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ICFNH



ICFNH

PROCEEDINGS

4th International Conference On
Food, Nutrition and Health

"MULTI APPROACHES ON CANCER & GERIATRIC CARE"

September 14 – 15 2021

Publisher:
Health Polytechnic of Malang



ICFNH 2021

The 4th International Conference on Food, Nutrition, and Health will be held on September 14 and 15, 2021, with the theme "Multi Approaches on Cancer & Geriatric Care"

Conference
Theme:

Multi Approaches on
Cancer & Geriatric Care

Conference
Objectives:

- State the implications of the role of food, nutrition, and health globally
- Gain insight into innovations in local food processing, nutrition, and development in the health sector in dealing with health problems
- Identify research, using different research methodologies, that are responsive to health

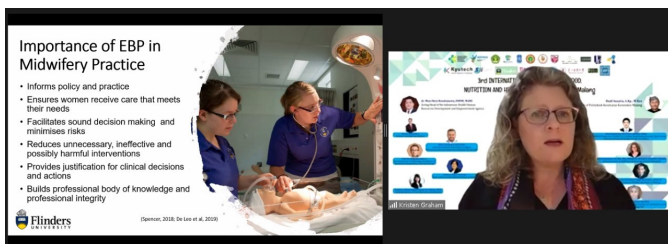
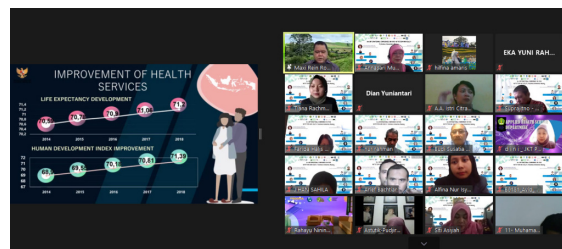
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ABOUT ICFNH



The International Conference on Food, Nutrition and Health has been held since 2018 by the Health Polytechnic of Malang with the initial name International Workshop on Health (ICWH). Since then, ICFNH has held conferences for researchers and students to develop knowledge and insight into the latest trends and research on food, nutrition, and health. The annual ICFNH has been held in Malang, but since the Covid-19 pandemic occurred, this event was held with a zoom meeting.



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ABOUT POLKESMA



Health Polytechnic of Malang, abbreviated as Polkesma, is a Professional Higher Education in the Health sector belonging to the Ministry of Health of the Republic of Indonesia. Based on the Decree of the Minister of Health of the Republic of Indonesia Number: 1207/Menkes/SK/X/2001, the Health Polytechnic of Malang is one of 38 (thirty-eight) Health Polytechnics belonging to the Ministry of Health in Indonesia.

Until 2021 the Health Polytechnic of Malang has 4 (four) majors with 20 study programs, namely: Nutrition Departement, Nursing Departement, Midwifery Departement, and Applied Health Departement.

The purpose of education :

1. Producing civilized and globally competitive vocational and health professionals;
2. Increasing the publication of scientific works through international and national journals, seminars/symposiums, product and technology exhibitions, books, and websites;
3. Improving community service work based on research results;
4. Improve organizational governance of accountable and transparent education and learning services;
5. Increase cooperation and productivity of domestic and foreign partnerships.

For more information about POLKESMA, please visit: <https://www.poltekkes-malang.ac.id/>





ICFNH 2021

The 4th International Conference
on Food, Nutrition, and Health

OPENING MESSAGE



Dr. Nur Rahman, STP, MP
Head of Center of Excellence (CoE),
Health Polytechnic of Malang

Assalamualaikum warahmatullahi wabarakatuh,

Shaloom, Om Swastyastu Namoo Budaya, greetings, and peace to all of us. Good morning,

Excellency, The Honorable Head of the Indonesian Health Human Resources Development and Empowerment Agency), The Director of Health Polytechnic of Malang,

The Honorable expert speakers from Indonesia, Malaysia, Thailand, Brunei Darussalam and Japan also from Poltekkes Bandung, Tasikmalaya, Yogyakarta and Malang who are really amazing today, and all of the best students I see virtually, all around Indonesia until Asia.

Thank you for your time and chance for me, so I can be here in front of you...to deliver my speech. I hope today all of you have a good mood and condition too.

It is my pleasure to welcome all the participants today for the two-days of the 4th International Conference on Food, Nutrition, and Health – Center of Excellence Science and Technology, Health Polytechnic of Malang.

I welcome all the eminent speakers and guests from all over the country around asia from different fields of health you have come here to share their knowledge and vast experience with the student community. The theme of this two-day International Conference on Food, Nutrition, and Health – Center of Excellence Science and Technology is the changing educational dynamics due to COVID-19 pandemic.

We are proud to announce that this conference is being conducted along with the cooperation of the education department of Malaysia, Thailand, Brunei Darussalam and Japan who have consistently been ranked number one for their primary and secondary education health.

This event was attended by the entire community from all friends of health education activists around the world with a total of 47 oral presentation, 24 posters, and 997 webinar participants.

There will be plenty of knowledge enhancing activities about any result research from expert researcher such as from nutrition, midwifery, nursing and general health for students and an esteemed member of panellists. and then, the result of discussion will be presenting in the each breakout room who panellists in the same skill knowledge.

The main outcome of this conference is to come up with sharing their each knowledge also giving new insight about health issues and build the good development and strenght national and international for the educational health in the future.

We hope this two-day conference would help students expand their horizon facing issues health facts and assist in augmented research references adopted by expert of health professionals around the world.

I request all the students from across the country to make use of these 2 days to the best of their abilities. Thank you for your attention , personally i wanna say thank you and sorry if any mistakes along in the event. Thank you, Wassalamualikum warahmatullahi wabarakatuh.

WELCOME SPEECH



Budi Susatia, S.Kp, M.Kes

Director of Health Polytechnic of Malang

Assalamualaikum warahmatullahi wabarakatuh, everyone!

First of all, I would like to greet dr. Kirana Pritasari, MQIH as a Head of the Indonesian Health Human Resources Development and Empowerment Agency. Also to the honorable our Expert Speakers from Malaysia, Thailand, Jepang, Indonesia, Brunai Darussalam, and from Poltekkes Bandung, Tasikmalaya, Jogjakarta and also Malang who are very impressive today. Also to all of audiences at zoom meeting today who can't wait to get knowledge and many ideas from our speakers.

In this year and still with the Covid-19 pandemic, there are many models of seminars or conferences that have been changed from offline to online. Just like what we did today, we meet virtually at the 4th International Conference on Food, Nutrition, and Health. This is a real evidence for us that even though we are still in a pandemic, we are still productive and not tired of keep learning.

With 4th International Conference on Food, Nutrition, and Health that going on today, I hope this will bring a lot of benefits to all the audiences. This is also a very good opportunity for all of us to build or establish our international relations, collaborations, and partnerships.

Thank you for the time to me. And once again, thank you to our international partners, lecturer and students from Health Polytechnic of Malang who made this conference happen.

On behalf of Health Polytechnic of Malang, I welcome all the speakers, participants, and guests to this forum. I wish you all an inspiring and a productive conference.

Thank you. Wassalamualikum warahmatullahi wabarakatuh.

KEYNOTE SPEAKER



dr. Kirana Pritasari, MQIH

Head of the Indonesian Health Human Resources Development and Empowerment Agency, Ministry of Health, Indonesia

Assalamualaikum warahmatullahi wabarakatuh, peace to all of us

Excellency, The Director of Health Polytechnic of Malang, Mr. Budi Susatia, S.Kp, M.Kes

The Honorable expert speakers from Indonesia, Malaysia, Thailand, Brunei Darussalam and Japan also from Poltekkes Bandung, Tasikmalaya, Jogjakarta and Malang who are really amazing today!

And all of the best students I see virtually, all around Indonesia until Asia.

First of all, let's pray and thanks to our god ALLAH SWT who has been giving us mercies and blessings so we can attend and gather in this virtual event of ICNFH 4th in good condition and happy situation.

Dear Audiences, I would like to express my highest appreciation to all health education personnel throughout Indonesia and Asia for your dedication to the nation, state, and humanity with the knowledge that is brought and developed to all students and the community who will be attending. I am sure this will be a beneficial agenda the world of health and improve the welfare of the community

Ladies and Gentlemen...

In the development of the world of health, of course, there are many health problems that have sprung up in our population. The role of science and technology is important in improving the quality of human resources who are able to solve health problems and diseases that develop over time without stopping. Scientific experts in the world today are continuously developing research with the aim of research is, to find out, and compare the data generated from research with the facts of health problems that occur in society. Solving problems that occur in society So that research is a very important step in the world of knowledge and technology in the health sector.

Ladies and Gentlemen

Therefore, in facing the challenges of the phenomena of health problems that are growing so rapidly, it is necessary to develop innovative strategies to answer the needs of the community in health services. It was from this sector that the development of human resources through education was started by collaborating between one country and another, sharing with one another. This is a great step and I really appreciate to Poltekkes Malang. Of course I hope that in the future the knowledge gained can be applied and useful for all of us. So that it can overcome disease problems by health workers.

Ladies and Gentlemen,

That is all speech that I can deliver. Ideally what I have said is gainful for us. I am so sorry if I had a mistake. Thank you for your nice attention. Salam sehat

Wassalamualaikum warahmatullahi wabarakatuh

RUNDOWN

Day 1, September 14 2021

OPENING

08.00 - 09.30
a.m

NATIONAL ANTHEM

HYMN OF HEALTH POLYTECHNIC OF MALANG

PRAYER

OPENING MESSAGE AND OVERVIEW OF ICFNH

Dr. Nur Rahman, STP, MP

Head of Center of Excellence (CoE)

WELCOME SPEECH

Budi Susatia, S.Kp, M.Kes

Director of Health Polytechnic of Malang

KEYNOTE SPEAKER

dr. Kirana Pritasari, MQIH

Head of the Indonesian Health Human Resources

Development and Empowerment Agency

SPEAKER: "Herbs and Skin Cancer"

Professor Malyn Ungsurungsie, B.S. Pharm., Ph.D.

Technical Director at S & J International Enterprises

BREAKOUT ROOM: NUTRITION

09.30 - 11.00
a.m

SPEAKER I : “Diet & Nutrition for People with Cancer”

Dr. Zalina binti Abu Zaid, BSc, MHealthSc, PhD
Senior lecturer, University Putra Malaysia

SPEAKER II : “Herbal Nanotechnology and Nutrition for People with Cancer”

Prof Madya Dr Norhaizan Mohd Esa, BSc, MSc, Ph.D
Professor Madya, University Putra Malaysia

SPEAKER III : “High-Fat-Diet-Induced Obesity Affects Carcinogenesis Treated With Functional Food”

Rany Adelina, S.Gz., M.Sc.
Nutrition Lecturer, Health Polytechnic of Malang

BREAKOUT ROOM: NURSING

09.30 - 11.00
a.m

SPEAKER I : “Older Adults Care and Rehabilitation: Transactive Relations with Humanoid Healthcare Robots”

Tetsuya Tanioka, RN, MA, MSN, PhD, FAAN
Professor, Department of Nursing Outcome Management,
Institute of Biomedical Sciences, Tokushima

SPEAKER II : “The Effectiveness a Family Nursing Model Based on Local Culture In Caring Older People with Non-Communicable Disease”

Dr. Siti Badriah, S.Kep, Ners, M.Kep, Sp.Kep.Kom
Head of Center of Excellence HADE Center/Nursing
Lecturer, Health Polytechnic of Tasikmalaya

SPEAKER III : “The Role of Family on Elderly Care at Home”

Joko Wiyono, S.Kp, M.Kep, Sp.Kom
Nursing Lecturer, Health Polytechnic of Malang

BREAKOUT ROOM: MIDWIFERY

09.30 - 11.00
a.m

SPEAKER I Topic : “Midwife’s Role on Breast Cancer Screening and Treatment”

Dr. Khadizah Haji Abdul Mumin

Assistant Professor, Pengiran Anak Puteri Rashidah Sa’adatul Bolkiah Institute of Health Sciences and Research, University Brunei Darussalam)

SPEAKER II : “Midwife, Woman and Family: Empowerment in Cancer”

Novita Dewi Pramanik, SST., M.Keb

Midwifery Lecturer, Health Polytechnic of Bandung

SPEAKER III : “The Role of Midwives in Improving Cancer Patients’ Quality of Life Through Mindfulness”

Dr. Finta Isti Kundarti, S.SiT, M.Keb

Midwifery Lecturer, Health Polytechnic of Malang

BREAKOUT ROOM: GENERAL HEALTH

09.30 - 11.00
a.m

SPEAKER I : “Occupational Health and Cancer”

Assoc. Prof. Dr. Veronica Chua Poh Choo, B.Sc., M.Sc., M.Ed.M, P.hD

Dean of Health Science Faculty, MAHSA University

SPEAKER II : “Study on Anticancer Activity of Purple Sweet Potato Yogurt (Ipomea batatas)”

Muji Rahayu, S.Si., Apt., M.Sc.

Head of Center of Excellence HADE Center/Nursing Lecturer, Health Polytechnic of Yogyakarta

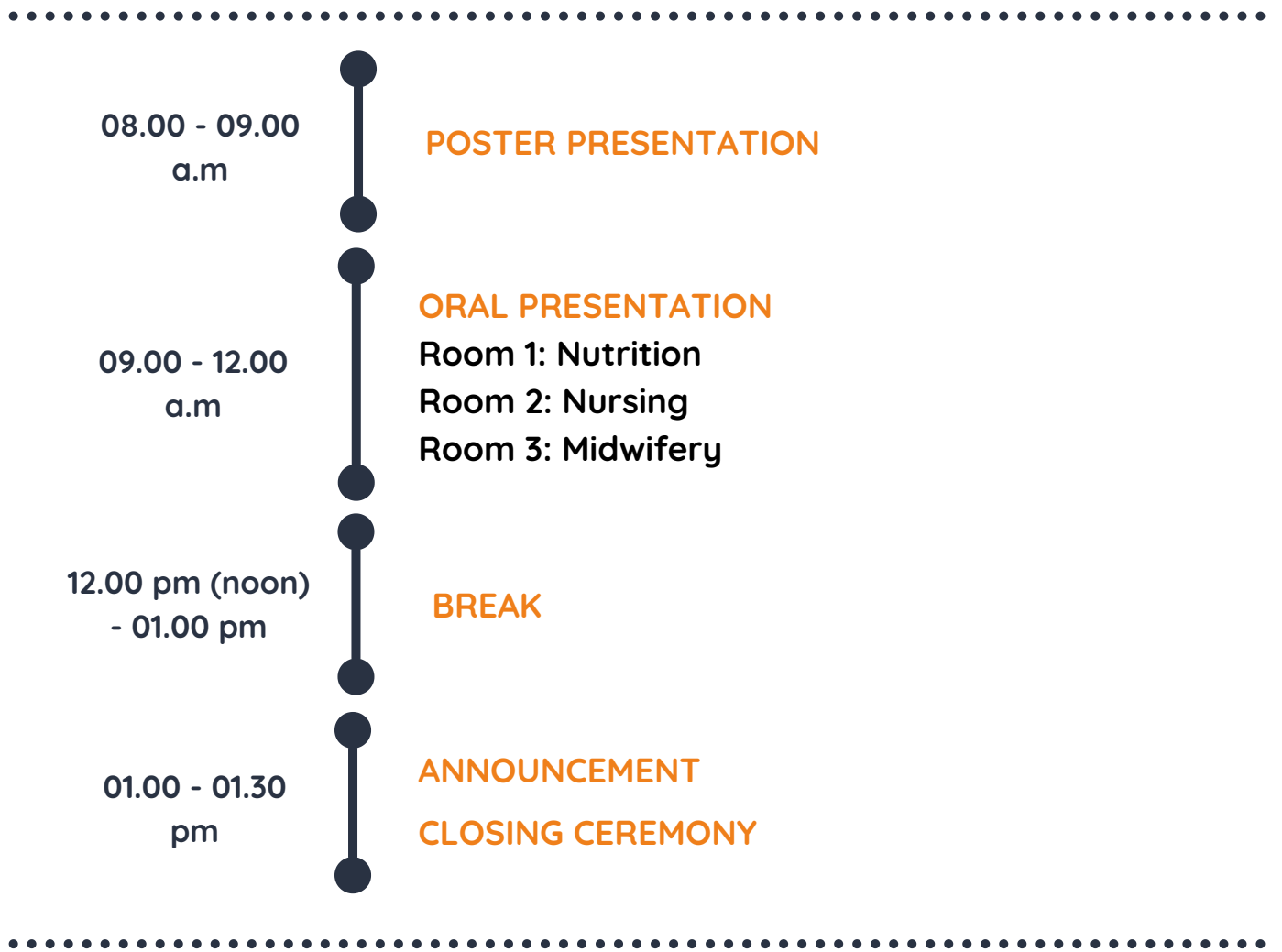
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Puguh Priyo Widodo, M.MRS

Applied Health Lecturer, Health Polytechnic of Malang

RUNDOWN

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ORAL PRESENTATION

The 4th International Conference
on Food, Nutrition, and Health

THE EFFECTIVENESS OF GRANTING OF TOMATO JUICE TO DECREASE CHOLESTEROL LEVELS IN PEOPLE WITH HYPERTENSION

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ABSTRACT

Hypertension in Indonesia is number 3 cause of death after stroke and tuberculosis. Increased cholesterol in the blood is one factor in the risk of hypertension. The consumption of high-fiber to help lower blood cholesterol. One of the high-fiber food ingredients are tomatoes. Tomatoes in juice form would be more easily digested and absorbed. This study aims to determine the influence of allotment of tomato juice with a decline in blood cholesterol levels in patients with hypertension. This type of research using the method of true experiments with design research pre-posttest with control group. This research was conducted in May until June 2014. Sampling in this study using simple random sampling with a total sample of 30 people, divided 2 groups. Group 1 was given a tomato juice (300 ml) within 3 days a day 3 times, and 2 as a control. Blood cholesterol levels measured in the beginning and end of the study. Data analysis using t-test paired test to know how the granting of tomato juice on blood cholesterol levels in people with hypertension. Results of test t test paired obtained an average mean in the control group after the treatment increased to 260.87, while the average mean on treatment after treatment group experienced a decline into 228.87, retrieved the value t calculate 1.557-value p-value (0.142 a (0.05). Statistically there is no influence of tomato juice against cholesterol levels in patients with hypertension (p 0.05). The public can use the non pharmacological treatments for lowering cholesterol levels. There is no grant of tomato juice to influence blood cholesterol levels in people with hypertension.

Keywords: tomato juice, hypertension, cholesterol levels

THE CORRELATION BETWEEN HOUSEHOLD COPING MECHANISM LEVEL AND DIETARY QUALITY OF CHILDREN UNDER FIVE IN PADANG CITY DURING COVID-19 PANDEMIC

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ABSTRACT

It's been two years since the world has been hit by covid-19 pandemic and it forces people to do some coping mechanism to deal with this situation. The chosen coping mechanism apparently affects many sectors including the quality of diet especially for vulnerable groups such as children under five. This study aimed to analyze the correlation between household coping mechanism level and dietary quality of children under five in Padang city during covid-19 pandemic. A cross-sectional study was conducted on 87 children under five age 6-60 months. The respondents for this study were drawn through proportional random sampling from 3 Health centers in Padang city. The data were collected through direct interviews using structured questionnaires. The three level of Usfar's questionnaire was used to determine household coping mechanism level and dietary diversity score (DDS) was used to determine children's dietary quality. The result showed that 57.5% of the children were female and 57.5% were between 24-60 months old. Most of the household (65.5%) did the 2nd level of coping mechanism strategy and 14.9% of them even had to do the most extreme one. The result also showed that only 42.5% of the children had good DDS. Pearson test showed no significant correlation ($p > 0.05$; $r = -0.1$) between household coping mechanism strategy and DDS. Although this study showed no significant correlation between those variables, it showed that the children DDS decrease as the family did more extreme coping mechanism level.

Keywords: Children under five, Coping mechanism, Dietary Diversity Score, Pandemic

THE RELATIONSHIP OF FAMILY DIETARY DIVERSITY WITH NUTRITIONAL STATUS IN PRESCHOOL AGE CHILDREN IN PANTI DISTRICT

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ABSTRACT

The quality of food is often associated with its type and variety. dietary diversity is very important given to preschool age children in order to support optimal growth and development so as to create a quality generation. Consumption of dietary diversity is closely related to the adequacy and completeness of macro and micro nutrients needed, so it can be said that the more variety of foods consumed, the more complete the intake of nutrients. This type of research is observational with a cross sectional research design. The sample of this study was children aged 5-6 years in Panti sub-district with a sample of 138 children. Sampling method with purposive sampling technique. Data analysis used Spearman rank to analyze the relationship between the level of consumption of macronutrients on the nutritional status of preschoolers. The test results showed that there was a relationship between family dietary diversity ($p = 0.000$) and with nutritional status, maternal education ($p = 0.044$) as an indirect factor showed a relationship with nutritional status. There is a significant relationship between family dietary diversity and the nutritional status of preschool children. The strength of the relationship between family dietary diversity and children's nutritional status is weak.

Keywords: Dietary Diversity; Nutritional Status; Preschool Children

THE RELATIONSHIP BETWEEN MACRONUTRIENT INTAKE AND EXCLUSIVE BREASTFEEDING IN DIARRHEA PRESCHOOL CHILDREN

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ABSTRACT

Diarrhea is one of the leading causes of child mortality in developing countries. In Indonesia, children suffer from diarrhea more than 12 times per year and this is the cause of death by 15-34%. The high incidence of diarrhea can be influenced by many factors, including the inadequate of macronutrient intake and not exclusive breastfeeding when the baby's age. This study aimed to analyze the relationship between macronutrient intake and exclusive breastfeeding in diarrhea preschool age children. This was an analytical observational with a cross sectional research design. The sample of this study was children aged 5-6 years in Panti district with a sample of 110 children. Sampling method with purposive sampling technique. The data were collected by 3 x 24 hours food recall and a set of questionnaire. Data analysis used Spearman rank test with a significance value of $p < 0,05$. The test results showed that there was a relationship between macronutrient intake (energy $p = 0,000$; protein $p = 0,000$) and exclusive breastfeeding ($p = 0,006$) with diarrhea children. There is no relationship between fat and carbohydrate intake with diarrhea children. There is a significant relationship between macronutrient intake (energy and protein) and exclusive breastfeeding in diarrhea preschool age children, especially fat and carbohydrate intake are not statistically significant. The strength of the relationship between macronutrient intake and exclusive breastfeeding in diarrhea preschool age children is weak.

Keywords: Nutrition Intake; Exclusive Breastfeeding; Diarrhea; Preschool Children

THE IMPACT OF COVID-19 ON NUTRITIONAL STATUS, RISK OF MALNUTRITION AND NUTRITIONAL INTAKE AMONG NURSING HOME RESIDENTS AND COMMUNITY-DWELLING ELDERLY

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ABSTRACT

Current COVID-19 has led to serious changes in the daily routine of people including the elderly. The scared impact is the increasing malnutrition in the elderly which contributes to exacerbating public health problems. This research aimed to evaluate differences nutritional status, the risk of malnutrition, and nutritional intake among nursing home residents and community-dwelling elderly in pandemic COVID 19. This research using cross-sectional study with 60 nursing home residents and 52 community-dwelling elderly in South Jakarta. Determining nutritional Status by BMI, the risk for malnutrition was assessed by MNA-SF and to calculate intake using the interview method with food recall 24 hours. In the pandemic there is the highest risk of malnutrition base on MNA-sf (62.5%) in the community-dwelling elderly compared to the nursing home residents (56.7%). With the highest BMI in the nursing home residents (22.24 ± 4.20), weight (51.84 ± 9.38), and height (154.66 ± 8.99). There is significant differences in protein and fiber intake ($p < 0,05$). The average nutritional intake in nursing home residents is energy 1257 kcal (43.3% RDA), protein 47.07 (43.3% RDA), fat 42.71 g (53.3% RDA), carhohydrate 171.97 g (25% RDA) and fiber 7.05 g (0% RDA) while the average nutritional intake of the community dwelling elderly is energy 1109.22 kcal (18.8% RDA), protein 33.65 g (6.3% RDA), fat 37 g (50% RDA), carbohydrate 162.17 g (6.3% RDA), and fiber 4.98 g(0% RDA). In pandemic COVID - 19, health workers need to be more active in routine malnutrition risk screening. Especially for community-dwelling elderly, activities were improved nutritional intake need to be advocated.

Keywords: Nutritional Status, Risk of Malnutrition, Nutritional Intake, Elderly

THE CORRELATION OF BREASTFEEDING AND PARENTING WITH EARLY CHILDHOOD'S EMOTIONAL DEVELOPMENT

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ABSTRACT

The mental-emotional development children's is the interaction process of the maturation of the child's physiology and psychological organs to process and control emotions. The study aimed to found out the correlation between exclusive breastfeeding and parenting with the mental-emotional development of early childhood in the working area of Puskesmas Guntung Manggis in 2021. The study is an observational analytic study with a cross sectional design. The sample of the study was 92 samples of early age (3-6 years) in the working area of Puskesmas Guntung Manggis, it was determined by a simple random sampling technique. The data analysis was conducted by the Rank Spearman correlation. Based on the results shows that there is a relationship between exclusive breastfeeding with p value (0.0)] and parenting with p value (0.00) with the mental-emotional development of early childhood in the working area of Puskesmas Guntung Manggis. It is expected for the mothers to provide exclusive breastfeeding and change parenting to positive parenting to support optimal mental-emotional development of children.

Keywords: Exclusive Breastfeeding, Parenting, The Mental Emotional Development of Early Childhood

THE EFFECTIVENESS FORTIFICATION OF MORINGA OLIEFERA POWDER IN SOYBEAN MILK TO INCREASING TODDLER NUTRITION STATUS

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ABSTRACT

Aflatoxin (AF) is a pervasive, extremely toxic contaminant that demands further research to explain many essential aspects. Of many AFs, aflatoxin B1 (AFB1) is the most toxic and has been studied extensively. *Lactobacillus casei* Shirota (Lcs) is a probiotic with potential AFB1-binding ability. There is limited study available on the interactions between Lcs and AFB1. One of the ways to understand probiotic-aflatoxin interaction in the gut is through metagenomic approach. In the present study, the feces of rats that were exposed to AFB1 and treated with Lcs were subjected to metagenomic sequencing. AFB1 significantly induced the overgrowth of potentially pathogenic bacteria (*Prevotellaceae* NK3831 group and *Prevotella* 9) and reduction of normal/ beneficial microbiota (*Eubacterium coprostanoligenes* group, *Lactobacillus*, and *Ruminiclostridium* 6). This study revealed that Lcs intervention significantly ($p < 0.05$) normalized the gut microbiota altered by AFB1. Probiotic Lcs possesses the ability to maintain the gut microbiota composition and offer protection towards the gut health status. As a functional food, Lcs has become popular and its effect on health coupled with its AF-removal ability is significant as one of the dietary approaches to prevent AFs exposure and its harmful health effects.

Keywords: Metagenomic; aflatoxin B1; *Lactobacillus casei shirota*

METAGENOMICS APPROACH FOR UNDERSTANDING PROBIOTIC-AFLATOXIN INTERACTION IN THE GUT

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ABSTRACT

Aflatoxin (AF) is a pervasive, extremely toxic contaminant that demands further research to explain many essential aspects. Of many AFs, aflatoxin B1 (AFB1) is the most toxic and has been studied extensively. *Lactobacillus casei* Shirota (Lcs) is a probiotic with potential AFB1-binding ability. There is limited study available on the interactions between Lcs and AFB1. One of the ways to understand probiotic-aflatoxin interaction in the gut is through metagenomic approach. In the present study, the feces of rats that were exposed to AFB1 and treated with Lcs were subjected to metagenomic sequencing. AFB1 significantly induced the overgrowth of potentially pathogenic bacteria (Prevotellaceae NK3831 group and Prevotella 9) and reduction of normal/ beneficial microbiota (*Eubacterium coprostanoligenes* group, *Lactobacillus*, and *Ruminiclostridium* 6). This study revealed that Lcs intervention significantly ($p < 0.05$) normalized the gut microbiota altered by AFB1. Probiotic Lcs possesses the ability to maintain the gut microbiota composition and offer protection towards the gut health status. As a functional food, Lcs has become popular and its effect on health coupled with its AF-removal ability is significant as one of the dietary approaches to prevent AFs exposure and its harmful health effects.

Keywords: Metagenomic; aflatoxin B1; *Lactobacillus casei shirota*

PRECONCEPTION WOMEN'S DIET DURING THE COVID 19 PANDEMIC: PHENOMENOLOGICAL STUDY

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ABSTRACT

The nutritional status and health of women during the preconception period have implications for improving maternal health outcomes. In Indonesia, child marriage increased significantly during the pandemic covid-19. When an adolescent becomes pregnant, there is increased competition for nutrients with the fetus, and the pregnant adolescent is at a higher risk of stunting and there is an increased risk of adverse neonatal outcomes. This study aims to explore various phenomena of nutritional fulfillment in preconception women during the COVID-19 pandemic. The research was conducted from Oktober 2020 to July 2021 in Sumatera Utara Province. Qualitative research with a phenomenological survey approach. Data collection was followed by sharing videos of eating every day for two weeks, chatting by WhatsApp messenger, and in-depth interviews to find out the more contextual phenomenon of eating preconception women. Informants were twenty-one preconception women and seventeen mothers who have teenage and adult women. Data were analyzed using interpretative phenomenological analysis. Results, all identified common themes can be grouped into four super themes that describe the phenomenon of nutritional fulfillment in preconceptional women. "Eating time" to stay at home since the COVID-19 pandemic did not make eating patterns more regular. "Types of food" there are only two types of food consumed at every meal, and since the COVID-19 pandemic, snacking habits have increased. "The portion of food" the portion of the informant's meal is small, is strongly influenced by tastes and preferences. The COVID-19 pandemic has reduced family income, which has an impact on the family's purchasing power of various foods. "Knowledge of Nutrition", the phenomenon of knowledge of preconception women and mothers who have teenage or adult women varies greatly. The phenomenon of nutritional fulfillment in preconceptional women is important to design appropriate interventions for preconceptional women who will give birth to a golden generation.

Keywords: preconception woman-diet, covid 19 pandemic, phenomenology

THE EFFECT OF ICE CREAM AND TAKOKAK TEA (SOLANUM TORVUM SWARTZ) TOWARD ERYTHROCYTE SEDIMENTATION RATE OF WISTAR RAT THAT INDUCED DIETHYL NITROSAMINE

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ABSTRACT

Takokak (*Solanum torvum swartz*) is often found processed into vegetables and turns out to have benefits. Based on phytochemical tests, Takokak contain alkaloids and polyphenols. Intake of polyphenol-rich foods can reduce oxidative stress conditions. Erythrocytes Sedimentation Rate (ESR) is an indicator of inflammation in the body. Diethyl nitrosamine with hepatotoxic properties used to accelerate the infection process. This research purposed to prove that there is an effect of giving Ice Cream and Takokak Tea (*Solanum torvum swartz*) on the value of the Erythrocyte Sedimentation Rate of Wistar rats induced by Diethylnitrosamine. This research using an experimental laboratory with the post-test only control group design with male Wistar rats aged 3-4 months, weighing 100-200 g. With 8 treatments, P 1 : Negative Control., P 2 : 20 ml Aqua Water + 1 ml DEN., P 3: 4 ml Tea + 16 ml Aqua Water + 1 ml DEN; P 4 : 8 ml Tea + 12 ml Aqua Water + 1 ml DEN; ; P 5 : Negative Control., P 6 : 20 ml Aqua Water + 1 ml DEN., P 7: 4 ml Ice Cream + 16 ml Aqua Water + 1 ml DEN., P 8 : 8 ml Ice Cream + 12 ml Aqua Water + 1 ml DEN. Each treatment contained 4 wistar rat. The study was conducted for 5 weeks with 2 surgeries and check the ESR Level. Data analysis uses SPSS, if parametric data uses One-Way Anova, if non-parametric uses the Jonckheere Test. Based on the results of statistical analysis, it was stated that there was no significant effect of giving Takokak (*Solanum torvum swartz*) on the ESR levels of rats with 8 treatments, with $p = 0.584$ on 1st dissection. Than, on the 2nd dissection One Way Anova statistical test showed that there was no significant difference with $p=0.759$. However, the data on the 4th and 5th week of ESR levels decreased. Ice Cream and Takokak Tea (*Solanum torvum swartz*) has no significant effect on the level of erythrocytes sedimentation rate (ESR).

Keywords: Takokak Tea; Takokak Ice Cream; Erythrocytes Sedimentation Rate

THE EFFECT OF INSTANT TIWUL FLOUR ADDITION ON ACCEPTANCE AND WATER CONTENT OF COASTED GREEN BEANS (VIGNA RIADATA L)

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ABSTRACT

Local food is a food which consumed by local people that suitable with local wisdom such as seeds, tubers, and nuts. To increase domestic food production, the government develops local food innovations. One of the effort to develop local ingredients can be done by using tiwul innovation as an alternative food processing material such as in the process of making the baked sponge. This study used an experimental method with a completely randomized design (CRD) using 3 treatments which were then tested for organoleptic acceptance and water content testing. The results showed that the addition of instant tiwul flour to green bean-baked sponge (*Vigna Radiata L*) didn't affect the color and texture acceptability. But the aroma treatment 1 (20%) got the highest acceptability and the taste treatment 0 (0%) also got the highest acceptance. The results of the water content test for baked sponge products in the control treatment without the addition of instant tiwul flour (0%) had an average moisture content of 38.22%, treatment 1 with the proportion of adding instant tiwul flour (20%) had an average moisture content of 36.00%, and in treatment 2 with the addition of instant tiwul flour (30%), it had an average moisture content of 33.33%.

Keywords: Baked Sponge, Instant Tiwul Flour, Water Content

THE EFFECT OF TAKOKAK TEA AND ICE CREAM (SOLANUM TORVUM SWARTZ) TOWARD TOTAL PROTEIN LEVELS OF MALE WISTAR RATS WITH DIETHYLNITROSAMINE INDUCTION

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ABSTRACT

Peroxides and free radicals can damage lipids, proteins and DNA by forming cancer. Based on several studies, the induction of Diethylnitrosamine (DEN) can cause damage, especially to the liver. Takokak (*Solanum torvum swartz*) contains several phenolic compounds such as phenolic acid and flavonoid antioxidants that can increase immune responses, inhibit oxidation reactions, the emergence of degenerative diseases, and are able to ward off free radicals in the body. Measurement of total protein levels in rat blood as one way to determine the effect of giving takokak tea and ice cream after being induced with DEN. This research aimed analyze the effect of giving takokak (*Solanum torvum Swartz*) tea and ice cream to the total protein levels of male wistar rats by DEN (Diethylnitrosamine) induction. This research used an experimental research with post test only control group design, research subjects are male wistar rats with 8 levels of treatment consisting of P1: negative control, P2: positive control, P3: 4 ml tea + DEN ., P4 : 8 ml tea + DEN ., P 5 : negative control., P 6 : positive control., P 7 : Ice cream 4 ml + DEN ., P8 : Ice Cream ml+ DEN . Each treatment level was repeated 4 times. The study was conducted for 5 weeks with 2 dissections, the first dissection at the 3rd week and the second dissection at the 5th week to check the Total Protein Levels. The results of the One Way Anova analysis test for the total protein content of rats in the first dissection showed that there was an effect of giving tea and Takokak ice cream to wistar rats with DEN administration within 2 weeks ($p = 0.009$) . Meanwhile, in the second dissection, there was no effect of giving Takokak tea and ice cream on the total protein content of male wistar rats ($p= 0.357$). Giving Takokak Tea and Ice Cream can increase the total protein content of male wistar rats although it is not statistically significant in the second dissection.

Keywords: Takokak Tea, Takokak Ice Cream, Total Protein Levels.

THE CORRELATION BETWEEN INCOME AND PARTICIPATION OF JKN IN WLINGI, BLITAR

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ABSTRACT

JKN is the government's program to provide health insurance to all people in Indonesia which is held by BPJS Kesehatan. In 2019, BPJS Kesehatan expected that all people in Indonesia are protected by JKN. But, until August 2021, only 83% of people in Indonesia registered as JKN participants. Some areas in Indonesia have low participation in the JKN program. One of them is in Wlingi, Blitar. Only 252 from 556 people in Wlingi are registered as JKN participants in August 2020. Some reasons make some people not registered yet as JKN participants. One of those reasons is the low income of people, so they are preferring to use their money to fulfil their needs which is insurance isn't one of their needs. This study aims to analyze the correlation between income and participation of JKN in Wlingi, Blitar. This is a quantitative analytic study with a cross-sectional approach. Samples were taken by non-randomized sampling using purposive sampling of 84 respondents. This study used univariate analysis to describe each variable and bivariate to know the correlation between income and participation of JKN. The Independent variable of this study is income and the dependent variable is the participation of JKN. Bivariate analysis that is used in this study is the chi-square test. H_0 will be rejected if the p-value is less than α . The results showed that income correlates with JKN participation (p-value: 0,000). Based on this study, we know that 87% respondents that have low income are not registered yet as JKN participant. From this study, a recommendation that can be given to people in Wlingi is that they can participate in JKN program by registering as a PBI participant whose premiums are paid by the government.

Keywords: Income, JKN participation, BPJS Kesehatan

THE RELATIONSHIP OF SOCIAL SUPPORT WITH SELF ACCEPTANCE IN CHRONIC KIDNEY FAILURE PATIENTS UNDERGOING HEMODIALYSIS AT DADI KELUARGA HOSPITAL, PURWOKERTO

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ABSTRACT

Chronic Kidney Failure (CKD) is a kidney function disorder that inhibits the filtering process in the body, to help kidney function, CKD patients must undergo hemodialysis therapy. Physical and psychological problems are the impact of hemodialysis therapy, therefore social support is needed to provide empathetic and caring support, so that patients have a sense of self-acceptance or self-acceptance of themselves regardless of their health conditions. This study aimed to determine the relationship between social support and self-acceptance in CKD patients undergoing hemodialysis at Dadi Keluarga Hospital, Purwokerto. This research method used correlative analytic with a cross sectional approach, with the technique of collecting samples using the Non-Probability Accidental Sampling technique and for sampling using the G-power software formula so that the results obtained are 70 respondents. In this study, the Social Support Questionnaire and the Unconditional Self Acceptance Questionnaire (USAQ) were used. The results of the data obtained that most of the characteristics of age 46-65 years 43 respondents (61.4%), male sex 37 respondents (52.9%), undergoing hemodialysis 13-24 months 18 respondents (25.7%), last education junior high school 35 respondents (50.0%), 49 respondents (70.0%) have jobs. The results of the independent and dependent variables were mostly high social support 51 respondents (72.9%) and moderate self-acceptance 47 respondents (67.1%). The results of this study indicate that there is a significant relationship between Social Support and Self Acceptance, with p-value 0.000 ($p\text{-value} < 0.005$) and correlation coefficient 0.619, meaning that the strength of the relationship is strong. The conclusion is that social support has a close relationship with self-acceptance for someone who has undergone hemodialysis therapy.

Keywords: CKD, Hemodialysis, Social Support, Self Acceptance

LITERATURE STUDY OF NURSING CARE FOR NON-HEMORRHAGIC STROKE CLIENTS WITH RISK FOR IMPAIRED SKIN INTEGRITY

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ABSTRACT

Stroke is a sudden and acute focal or global brain functional disorder that lasts more than 24 hours due to a blood supply deficit caused by a blockage, so it is called a non-hemorrhagic stroke. Impaired blood flow to the brain results in damage to motor pathways, thereby allowing dysfunctional hemiplegia or hemiparesis which causes decreased mobility and results in bedridden. Bedrest conditions cause pressure on certain parts that risk damage to skin integrity. The purpose of this literature study is to determine nursing care for non-hemorrhagic stroke clients with the risk of impaired skin integrity. The outcome criteria set in both journals are tissue integrity: skin and mucous membranes with indicators: good skin integrity can be maintained (sensation, elasticity, temperature, hydration, pigmentation), no skin lesions/lesions, good tissue perfusion, showing understanding in the process of skin repair and prevent repeated injury, able to protect the skin and pay attention to skin moisture and natural care. The intervention specified was pressure management which was implemented for 5 days in the 1st journal and 8 days of the 2nd journal. The evaluation results obtained from each client during the 5 and 8 day treatment were partially resolved by the reduction of reddish pigmentation in the back and hips, as well as a reduction in the sensation of heat in the back and hips. The importance of understanding and learning when nurses provide education about preventive actions against skin integrity damage to bedrest clients to support the prevention movement. Actions that can be done independently by the client or family are skin care by applying products that do not have contraindications to skin conditions, for example using lotion/oil products to maintain skin moisture and routinely mobilizing the client every 2 hours.

Keywords: Non-Hemorrhagic; Risk of Damage to Skin Integrity

LITERATURE STUDY OF NURSING CARE FOR FEBRILE CONVULSION CLIENTS WITH HYPERTERMIA PROBLEMS

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ABSTRACT

Febrile seizures are seizures that occur at a rectal temperature above 38°C caused by extracranial processes in the absence of electrolyte disturbances. Febrile seizures often occur in children aged 6 months-5 years. Factors that trigger febrile seizures are increased body temperature or hyperthermia. Hyperthermia is an increase in body temperature above the hypothalamic point when the excretory mechanism is disturbed or influenced by external (environmental) or internal (metabolic) heat. The purpose of this research is a literature study on nursing care in children with febrile seizures with hyperthermia. The research design is a literature study with qualitative methods involving secondary data from 2 participants in 2 journals. The results of the literature study 1 and 2 clients experienced febrile seizures with hyperthermia problems, the outcome criteria in journal 1 were Hyperthermia with decreased red skin indicators, improved seizures, decreased body temperature, decreased skin temperature while in journal 2 it was not explained. The intervention specified in journal 1 was management of hyperthermia and journal 2 using thermoregulatory regulation, which was implemented for 3 days of treatment. The results of the evaluation obtained from each patient during the 3-day treatment, the problem was partially resolved, it was found that the body temperature decreased by 35.1 °C in journal 1 and 36.4 °C in the journal. The assessment stage is an important thing that needs to be considered, complete and supportive data will facilitate the nursing process from formulating a diagnosis to evaluation. Actions that can be done independently on the family are to immediately check the patient's body temperature and give antipyretics so that the body temperature decreases immediately, if the child's body temperature does not drop immediately take him to the hospital for nursing action.

Keywords: Nursing Care, Febrile Seizures, Hyperthermia

LITERATURE STUDY OF NURSING CARE FOR LOW BIRTH WEIHT INFANT WITH HYPOTHERMIA

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ABSTRACT

Low Birth Weight (LBW) babies are at a higher risk of hypothermia because the subcutaneous fat layer which is an insulator to prevent heat loss, the smaller the baby's weight, the thinner the subcutaneous fat so the higher the risk of heat loss and hypothermia. Hypothermia in low birth weight (LBW) babies because the baby is immature in maintaining his body to adapt to environmental temperatures, causing instability in the baby's body temperature. The purpose of this literature study was to determine nursing care for low birth weight infants (LBW) with hypothermia. The outcome criteria set in both journals are thermoregulation in journal 1, normal body temperature, piloretic acrocyanosis, normal oxygen consumption, baby does not shiver, in journal 2, body temperature improves, skin temperature improves, capillary refill improves. The intervention specified was hypothermia management which was implemented in both journals for 3 days. the evaluation results obtained from each baby for 3 days of treatment the problem was resolved as evidenced by normal body temperature, warm skin, weight gain. Nurses need to understand and learn about preventive measures to manage hypothermia in LBW infants to prevent hypothermia. The action that can be done independently for the family is Kangaroo Mother Care, where the baby is in direct contact with the mother's skin so that the baby gets warmth from the mother's body temperature which is higher than the baby's body temperature.

Keyword: Low Birth Weight Baby; Hypothermia

LITERATURE REVIEW OF NURSING CARE FOR NON HEMORRHAGIC STROKE PATIENTS WITH SWALLOWING DISORDER

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ABSTRACT

Non-hemorrhagic stroke is a stroke caused by a thrombus or embolism that interferes with the blood supply, causing damage to the brain stem. If there is dysfunction in the glossopharyngeal, vagus, hypoglossal and facial nerves, the swallowing reflex will decrease, resulting in swallowing disorders. The purpose of this literature study was to determine Nursing Care for Non Hemorrhagic Stroke Patients with Swallowing Disorders. This research method is a literature study involving two journals with Swallowing Disorders. The criteria for swallowing status result: increased swallowing reflex, increased chewing reflex, decreased cough, decreased anxiety, decreased vomiting, improved food acceptance. The intervention applied was the first literature on feeding through the nasogastric tube and the second literature teaching swallowing and chewing techniques which were implemented three days. Evaluation the first literature is that after three days problem is resolved with the result that the patient starts eating orally slowly, and the second literature after the three days the problem was resolved with the results that the patient was able to drink a few spoons of mineral water and a little pudding. The role of nurses is very necessary to overcome the swallowing disorders, nursing actions that should be carried out are more directed towards swallowing therapy so that the problem is immediately resolved, namely by training the patient to swallow and chew to improve swallowing reflexes so that coughing, vomiting and drooling do not occur when given food or drink.

Keywords: Nursing Care; Non hemorrhagic Stroke; Swallowing Disorders

LITERATURE REVIEW OF NURSING CARE OF DIABETIC FOOT ULCER (DFU) PATIENTS WITH PHYSICAL MOBILITY DISORDERS

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ABSTRACT

Diabetes Mellitus is a metabolic disease characterized by increased blood sugar (glucose) levels in the body. One of the complications of diabetes mellitus in muscle strength and muscle mass due to angiopathy, resulting in impaired mobility. The purpose of this study was to analyze Nursing Care in Diabetic Foot Ulcer (DFU) patients with Physical Mobility Disorders. This research method was a literature study involving two journals of physical mobility disorders at DFU. The results of the nursing care literature study in literature one and two clients experience DFU with the criteria for physical mobility results: able to move the extremities, increase muscle strength (scale 5), no pain, reduced anxiety, no physical weakness, unlimited movement, joints are not stiff. The intervention chosen was mobilization support for three days in literature one were resolved with the result that the patient was able to move from bed chair, while in the literature two the evaluation results for two days the problem is resolved with the results of light activities such as sitting in bed, eating without assistance. Implementation (SIKI) is not only for the patient but also for the family so that the family understands the goals and procedures of mobilization so that they are able to assist in carrying out the movement. Actions that can be performed independently by the patient and family are simple mobilization (ex: sitting on the side of the bed, sitting in bed, moving from bed to chair) to increase muscle strength.

Keywords: Nursing Care, Diabetic Foot Ulcer (DFU), Physical Mobility Disorders

LITERATURE STUDY OF NURSING CARE ON POST-OPERATIVE ORIF (OPEN REDUCTION INTERNAL FIXATION) PATIENTS OF TIBIA FIBULA FRACTURE WITH ACUTE PAIN

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ABSTRACT

Tibia fibula fracture is a fracture that occurs in the tibia fibula bone. ORIF is an internal fixation procedure performed to maintain proper bone position. Post-surgery performed will cause the client to experience acute pain. The purpose of this research is to study nursing care literature on Post Op ORIF (Open Reduction Internal Fixation) clients with Tibia Fibula Fracture with Nursing Problem My Pain. The outcome criteria set in the two journals are pain levels with indicators of decreased pain complaints, decreased anxiety, decreased grimacing, decreased sleep difficulties, improved sleep patterns. The intervention specified was pain management which was carried out for 3 days in each journal. The evaluation result obtained in journal 1, the problem was partially resolved and in journal 2 the problem was resolved, as evidenced by a decrease in the pain scale from a scale 6 to a scale of 3. The importance of knowing and learning when nurses provide education about pain relief strategies and non-pharmacological techniques to deal with pain. Action that can be carried out independently by clients re by applying non-pharmacological techniques such as murottal al-qur'an and breath relaxation which can reduce the level of pain felt. Suggestins for further researchers, pain assessment using the complete OPQRSTUV formula, then for implementation carried out in accordance with SIKI (Indonesian Nursing Intervention Standards) including education.

Keywords: Nursing Care, Post Op Open Reduction Internal Fixation (ORIF), Tibia Fibula Fracture, Acute Pain

LITERATURE REVIEW OF NURSING CARE FOR TYPE 2 DIABETES MELLITUS (T2DM) WITH UNSTABLE BLOOD GLUCOSE LEVEL

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ABSTRACT

Diabetes Mellitus is a chronic metabolic disease characterized by an increase or decrease in blood glucose levels. The cause of unstable blood glucose levels due to beta cell disorders that are unable to produce insulin or are able but the amount of insulin does not match the body's needs. Resistance to insulin is a trigger for uncontrolled blood glucose levels. Other factors that play a role are diet, activity, and treatment of type 2 Diabetes Mellitus patients. The purpose of this literature study is to determine nursing care for clients with diabetes mellitus with unstable blood glucose levels. The type of research used is a literature study with qualitative methods involving secondary data from 2 participants in 2 journals with the problem of unstable blood glucose levels. The criteria for the results of the two journals are unstable blood glucose levels, improving. The action chosen in both journals was hyperglycemia management which was carried out for 3 days. The evaluations obtained from each client during the 3-day treatment were that blood glucose levels improved, the client could control his diet, the client BAK $\pm 5x/day$, and the client regularly took medication. The importance of understanding and learning when nurses provide education about hyperglycemia management actions to clients to support the prevention movement. Actions that can be done independently by the client or family are by gradually adjusting food using the 3J principle (amount, hours, type of food), taking medication regularly, and insulin therapy.

Keywords: Nursing Care, Diabetes Mellitus, Unstable Blood Glucose Level

LITERATURE STUDY OF TYPE 2 DIABETES MELLITUS (T2DM) CLIENTS WITH NUTRITIONAL DEFICIT

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ABSTRACT

Diabetes Mellitus (DM) is a group of heterogeneous disorders characterized by elevated levels of glucose in the blood. DM is a disease that causes death caused by high blood glucose levels. To overcome so that blood sugar can be controlled properly by setting a diet in accordance with the 3J rules (amount, schedule, type), the number of calories given must be exhausted based on the diet given, the diet schedule must be at intervals, the types to be avoided which contains a lot of sugar, fat, sodium. This researcher aims to obtain an overview of nursing care in DM patients in fulfilling nutritional needs. Respondents of Type 2 Diabetes Mellitus (DMT2) clients who experienced a nutritional deficit in this literature study were 2 people. The purpose of this literature study is to determine nursing care for Type 2 Diabetes Mellitus (DMT2) clients with nutritional deficits. The type of research used is library research (library search). Research design with a literature study approach. Data collection techniques were obtained using the library method and organizing the presentation of the data. The analysis plan carried out in this literature study research is to analyze all data on the stages of the nursing process from both journal sources. The diagnosis raised is a nutritional imbalance less than the body's needs. The nursing plan in journal 1 corresponds to the NIC and in journal 2 corresponds to the NIC. The evaluation obtained from each client during the 3 day treatment was that the appetite had improved. It is suggested to the authors of the two journals to be more complete and explain in detail the actions taken, such as completing a more detailed assessment of patient complaints, and in the 2-part journal in detail the history and implementation are less detailed.

Keywords: Nursing care, Diabetes Mellitus, Imbalance of nutrition less than requirement

STUNTING PREVENTION BEHAVIOR USING DYNAMIC SELF DETERMINATION OF SELF CARE AND POSITIVE DEVIANCE MODELS

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ABSTRACT

One of the main problems in handling stunting in Indonesia is because it only handles the children, and there has been no serious effort to change the mother's behavior in stunting prevention which causes the stunting risk still remains. Behavior is a fundamental thing that must become a habit to be applied in daily life. This study describes the dynamic self-determination of self-care and positive deviance (PD) models in changing stunting prevention behavior. The study was a quasi-experimental design with a sample of 90 mothers who had children aged 7-36 months taken by purposive sampling. 30 mothers were given dynamic self-determination of self-care model intervention, 30 were given PD intervention, and the other 30 were in the control group. This study conducted from July–October 2019. The variables studied were feeding behaviors, parenting behavior, personal hygiene behavior, environmental cleanliness and air sanitation, and health service seeking behavior. Paired t-test and MANOVA test was used. The results of the paired t-test in the PD group shows that feeding behavior $p=0.015$, parenting behavior $p=0.029$, personal hygiene behavior $p=0.018$, environmental cleanliness and water sanitation $p=0.000$, and Health service seeking behavior $p=0.000$. In the self-determination group, the feeding behavior shows $p=0.013$, parenting behavior $p=0.040$, personal hygiene behavior $p=0.231$, environmental hygiene and water sanitation $p=0.000$, and health service seeking behavior $p=0.000$. The results of the Manova test showed $p=0.002$, simultaneously, and there was an effect of PD and self-determination on stunting prevention behavior. The dynamic self-determination of self-care model and the positive deviance model can both change maternal behavior into better feeding, parenting, environmental hygiene, and water sanitation, seeking health services but not changing behavior about personal hygiene behavior.

Keywords: Dynamic Self Determination of Self Care, Positive Deviance, Prevention Behavior, Stunting

BLOOD PRESSURE WITH STROKE TYPE IN STROKE PATIENTS AT THE GENERAL HOSPITAL OF BANGIL PASURUAN

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ABSTRACT

Stroke is a disease with a high number of deaths as a cause of death in all three worlds. The number of stroke patients in Indonesia in 2013 according to the diagnosis of health workers was estimated at 1,236,825 people. This study aims to determine the relationship between blood pressure and the type of stroke in stroke patients in the Krissan Room at Bangil Hospital. This research method includes the type of quantitative research using cross-sectional (cross-section). The research subjects in this case study were patients who had a stroke. Data analysis in this study used the Spearman Test statistical test with a significant level of $\alpha = 0.05$. And from the research obtained p-value $0.138 > 0.05$ which H_0 is accepted and H_1 is rejected. The result of the analyst is that there is no relationship because the p-value is greater than the negligence of the 10 non-hemorrhagic patients with hypertension there are also other diseases such as diabetes mellitus which can cause non-hemorrhagic strokes even with high blood pressure. The cause of a stroke can be caused by age, history of diseases such as high cholesterol, diabetes mellitus, and possibly due to lifestyle factors. Suggestions for the community to better understand the dangers of stroke so that they can sensitize the public and respondents (sufferers) to try and be motivated to control various stroke risk factors and it is also expected that patients can get treatment as early as possible.

Keywords: blood pressure; stroke type

NURSING CARE OF CANCER PATIENTS WITH A FAMILY APPROACH

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ABSTRACT

Cancer is a chronic disease that causes clients to experience complex health problems (physical, psychological, and social-spiritual). Cancer patients need nursing care that involves the family as the client's closest system. Families generally lack knowledge about management, treatment, and caring. This condition causes families to face several obstacles in carrying out their roles and functions in caring for cancer patients. The purpose of this article is to describe the role of professional nurses as caregivers, educators, counselors, collaborators, and researchers who provide support to families in caring for cancer patients. Methods: This article arranges from a review of literature studies to identify the role of nurses as family partners in caring for cancer patients. Results: Insights obtained from this literature study nurses understand the complex health problems of cancer patients and their families. Cancer patients during treatment generally experience health problems: Physical such as pain, fatigue, and sleep disturbances; Psychological disorders: depression, fear, and anxiety; Social problems: financial problems, work/school problems, high burden of care, impaired function/roles in the family. This condition also affects the health of the caring family. Strategies for professional nurses to solve the problem of cancer patients are evidence-based nursing care, promotive and preventive with health education, therapeutic communication, and inter collaboration services. Suggestions Nurses develop holistic nursing services with families and utilizing information technology.

Keywords: Family, Cancer Patient, Nurse Role

THE MODEL OF SPIRITUAL CARING IN NURSING

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ABSTRACT

Spiritual needs are elements of care that are less touched and much neglected by professional nurses. One of the reasons may be due to a lack of spiritual understanding and competence in the care perspective (Caring). The paper aims to develop a model of nursing practice based on spirituality and spiritual care as part of integral and holistic nursing so that nurses can provide spiritual care. Walker and Avant's (2011) concept Synthesis strategy was done. A review of nursing literature related to the concept of spiritual caring was conducted. The Model of Spiritual Caring in Nursing was proposed. This model was underpinned by the concepts of Transpersonal Caring Relationship, Self-Transcendent, and Serenity. The relationship amongst those concepts is just as a building which is consisted of three components: foundation, pillar, and roof. Serve as a foundation of the model is a transpersonal caring relationship with the pillars are the numerous activities of self-transcendent and the roof is serenity. The Model of Spiritual Caring in Nursing offers a conceptual framework to nurses on how they should meet the spiritual needs of clients. The implication of this model is it will add to nursing's body of knowledge by providing a framework for nurses in both education and practice areas.

Keywords: model; spiritual; caring; nursing

ECG PATTERN OF ACS PATIENT AFTER INPATIENT PHASE OF PHYSICAL REHABILITATION

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ABSTRACT

Acute Coronary Syndrome (ACS) is a chronic myocardial ischemia caused by obstruction of oxygen flow to the coronary arteries. Clinical manifestations of coronary artery obstruction and decreased oxygen supply can be seen from the patient's ECG pattern, which is an elevation in the ST segment. Cardiac rehabilitation can be carried out since the patient is hospitalized, namely physical exercise in the inpatient phase which aims to restore the functional capacity of ACS patients. This study aims to identify the application of the inpatient physical rehabilitation phase to the ECG pattern description of ACS patients. Quasi-experimental research design with a sample of 30 participants. The results of Friedman's statistical test showed that there was an effect of inpatient physical exercise on the ECG picture of ACS patients who were observed before the exercise, the first day until the third day ($p < 0.05$). The pattern of the ECG picture before exercise is abnormal (ST elevation), then improves until it returns to normal. The inpatient phase of physical rehabilitation can be applied independently by nurses after the doctor declares the patient's condition stable.

Keywords: Acute Coronary Syndrome (ACS); Cardiac rehabilitation; Inpatient phase, ECG pattern

EFFECTIVENESS OF FINGER HOLD RELAXATION AND PROGRESSIVE MUSCLE RELAXATION IN THE LEVEL OF PAIN OF PATIENTS POST LAPARATOMY SURGERY WITH GENERAL ANESTHESIA AT REGIONAL HOSPITAL MARDI WALUYO, BLITAR

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ABSTRACT

In the postoperative laparotomy injury occurs (incision) which will cause tissue damage as a mechanical stimulus that is perceived as a pain response. One of the independent nursing actions for pain management in a non-pharmacological way is finger hold relaxation and progressive muscle relaxation. This study aims to determine the difference in pain levels before and after hand-held finger relaxation and progressive muscle relaxation in patients undergoing laparotomy surgery at Regional Hospital Mardi Waluyo Blitar. This research was conducted an ethics feasibility test before the results test. The research design uses quasy experimental method with three group pre test and post test design approaches. The sampling technique used was total sampling with the number of respondents 30 people divided into 3 groups, namely finger hold relaxation, progressive muscle relaxation, and the control group without treatment. The results of paired t-test statistical tests showed a p-value of $0,000 < \alpha (0.05)$ which means that there was a significant effect between finger hold relaxation, progressive muscle relaxation, and the untreated control group on the pain level of post-operative laparotomy patients. Anova Two Way results found that p-value = 0.346 ($p > 0.05$), that is, there was no significant difference between the group of hand-held fingers and progressive muscle relaxation as well as the control group without treatment for the pain level of postoperative Laparotomy patients. Therefore, finger hold, progressive muscles, and control groups can significantly reduce pain levels in postoperative Laparotomy patients. While there was no significant difference between finger hold relaxation, progressive muscle relaxation, and control group of postoperative Laparotomy patients, however, progressive muscle relaxation therapy could reduce pain levels greater than the hand-held relaxation therapy and the control group.

Keywords: Post Laparatomi Surgery, pain level, finger hold relaxation, and progressive muscle relaxation

THE DEVELOPMENT OF E-MODULE EDUCATION APPLICATIONS IN PREVENTION OF TYPE II DIABETES MELLITUS (DMT II) IN YOUTH IN THE PANDEMIC COVID 19 IN MOJOLANGU MALANG

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ABSTRACT

The pandemic has made people spend more time at home to suppress the spread of the virus. As a result, low body movement and weight gain occurs. so that it affects the metabolic system including increasing blood sugar levels. For this reason, it is necessary to maintain a healthy lifestyle so that it does not end up with diabetes which is a high risk of exposure to the corona virus. This risk can be reduced if one of the early prevention efforts is education. This study aims to determine the effect of the E-Module Educational Model Application in the Prevention of Type II Diabetes Mellitus in Adolescents during the Covid 19 Pandemic in the Mojolangu sub-district, Malang city. This study uses a quasi-experimental design. The sample of this research is 60 respondents by using purposive sampling technique. After being given treatment there was an increase in knowledge, changes in BMI and blood sugar levels in respondents. and changes in BMI and blood sugar levels. The results of the Wilcoxon test in the control group showed the effect of education using booklets on knowledge, body mass index and blood sugar levels, between before and after treatment the p-value p-value was 0.31; on BMI and 0.362 on blood sugar levels, it is stated that there is no significant change between before and after treatment. The Educational Model using the E-Module Application is effectively used as an alternative to the Educational model for adolescents in increasing knowledge so that it can be used as a strategy in preventing DMT II early starting from the smallest unit, namely the individual and the surrounding environment

Keywords: educational applications, e-modules, booklets, diabetes mellitus type II

FETAL MOVEMENT COUNT WITH SARDOVSKY'S AND FETAL HEART RATE IN LATE PREGNANCY

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ABSTRACT

Fetal Movement monitoring is the simplest technique among various fetal assessment techniques and this technique can be applied to a group of women pregnant women when they are away from the monitoring of health personnel. The technique of calculating the fetal motion of the Sardovsky method is a technique of calculating fetal movement within 1 hour which normally results in 3-4 movements. The purpose of this study is to determine the relationship of fetal movement calculations with DJJ results. Analytic correlation research design with cross sectional approach, with population of 38 pregnant women trimester III, sampling technique using simple random sampling with total sample 34 respondents. The instrument for monitoring fetal movement using coins and for DJJ examination using Doppler, then the data analyzess using Spearman Rank test. Almost all pregnant women (91.7%) with normal fetal movement (3-4 movements) have normal FHR results (between 120 bpm-160 bpm). Very few pregnant women (2.8%) with fetal movements less than 2 movements have a DJJ result <120 bpm whereas other pregnant women (5,6%) have more fetal movement results of 10 movements and 12 movements having FHT results > 160 bpm. Spearman rank test result found that with significance value less than α (0,002 <0,050) so it can be concluded that there is a significant relationship between the result of movement with FHR result. The correlation coefficient obtained is 0.504, which means the relationship is low. There is a significant relationship between the calculation of Sardovsky's fetal movement results with DJJ results in Trimester III pregnant women with a somewhat low correlation.

Keywords: Fetal Movement, Fetal Heart Rate, Sardovsky Method

LITERATURE STUDY OF OVERVIEW OF ANTE NATAL CARE IMPLEMENTATION IN INDONESIA

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ABSTRACT

ANC services are services provided by health workers to pregnant women with the aim of early detection of abnormalities, medical or obstetric complications during pregnancy. The Integrated ANC service is one of the efforts to reduce MMR in Indonesia, but the data in the 10 T examination field in Indonesia is not optimal. Around 45% of pregnant women still do not get complete ANC services. The purpose of this study is to find out the obstacles to implementing ANC in Indonesia based on the literature. The method used is a literature review obtained from 2 databases, namely Google Scholar and National Library from 2015-2020 using inclusion and exclusion criteria. The keywords used are Ante natal care, Ante natal service, Integrated ANC, Implementation of 10T. The results of the study obtained 10 accredited journals, 7 of which discussed the implementation of the Integrated ANC, the other 3 discussed the completeness of the Integrated ANC implementation program. Planning in the integrated ANC program includes input, process and output factors. Based on the input factors in the Integrated ANC there are Human Resources (HR), Funding, Facilities and infrastructure and Standard Operating Procedures (SOP). In the process factor, there is an Integrated ANC inspection with the 10T standard, recording and reporting of inspection results. The last factor is the output factor which includes priority problems and solutions to the problems experienced

Keywords: Integrated ANC; implementation of the Integrated ANC

AN OVERVIEW OF HEALTH SEEKING BEHAVIOR IN ADOLESCENTS IN AN EFFORT TO IMPROVE REPRODUCTIVE HEALTH

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ABSTRACT

Adolescents have a tendency to engage in risky behavior that increases morbidity and mortality. If the quality of youth declines, it can threaten the sustainability of the country because youth are the nation's successors. The purpose of this study was to describe health seeking behavior in an effort to improve reproductive health in MA Darul Hikam, Nganjuk. This study is an explanatory descriptive study with a survey method approach with a population of 90 adolescents, using purposive sampling technique so that 60 adolescent respondents met the inclusion and exclusion criteria. The instrument used as a research is a closed questionnaire made by the researcher and was declared valid and reliable. Based on the results of the study, most of the respondents from MA Darul Hikam, Nganjuk, have a high level of trust in health services, have a high level of support system, have a high level of need for health services. Most of them have a good level of health seeking behavior. And in the other half are in the category enough and less. The high level of trust, support system, and needs surely determine a person's level of health seeking behavior. Adolescents can improve their health seeking behavior and choose the right information related to reproductive health.

Keywords: Adolescents, Adolescents Reproductive Health, Health Seeking Behavior

THE EFFECTS OF PHYTOESTROGENS ON OXIDATIVE STRESS IN EXPERIMENTAL ANIMAL ORGANS UNDER HYPOESTROGEN CONDITION : A META-ANALYSIS

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ABSTRACT

The purpose of this meta-analysis study was to examine articles that reported the effects of the active compounds contained in various phytoestrogen plants on oxidative stress that occurred in experimental animal organs under hypoestrogen condition. An evaluation was carried out based on the inclusion criteria and obtained 9 articles that were eligible for analysis. The article reports on the active compounds of phytoestrogens from cowpea, tualang honey, palm oil, and ginger juice plants in the form of genistein, raloxifene, α -lipoic acid, and cisplatin. The experimental animal organs are used to examine SOD and MDA variables as markers of oxidative stress include the reproductive tract, muscles, bones, brain, heart, liver, and kidneys. The results of the Omnibus test of Model Coefficient on the SOD variable are obtained a p-value of 0.031 ($p < 0.05$). From this test, it is proven that there is a significant effect size obtained in the meta-analysis. Or in other words, giving various kinds of treatment has a significant effect on SOD levels. The results of the Omnibus test of Model Coefficient on the MDA variable obtained a p-value of 0.926 ($p > 0.05$). From this test, it is proven that there is no significant effect size obtained in the meta-analysis. Or in other words, giving various kinds of treatment does not have a significant effect on MDA levels. This indicates that there are positive effects of phytoestrogens on the SOD and MDA responses as markers of oxidative stress in various organs of experimental animals.

Keywords: Meta-Analysis; phytoestrogens; SOD; MDA

MELASMA INCIDENT RELATIONSHIP ON PROLONGED USE OF BIRTH CONTROL PILLS

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ABSTRACT

One of the side effects of using combination birth control pills is melasma which can reduce self-confidence. 35.3% of users of combination birth control pills who suffer from melasma suffer from melasma as much as 28.7%. The most popular form of contraception in Indonesia is the combined contraceptive pill. This study aims to determine the use of combination birth control pills on the incidence of melasma. The study used an analytical observational design with a retrospective cohort approach. The sampling technique used purposive sampling. The sample size is 20 respondents who meet the inclusion criteria. Data collection techniques with observations and interviews. Test analysis using Chi Square test. There were 11 respondents (55%) of combined contraceptive pill users who experienced melasma and 9 respondents (45%). The results of the chi square analysis show that there is a significant relationship between the use of combination birth control pills and melasma (p-value 0.014). Suggestions to the community, especially mothers, are to seek information from health workers about contraceptives to be used in order to find out the side effects of these contraceptives

Keywords: melasma; birth control pills

IMPROVING EXCLUSIVE BREEDING EDUCATION CAPABILITIES AND SKILLS AS A COMMUNITY EMPOWERMENT EFFORT

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ABSTRACT

World Health Organization establishing breastfeeding support groups for increased community involvement. The results of the Indonesian Demographic and Health Survey in 2017 the coverage of exclusive breastfeeding for infants 0-6 months was 42% which showed a significant increase from 32% in 2012. The coverage of exclusive breastfeeding in the province of West Java is 33.7%. WHO recommends The purpose of this study is to empower the community through increasing the ability and skills of exclusive breastfeeding education. The population is all women in the city of Bogor. Sampling with snow ball technique and cluster purposive sampling. Quantitative research consists of two groups: Ordinary and Extra Ordinary. Research stages: 1) Qualitative to get what material is needed in community empowerment 2) Quantitative with a quasi-experimental design one group pre-test post test by providing training. The results of the study: 1) Materials needed: breastfeeding techniques, communication techniques, knowledge of exclusive breastfeeding in the form of a pocket book, 2) There is an influence of empowerment in the form of training with the ability to motivate exclusive breastfeeding, a significant relationship with p value <0.05 on knowledge in the group elderly, attitudes in the cadre group, skills in all groups, namely the cadre group, community leaders, elderly, ordinary women. Conclusion Community empowerment class in the form of training to improve skills as a motivator for exclusive breastfeeding in Bogor City.

Keywords: exclusive breastfeeding; education; community development

A SURVEY OF DIGITAL EDUCATION MEDIA NEEDS ON PRE CONCEPTIVE CARE

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ABSTRACT

Media is an important component in health promotion activities. Currently, bride-to-be is a part of generation Z who prefers to search for information digitally. The purpose of this study was to obtain information on the level of knowledge about the preparation of a healthy pregnancy as well as sources and obstacles in finding information or justification for making digital educational media. The research type of this study was descriptive survey and the population were a brides-to-be in the range of April-June 2021 at KUA Malang, then 101 people was taken by purposive sampling. The research instrument used a questionnaire with descriptive data analysis. The results showed that 52% high level of knowledge, 72% planning to have children soon, 70% exposed to contraceptive information. The source of information obtained was 100% from the internet, with 73.5% one-way information search barriers, and 77.5% doubts about the truth of the information sources. Sources of information obtained other than the internet were 63% of health workers, 72% have not received information from health workers, 49% was hampered by shame, and 55% of health workers did not use any media. Respondents 74% have laptops and 100% have android mobile phones, which used for social media activities 100%, and browsing 59%. The information sought was how to register at KUA 61%, 58% healthy lifestyle and 51% the preparation of pregnancy nutrition. Materials that rarely encountered were vaccines and pre-marital health checks, determining the fertile period and infertility, maintaining reproductive organs, marriage guidance, and health consultations. Respondents stated that the internet helped increase knowledge 86%, and 98% agreed that reproductive health information was digital-based. The creation of digital educational media could accommodate the limited understanding of pre-conception care that can be easily accessed by bride-to-be, or WUS who are planning a pregnancy. It is necessary to develop digital media with discussion menus as well as pre-conception care consultations.

Keywords: needs analysis, educational media, digital media, pre-conception

CORRELATION BETWEEN THE LEVEL OF ANXIETY AND MENSTRUAL CYCLE DURING COVID-19 PANDEMIC IN FEMALE ADOLESCENT

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ABSTRACT

The high number of confirmed Covid-19 deaths and the wide spread of the outbreak are associated with risky adverse mental health impacts. Rates of mental disorders are increasing in adolescents and young adults. Studies show that there is an increased rate of symptoms of depression, anxiety, and post-traumatic stress among adolescents during the COVID-19 pandemic. In addition, most of the female population experience reproductive health problems related to psychological stress. Stress has an inhibitory effect on the hypothalamic pituitary gonadal (HPG) axis. Stress and stress hormones inhibit the release of GnRH from the hypothalamus, and glucocorticoids inhibit the release of Luteinizing hormone (LH) and the production of estrogen and progesterone by the ovaries. This study uses a quantitative design with a cross sectional approach. Determination of the sample in this study using purposive sampling, in order to obtain a sample of 88 respondents. Determination of adolescent anxiety and menstrual cycle using Zung Self-rating Anxiety Scale (ZSAS) instrument and a questionnaire compiled by the researcher, which is distributed via the google form link. Analysis of the data in this study using the Chi Square test. This study aims to find correlation anxiety levels and menstrual cycles during the COVID-19 pandemic. The results of this study indicate that the majority of respondents are adolescents with mild anxiety levels (73,0%), followed by adolescents with moderate levels of anxiety (8,0%), adolescents with severe anxiety levels (9,1%). Adolescent menstrual cycle data obtained regular menstrual cycle (78,4%), and irregular menstrual cycle (21,6%). The results of this study there is no relationship between the level of anxiety with the menstrual cycle in adolescents. This may be due to other factors such as weight gain, longer working hours, and unhealthy eating patterns during the COVID-19 pandemic.

Keywords: anxiety levels, menstrual cycles, COVID-19

THE EFFECTIVITY OF ACUPRESSURE THERAPY TO RELIEVE LABOR PAIN DURING THE ACTIVE PHASE OF THE FIRST STAGE

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ABSTRACT

Labor pain is the main issue that happens to women during delivery. In Brazil, labor pain can reach over 50% of the natality rate in a hospital, which is the highest percentage in the world. If labor pain is neglected, mothers can experience depression and distress related to their sexual activity. It will also increase the demand for section cesarean delivery. One of the methods to relieve labor pain with no continuous provision of medicine, effective cost, and relatively low risk is acupressure. The objective of this study is to examine the effectiveness of acupressure therapy on relieving labor pain during the Active Phase of the First Stage. This study applied a literature review research method by searching and examining previous journal articles that match the inclusion criteria and exclusion criteria. The journal articles were obtained from the Google Scholar database, ResearchGate, Wiley Online Library, and Elsevier with the keywords Acupressure, Labor Pain or Akupresur, Nyeri Persalinan. From thirteen articles analyzed, nine articles suggest LI4 acupressure point which is placed at the metacarpal between the thumb and index finger. The majority of articles claim that severe pain occurs during labor before being intervened. Meanwhile, all articles state that acupressure is effective in relieving labor pain during the Active Phase of the First Stage.

Keywords: Acupressure, Labor pain, during the Active Phase of the First Stage

THE EFFECTIVENESS OF PROGRESSIVE MUSCLE RELAXATION TO REDUCE PREGNANT MOTHER'S ANXIETY

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ABSTRACT

Psychological changes are often experienced by pregnant women are anxiety, (28,7%) pregnant women in Indonesia experience anxiety. Several factors that cause anxiety in pregnant women are husband support, family support, age, environment conditions, parity and education. Anxiety can be reduce by relaxation. The effective relaxation for anxiety in pregnant woman is progressive muscle relaxation. This study aims to determain the effectiveness of progressive muscle relaxation to reduce anxiety in pregnant women. This study uses the Study Systematic Mapping Method selected from the Google Scholar, Pubmed, and Garuda database. There are several points determined in the journal using the year of publication, according to keywords, duplication, Full Text, and Indonesian or english, were selected using PICO so that 14 journals are obtained, which are then analyzed. The highest level of anxiety in pregnant women was found third trimester, teenage pregnant women and primigravida. Anxiety levels can be reduced by giving progressive muscle relaxation. Progressive muscle relaxation intervention is not only effective in reducing anxiety but also prevents occurent of pregnancy complication. The highest level of anxiety occurs in teenage pregnant women with first pregnancy in third trimester. The most effective technique for reduce anxiety in pregnant women is progressive muscle relaxation intervention.

Keywords: Progressive Muscle Relaxation, Anxiety, Anxiety of Pregnant Woman

THE EFFECT OF GIVING COOKIES BASED ON LONG LEAVES AND TUNA FISH BONE FOOD ON SERUM LEVELS OF ERITHROPOIETIN IN WOMEN OF RELIABLE AGE WITH ANEMIA IN KENDARI CITY

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ABSTRACT

The aim of the study is to analyze the effect of giving cookies based on long bean leaf flour and tuna fish bones on serum erythropoietin levels in women of reliable age with anemia in Kendari City. The research design used a quasi-experimental design, namely pre and post tests in the intervention and control groups. The treatment group was divided into 2 groups, where the first group was given cookies based on long bean leaf flour and tuna fish bones, the second group was given Fe tablets for 12 weeks. The control group was not given biscuits based on long bean flour and tuna and Fe bones. If the data distribution is normally distributed, the parametric annova test is used. The results of the study stated that the respondent's acceptance of cookies was very good and the cookies received by respondents who substituted 15% tuna fish bone meal were added with long bean leaves. There were differences in the average before being given the intervention and after being given the intervention in the group that was given cookies substituted for long bean leaves and tuna bone meal. The conclusion is that there is an effect of giving cookies based on long bean leaf flour and tuna fish bones on serum erythropoietin levels in women of reliable age with anemia in Kendari City

Keywords: serum erythropoietin levels, cookies based on long bean leaf flour and tuna fish bones

ASSISTANCE OF LOW BIRTH WEIGHT BABY CARE AT HOME WITH LOW BIRTH WEIGHT INCREASE IN KENDARI CITY

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ABSTRACT

The aim of the study is to determine the effect of assisting the care of low birth weight babies at home on weight gain of LBW in Kendari City, Southeast Sulawesi Province. The research design used was quasi-experimental using a pretest and posttest. Group 1,2, were given intervention in the form of assistance in the care of LBW babies as many as 60 people. Group 3 was not given intervention as many as 30 people. The data collection instruments included an interview guide, modules, CD tapes, baby scales. Data were analyzed by ANOVA test. The results of the study in the first month of the intervention stated that there was an increase in body weight in the first month of the intervention. The highest weight gain was in group one, which ranged from 650 grams to 900 grams. There was an increase in body weight in the second month of intervention. The highest weight gain in group one ranged from 800 grams to 900 grams. There was an increase in body weight in the third month of intervention. The highest weight gain in group one ranged from 750 grams to 900 grams. There was an increase in infant weight from the first month of intervention to the third month of intervention and good weight gain, namely in the intervention group in the form of mentoring with modules and role play compared to mentoring with modules and videos and the control group. The conclusion is that there is an effect of assisting the care of LBW babies at home on the weight gain of LBW in Kendari City, Southeast Sulawesi Province.

Keywords: care assistance for low birth weight babies at home, weight gain

THE EFFECT OF COMBINATION OF DEEP RELAXATION TECHNIQUES AND FIVE FINGER IMAGINATION DISTRACTION TECHNIQUES ON REDUCING MATERNAL ANXIETY AND FETAL STRESS IN KENDARI CITY

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ABSTRACT

The aim of the study is to analyze the effect of a combination of deep breath relaxation techniques and five-finger distraction techniques on reducing maternal anxiety and fetal stress in the womb in Kendari City. The research design used was quasi-experimental using a pretest and posttest. Group 1,2,3 were given intervention in the form of relaxation techniques as many as 90 pregnant women. Group IV was not given intervention as many as 30 pregnant women. The data collection instruments included an interview guide, Hars questionnaire, modules, CD tapes. Data were analyzed using the Anova test. The results of the study stated that the level of anxiety of the respondents in the pre test for all in the category of moderate anxiety. In the second measurement (post test 1), it was seen that in group one, most of the anxiety levels of pregnant women were in the non-anxious category. In the third measurement (post test two) it can be seen that most of the anxiety levels of pregnant women in groups one, two, three are in the non-anxious category while group four is in the moderate anxiety category. There is an effect of a combination of deep breath relaxation techniques and five-finger distraction techniques on reducing maternal anxiety in Kendari City (p-value = 0.000). There is no effect of a combination of deep breath relaxation techniques and five-finger distraction techniques on fetal stress in the womb in Kendari City (p-value = 0.609). The conclusion is that there is an effect of a combination of deep breathing relaxation techniques and five finger imagination distraction techniques on reducing maternal anxiety and there is no effect of a combination of deep breathing relaxation techniques and five finger imagination distraction techniques on fetal stress in the womb in Kendari City.

Keywords: relaxation techniques, anxiety, fetal stress in the womb



POSTER PRESENTATION

The 4th International Conference
on Food, Nutrition, and Health

**A CASE STUDY: NUTRITION CARE FOR ALS (AMYOTROPHIC LATERAL SCLEROSIS)
PATIENT WITH MALNUTRITION IN DR. CIPTO MANGUNKUSUMO
GENERAL HOSPITAL JAKARTA**

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ABSTRACT

Amyotrophic Lateral Sclerosis (ALS) is a rare degenerative neuromuscular disease with global incidence between 1.5 to 2.7 cases per 100,000 inhabitants per year. The prognosis of the disease is poor and there is no curative treatment at present. It is observed in 16%-55% of patients at diagnosis develop malnutrition during the course of the disease. Low body mass index (BMI) and weight loss are related to disease progression and survival rate. The purpose of our study was to perform and evaluate nutritional care process for malnutrition patient with ALS. Primary data (interview and anthropometry measurement) and secondary data (medical record and laboratory values for nutritional status) were collected in our case study. The subject is a 64 years old female patient with malnutrition (according to GLIM criteria). Nutrition counselling were given twice in September 2020 and February 2021. Estimated energy intake before nutritional intervention was 1438kcal (30kcal/kgIBW/day) and protein 44g (0.9g/kgIBW/day) with BMI 19.9kg/m². Energy and protein intake were increased after nutrition counselling, with estimated intake of energy 1919kcal (40kcal/kgIBW/day) and protein 74g (1.5g/kgIBW/day) along with the intercalation of body weight (9kg in 5 months) and BMI escalate to 23.8kg/m². Haemoglobin increased to 11.7g/dL, creatinine plasma turned into normal value (0.53mg/dL), PCNA became +, and Centromere-B was (+) (near to borderline). This case study showed that a proper nutritional care process in malnutrition patient may improve nutritional status and promote the progressivity of ALS.

Keywords: amyotrophic lateral sclerosis, malnutrition, nutrition care process, body mass index

**PREVALENCE OF MALNUTRITION AND ITS ASSOCIATED FACTORS AMONG
GYNECOLOGICAL CANCER PATIENTS IN INSTITUT KANSER NEGARA,
PUTRAJAYA, MALAYSIA**

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ABSTRACT

Malnutrition is one of the most common comorbidities among cancer patients, which can bring adverse impacts to patient clinical conditions. To date, researches on gynecological cancer (GC) in Malaysia is scarce and does not focus solely on nutritional status and functional status of patients. The objective of this study was to investigate the prevalence of malnutrition and its associated factors among GC patients. A cross-sectional study was conducted among 80 respondents from Institut Kanser Negara, Putrajaya, Malaysia at January and February 2020. Interviewer-administered questionnaire was used to collect the data that included socio-demographic background, medical history, anthropometric measurements, biochemical data, dietary data and the scored Patient Generated Subjective Global Assessment (PG-SGA) for malnutrition status, Hand grip strength was used to determine functional status of the respondents. Prevalence of malnutrition using scored PG-SGA was 38.8%. Mean age of respondents were 55.50 ± 14.16 years old. Most respondents were estimated having adequate energy intake (76.3%) and inadequate protein intake (82.5%). There were statistically significant associations between Body Mass Index (BMI), weight change in one month, albumin, and energy intake with malnutrition ($p < 0.05$). Meanwhile, Pearson's correlation test showed that lower BMI value ($r = -0.333$, $p = 0.003$), lower white blood cell ($r = -0.256$, $p = 0.022$), and lower hand grip strength ($r = -0.266$, $p = 0.017$) were correlated with higher risk of malnutrition (high mean score of PG-SGA). Prevalence of malnutrition in GC patients is lower compared to other existing local and international studies. However, current study finding highlighted the importance of carrying out malnutrition detection earlier to provide prompt nutrition intervention to GC patients.

Keywords: malnutrition, PG-SGA, gynecological cancer

THE EFFECT OF YOGA ON MENSTRUAL PAIN IN ADOLESCENT

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ABSTRACT

Menstrual disorders that often occurs in adolescents are menstrual pain or dysminorrhoea. Adolescents who experiencing menstrual pain will feel cramps in the lower abdomen and are usually accompanied by additional symptoms that disruption with daily activities. There are several ways that can be used to reduce pain, one of which is yoga. This study was conducted to determine the effects of yoga on menstrual pain in adolescents. The method in this research is literature review. Literature searching were performed using keywords (yoga AND menstrual cramp OR adolescent, teenager). Furthermore, 403.128 articles were selected based on inclusion and exclusion criteria. There are 13 articles selected. Articles are taken from reputable and accredited databases. Articles are taken from PubMed database, DOAJ, Research Gate, and Google Scholar. The selection was taken with due observance of PICOS and then analyzed. The analytical technique used by researcher is compare, contrast, and synthesize. There are 14 journals that mention the effect of yoga on reducing menstrual pain in adolescents. The menstrual pain scale most experienced by adolescents are the moderate pain scale. Giving yoga can be given as an effective non-pharmacological therapy to reduce menstrual pain in adolescents. Because of yoga can provide a relaxing effect, so that the body can produce endorphins which useful as natural analgesic drugs. Yoga can be done by doing movements such as Suryanamaskar.

Keywords: yoga, menstrual cramp, adolescent

METHOD OF DETERMINING BABY'S MILK CONSUMPTION IN MALANG REGENCY

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ABSTRACT

Theoretically, it is said that there is a relationship between the consumption of breast milk and the nutritional status of the baby, where the consumption of breast milk that meets the needs of the baby will provide an optimal contribution to the growth and development of the baby. However, from several studies on the consumption of breast milk for infants, the results are less realistic, this is because some babies have normal nutrition but their consumption of breast milk is classified as less, relatively mild deficit or even some including severe deficit. One of the reasons for this is because the method used to determine breast milk consumption uses interviews with the old literature. Determine the method that can be used for determining infant milk consumption in Malang Regency. This type of research is a cross-sectional study. In this study, researchers observed the variable of infant's milk consumption in breastfeeding mothers by measuring breast milk consumption (milk production) using four methods, namely by baby's weight, weight of breastfeeding mother, through oral or questionnaires and breast pumps. The measurement of the amount of breast milk (ml) by weighing the baby's weight method is 442.55 ml; weighing the mother's weight as much as 867.75 ml; recall method as much as 68.76 ml; the method of expressing breast milk as much as 610.25. The results of the sensitivity assessment of each Infant Milk Consumption Measurement Method, the most sensitive is the mother's weight method, the second method is expressing breast milk, the third is the baby's weight method and the fourth is the recall method.

Keywords: baby's milk, consumption, infant milk

THE EFFECT OF COUNSELING ON MOTHER'S KNOWLEDGE AND ATTITUDE ABOUT LOW BIRTH WEIGHT BABY CARE

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ABSTRACT

The high incidence of low birth weight (LBW) neonates is a major cause of neonatal morbidity and mortality. This requires early treatment with management of low birth weight neonates in the perinatology. When the overall health of the neonate is in good condition, then the neonate can go home and be treated by family at home. The family especially mothers have an important role in caring for and nurturing their babies by carrying out LBW Care which has an impact on the quality and survival of LBW neonates. The problem is constrained because of a lack of information, understanding, and awareness in the care of LBW, one way to overcome that is by educating the family with counseling. This study aimed to analyze the effect of counseling on a mother's knowledge and attitude about low birth weight neonate care. The study used a pre-experimental research design with one group pretest-posttest design. Analyzed by Wilcoxon match pair test. The method of sampling is consecutive sampling with a sample of 15 respondents. Counseling can increase the mother's knowledge (P-value 0,001) and attitude (P-value 0,001) significantly about LBW Care. Counseling can increase knowledge and change attitudes towards the positive to the mother about LBW care. It is expected that health workers will improve and apply health education by counseling and form a special team of LBW Care counselors.

Keywords: attitude, counseling, knowledge, LBW care, low birth weight neonates

LITERATURE REVIEW: THE RELATIONSHIP BETWEEN EXCLUSIVE BREASTFEEDING AND INFANT GROWTH

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ABSTRACT

Breastfeeding is important for infant, especially at the age of 0-6 months without any food, which is called exclusive breastfeeding, but many mothers give non-exclusive breastfeeding to their infant. growth is influenced by internal and external factors. External factors include postpartum factors, one of which is nutritional factors including breast milk. Nutritional elements have a dominant influence on the growth of infants, especially in early life until the age of 6 months. This study uses the literature review method, the database used by Google Scholar, Garuda Ristekdikti, Mendeley and Pubmed. By using the keyword ((infant) AND exclusive breastfeeding) AND growth) AND weight) AND height. Selected 6 articles using JBI Critical Appraisal tolls. Completion by paying attention to PEOS, then the articles are analyzed one by one. Research shows that there is a relationship between exclusive breastfeeding and growth in infants. The mean value of infants who were exclusively breastfed was greater than that of infants who were not exclusively breastfed, which means that the growth of infants with exclusive breastfeeding was better than that of infants who were not exclusively breastfed.

Keywords: infant, exclusive breastfeeding, growth, height, weight

DESIGN AND BUILD APPLICATIONS FOR NUTRITION MEDICAL RECORDS IN HEALTH SERVICES

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ABSTRACT

Nutritional problems in hospitals lead to individual patient conditions. As patients of all ages, both pregnant women, babies, and adults, need nutrition in the healing process. In the hospital, nutritional services are offered and tailored to the patient's needs depending on the clinical condition, nutritional status, and metabolic status. Record keeping is an essential part of monitoring patient health, including nutritional care. The patient's medical record is the primary key in making decisions in fulfilling patient nutrition. Medical records are supported by technology in recording, making data quickly integrated with patient nutrition records. The purpose of this study was to design an application for nutritional, medical records in health services. The method in this research is a system development method in the form of prototyping and wireframing. The research was conducted by looking for references related to implementing nutritional, medical records and collecting data needed to build a system. The results of this study are in the form of a detailed nutritional, medical record application system design with a business process planning model and database. This nutritional, medical record application is made with a website-based design and is friendly to Android smartphones. The design of this electronic nutritional medical record recording system can provide solutions related to nutritional care planning following service standards.

Keywords: medical record; nutrition; patient; prototyping; application

LITERATURE REVIEW: THE EFFECT OF CONSUMPTION MUNG BEANS, PAPAYA AND KATUK LEAVES ON BREAST MILK PRODUCTION

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ABSTRACT

The problem that is often faced by mothers after giving birth is the lack of knowledge about how to increase milk production, thereby increasing infant mortality. Secretion and production of breast milk is influenced by the hormone oxytocin and prolactin. The purpose of the study was to collect and analyze articles related to the effect of consumption mung beans, papaya and katuk leaves on breast milk production. This study uses a Literature Review design. The articles are taken from the DOAJ, Science direct, COPERNICUS, SINTA, researchgate, GARUDA, and Google Scholar databases. The criteria for the articles used are 2015-2020 publications. Selection of articles using the PICOS framework, then selected using the JBI Critical Appraisal tools. Based on the articles, it was found that there was an effect of consumption of mung beans, papaya and katuk leaves on breast milk production because they stimulated the hormones oxytocin and prolactin, thereby helping to increase breast milk production. Suggestions that further research can be carried out, especially regarding the duration and amount of giving mung beans, papaya and katuk leaves to postnatal mothers so that they can help optimize breast milk production.

Keywords: breast milk production, katuk leave, mung beans, papaya leave

LITERATURE REVIEW: CORRELATION BETWEEN LOW BIRTH WEIGHT (LBW) INFANT AND ASPHYXIA NEONATORUM

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ABSTRACT

Asphyxia neonatorum is a condition in which newborn cannot breathe directly and regularly after birth which can cause death. One of the factors that may cause the case of asphyxia neonatorum is low birth weight infant. The results of previous studies regarding the correlation between low birth weight and asphyxia neonatorum are still inconsistent. The purpose of this study was to determine the correlation between low-birth-weight infant and asphyxia neonatorum based on a literature review. Searching the literature in the database using the keywords ((Low Birth Weight Infant) OR Low Birth Weight) AND Asphyxias. Finding 10 articles that were ready to be set using JBI Critical Appraisal tools. Collecting articles from reputable or accredited databases. 5 reputable articles were collected from the PubMed database, while the other 5 accredited articles were collected from secondary Google Scholar sources. The screening was done by paying attention to the PEOS framework. Analyzing the articles one by one. There were ten articles that met the inclusion and exclusion criteria. 9 articles showed a significant correlation between low-birth-weight infant and neonatal asphyxia and 1 article showed that low birth weight infant and neonatal asphyxia have no a significant correlation. Based on the result of the journal review, it can be concluded that 9 journals showed an association correlation between low-birth-weight infant and neonatal asphyxia and 1 journals stated the low birth weight infant did not have a significant correlation with neonatal asphyxia.

Keywords: asphyxia, low birth weight infant

LITERATURE REVIEW: THE INFLUENCE OF MOTHER'S BEHAVIOR IN EXCLUSIVE BREASTFEEDING ON OPTIMIZING CHILD GROWTH AND DEVELOPMENT

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ABSTRACT

In 2016 globally percentage of exclusive breastfeeding was <43%, while in 2018 according to data from Riskesdas percentage was 37.3%. One of the reasons for the low coverage of exclusive breastfeeding is mother's behavior. Exclusive breastfeeding can support children's growth and development, especially at the age of first 6 months. The study was conducted to determine whether mother's behavior in exclusive breastfeeding can affect optimal children's growth and development. This research was conducted using a literature review study method, literature search using 4 databases (Pubmed, Science Direct, SINTA and Garuda Ristekdikti) using keywords that have been adapted to MeSH (Medical Subject Heading). Study quality was assessed using The Joanna Briggs Institute (JBI) Critical Appraisal article review. Articles are selected by paying attention to the PEOS framework. Articles that match the inclusion criteria are 7 articles, which are divided into 4 parts, namely behavior of breastfeeding mothers (n=4), effect of breastfeeding on growth and development (n=1), effect of breastfeeding on children's nutritional status (n=1) and the role of the family on infants nutritional status (n=1). Mother's actions have a dominant influence on the practice of exclusive breastfeeding. Knowledge has an influence on the mother's actions, while the mother's attitude is less significant. The role of family, sources of information and traditions can influence the mother's behavior in breastfeeding. Exclusive breastfeeding is less significant for children's growth and development, because it needs a stimulus from the environment. Mother's knowledge and behavior have a significant effect on the practice of exclusive breastfeeding, while mother's attitude is less significant. Exclusive breastfeeding has a less significant effect on children's growth and development, but has a significant effect on children's nutritional status.

Keywords: behavior, child, exclusive breastfeeding, growth and development

LITERATURE REVIEW: THE EFFECT OF EXCLUSIVE AND PARTIAL BREAST MILK ON INFANT NUTRITIONAL STATUS

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ABSTRACT

Exclusive breastfeeding is giving only breast milk to babies without other food and drinks from birth to 6 months of age except for drugs and vitamins. Breast milk is the best food for babies, but it is unfortunate that many breastfeeding mothers are not aware that they provide babies with additional food or drinks such as water, tea, or formula milk. If the coverage of infants who are exclusively breastfed decreases, the nutritional status such as overweight or obesity, malnutrition, and growth disorders will increase, so that it will affect the nutritional status of future generations. Efforts to increase the coverage of exclusive breastfeeding, namely the community must empower families so that they can provide support to breastfeeding mothers so that the nutritional status of babies is optimal. This study uses the Literature Review method which was conducted to determine the effect of exclusive breastfeeding and partial breastfeeding on the nutritional status of infants. By using the keywords ((exclusive breastfeeding) OR partial breastfeeding) OR nutrition status) OR infant in the Garuda Ristedikti, Pubmed and Science Direct databases which are used to search for articles. Several articles were selected and 7 articles were selected that matched the inclusion criteria and were assessed for quality using the JBI Critical Appraisal Tool. The settlement is done by paying attention to the PICO, then the articles are selected one by one. There is an effect of exclusive breastfeeding and partial breastfeeding on the nutritional status of infants. Infants who were exclusively breastfed had normal nutritional status and were not obese or malnourished, while infants who were partially breastfed had abnormal nutritional status, with obesity and malnutrition.

Keywords: exclusive breastfeeding, nutritional status, partial breastfeeding

WHITE OYSTER MUSHROOM (PLEUROTUS OSTREATUS) AND YELLOW PUMPKIN (CUCURBITA MUSCHATA) FLOUR AS INGREDIENTS FOR HIGH CAROTENE WET NOODLES

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ABSTRACT

Vitamin A deficiency is a nutritional problem in Indonesia that causes a decrease in the immune system and epitalism of skin cells. Vitamin A in food will be absorbed by the body with the help of fat and protein. Protein useful in the transport of vitamin A from the liver to cells. Food products high in vitamin A (carotene) must contain protein and fat in sufficient quantities so that it will increase the ability of food to overcome the problem of vitamin A deficiency. The aim of the research is to determine the effect of oyster mushroom flour substitution and the addition of yellow pumpkin on nutritional and sensory quality of high carotene wet noodles. The design of this research used Completely Randomized Design with four formulation on triple replication. Parameter observed in this research were nutritional quality (proximate content, energy value, carotene content, antioxidant activity), breaking strength and sensory properties (color, flavour, texture) of wet noodles. Data analysis using ANOVA to analyze nutritional value, and sensory properties using Kruskall Wallis. The results of this research showed that the increased proportion of oyster mushroom flour had a significant effect ($p < 0.05$) on increased protein, carotene content, and antioxidant activity, but decreased of fat, carbohydrate content and energy values, while the breaking power of all treatment levels was the same. Meanwhile, proportion of oyster mushroom had a significant effect ($p < 0.05$) on color, flavor and texture of wet noodles and fried noodles. The first formulation (wheat flour proportion 280 grams: oyster mushroom flour 20gram) with the addition of 150 grams of pumpkin (P1), as wet noodles the best treatment with energy value (168 kcal), protein content (5.6%), fat (2, 5), 30% carbohydrates), water (61%), ash (1.14%), carotene content (45.4 g), and antioxidant activity (55%). The average hedonic score of the panelists on color, taste, and texture is 3 (likes). The conclusion of this research was the proportion of oyster mushroom flour had a effect on nutriniional value and sensory properties, and first formulation is highly recommended as the wet noodles for prevention of vitamin A deficiency.

Keywords: white oyster mushroom flour, yellow pumpkin, wet noodle

DEVELOPMENT COLORIMETRIC DIGITAL IMAGING METHOD BASED ON FAST DETECTION HYDROQUINONE USE EXTRACT CABBAGE PURPLE (BRASSICA OLERACEAE VAR. CAPITATE L.)

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ABSTRACT

The increasing number of the cosmetic industry often causes problems on the safety of cosmetics itself. One of the problems is the presence of hydroquinone in cosmetics. Therefore, the use of hydroquinone in cosmetics on the market is regulated and supervised regularly by the government. In this research, a hydroquinone analysis method is developed by using purple cabbage anthocyanins based on digital imaging. Before this method can be applied, it is necessary to select the type of solvent in the extraction of anthocyanins in purple cabbage and do the validation method first to ensure that the digital imaging method using purple cabbage anthocyanins that will be developed can provide accurate results. Methods that will be used in this research are purple cabbage anthocyanin extraction with different solvent types, preparation of the hydroquinone standard solution, optimization of solvent types, linearity test, LOD and LOQ tests, precision tests, and accuracy tests. For the methods development, hydroquinone analysis is based on the formation of color due to changes in pH. The formed brownish-green color is determined by the value of the RGB intensity by digital imaging using a smartphone camera and Image J Software. The results of this research is that the most optimum type of solvent for the purple cabbage anthocyanin extraction test as an indicator of hydroquinone detection by digital imaging is warm aquadest (60°C). Meanwhile, in the validation test, good results are obtained on the linearity test of LOD 3.300 ppm, LOQ 10.000 ppm, RSD < 7,3 %, and recovery 102,99 %.

Keywords: hydroquinone, digital imaging, validation

THE DEVELOPMENT OF “GROWTH EASY BOX” AS A SIMPLE GROWTH AND DEVELOPMENT DETECTION MEDIA

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ABSTRACT

The availability of suitable media for growth and development examination is a problem that contributes to the suboptimal growth and stimulation of the child. Taman Posyandu's activities in the village scope are expected to be an effort to identify as early as possible the occurrence of child growth and development disorders. One of the innovations offered in the development of products for educational games and growth and inspection. This research was conducted to develop a simple growth and examination media. Product development refers to research and development methods based on Borg and Gell, which are limited to the stages of potential problems, gathering information, product design, design testing, design improvement, and product testing. Excavation of problems with focus group discussions and in-depth interviews shows that there are problems with the availability of media for early detection of growth and development activities in the Taman Posyandu. The results of expert validation show that media in the category are very feasible to use with a weighting rating by material experts at 95% and media experts at 98.3%. A group trial was conducted on 30 cadres involved in Taman Posyandu with educational game tools results "Growth Easy Box" very feasible with a weighting rating of 94.3%. The development of the educational game tools product "Growth Easy Box" is an innovative effort to encourage children to play while simultaneously detecting growth and development of children with development instruments, visual tests and hearing tests that can be used by cadres and health workers.

Keywords: educational game tools; growth easy box; growth and development

AFLATOXIN B1 EXPOSURE AND ITS RELATION TO FECAL BACTERIAL PROFILE AND THE PROGRESSION OF ANHEDONIC-LIKE BEHAVIOUR IN RATS

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ABSTRACT

Aflatoxin B1 (AFB1), one of the most toxic food contaminants, is linked to the perturbations of microbiome and dysregulation of gut-brain axis due to its potency and neurotoxicity effects. This eventually gives impact to the brain health which may be associated with anxiety. This study was conducted to determine the AFB1 exposure and its relation to gut microbiome and the progression of anhedonic-like behaviour in rats. Forty (n=40) Sprague Dawley male rats were randomly allocated into 5 groups: control, low-dose (5µg AFB1/kg body weight[b.w.]), medium-dose (25µg/kg b.w.), high-dose (75µg/kg b.w.) and positive control group; given Chronic Unpredictable Mild Stress (CUMS) treatment. Sucrose preference test (SPT) were done for the measurement of anhedonia. Lactobacillus spp., Bifidobacterium spp. and Escherichia coli from fecal samples were selectively cultured to acquire colony forming unit (CFU) and their relative abundancy. After 4-weeks of AFB1 exposure, body weight and relative organs weights were compared among groups. The CUMS and medium-dose groups had significantly ($p < 0.001$) lose 10% and 6% of body weight respectively while other groups showed normal growth. The ratios of organ-to brain weight of adrenal glands in medium-dose (0.0410±0.0133) and low-dose (0.0498±0.0100) were significantly ($p < 0.05$) higher than control group (0.0262±0.0039). Similarly, the sucrose preferences (%) were also significantly ($p < 0.05$) low in medium-dose (55.3%±20.6) and low-dose (31.7%±19.9) as compared to the control (86%±3.9) group. The low preference for sucrose might be due to anhedonia. This anhedonic-like behaviour in the low-dose group corresponds with significant results in the fecal bacteria profile. Lactobacillus spp abundance was significantly ($p < 0.001$) higher in response to the increasing AFB1 concentration; medium dose (4.361±0.324) and high-dose (4.637±0.242) log CFU/g. As for Bifidobacterium spp., there was no significant difference compared to the control. Overall, this study found that medium and low-dose AFB1 exposure affected adrenal gland, which is important for stress regulation and subsequently lead to anhedonic-like behaviour. Of great interest, fecal bacteria profile was significantly affected and further microbiota analysis is warranted to investigate link between gut microbiota dysbiosis and anhedonic-like behaviour associated with AFB1 exposure.

Keywords: aflatoxin; anhedonic-like; sucrose preference

LITERATURE REVIEW: THE EFFECT OF MOTHER'S KNOWLEDGE ABOUT BREAST MILK ON BREASTFEEDING BEHAVIOR

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ABSTRACT

Breast milk is an important source of perfect nutrition for infants and can affect the nutritional status of infants. However, nutritional problems still occur in various countries, especially in the toddler group. Nutritional problems in infants are influenced by breastfeeding in infants. A mother's knowledge is still the main factor in breastfeeding behavior. Behavior is strongly influenced by one's knowledge and influences one's decisions. This study aims to explain the effect of a mother's knowledge about breastfeeding on a mother's behavior in breastfeeding her baby. This study was conducted in the form of a literature review. By using the keywords ((Breast-feed AND Mother) AND Behavior) AND Knowledge)) in the database to search for literature reviews were selected using JBI Critical Appraisal tools. Articles are taken from several databases. A total of 3 articles were taken from the Garuda Portal database. While 4 article from a secondary source Google Scholar. The selection was taken by paying attention to the PICOS framework, then the articles were analyzed one by one. The mother's knowledge about breastfeeding has an effect on the mother's behavior in breastfeeding her baby. All research shows that the knowledge of mothers about breastfeeding has an influence on the behavior of mothers in breastfeeding their babies. Therefore, breastfeeding mothers are encouraged to increase their knowledge about breastfeeding. So that breastfeeding mothers can behave well and can breastfeed their babies properly so that the baby's nutrition is fulfilled.

Keywords: behavior, breast-feeding, knowledge

THE DEVELOPMENT OF TOFU PRODUCT MADE FROM KETAPANG SEEDS AND SOYBEANS IN REDUCTING CHOLESTROL LEVELS

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ABSTRACT

Increased blood cholesterol levels that exceed the normal limit are the main factors causing atherosclerosis. Atherosclerosis is closely related to deviation of triglyceride metabolism and cholesterol in the body which is a trigger for the emergence of cardiovascular diseases, such as stroke and coronary heart disease. Studies conducted in experimental animals provide hope that atherosclerosis is reversible. On this basis, preventive measures are taken and improving atherosclerosis includes reducing total cholesterol and triglyceride levels in plasma (Suyatno, 2007). This study aims to determine the effect of treatment proportion on the products made from ketapang and soybean seed in the analysis, organoleptic quality, nutritional quality of material toxicity and their effect on total cholesterol levels and triglycerides biologically in experimental animals. This research was conducted in two stages, the first stage is developing tofu products with ketapang and soybean seed in the basic ingredients with treatment proportion of 70:30, 80 : 20, 90 : 10 by doing the organoleptic test, panelist fondness test, then testing toxicity with BSLT method on experimental animal the shrimp, given an extract of tofu, then the second stage, power protection antihyperlipidemia test using the experimental animal 24 male white rattus norvegicus galur wistar adult weight of 200 -250 gram, The white rats were separate into 24 small cages for adaptation for one week. Each cage contains randomly selected and each group consisted at 4 (four) mice. All drugs, induction and extract administered orally. Provision of treatment carried out for 8 days. Simvastatin, PTU, and extract dissolved in Na-CMC (Hassimun, et.al 2012). In experimental animals with testing 1 doses of 5.4 gr/kg/BB. Testing 2 doses of 10,8 gr/kg/ BB and testing 3 doses of 21,6 gr/kg/BB. The results of the study showed the influence of color and taste on the treatment of the proportion of ketapang and soybean seeds, the nutritional quality of ketapang seeds consisted of fiber 11,78 %, Fat 26,4658 %, Protein 14,5442 %, Carbohydrates 8,444 %, and water 49,76 % and energy 262,4658 % calories. Toxicity with BSLT extract method of ketapang seed with LC 50 > 1000 g/ml so that it is safe for living creatures to be consumed. There is an effect of giving doses to know ketapang seeds in maintaining and protecting the animal's body against hyperlipidemia. Suggestion The use of ketapang seeds in the form of processed products varies as nutraceutical in protecting the body from the occurrence of hyperlipidemia.

Keywords: tofu, ketapang seeds & soybean, organoleptic test, toxicity of BSLT method, antihyperlipidemia

NYIDAMSARI FOLK-SONG AS A VEHICLE FOR DELIVERING MESSAGES IN IMPROVING COMMUNITY BEHAVIOR TO DHF PREVENTION IN MALANG

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ABSTRACT

WHO records Indonesia as the country with the highest DHF cases in Southeast Asia and DHF itself is included as the main public health problems in Indonesia. During 2015, 37 Regencies / Cities of East Java experienced Extraordinary Events of DHF with a total of 3,136 cases and 52 cases of a death rate itself happened in Malang Regency, between January-May 2016, there were 821 DHF patients at Malang Regency, and 13 of them died. In order to prevent dengue cases, researchers in Malang Regency empowered campursari artists by creating a traditional folk-song titled Nyidamsari Bebas Demam Berdarah for them to sing. A study was conducted to analyze the effects of Nyidamsari Bebas Demam Berdarah folk-song on behavior change (knowledge, attitudes, and practices) among campursari artists in Malang Regency. This type of research is a quasi-experimental pretest-posttest with control group design. The research consisted of 60 campursari artists from Malang Regency, selected using accidental sampling. The data is obtained through observation, filling out questionnaires and interviews. Data analysis used the help of the SPSS program with an independent T-test and Dependent T-test (significance level 0.05). After one month of treatment and post-test, the results were obtained: There was no significant difference between knowledge ($p = 0.591$), attitude ($p = 0.637$) and practice ($p = 0.716$) of artists campursari group before training with control-1 group. There is a significant difference between knowledge ($p = 0,000$), attitude ($p = 0,000$) and practice ($p = 0,000$) of campursari artists before and after training. There was a significant difference between knowledge ($p = 0,000$), attitude ($p = 0,000$) and practice ($p = 0,000$) of campursari artists after training with the control group 2. It is recommended to Health Promotion / Eradication of Infectious Diseases officers and health cadres which are expected to collaborate with prominent figures of campursari in providing Eradication of Mosquito Nests (EMN) DHF counseling / training, campursari artists require to empower themselves in EMN DHF counseling / training using campursari folk-song to the community and independently be able to do the 3M Plus (Draining, Burrying, Covering) habit regularly.

Keywords: training, nyidamsari folk-songs, Eradication of Mosquito Nests (EMN) Dengue Hemorrhagic Fever (DHF), behavior

ANALYSIS OF MICROPLASTICS IN REFILL DRINKING WATER SOLD IN KLOJEN DISTRICT, MALANG CITY

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ABSTRACT

Microplastic is one of the new pollutants in drinking water. The presence of microplastics in refilled drinking water must be watched out because the accumulation of microplastics in phagocytes has the potential to interfere their function and interfere the detection of lymphocyte infections, thereby disrupting the local immune system. This study aims to determine the presence of microplastics in refilled drinking water sold in Klojen District, Malang City. The type of research used is verification research. A total of 5 samples collected randomly were analyzed to identify the presence of microplastics using the Fourier Transform Infrared (FTIR) spectroscopy. The presence of microplastics can be identified by the peak of the spectrum at a certain wave number. In the control of polyethylene (PE) plastic, it was identified by peaks at wave numbers 2918, 2851, 1467, and 721 cm^{-1} . In the control of polyvinyl chloride (PVC) plastic, it was identified by peaks at wave numbers 2918, 2851, 1427, 1256, and 616 cm^{-1} . The identification results on the five samples did not indicate the presence of a spectrum of microplastic particles. Spectrum peak in samples I, II, III, IV, and V indicated the presence of water compounds indicated by the presence of spectral peaks at 3450 - 3471 and 1634 - 1637 cm^{-1} , silica material groups indicated by the presence of spectral peaks at 1018 - 1052 and 467 - 477 cm^{-1} , the magnesium material group which is indicated by the presence of peaks at 858 - 879 and 620 - 658 cm^{-1} and the last is the presence of the carbonate material group which is indicated by the presence of a spectrum peak at 1383 - 1384 cm^{-1} .

Keywords: microplastic; refill drinking water; FTIR

FLUID RESTRICTION AND CONSUMPTION XYLITOL FREE SUGAR GUM TO DECREASE BLOOD PRESSURE AND INTERDIALYTIC WEIGHT GAIN PRE HEMODIALYSIS PATIENTS WITH END STAGE RENAL DISEASE

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ABSTRACT

Dialysis is an option to maintain body function of patient in in the End Stage Renal Disease (ESRD). The main problem in patient with ESRD is the ability to regulate fluid intake. Patient drink a lot that is not controlled according to the requirements, so that there will be excessive weight gain when doing the next hemodialysis. Patient has an increase Interdialytic Weight Gain (IDWG). Aims of this study was determinate the effectiveness of fluid restriction management and administration of xylitol free sugar gum to reduce blood pressure and IDWG pre hemodyalisis in ESRD patients. The design of this study was quasy experimental with 20 respondents in the intervention group and 20 respondents in the treatment group. The results of the Paired T-Tests show that value = $0.001 < = 0.05$, which means that there is a significant difference in IDWG pre hemodialysis before and after the action of giving free sugar gum and fluid restriction, while in the control group, the result is value = $0.019 > = 0.05$ which means that there is no significant difference in IDWG pre hemodialysis before and after fluid restriction measures. The results of this study are expected to be one solution that can be used by patients with kidney failure to maintain pre-hemodyalisis weight until the next hemodyalisis.

Keywords: fluid restriction, xylitol free sugar consumption, interdialytic weight gain

THE EFFECT OF SPRAY DRIED OF BLENDERIZED ENTERAL FORMULA ON THE FAT PROFILE

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ABSTRACT

Blenderized enteral formula is a liquid food that contains nutrients and easily contaminated with bacteria. The drying process by using spray drying is one of method to reduce bacterial contamination, but affects the fat content. This study aimed to determine the effect of drying on the fat profile of enteral blenderized formula. The design of this study was a quasi-experimental using an enteral blenderized formula that was replicated 3 times, then dried using spray drying. The fat profile before and after drying were analyzed using the GC method. The differences of fat profiles before and after drying were analyzed by paired T Test and Wilcoxon. The results showed that the average of fat profile before and after drying was 2.100 and 3.570% of saturated fatty acid ($p = 0.079$); monounsaturated fatty acid by 0.190 and 0.370% ($p = 0.055$); polyunsaturated fatty acid by 0.070 and 0.100% ($p = 0.109$); omega 3 by 0.003 and 0.002% ($p = 0.157$); omega 6 by 0.050 and 0.090% ($p = 0.109$); and MCT by 1.480 and 1.950% ($p = 0.101$). Statistical analysis showed that there was no significant difference of fat profile before and after drying. The conclusion showed that spray drying method was not affect the fat profile of the blenderized enteral formula.

Keywords: fat profile, blenderized enteral formula, spray drying

DIETARY KNOWLEDGE AMONG FAMILIES OF PAEDIATRIC CANCER PATIENTS AT DR. SARDJITO HOSPITAL

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ABSTRACT

Adequate intake of nutrition in pediatric cancer patients is associated with child growth, morbidity, and mortality. Nutrition knowledge and food parenting practice are essential factors to support the survival of children with cancer. The present study aims to describe the knowledge and misconceptions regarding diet in families with pediatric cancer patients. This cross-sectional study was conducted at Dr. Sardjito Hospital. Data were collected from 82 parents of children receiving chemotherapy for cancer with age 5-18 years old. Assessment of dietary knowledge was performed by a modified structured questionnaire that had been validated. The plate waste was visually estimated using the Comstock method. A total of 68 parents had been explained about diet and hygiene from health care providers in the hospital. However, it is evident that 54 patients (66%) had plate waste more than 50%. Diet is linked to development of pediatric cancer according to 44 parents (54%), and sixty-nine parents (84%) believed that children should avoid certain foods during treatment. High sodium foods, foods with high preservatives, grilled foods, and artificially coloured foods are believed to cause cancer and should be avoided during treatments. Sixty-four parents (78%) professed that they had altered the child's dietary habit after being diagnosed with cancer and 69 parents (54%) stated that children with cancer should receive special foods. However, there were 34 parents (41%) who perceived that eating street foods is safe for children with cancer. In conclusion, plate waste was highly prevalent. Medical workers should develop an effective and strong nutrition education program to tackle misconceptions regarding diet.

Keywords: dietary knowledge; pediatric cancer; parental practice; plate waste

POTENTIAL OF KENTOS (HOUSTORIUM) AS AN ALTERNATIVE TO ECONOMICAL VEGETABLE FORMULA MILK IN INDONESIA

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ABSTRACT

SDGs or Sustainable Development Goals are integrated in one goal number 2 which is to end hunger. One focus is to improve community nutrition. Formula milk is one of the supporting components of nutrition for infants and toddlers with special conditions that cannot receive breast milk, divided into animal formula and vegetable formula milk. However, the price of formula milk, especially vegetable milk itself is quite expensive, so that for some people who cannot afford it will be replaced with starch water which is boiled water for rice. For this reason, a solution is needed in handling this case. One solution that can be taken is to give kentos milk as a substitute for toddlers and children milk. The purpose of this study was to determine the potential of Kentos (haustorium) as an alternative to economical vegetable formula milk in Indonesia. This study used literature review method. The literature came from Elsevier, Pubmed, and Google scholar. Author got six journals among 2010 until 2019. The result, author found 5 articles that used experimental methods to analyze the biochemical nutrition of kentos (haustorium). The amount of sugar and amino acid is higher when it sprouts, it contains B-mannanase that can be an economical prebiotic. The nutrition is about 66% carbohydrate that consists of 64% soluble sugar, high amount of fiber, polyphenol, and high potential of antioxidant. It can be a baby food formula for those who have lactose intolerance. It can be a cheaper food in a developing country. High amount of phosphorus and potassium, potential for food additive for children who have mineral deficiency. Kentos or haustorium can be used as a substitute for milk for children who are allergic to cow protein. When compared with starch water, kentos (haustorium) has the advantage in the presence of fiber, fatty acids, and antioxidants, as well as soluble sugar content, and the availability of abundant ingredients in Indonesia. At least this ingredient can be fortified with vegetable formula milk, so that it can reduce production costs and make the price of vegetable formula milk more affordable for the lower middle class. This certainly can support nutrition for every baby and toddler in Indonesia, especially in the lower middle class.

Keywords: kentos (haustorium), vegetable formula milk, economical, Indonesia

ADOLESCENTS AND THEIR NUTRITION NEEDS

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ABSTRACT

Adolescence is a period both of growth and development physically and psychologically. The age of adolescence begins at 10-18 years. The growth and development of adolescents are influenced by nutrition intake as one of the important factors. Adolescents need high energy and nutrients for their growth and development needs, such as weight and height, and for their body composition. Especially for girls teenagers, they should maintain good nutrition intake because young women need to prepare themselves to enter pregnancy when their reproductive period comes and this supports the government's regulation whereby preparing adolescent health properly, its contribution to reduce AKI and AKB in Indonesia. But on the other hand, adolescents have major problems in their nutrition needs, namely micronutrient deficiencies such as anemia and malnutrition such as undernutrition or obesity. Energy and nutrient deficiency in adolescents can continue until they grow up so that this causes in the future adults will become a group of adults who are not healthy, even unproductive and will become a burden on this state in the future. Therefore, there is a need for proper explanation and counseling for adolescents related to their nutritional needs in order to prepare a productive generation and become a demographic bonus for this country.

Keywords: adolescent, adolescents growth and development, nutrition

ASSESSING MALNUTRITION STATUS AMONG PRE-OPERATIVE SURGICAL PATIENT IN PUBLIC HOSPITAL

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ABSTRACT

Malnutrition in pre-operative surgical patients is often recognized and brings adverse outcomes which affect the postoperative complications. This study aims to determine the prevalence of pre-surgical patients in a public hospital as well as to determine factors associated with malnutrition status of pre-operative surgical patients. This was a cross-sectional study involving 39 elective general and gynaecology surgical patients. Socio-demographic background was obtained through an interviewed questionnaire. Medical history and biochemical data were taken from the medical record of the patients. Diet history was taken through an interview of 24-hour diet recall while malnutrition status was assessed using PG-SGA grading scores. Approximately, 20.5% of these patients were malnourished while 74.4% are well-nourished. Patients with a mean age of 46.03 ± 16.77 years participated in this study. It was found that age and protein and energy intake were statistically significant associated with malnutrition status ($p < 0.05$) while biochemical data of the patients showed no correlation with malnutrition status. Prevalence of malnutrition is less compared to well-nourished, however early identification of patients who are at risk of malnutrition should be monitored and do proper intervention to prevent postoperative complications.

Keywords: surgical, malnutrition, intake

MAKING LOCAL AVOCADO (PERSEA AMERICANA) OIL WITH AUTOCLAVE RENDERING METHOD AS AN ALTERNATIVE FOR HYPERLIPIDEMIA PREVENTION

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ABSTRACT

Hyperlipidemia is a condition that occurs when cholesterol and/or triglyceride levels increase beyond normal limits. Triglycerides are the main cause of arterial diseases and when there is an increase in the concentration of triglycerides, there is an increase (VLDL), which causes hyperlipoproteinemia. The oleic acid in the fruit flesh may reduce cholesterol levels. The saturated fatty acid content in avocado is 2.13g/100g, while the monounsaturated fatty acid (MUFA) is 9.8g/100g. Avocado fat also contains polyunsaturated fatty acids (PUFA) with levels of 1.82g/100g. Although it contains a lot of fat, it actually lowers cholesterol levels. This research using Autoclave Rendering Method. From the results of the analysis that has been carried out on the fat content obtained in avocados with 6 treatments, namely: P0 = 11.19% without water, P1 = Addition of 50% water obtained 10.03%, P2 = Addition of 75% water obtained 9.56% P3 = Addition of 100% water obtained 8.05% P4 = Addition of 125% water obtained 7.37%, and P5 = with the addition of 150% water obtained 7.15% of total fat. Analysis carried out on the fat content of avocados using an autoclave and 6 treatments, the best fat content was obtained in avocados P0 = Without water with the value obtained, namely As. Oleic Fat : 1.09% As. Linoleic Fat: 5.99% As. Linolenic Fat : 2.97 As. Total Fat: 11.19%.

Keywords: avocado oil; hyperlipidemia; as. oleic fat; as. linolenic fat; as. linoleic



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