (N0005, varón, 15 años).

También dejan entrever cualidades de bondad y solidaridad que se contraponen a su accionar:

> Que soy un chico bueno. Cuando necesitan una ayuda la doy. Yo en enero del año pasado yo iba a viajar a Misiones, con unos amigos a hacer ayuda

> comunitaria. Yo salía yo iba a la iglesia. . . ¡Escucha lo que hacía! (se ríe). . . Salía, robaba y me iba a Carlos Paz a entregar folletos de la iglesia. Aunque no lo creas. . . (G0004, varón, 18 años).

Proyecto para el futuro inmediato

Todos los jóvenes alojados en los centros socioeducativos tienen metas para cumplir para el momento que egresen de estas instituciones entre ellas surgen estas propiedades:

Expectativas ideales para el egreso relacionadas a trabajo formal y la escolaridad

> Irme al taller de él (hermano más grande) porque él hace todas las marcas. Donde estaba yo, hacemos Fiat nomás. Es una sucursal de la concesionaria de Fiat nomás . . . Terminar el colegio, total creo que no me cuesta nada. . . (B0007, varón, 16 años).

Cambio de conductas para el futuro motivada por afecto materno

> Si (contesta firme), siempre estoy diciendo que tengo que cambiar, hacer las cosas bien. Las cosas que hacía, no las puedo hacer más, por mi mama. . .. (F0003, varón, 16 años).

> . . . La forma de pensar, tengo que cambiar, no le quiero dar más quilombo a mi mama, tengo que cambiar por mis hijas, no quiero que me vean acá. . . (Mr0001, varón, 18 años).

> . . . el orgullo, siempre digo, no es una boludés. También lo hago por la fama que me hacen. Porque eso trae muchos problemas, eso me trajo acá. Y porque yo andaba explotando plata, todo así, y la gente por envidia. . . (G0004, varón, 18 años).

Expectativas reales para el "afuera"

> Y sería mejor decirle que voy a trabajar, pero. . . ¿sabe qué?. . . la repuesta está afuera. . . (Aclara) porque yo puedo prometer, jurar que voy a hacer las cosas bien acá, todos dicen lo mismo, que van a trabajar, estudiar, bla bla. Pero afuera lo ves, cuando querés tener algo y buscas que sea más fácil. Yo ya me conozco. Además si me voy de acá, me voy para la de mayores. Acá ya no (Mr0001, varón, 18 años).

Discusión

Nuestro trabajo permitió vislumbrar, descubrir y conocer las vivencias de jóvenes infractores de la ley alojados en los centros socioeducativos del área penal juvenil de Córdoba, en el transcurso de su vida y su situación actual de encierro, lo cual se vio reflejado a través de sus diferentes expresiones y relatos.

El perfil sociodemográfico de los jóvenes en situación de encierro por medidas de privación de libertad, participantes de la presente investigación, resultó similar al de otros estudios realizados con jóvenes infractores de la ley.

En nuestra población de estudio predominó el género masculino (94%) siendo esto similar a lo hallado en diversos estudios realizados con jóvenes infractores de la ley en España (M: 82%; F: 18%) durante el año 2006 (11), en Asturias (M: 90%; F: 10%) (12), en el año 2012 en México (M: 97,5%; F: 2,5%) (13).

Si bien hasta el momento a nivel local, son pocos los estudios realizados en este grupo poblacional en una investigación llevada a cabo durante el año 2008, en el mismo contexto se presentó igual relación entre géneros (M: 96%; F: 4%) (14).

Este predominio del género masculino podría estar relacionado con la construcción de la identidad de los varones, en una sociedad patriarcal y heteronormativa que lleva a los jóvenes a ocupar espacios callejeros donde se expresan y reproducen lógicas prácticas y representaciones construidas con los otros que asignan a las mujeres el rol de cuidadoras pero no de proveedoras. En muchos casos la actividad delictiva se relaciona con la obtención de dinero.

En nuestro país al igual que en otras partes del mundo, no existen grupos de jóvenes infractores de la ley integrados únicamente por mujeres; estas se suman en un rol de colaboradoras (15) resignando su posición al mandato del patriarcado.

Si bien los jóvenes refieren buena relación intrafamiliar, no aceptan para sus acciones los límites legales o los propios de la unidad doméstica, lo que pone en tensión el habitus del joven y el contexto. El dispositivo disciplinario en esas familias se relaciona a las lógicas prácticas de madres y padres, supuestamente ubicados en un espacio social, (en el trabajo, en quehaceres diarios, etc.

En cuanto al lugar de procedencia de los jóvenes en estudio, a pesar de tener lugares de residencias habituales se trasladan por diferentes barrios y localidades para llevar a cabo sus hechos delictivos.

Los jóvenes de nuestro estudio concurrían a establecimientos escolares cercanos a sus domicilios, fueron repitentes, y abandonaron la escuela. Entre los motivos que emergieron como causantes de esa interrupción señalan la mala conducta, su propia decisión. En las últimas décadas se han implementado programas nacionales para la retención de los jóvenes en el nivel secundario, que han sido insuficientes. El abandono de las actividades educativas responde a múltiples factores entre los que se destacan el nivel de ingreso y de escolaridad de los padres, la aplicación de la norma como formación discursivas disciplinante y la escuela como replicadora de un modelo descontextualizado, normalizador y ejecutor de violencia simbólica para la reproducción social. Aspectos todos que contribuyen a la escasa significación que dan estos jóvenes a la educación.El contexto de los centros socioeducativos en los que se encuentran recluidos los jóvenes, surge sin dejar de lado el discurso disciplinante, el que aceptan al menos transitoriamente, como único espacio contenedor y de acompañamiento donde concluir con los niveles de escolaridad e instrucción laboral a través de diferentes talleres. Sin embargo, en muchas ocasiones los jóvenes no se encuentran motivados para concurrir a estas actividades justificándose con diversas excusas, desgano, disgusto, preferencias por otras actividades de distracción, etc, lo que evidencia la falta de significación de la instrucción para estos jóvenes. A pesar de ello, reconocen desde el “deber ser”, construido por otros, a la educación como agente legítimo de socialización y movilidad social que les permite la construcción de proyectos personales.

Volviendo al contexto de procedencia las lógicas prácticas, bienes y servicios de consumo diferencia los pares de la escuela, del barrio y clase social. La forma de hablar, de caminar, de mirar, la ropa que se usa, la marca, la música que se escucha, etc., actúan como dispositivo discriminatorio que funciona en todo grupo.

Los antecedentes de trabajos que manifiestan estos jóvenes son de tipo informal, las actividades que desarrollan están relacionadas con la construcción, mecánica del automotor, reparto entre otras. La necesidad de trabajo surge en ocasiones con la figura de rebusque para acceder el mundo material y cubrir sus necesidades; también con el acompañamiento de un adulto, representado por la imagen de quien ejerce el rol de jefe de familia (padre, padrastro, hermano, abuelo) y le enseña la actividad. Si bien estos trabajos son consideradas subempleos para estos jóvenes constituyen la actividad rentada a través de la cual obtienen dinero, con el cual ayudan a sus familias, generalmente a las madres y los más pequeños de su grupo familiar (hermanos menores y sobrinos). En este plano emerge la alternancia entre trabajo y actividad delictiva, doble ocupación (16), ambos para la obtención de dinero necesario para la satisfacción de sus necesidades, a partir de lo que adscriben al sistema de “dos platas” (16). Una de fácil obtención a través de sus acciones ilícitas la que es gastada en salidas, drogas, bebidas alcohólicas, para el “bardo” como ellos mismos relatan y la otra obtenida más laboriosamente, la cual es destinada a la compra de ropa y a la ayuda familiar. Acordando con Kessler (16) se puede decir entonces, que estos jóvenes legitiman su accionar delictivo en la lógica del proveedor, la cual justifica su accionar para satisfacer sus necesidades.

Cuando se refieren a su forma de ser, lo hacen en relación a los otros, al “grupo de pertenencia y al deseo de pertenecer a otro de referencia”, de acuerdo a sus posibilidades, en relación a la acumulación de diversas especies de capital, que importan y reconvierten en un determinados contexto (legal o ilegal). La reciprocidad se da entre pares, a la espera de que en un futuro la inversión de su accionar se pueda hacer efectiva, sería como una reconversión, espera su reciprocidad, confía que el otro se comportara de la forma que espera, es decir “mi inversión (la ayuda que yo di) me sea retribuida”.

La organización familiar predominante del presente estudio es nuclear a diferencia de lo observado en el mismo contexto en el año 2009, donde las de mayor frecuencia fueron las familias monoparentales, pero en ambas investigaciones la madre ejerce el rol de jefe de familia (14). A través de las entrevistas se pudo visualizar que en muchos casos la figura del padrastro legitimado en el rol padre por el acompañamiento y la contención, impacta positivamente como factor de protección social. En otros casos independientemente de la organización familiar (padre/padrastro/ madre) la puesta de límites la ejerce otro integrante de su círculo vital, el hermano mayor. La figura materna aparece como conciliadora, compresiva y de respeto máximo aunque muy débil en cuanto a autoridad. Sin bien el afecto materno aparece como principal motivo para el cambio de conductas de estos jóvenes, se visualiza en ellos, una tensión entre los *anhelos* de cambio y la *desesperanza (indefensión) aprendida* (17). Al hablar de anhelo estamos haciendo referencia a que existe un compromiso de la psiquis del sujeto para lograr el cambio de conducta. La acumulación de frustraciones termina por condicionar al ser humano a la creencia que cualquier esfuerzo por superar esa situación de infortunio sería realmente inútil, dándose lo que se conoce como **desesperanza aprendida**. Se trata de la pérdida, de la esperanza de alcanzar los sueños, una renuncia a toda posibilidad de que las cosas salgan bien, se resuelvan o mejoren (18). En relación a ello Woolfolk (19) dijo que la desesperanza aprendida se adquiere cuando las personas llegan a creer que no tienen el control sobre los acontecimientos y resultados de su vida. Y se expresa como una expectativa, de que todos los esfuerzos conducirán al fracaso.

Si bien estos jóvenes provienen de contextos, relaciones y realidades diversas, los recursos económicos, condiciones de trabajo, desigualdades en los servicios sanitarios, la educación, entre otros procesos influyen fuertemente en sus comportamientos. La impotencia de respuesta a la combinación de estos hechos estructurales adversos les conduce a modos alternativos para el logro de sus proyectos minimizando sus riesgos y consecuencias.

La situación de encierro actúa como denominador común y revelador de la construcción de cambios conductuales y anhelos, los cuales, ellos mismos, reconocen que al momento del egreso serán condicionados por su contexto de origen. El "afuera" es el campo social en el cual se mueve estratégicamente, a partir de su pequeño margen de autonomía individual, (libertad de acción), en relación con el deseo, para cuya concreción existen las condiciones materiales como condicionantes, aunque no determinante. Es consciente de que en "el afuera", conquistar eso que se quiere, no será fácil. Acceder a un trabajo formal, con sus antecedentes legales será muy dificultoso y en relación a el contexto socio-económico macro, la reproducción social de sus prácticas y representaciones esta cuasi-sellada.

En Argentina en las últimas décadas se produjeron una serie de transformaciones vinculadas con reformas estructurales en el papel del Estado, políticas macroeconómicas, instituciones constitutivas de la vida social y del sobrevenir joven como la escuela, la familia, la política, el trabajo que profundizaron la precarización en las condiciones de vida y afectaron el ejercicio de derechos sociales en los cuales es necesaria la intervención del Estado para asegurarlos.

Estos cambios causaron incremento de la desigualdad, crisis en torno al empleo y heterogeneización de la pobreza, transformando de modo significativo las condiciones de vida de la población joven (20, 21). Se generaron diferentes escenarios de inclusión-exclusión donde se identifican diferentes situaciones de vulnerabilidad y tipologías de soporte que no pueden ser sino abordadas desde una noción de trayectoria social de una persona o un grupo transitando en un espacio social y caracterizado por medio de la descripción del escenario social (22).

No se trata de que los jóvenes se integren a un orden social dado, reconozcan los valores culturales y adquieran ciertas competencias funcionales, los desafíos que la inclusión social pone de relieve refieren a la accesibilidad a oportunidades y recursos, a las condiciones materiales y simbólicas para ejercer los derechos. Esto pone en tensión autonomía versus control social donde surge como interrogante la medida en que las políticas, estrategias e intervenciones favorecen el desarrollo de un pensamiento crítico, contribuyen a la ampliación del universo sociocultural, generan las condiciones para que cada individuo sea dueño de su propia vida (22).

Declaración de conflicto de intereses

Ningún conflicto declarado.

Financiación

Ninguna financiación declarada.

ORCID iDs

Maria Marcela Barnetche https://orcid.org/0000-0002-0607-0750
Lila Susana Cornejo https://orcid.org/0000-0001-9116-0947

Note

1. Bardo: término utilizado por los jóvenes para definir la ruptura de reglas de convivencia, que no siempre estas asociadas a conductas delictivas.

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Resúmenes

Influencia cultural en la alimentación consciente: tradiciones y valores vividos por padres mexicoamericanos y blancos no hispanos de niños escolares

R. Méndez, K. Goto, C. Song, J. Giampaoli, G. Karnik y A. Wylie

Objetivo: examinar las percepciones de comer con conciencia y de la alimentación consciente entre los padres de niños de escuelas elementales.
Métodos: se organizaron cuatro grupos focales con 19 mexicoestadounidenses y 13 blancos no hispanos, padres de niños de una escuela elemental del norte de California.
Resultados: los temas que surgieron de esta investigación incluyen las tradiciones alimentarias a la hora de las comidas, las percepciones de la alimentación consciente, la crianza en un entorno de comida consciente y control de porciones, prácticas de jardinería en familia basadas en la alimentación consciente, y fomento de la alimentación consciente en casa a través de las comidas tradicionales. Los participantes mexicoestadounidenses identificaron la preparación de alimentos tradicionales como una parte importante de su comida con conciencia y de la alimentación de sus hijos. Estos participantes también resaltaron la importancia de usar los sentidos para apreciar los alimentos. Los dos grupos, tanto los mexicoamericanos como los blancos no hispanos, enfatizaron en la importancia de involucrar a los niños en las tareas de jardinería y de preparación de los alimentos. Los padres mexicoestadounidenses tuvieron diferentes percepciones del control de porción de la comida con respecto a los blancos no hispanos.
Conclusiones: el estudio indica la importancia de la plena conciencia en todas las actividades relacionadas con los alimentos, como el cultivo, la preparación y la preservación de las tradiciones alimenticias en las prácticas de la alimentación consciente. Se necesita una mayor investigación para entender mejor cómo la cultura moldea e impacta estas prácticas alimenticias en los diferentes grupos culturales. (Global Health Promotion, 2020; 27(4): 6–14)

Evolución de la promoción de la actividad física. ¿Estamos entrando a una época líquida?

K. Abu-Omar, P. Gelius y S. Messing

La promoción de la actividad física está siendo cada vez más relevante para contrarrestar los factores de riesgo de las enfermedades no transmisibles. Este artículo esboza los recientes desarrollos en este campo, adoptando la perspectiva basada en los conceptos de Zygmunt Bauman sobre la modernidad líquida y la vida líquida. Se identificaron cinco tendencias en la promoción de la actividad física: (1) La expansión de las recomendaciones de practicar actividad física desde un enfoque restringido al ejercicio hasta un concepto más amplio de pautas de movimiento durante las 24 horas; (2) El creciente número de grupos poblacionales a los que se dirigen estas recomendaciones; (3) El aumento de los esfuerzos para la promoción de la actividad física en todo el mundo; (4) La emancipación de la promoción de la actividad física, que pasó de ser un complemento a un tema independiente en la salud pública, y (5) El conflicto continuo entre deportes, salud y otros sectores sobre el papel principal de la promoción de la actividad física. Basados en estos desarrollos, la actividad física puede ser clasificada como 'líquida' de acuerdo con el concepto de Bauman, es decir, como elusiva y que está en un estado de flujo constante. (Global Health Promotion, 2020; 27(4): 15–23)

"Yo creo que una de las formas de ayudar es creando conciencia": percepciones de los profesores de escuela primaria de Nigeria sobre las enfermedades cardiovasculares

K. Udeh, C. Nwakasi y J. Fulton

La creciente incidencia y la prevalencia de las enfermedades no transmisibles (ENT) es uno de los principales problemas de salud mundial. Las enfermedades cardiovasculares representan el porcentaje más alto de

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causas de fallecimiento relacionadas con las ENT, y los países de bajos y medianos ingresos enfrentan la mayor carga de enfermedades cardiovasculares. Comprender el conocimiento y la percepción de dichas cardiopatías y sus factores de riesgo en países de bajos y medianos ingresos como Nigeria, puede jugar un papel importante en los planes de mejora de la promoción de la salud cardiovascular para reducir las muertes relacionadas con estas enfermedades. Se llevó a cabo un estudio cualitativo utilizando entrevistas semiestructuradas para obtener una comprensión profunda de algunas percepciones personales y socioculturales sobre las enfermedades cardiovasculares y sus factores de riesgo. Los participantes fueron profesores de escuela primaria seleccionados intencionalmente en el suroriente de Nigeria. Para el tratamiento de los datos se utilizó el método de análisis temático. Los hallazgos del estudio incluyen la comprensión de las cardiopatías, la percepción de las causas y factores de riesgo de estas enfermedades, la espiritualidad y el camino por seguir. En general, se encontró que el conocimiento de las enfermedades cardiovasculares en el entorno estaba relacionado con la naturaleza psicosocial de los participantes; la eficacia de cualquier intervención depende de que se tengan en cuenta estos factores. Por ejemplo, las políticas de salud para la sensibilización y la educación sobre la salud de las enfermedades cardiovasculares deben ser adaptadas para abordar algunos aspectos como las creencias, los valores y la religión, tal como se mencionó en el estudio. (Global Health Promotion, 2020; 27(4): 24–31)

Uso de la tecnología educativa en la promoción de la salud cardiovascular de los niños: una revisión sistemática

F. B. Chaves Costa, A. M. Fontenelle Catrib, J. G. de Oliveira Branco, R. Oliveira de Sales, G. Bezerra da Silva Junior, A. P. Vasconcellos Abdon y L. P. Crivelaro Monteiro de Almeida

Objetivo: La finalidad de este estudio fue investigar la eficacia de la tecnología educativa para la promoción de la salud cardiovascular en niños.
Métodos: Se realizó una revisión sistemática a través de una búsqueda en las bases de datos de la Biblioteca Virtual en Salud, de la Coordinación de Perfeccionamiento de Personal de Nivel Superior, EBSCOHost Information Services y en las de los Institutos Nacionales de Salud de la Biblioteca Nacional de Medicina de Estados Unidos, entre el 2012 y el 2019, utilizando los descriptores: jugar y juguete, enfermedades cardiovasculares, niño, y promoción de la salud.
Resultados: Se seleccionaron ocho artículos para esta revisión. Las tecnologías identificadas se basaron en intervenciones poco sofisticadas como talleres de juego, utilizando herramientas como CARDIOKIDS, el programa ¡SÍ!, MOVI-2 y actividades con recursos digitales de largo alcance como Fooya!, Fit2PlayTM y un videojuego activo de ciclismo.
Conclusiones: Es de destacar que todas las intervenciones analizadas fueron efectivas y que aquellas que incluyen el juego fueron aceptadas más fácilmente por los niños. (Global Health Promotion, 2020; 27(4): 32–41)

Capital social, género y salud: un análisis etnográfico de las mujeres en un suburbio de Bombay

A. Gundewar y N. P. Chin

Objetivo: Estudios cuantitativos han demostrado que el capital social puede incidir de manera positiva en la salud de la comunidad, pero aún faltan las exploraciones cualitativas de los factores que median esta relación. Además, mientras que las personas pobres se concentran cada vez más en las ciudades de países de bajos y medianos ingresos, la mayor parte de la literatura existente sobre el capital social y la salud explora estas variables en los contextos occidentales o rurales. Pocos estudios consideran el impacto de construcciones

sociales como la raza, el género o la clase en la creación del capital social y su aplicación en la promoción de la salud.
Nuestro estudio tuvo como objetivo abordar estas brechas en la literatura a través de una exploración etnográfica del capital social entre las mujeres que habitan en Kaula Bandar (KB), un suburbio marginado en la costa Este de Bombay (India). Luego, buscamos identificar cómo estas mujeres aprovecharon su capital social para promover la salud en sus hogares.
Métodos: Se utilizó un método mixto, con un estudio cualitativo que involucró observación participante y 20 entrevistas individuales, en profundidad, semiestructuradas, durante un periodo de nueve meses. Las notas de campo y las transcripciones de las entrevistas fueron analizadas manualmente para contenidos y temas recurrentes.
Resultados: Encontramos que las mujeres en KB dependían en gran medida de los vínculos del capital social tanto para la supervivencia diaria como para sobrevivir durante una crisis de salud, pero que los contextos locales de género y pobreza obstaculizaban activamente la capacidad de estas mujeres para construir formas de capital social — ya se trate de extender o de relacionar su capital social — que podrían ser aprovechadas por la promoción de la salud más allá de la supervivencia inmediata.
Conclusiones: Estos hallazgos ilustran los desafíos específicos de este contexto a los que se enfrentan las mujeres que viven en situación de pobreza urbana en sus esfuerzos por construir capital social y promover la salud en sus hogares y comunidades. Se necesitan estudios cualitativos basados en las comunidades para identificar las fuerzas a niveles macro y micro tales como la opresión de género y clase, en las cuales radican dichos desafíos. Abordar directamente estas inequidades estructurales incrementa significativamente el potencial de la promoción de la salud a través de la formación de capital social. (Global Health Promotion, 2020; 27(4): 42–49)

Utilizar la fotovoz para comprender el contexto de la detección del cáncer cervical en comunidades rurales con acceso limitado a los servicios de salud en India

P. Adsul, S. Nayaka, R. Pramathesh, S. Gowda, P. Jaykrishna, V. Srinivas y P. Madhivanan

El cáncer de cuello uterino es el segundo cáncer más común diagnosticado en mujeres en India y las estimaciones actuales indican que hay bajas tasas de detección. Para implementar programas exitosos de detección en la población urge explorar las creencias sociales y culturales de las mujeres que habitan en las comunidades con acceso limitado a los servicios de salud. Un método innovador y participativo de base comunitaria llamado fotovoz fue utilizado con 14 mujeres entre 30 y 51 años que habitan en las poblaciones rurales y tribales alrededor de Mysore, Karnataka (India). Cada una fue entrenada en las técnicas de la fotovoz, recibió una cámara digital y documentó las realidades cotidianas que podrían influir en su intención para someterse a un examen de detección del cáncer cervical. Durante 6 meses, tomaron un total de 136 fotos y participaron en 42 entrevistas y dos grupos de discusiones. Estos datos ayudaron a identificar las creencias específicas que prevalecen en esta población y fueron organizados de acuerdo con el modelo integrado de comportamiento. Algunas mujeres reportaron una falta de susceptibilidad percibida con respecto al cáncer de cuello uterino, mientras que otras mencionaron la naturaleza fatal del cáncer como enfermedad y la creencia de que ningún examen de detección podría prevenir la muerte si ellas estaban destinadas a padecer de cáncer. Esposos, suegras y sus pares en la comunidad tenían una fuerte influencia en la identidad social de las mujeres e influían en sus decisiones para asistir a los exámenes de detección. Acudir a los servicios de atención se asoció con una carga económica, no solo en términos de gastos extra para asistencia en salud, sino también por la pérdida del salario diario o por tener que tomar una licencia no remunerada para ir al médico siendo asintomáticas. Se propuso adoptar varias acciones, entre ellas: identificar a las personas contacto o los promotores en cada comunidad, organizar actividades comunitarias repetitivas para crear conciencia del cáncer de cuello uterino, y educar a los hombres y a otros miembros de la familia sobre los problemas de salud de las mujeres. Los hallazgos del estudio pueden ayudar conceptualmente a diseñar y desarrollar esfuerzos educativos para movilizar a las mujeres a someterse a un examen de detección y a brindar información para futuras investigaciones, de manera que se pueda ayudar a comprender las desigualdades. (Global Health Promotion, 2020; 27(4): 50–58)

Fundamentación del diseño de evaluación en el modelo socioecológico de salud: un marco lógico para la valoración de una iniciativa nacional de difusión de la inmunización sistemática en Kirguistán

R. Schiavo, U. B. Roy, L. Faroul y G. Solodunova

La inmunización de rutina en niños es una intervención altamente efectiva de la salud pública para prevenir las enfermedades infecciosas. A pesar de las altas tasas de inmunización, un estudio de Conocimientos, Actitudes y Prácticas realizado por el Fondo de las Naciones Unidas para la Infancia (UNICEF) en el 2018, observó una práctica cada vez más extendida de rechazo a las vacunas por parte de padres y cuidadores primarios, así como zonas con una cobertura de inmunización significativamente más baja en algunas provincias. Además, un reporte de evaluación conjunta realizado por la Alianza Mundial para Vacunas e Inmunización (GAVI), en el 2018, subrayó una disminución en las cifras de inmunización en niños menores de 1 año, de 96,1% a 92% para algunas vacunas. Como resultado, UNICEF está liderando una iniciativa de comunicación nacional para incrementar los índices de la inmunización de rutina en Kirguistán. Esta iniciativa incluye fortalecer las habilidades de comunicación interpersonal de los trabajadores de la salud locales, mejorar la calidad y la exactitud de la cobertura mediática a través de un mensaje adaptado especialmente para los medios kirguís, así como fomentar el compromiso comunitario para darles voces a los promotores locales y comprometer a los padres que vacilan y a aquellos que están en contra de vacunar a sus hijos. UNICEF, además, se asoció con un equipo de investigación para la fase de diseño de un marco de evaluación adecuado. Fundamentado en el modelo socioecológico de salud, este marco reconoce la interconexión del cambio comportamental, social y político e incluye no solo indicadores específicos de actividad (indicadores de proceso) sino también indicadores de progreso, efecto directo e impacto para documentar los resultados en los principales grupos y en las partes interesadas del modelo socioecológico de salud, y, básicamente, en las tasas de inmunización en Kirguistán. El marco lógico refleja la importancia de un enfoque integrado y multinivel del diseño de intervención y comunicación e integra el modelo socioecológico con un modelo lógico que conecta los diferentes componentes de la iniciativa. Este artículo introduce dicho marco de evaluación, incluyendo las implicaciones para la evaluación de los programas de salud infantil y de otras intervenciones de salud pública, de comunicación y de desarrollo internacional. (Global Health Promotion, 2020; 27(4): 59–68)

Desarrollo de la cultura de la ética en la investigación en intervención en salud comunitaria en Canadá

A.-M. Hamelin, C. Caux, M. Désy, A. Guichard, S. Ouédraogo, M.-C. Tremblay, B. Vissandjée y B. Godard

La investigación de intervenciones poblacionales de salud es un campo particular de la investigación en salud cuyo objetivo es generar conocimientos que contribuyan a la mejora sostenible de la salud de la población activando la implementación de soluciones intersectoriales adaptadas a las realidades sociales. A pesar de las cuestiones morales que necesariamente plantean su agenda social, la ética de la investigación en intervención en salud de la población todavía no se ha formalizado. Los desafíos éticos no resueltos pueden limitar su enfoque en la equidad en salud. Esta contribución pretende subrayar algunas de estas cuestiones y hace un llamado a los investigadores para desarrollar una cultura de la ética en la investigación de intervenciones en salud poblacional. Se proponen tres vías complementarias: construir un concepto ético específico para este ámbito, promover un espacio compartido para la reflexión crítica sobre la ética en la investigación de intervenciones en salud poblacional, y desarrollar la competencia ética en la investigación de intervenciones en salud poblacional, para lo cual se plantea un marco preliminar. (Global Health Promotion, 2020; 27(4): 69–77)

Examinar la idoneidad y fiabilidad de la estrategia del Programa de Salud de la Escuela General en Kenia

S. Tomokawa, T. Asakura, S. M. Njenga, D. W. Njomo, R. Takeuch, T. Akiyama, H. Kazama, A. Mutua, W. Barnett, H. Henzan, M. Shimada, Y. Ichinose, Y. Kamiya, S. Kaneko, K. Miyake y J. Kobayashi

El gobierno keniano estableció el Programa de Salud en la Escuela General con base en la Política Nacional de Salud Escolar de Kenia. Un proyecto piloto del Programa se llevó a cabo en ocho escuelas de primaria en el subcondado Mbita del condado de Homa Bay, en la región de Nyanza, entre el 2012 y el 2017. Este proyecto piloto proporcionó instalaciones de salud y apoyo para la evaluación con una lista de control de salud escolar y una capacitación organizada para los profesores sobre educación para la salud, un club infantil de salud y chequeos médicos en las escuelas. Este estudio tuvo como objetivo examinar la idoneidad y fiabilidad de la estrategia del segundo proyecto piloto del Programa de Salud en la Escuela General de Kenia. Analizamos los datos a partir de cuestionarios autoadministrados enfocados en los alumnos de séptimo grado en las ocho escuelas primarias. El cuestionario incluía preguntas sobre los conocimientos, actitudes y prácticas relacionados con la salud, una autoevaluación del estado de salud física y mental, autoconciencia del control de salud, felicidad subjetiva, reconocimiento de la importancia de aprender sobre salud en la escuela, ausentismo y sentido de pertenencia a la escuela. El proyecto contribuyó a mejorar los conocimientos, actitudes y prácticas relacionados con la salud, a autoevaluar el estado de salud, el sentido de pertenencia a la escuela, el reconocimiento de la importancia de aprender sobre salud en la escuela, la autoconciencia del control de salud y el ausentismo. Por el contrario, la felicidad subjetiva no mejoró significativamente. (Global Health Promotion, 2020; 27(4): 78–87)

Intervenciones psicosociales basadas en el empoderamiento para la reducción del consumo de cigarrillo: conceptos, medidas y resultados. Una revisión sistemática

A. Coppo, S. Gattino, F. Faggiano, L. Gilardi, P. Capra, C. Tortone, A. Fedi y N. De Piccoli

Aunque el concepto de empoderamiento es ampliamente utilizado en áreas relacionadas con la salud, su definición sigue siendo confusa. Si bien hay una evidencia de la eficacia de las intervenciones de empoderamiento para mejorar algunos factores psicosociales relacionados con la salud (estrategia de autocuidado del paciente, habilidades para enfrentar o adaptarse a situaciones difíciles, acceso y uso eficaz de los servicios de salud), así como algunos resultados de salud (salud mental y comportamiento relacionado con el VIH/Sida), otros datos parecen contradecir esto. Además, conceptos, medidas y resultados relacionados con el empoderamiento son operacionalizados de diferentes maneras. Utilizando el caso de los programas de control del tabaquismo, quisimos explorar: (a) cómo la investigación sobre la reducción del consumo de cigarrillo/prevención ha conceptualizado el empoderamiento, y (b) qué medidas e instrumentos se han utilizado para evaluar los resultados del comportamiento y el proceso del empoderamiento. Planteamos la hipótesis de que el potencial transformador que caracteriza al empoderamiento se considera marginalmente.

Se revisó un total de 18 estudios que tratan sobre el efecto de las intervenciones de prevención en el tabaquismo y/o los resultados de empoderamiento. Se diferenciaron dos clases de estudios: (a) los que reportan resultados de comportamiento sin datos sobre el impacto del empoderamiento y (b) los que analizan el proceso de empoderamiento. De estos últimos, algunos no incluían información sobre el comportamiento específico (consumo de cigarrillo), mientras que otros examinaban el impacto de la intervención tanto en el tabaquismo como en el empoderamiento. En cerca de la mitad de los estudios, las estrategias de empoderamiento resultaron eficaces para mejorar los resultados del tabaquismo, mientras que en los estudios restantes no se hallaron diferencias entre los grupos de intervención y control. Esta revisión sugiere que es necesario desarrollar las definiciones pragmáticas de empoderamiento con el fin de promover su transferibilidad y evaluación. (Global Health Promotion, 2020; 27(4): 88–96)

Legislación proequidad, políticas de salud y uso de los servicios de salud sexual y reproductiva por las poblaciones vulnerables del África subsahariana: una revisión sistemática

M. Mac-Seing, K. Zinszer, C. Oga Omenka, P. de Beaudrap, F. Mehrabi y C. Zarowsky

Hace veinticinco años, la Conferencia Internacional sobre la Población y el Desarrollo subrayaba la necesidad de abordar los derechos a la salud sexual y reproductiva a escala mundial. La región del África subsahariana continúa presentando los más altos niveles de mortalidad materna y VIH, que afectan principalmente a las poblaciones más vulnerables. Reconociendo el papel fundamental de la política en la comprensión de la salud de la población, llevamos a cabo una revisión sistemática de la investigación primaria original que examinaba las relaciones entre la legislación y las políticas enfocadas en la equidad y el uso de los servicios de salud sexual y reproductiva por parte de las poblaciones vulnerables en el África subsahariana.
Revisamos nueve bases de datos bibliográficas en busca de artículos relevantes publicados entre 1994 y el 2019. Treinta y dos estudios, realizados en 14 países del África subsahariana concordaron con los criterios de inclusión. Se enfocaban en el uso de servicios de salud materna, ya sea a través de políticas específicas de reducción/eliminación de tarifas, o a través de reformas de salud y planes de seguros para incrementar el uso de servicios de salud sexual y reproductiva. Los hallazgos en la mayoría de los estudios mostraron que la legislación y las políticas relacionadas con la salud promovían un aumento en el uso de los servicios, a lo largo del tiempo, especialmente para la atención prenatal, la asistencia calificada en el parto y el parto en las instalaciones de salud. Sin embargo, las inequidades sociales en salud persisten entre subgrupos de mujeres. Ni los estudios revisados ni las políticas se referían específicamente a las jóvenes, a las personas con VIH o a quienes tienen discapacidades. En la era de los objetivos de desarrollo sostenible, es inevitable abordar las desigualdades en salud en el contexto de los determinantes sociales de la salud. Se requiere una investigación cuantitativa y cualitativa, sistemática y rigurosa, incluyendo una evaluación longitudinal de las políticas, para comprender las complejas relaciones entre las normativas que abordan los determinantes sociales de la salud y el uso de los servicios de salud. (Global Health Promotion, 2020; 27(4): 97–106)

Explorar la evolución de la promoción de la salud en Namibia: oportunidades y obstáculos durante la era de la posindependencia

M. A. Chipare, R. Tapera, R. F. Pachawo y J. January

Namibia es un país del sur de África donde hay inequidades sociales. Este artículo analiza el desarrollo histórico de la promoción de la salud en Namibia. Después de obtener su independencia, en marzo de 1990, el país ha logrado un enorme progreso en salud pública, con una mayor esperanza de vida, una reducción de la mortalidad por la tuberculosis y el Sida debido a la alta cobertura de la terapia antirretroviral (90%) en el 2012, y una reducción en la tasa de mortalidad de niños menores de 5 años, que pasó de 74 decesos por 1.000 nacimientos en 1990 a 50 en el 2013. Sin embargo, los retos aún persisten para lograr la salud para todos. Las enfermedades no transmisibles como el cáncer, la diabetes y las enfermedades cardiovasculares están en las listas de las 10 primeras enfermedades y las 15 causas de fallecimientos, con la diabetes como una de las grandes amenazas para la salud. Se analizan las oportunidades y los obstáculos de una efectiva promoción de la salud. En conclusión, la promoción de la salud en Namibia tiene el potencial de mejorar la salud de la población. (Global Health Promotion, 2020; 27(4): 107–113)

Intervención de educación nutricional en las escuelas primarias sobre los conocimientos, actitudes y prácticas de nutrición en escolares de Ghana

J. Antwi, A. Ohemeng, L. Boateng, E. Quaidoo y B. Bannerman

Este estudio se realizó para evaluar el efecto de una intervención en educación nutricional de seis semanas sobre los conocimientos, actitudes y prácticas en materia de nutrición y el estado de nutrición de niños en edad escolar (de 6 a 12 años) en escuelas básicas de Ghana. También se evaluaron los efectos a corto plazo de las sesiones de capacitación en educación nutricional entre los profesores y los cuidadores. Se utilizó un diseño controlado pre-post para evaluar el programa. Los grupos de intervención tuvieron puntajes significativamente más altos en conocimientos de nutrición (8,8 ± 2,0 vs. 5,9 ± 2,1, $P < 0,0001$) comparados con los controles en el nivel primario inferior. Una mayor proporción de niños en el grupo de intervención estuvo firmemente de acuerdo en que disfrutaban aprender sobre temas relacionados con alimentos y nutrición en comparación con los del grupo de control (88% vs. 77%, $P = 0,031$). No hubo una diferencia significativa entre los puntajes de diversidad en la dieta (4,8 ± 2,0 vs. 5,1 ± 1,4, $P = 0,184$) o en los índices antropométricos medidos (3,6% vs. 8,2%, $P = 0,08$). Se observó una proporción ligeramente inferior en el retraso del crecimiento de los escolares en el grupo de intervención comparado con el grupo de control (3,6% vs. 8,2%, $P = 0,080$). Los conocimientos sobre nutrición de los maestros y cuidadores mejoraron en forma significativa (12,5 ± 1,87 vs. 9,2 ± 2,1; $P = 0,031$) y (5,86 ± 0,73 a 6,24 ± 1,02, $P = 0,009$), respectivamente. La intervención en educación nutricional podría tener efectos positivos en los conocimientos y actitudes de los escolares y puede ser fundamental en el desarrollo de comportamientos saludables para mejorar el estado nutricional. (Global Health Promotion, 2020; 27(4): 114–122)

Adopción e impacto de estufas de cocina mejoradas en Lambayeque (Perú), 2017

M. A. Díaz-Vásquez, R. J. Díaz-Manchay, F. E. León-Jiménez, L. M. Thompson, K. Troncoso y V. E. Failoc-Rojas

Introducción: Aproximadamente tres mil millones de personas en Asia, África y las Américas cocinan con biomasa, tecnologías más limpias que pueden reducir la exposición a la contaminación del aire en el hogar. Es necesario evaluar la adopción y el uso a largo plazo de estas estufas, medir los beneficios percibidos por los usuarios y utilizar esta información para brindar una retroalimentación a los programas que están implementando nuevas tecnologías para preparar los alimentos. El objetivo de este estudio es determinar el nivel de adopción y el impacto de las estufas mejoradas de biomasa en el área rural de Lambayeque (Perú) en el 2017.

Métodos: Se llevó a cabo un estudio transversal descriptivo y se encuestaron 52 hogares de los distritos de Pacora e Íllimo, donde se introdujeron las estufas mejoradas de biomasa entre el 2005 y el 2013. Allí se aplicó un cuestionario para la evaluación de los índices de adopción y el impacto, propuesto por la Alianza Mundial para Estufas de Cocina Limpias. Se utilizó la lista de verificación STROBE.

Resultados: La media de años con las estufas mejoradas de biomasa fue de 9,1 (desviación estándar: 2,9); 51,9% siempre utilizó la estufa mejorada, y 34,6% nunca la utilizó debido a la destrucción ocasionada por el fenómeno de El Niño en el 2017. El índice de impacto medio fue de 5,62; el 19,2% tuvo una muy buena/buena adopción. El índice de adopción medio fue 6,5; 25% tuvo un muy alto/alto impacto. El uso de la estufa tradicional o la de biomasa a fuego abierto persistía en 61,5% de los hogares.

Conclusión: La adopción y el impacto de estufas mejoradas de biomasa fueron aceptables, pero el uso de las estufas tradicionales todavía persistía en más de la mitad de las viviendas. Los hogares usaban una combinación de diferentes tecnologías de estufas. Las de gas eran usadas con mayor frecuencia para el desayuno o la cena, mientras que las de biomasa tradicional se usaban para preparar comidas más grandes a la hora del almuerzo. (Global Health Promotion, 2020; 27(4): 123–130)

El alimento de vida: una evaluación del impacto de la transferencia de efectivo y de la buena crianza en los resultados de la nutrición infantil en Suráfrica y Malaui

L. Sherr, K. J. Roberts, H. Mebrahtu, M. Tomlinson, S. Skeen y L. D. Cluver

Se ha comprobado que las intervenciones de protección social (incluida la subvención en efectivo y la prestación de servicios de atención) son eficaces contra algunas de las implicaciones negativas de la epidemia del VIH en niños y familias. Este estudio explora el impacto de la transferencia de efectivo y la prestación de servicios de atención (operacionalizados como buena crianza) en los resultados nutricionales de los niños. En este estudio transversal fueron entrevistados 854 niños y jóvenes adolescentes (de 5 a 15 años) y cuidadores afectados por el VIH que asisten a organizaciones comunitarias en Suráfrica y Malaui. Las entrevistas incluyeron inventarios sobre información sociodemográfica, datos familiares, recibo de subvención en efectivo y nutrición infantil. La crianza se midió utilizando una escala compuesta. Para explorar las asociaciones entre los diferentes niveles de protección social (ninguno; efectivo o buena crianza; efectivo y buena crianza) y los resultados de la nutrición infantil, se utilizaron la regresión logística y los análisis de efectos marginales. Ciento sesenta niños (20,3%) no recibieron ni efectivo ni buena crianza; 501 (63,5%) recibieron efectivo o buena crianza, y 128 (16,2%) recibieron los dos: efectivo y buena crianza. En comparación con los de ninguna intervención, recibir efectivo o buena crianza fue asociado de manera significativa con un niño sin retraso de crecimiento, un niño que tiene suficiente alimento y un niño que no se ve delgado. Tres (3/7) resultados nutricionales que mostraron una creciente mejoría entre los niños que reciben tanto efectivo como buena crianza fueron el hecho de que los niños afirmaron no tener hambre, niños sin problemas de crecimiento y los padres que dijeron tener suficientes alimentos. Los análisis de efectos marginales identificaron además un efecto aditivo del efectivo y la buena crianza en los resultados nutricionales del niño. Este estudio indica que recibir una combinación de las dos, la subvención en efectivo y la buena crianza, al compararlo con solamente recibir el efectivo, tiene efectos positivos en los resultados relacionados con la nutrición infantil. (Global Health Promotion, 2020; 27(4): 131–140)

Comentarios

Promoción de la salud de los niños y los jóvenes migrantes: reflexiones a partir de cuatro revisiones regionales

J. Thompson, H. Fairbrother, G. Spencer, P. Curtis, C. Fouche, K. Hoare, D. Hogan, J. O'Riordan, B. Salami, M. Smith, B. Taylor y V. Whitakker

Se están fortaleciendo los llamados para mejorar la salud de los subgrupos de la población migrante, y cada vez hay más evidencia que documenta la relación entre migración y los resultados de salud. A pesar de la importancia de la migración para la promoción de la salud mundial, muy poca investigación se ha centrado en las experiencias de salud de los jóvenes migrantes. Como parte de un proyecto de la Worldwide Universities Network, completamos cuatro revisiones sistemáticas examinando la base de evidencia existente sobre las experiencias de salud de niños y jóvenes que migran. En este comentario, compartimos los aspectos en común con la evidencia internacional pero también reflexionamos sobre algunos desafíos, omisiones y limitaciones. Estas percepciones exponen importantes vacíos y deficiencias metodológicas en la evidencia, lo cual proporciona un espacio para una nueva investigación que permita identificar los efectos en la salud de los niños migrantes. (Global Health Promotion, 2020; 27(4): 141–144)

Estrategia de la promoción de la salud como parte de Visión 2050 en Omán: el camino por seguir

H. Al Hinai, K. Al Mufarji, H. Al Siyabi, Z. Al Anqoudi, R. Al Saadi y S. Al Awaidy

Introducción: Las enfermedades no transmisibles (ENT) se han convertido en una causa significativa de morbilidad y mortalidad en Omán. La adopción de estilos de vida no saludables y sedentarios, asociados a un aumento de los ingresos, es una tendencia en un amplio número de personas y está contribuyendo a la aparición de importantes problemas de salud. Básicamente, la incidencia de las ENT se ha incrementado en forma considerable. Esta revisión tiene como objetivo definir estrategias que puedan ayudar a alcanzar las metas nacionales de promoción de la salud en Omán.
Resultados: Las estrategias actuales de promoción de la salud no han sido adecuadas ni suficientes para alcanzar el plan nacional de salud Visión 2050 en Omán.
Conclusión: En Omán están surgiendo comportamientos peligrosos y estilos de vida poco saludables que han dado lugar a un aumento significativo de las ENT. Se necesita una nueva planificación cuidadosa y un monitoreo y evaluación continuos de las actividades de promoción de la salud para implementar de manera eficaz las políticas de salud con el fin último de reducir la carga de las ENT. (Global Health Promotion, 2020; 27(4): 145–149)

Un método de 'sistemas integrados' para reducir el consumo de bebidas azucaradas: cuestiones para la promoción de la salud mundial desde la perspectiva de una pequeña isla

A. M. Jackson-Morris

Reducir el consumo de bebidas azucaradas es una estrategia importante para reducir la ingesta de azúcar y el riesgo de contraer enfermedades no transmisibles (ENT) en el mundo. Las medidas recomendadas abarcan la política, el cambio ambiental, el alfabetismo para la salud, la reformulación y la tributación. Este comentario se basa en una intervención para reducir el consumo de bebidas azucaradas en un contexto rural apartado, con un alto nivel de ingesta y con un subdesarrollo en alternativas y en alfabetismo para la salud. La isla Santa Elena (en el océano Atlántico) introdujo los impuestos a las bebidas azucaradas en el 2014, pero todavía el impacto parecía limitado. En el 2018, se crearon entonces medidas de oferta y demanda de productos sustitutos, además de un incremento de las tasas. Los datos preliminares indican un desplazamiento del consumo de bebidas azucaradas hacia las no azucaradas (endulzadas artificialmente y agua del grifo). Las cuestiones para la promoción de la salud mundial incluyen la manifestación específica de los determinantes sociales y comerciales de la salud en los contextos rurales y alejados, estrategias multifacéticas integradas para ofrecer condiciones de apoyo a las políticas, tales como tributación a las bebidas azucaradas para generar impacto, y el papel de las bebidas endulzadas artificialmente para reducir la presencia de las azucaradas en los contextos de alto consumo. (Global Health Promotion, 2020; 27(4): 150–153)

Desarrollo de liderazgo en odontólogos y profesores de escuela para reducir las inequidades en la salud bucodental

V. Wordley y R. Bedi

Dado que las enfermedades orales afectan a las personas de todas las edades en todos los países, se necesitan nuevos enfoques para eliminar las inequidades en la salud bucodental e incrementar el acceso a la educación para la salud bucodental. Con más de mil millones de niños que asisten a la escuela, desarrollar habilidades de liderazgo dental, no solo en los profesionales de la odontología sino en los maestros de escuela, ayudará a difundir de manera eficaz los mensajes de prevención en salud bucodental, implementar hábitos saludables desde una edad temprana y generar un impacto en una mayor proporción de la población mundial para mejorar su salud bucodental. (Global Health Promotion, 2020; 27(4): 154–156)

Hacia una mejor integración de las ciencias sociales en la investigación y la toma de decisiones sobre los arbovirus: una experiencia de colaboración científica entre instituciones cubanas y quebequenses

M. Carabali, D. Pérez, S. Degroote, A. Reyes, J. S. Kaufman y V. Ridde

En el 2017, el Instituto de Medicina Tropical Pedro Kourí, el Instituto de Investigación en Salud Pública de la Universidad de Montreal y la Universidad McGill aunaron esfuerzos para ofrecer escenarios de intercambio científico y difusión del conocimiento sobre la contribución de las ciencias sociales a la investigación de los arbovirus. Este comentario describe la colaboración científica entre instituciones cubanas y canadienses (de Quebec), ilustrando la necesidad y las oportunidades de facilitar la investigación y los procesos de toma de decisiones para la prevención y el control de los arbovirus, más allá de los aspectos biomédicos tradicionales. Organizamos una serie de actividades científicas en tres eventos internacionales que se llevaron a cabo en Cuba entre el 2017 y el 2018. Dada la experiencia de las instituciones colaboradoras y los vacíos de conocimiento en la investigación de arbovirales, seleccionamos tres áreas temáticas principales: determinantes sociales y equidad, intervenciones comunitarias y uso de evidencia para la toma de decisiones. La alianza demuestra que la colaboración interdisciplinaria, así como el uso y la integración de métodos cuantitativos y cualitativos de las ciencias sociales, son esenciales para enfrentar los actuales desafíos de la investigación sobre los arbovirus. (Global Health Promotion, 2020; 27(4): 157–163)

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The *Global Health Promotion* editorial team would like to thank all reviewers who agreed to review manuscripts between 1st January and 16th October 2020, thus contributing to the high quality of the journal.

L'équipe éditoriale de *Global Health Promotion* souhaiterait remercier tous les réviseurs et réviseures qui ont accepté de relire des manuscrits entre le 1er janvier et le 16 octobre 2020, contribuant ainsi à la haute qualité de la revue.

El equipo editorial de *Global Health Promotion* desea agradecer a quienes aceptaron revisar manuscritos entre el 1 de enero y el 16 de octubre de 2020, contribuyendo con ello a la alta calidad de la revista.

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