

## Sumber Efikasi Diri Kader Anti Penyalahgunaan Narkoba di SMA Surabaya, Indonesia

### *The Self-Efficacy Source of High Schools' Anti-Drugs Abuse Cadres in Surabaya, Indonesia*

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#### ABSTRACT

**Background:** Narcotics are substances or drugs that are natural, synthetic, or semi-synthetic that cause unconsciousness, hallucinations, and excitability. Drugs abuse survey results in 2017 in 34 provinces in Indonesia show that there are 3,376,115 people who use drugs. **Objective:** The purpose of writing this article was finding out the source of cadres' self-efficacy in preventing drugs abuse in Surabaya's high schools. **Method:** This research method was a descriptive study with a qualitative approach. The informants of this study were high school students who were still active as anti-drugs cadres. The criteria for informant inclusion in this study were all high school students who were peer educators or anti-drug ambassadors in high schools in the North Surabaya area. When the study was conducted in October 2018 to June 2019. The method of data collection was in-depth interviews. **Results:** The results of this study were the source of self-efficacy of anti-drugs abuse cadres based on experience, observations of other individuals, verbal persuasion, and emotional and psychological conditions. The experience of the cadres included being a peer counsellor in drugs prevention, having participated in anti-drug communities, and experiencing following anti-drugs socialization. Component of experience through observation of other people, cadres did not make observations on people who had the same ability, but observations were made to people around cadres who had been involved in drug abuse. Components of verbal persuasion in this study concluded that there are others who always support all decisions and situations experienced by cadres, namely social support from teachers, parents, and peers. The Emotional/Physiological States component, namely the cadres in carrying out their duties felt happy because they have many positive changes and did not experience anxiety or pressure, which made them have positive self-efficacy. **Conclusion:** Sources of self-efficacy of anti-drugs abuse cadres are based on past experiences, observations of other individuals, verbal persuasion, and emotional and physiological conditions.

**Keywords:** Cadre, Drug Abuse, Self-Efficacy, Student

#### ABSTRAK

**Latar Belakang:** Narkoba adalah zat atau obat yang bersifat alamiah, sintetis, maupun semi sintetis yang menimbulkan efek penurunan kesadaran, halusinasi, serta daya rangsang. Hasil survei penyalahgunaan narkoba tahun 2017 di 34 provinsi di Indonesia menunjukkan bahwa terdapat 3.376.115 jiwa pengguna narkoba. **Tujuan:** Tujuan dari penulisan artikel ini adalah untuk mengetahui sumber efikasi diri kader dalam upaya pencegahan penyalahgunaan narkoba di SMA Kota Surabaya. **Metode:** Metode penelitian ini adalah penelitian deskriptif dengan pendekatan kualitatif. Informan dari penelitian ini adalah siswa SMA yang masih aktif menjadi kader anti narkoba. Kriteria inklusi informan pada penelitian ini adalah seluruh siswa SMA yang menjadi peer educator atau duta anti narkoba di SMA yang berada di wilayah Surabaya Utara. Waktu penelitian dilaksanakan pada bulan Oktober 2018 hingga Juni 2019. Cara pengumpulan data yaitu wawancara mendalam. **Hasil:** Hasil dari penelitian ini yaitu sumber efikasi diri kader anti penyalahgunaan narkoba yaitu berdasarkan pengalaman masa lalu, pengalaman berdasarkan pengamatan terhadap individu lain, persuasi verbal, dan kondisi emosi serta psikologis. Pengalaman akan masa lalu yang dimiliki kader meliputi pernah menjadi konselor sebaya dalam upaya pencegahan

narkoba, pernah mengikuti komunitas anti narkoba, dan pengalaman mengikuti sosialisasi anti narkoba. Komponen pengalaman melalui pengamatan terhadap orang lain, kader tidak melakukan pengamatan terhadap orang yang memiliki kemampuan sama, melainkan pengamatan dilakukan kepada orang di sekitar kader yang pernah tejerumus penyalahgunaan narkoba. Komponen persuasi verbal dalam penelitian ini disimpulkan terdapat orang lain yang selalu mendukung semua keputusan dan situasi yang dialami kader yaitu dukungan sosial dari guru, orang tua, dan teman sebaya. Komponen Emotional / Physiological States yaitu kader dalam menjalankan tugasnya merasa senang karena mendapat banyak perubahan yang positif dan tidak mengalami kecemasan ataupun tekanan, hal tersebut membuatnya memiliki self-efficacy yang positif. **Kesimpulan:** Sumber efikasi diri kader anti penyalahgunaan narkoba yaitu berdasarkan pengalaman masa lalu, pengamatan terhadap individu lain, persuasi verbal, dan kondisi emosi serta fisiologis.

**Kata Kunci:** Kader, Penyalahgunaan Narkoba, Efikasi Diri, Pelajar

## INTRODUCTION

Health is a basic human right for every Indonesian citizen. That statement is listed on Indonesian Principles namely Pancasila and Undang-Undang Dasar 1945. Every citizen of Indonesia holds the right to access health facility and service. The government has attempted to increase the health infrastructure for life quality betterment (*Undang-Undang Dasar 1945, 1945*). Law No. 36 Year 2009 Article 2 about Health Regulation mentions, "Health establishment aims to raise awareness, willingness, and healthy life ability for every one so that the highest degree of healthy society is possible, as the investment for productive human resources' development socio-economically" (*Undang-Undang Republik Indonesia Nomor 36 Tahun 2009 tentang Kesehatan, 2009*).

Drugs, whether natural, synthetic, or semi-synthetic, is a substance or medicine which can cause unconsciousness, hallucination, and excitability. Those drugs can trigger addiction when consumed excessively. Those substances are originally used as painkiller and sedative. Badan Narkotika Nasional (BNN)/National Narcotics Board stated that the violation or abuse of drugs is subject to legal sanctions (Badan Narkotika Nasional, 2016).

The violation of drugs amongst teenagers has occurred often. United Nations Office on Drugs and Crime declared that the number of drugs consumers were increasing from 2015 to 2016 by 20 million people (UNODC, 2018). The survey result for drugs abuse showed that the consumption amongst teenagers

is likely higher (UNODC, 2018). The case of drugs violation also occurs in Indonesia. The survey result conducted by National Narcotics Board related to drugs violation in 2017 to the 34 provinces in Indonesia showed that as many as 3.376.115 drugs consumer with 1.77% prevalence rate (Badan Narkotika Nasional, 2017).

East Java is a province with population density by 29.5 million inhabitants, the total area of 47,799.75 km<sup>2</sup> in 2018 (Badan Pusat Statistik Provinsi Jawa Timur, 2018). The drugs abuse in East Java in 2017 had reached 492,157 people with prevalence rate by 1.72%. The number was decreased compared to 2014 which was by 1.99% (Badan Narkotika Nasional, 2016).

Surabaya is a one of cities in East Java with the most inhabitants up to 2,874,600 people in 2017 (Badan Pusat Statistik Provinsi Jawa Timur, 2018). The number of drugs consumption in Surabaya is still relatively high. The number of drugs consumer in 2017 was by 296 people. Surabaya City Central Bureau of Statistics stated that based on education level, the number of drugs consumers are mostly from high school students by total of 106 cases in 2017 (Badan Pusat Statistik Kota Surabaya, 2018).

The high number of drugs consumption in Surabaya has become the problem amongst teenagers from elementary, middle, high school, and university level. School is an institution where learning process occurs, therefore it plays important role in preventing drugs problems (Sari, 2017). The factors related to drugs abuse behavior in teenagers are drugs affordability, peers' attitude, and peers' practice (Maharti, 2015).

The effect of drugs is lethal for one's life namely unconsciousness, hallucination, and excitability. The existence of drug cases in Surabaya led to the formation of the Surabaya Mayor Regulation No. 65 Year 2014 concerning regional policy and strategy action plans in the areas of prevention, eradication of abuse and illicit drug trafficking in Surabaya (*Peraturan Walikota Surabaya nomor 65 tahun 2014*, 2014). This regulation is in line with Presidential Instruction No. 12 Year 2011 concerning the Prevention, Eradication of Abuse and Illicit Narcotics, Psychotropics and Other Addictive Substances, except for Alcohol and Tobacco. This policy was made with the expected result of a decrease in the number of drugs abuse (*Instruksi Presiden Nomor 12 tentang Rencang Aksi Nasional Pencegahan dan Pemberantasan Penyalahgunaan dan Peredaran Gelap Narkoba Tahun 2011-2015*, 2011).

One of the drug abuse eradication programs in Surabaya is the formation of anti-drugs abuse cadres targeting junior and senior high school students (Pina and Soedirham, 2018). The Surabaya City National Narcotics Board established a peer educator program or student-based cadres expecting a decrease in the number of drugs abuse cases among students. By the presence of anti-drugs abuse cadres in schools, it is expected that they will be able to facilitate the goals, namely the prevention of drugs abuse and facilitate coordination with the National Narcotics Board, the Health Office, and *Badan Kependudukan dan Keluarga Bencana Nasional* (BKKBN)/Surabaya City Bureau of National Population and Family Disaster. The role of peer educators can provide factual knowledge and information about the dangers of drugs to peers (Sari, 2017).

The research administered toward peer counselors revealed that those who act as peer counselors are not possessing good self-efficacy yet. They feel as they have not yet done their duty as peer counselors from the lack of experience, knowledge, and skill (Rizqi, Nashori and Astuti, 2017). Self-efficacy is the one's feeling and perspective towards individual ability and competence in solving tasks given to them. Self-efficacy is a form of individual evaluation towards one's ability and competence to do a certain task, reach the objectives, or solving the

problems (Bandura, 1997). Self-efficacy or faith in one's ability to develop character and play the role and cadres' task as peer educator are starters for the success of peer educator's program in schools in the prevention of drugs abuse. This research aimed to identify self-efficacy in peer educators in the prevention of drugs abuse in Surabaya's high schools.

The high number of drugs abuse in Surabaya which has begun to spread amongst teenagers or students is caused by various motives, both from outside influences and the teenagers' own environment. When entering the adolescent phase, they are very vulnerable and easily influenced by negative things that can harm themselves and their environment. Most teenagers use drugs as an escape material and to calm themselves down (Madyaratari and Wahyudi, 2017).

One area in Surabaya that is at risk of drugs abuse is North Surabaya, a highly populated area. The number of drugs-related crimes in the area has earned it the name "drugs village". Teenagers who live in a neighborhood where there are cases of drugs abuse will have tendency to try for drugs. An environment where the majority of people abuse drugs can shape a person's mindset that consuming drugs is a natural and common thing to do. The environment plays a role as a triggering factor for drugs abuse behavior (Nur'artavia, 2018).

## METHODS

This research is a descriptive study using a qualitative approach that produces descriptive data through the collection of facts from natural conditions as direct sources with instruments from the researcher. This research was conducted by describing or illustrating self-efficacy to peer educators in efforts to prevent drug abuse. Data were collected qualitatively with in-depth interview method.

Data analysis techniques were the results of in-depth interviews and FGDs with student-based anti-drugs abuse cadres then transcripts were made. The data collected was then analyzed by re-reading the entire text, then summarizing it and eliminating redundancy. Next, coding or data classification that has

similarities or matches with other data was done. The results of the coding process or data classification were then labeled. After the labeling was done, general patterns or themes emerged and bind one mind to another. The next stage was data analysis, namely constructing a framework to get the essence of the data that has been obtained and studied with the theory used (Raco, 2010). Source triangulation was carried out to increase the credibility of this study. Triangulation was carried out by conducting interviews with tofu informants. The criteria for the informant to know in this study were to know the subject, know the subject's daily activities and be willing to be a known-informant.

The research informants in the research focus were determined purposively by the researcher in accordance with the research objectives. The informants in this study were 16 high school students who were still active as peer educators or anti-drugs cadres in each school.

The data categorization was grouped into four component sources of self-efficacy including past experiences, observations of other people, verbal persuasion, and emotional/physiological states.

The research was carried out in two high schools in North Surabaya which have peer educator programs. The two high schools are one public high school and one private high school. The research period was from February to April 2019 with the certificate of ethical acceptance number 084/HRECC.FODM/III/2019.

## RESULTS AND DISCUSSION

The data categorization was grouped into four components of the source of self-efficacy. The four components of the source of self-efficacy include past experiences (mastery experience), experiences based on observations of others (vicarious learning), verbal persuasion (verbal persuasion), and emotional/physiological states.

### **Mastery Experience (Past Experience)**

The results of research related to sources of self-efficacy based on past experiences were carried out on all informants in one public high school and

one private high school, obtained almost the same answers. Quotations of the research quotation results from informant O and informant I are as follows:

*"My middle school were often visited by BNN, my school was one of the pioneers of anti-drugs abuse school and achieved 2<sup>nd</sup> place in East Java, therefore, I was included in KOBRA or Komunitas Berantas Narkoba at school in order to eradicate the kids with drugs problems, to prevent more precisely, especially drugs abuse and cigarettes for the students. To prevent underage students from smoking..."* (O, 17 years old).

*"Yes. Coincidentally, I was a drugs counsellor in middle school and participated in a seminar—not a quite seminar, more like training for counsellors with the green tags. The counsellor for drugs is from BKK...um, BKKBN, BNN. And the polices, Indonesian Army, had done it often."* (I, 17 years old).

Based on the results, information obtained showed that there are peer educators with mastery experience as peer counsellors in the prevention of drugs abuse during middle school. The establishment of peer counsellor in middle school is a form of support from Surabaya City Government in the prevention of drugs abuse in Surabaya and carried out in integrated manner by cross-sectoral cooperation between Education Office as the program coordinator of the prevention of drugs-abuse with Surabaya City National Narcotics Board as the facilitator. Peer counsellors in middle school level functions as the liaison between the government and the society in conveying the information about drugs and its dangers (Pina and Soedirham, 2018).

The peer educators also possessed the experience during middle school namely participating in anti-drugs abuse community named KOBRA (Komunitas Berantas Narkoba). KOBRA is a community established by one of middle schools in Surabaya as the form of P4GN (Pencegahan, Pemberantasan, Penyalahgunaan, dan Peredaran Gelap Narkoba or Prevention, Eradication,



Violation, dan Illicit Distribution of Drugs) in schools. The formation of KOBRA is one of the activities to support and realize schools free of drugs abuse carried out by Surabaya City National Narcotics Board (Ningtias, 2016). The experiences participating in seminars, socialization, counselling or training related to drugs abuse prevention are also the sources of self-efficacy obtained by peer educators from mastery experience. The socialization of drugs' dangers activity and information giving and education toward the dangers of drugs abuse in middle school are the form of support from Surabaya City Government in the prevention of the drugs abuse. Those activities were carried out in cooperation between SKPD of Education Office, Surabaya City National Narcotics Board, Department of Culture and Tourism, and Health Office (Pina and Soedirham, 2018).

Socialization of the dangers of drugs was the first effort in drugs abuse prevention in Surabaya. The socialization was carried out by giving information verbally to students. The socialization was considered effective enough to convey information about the dangers of drugs consumption to students. The target of socialization activities for elementary and junior high school students is prioritized in schools located in drugs-prone areas (Nurainina, 2018).

In the research that has been carried out, peer educators' mastery experience includes being a peer counsellor, participating in the drugs eradication community and having socialization experiences while in junior high school. The peer educators' past experiences can affect their self-efficacy because they are based on individual personal experience in the form of real success. The success of individuals in facing certain tasks such as being peer counsellors and members of the drug eradication community in middle school can increase the self-efficacy that individuals have when they become peer educators in high school.

When individuals can do something or successfully carry out their duties in the past, self-efficacy in carrying out these activities will increase. Meanwhile, if someone fails to do their job in the past, self-efficacy regarding these activities can decrease (Alam, 2018). In Bandura, it is said that success in the past will

increase self-efficacy, while failure can decrease self-efficacy. According to Bandura, mastery experience is a source of self-efficacy that most influenced one's self-efficacy (Bandura, 1997).

### **Vicarious Learning (Observations toward Other People)**

The results of research related to sources of self-efficacy based on observations of other people were carried out on all informants in one of the public high school and one of the private high school, obtained almost the same answers as well as excerpts of the research quotation results from informant P and informant O.

*"At school, there used to be kids who consumed drugs, not many but there were and one of them was my female friend. I was challenged to help her, why would she want to use drugs? And I found out her experience and also she came from a broken home background." (P, 17 years old).*

*"I feel sorry for kids nowadays, like, there are children who are already into smoking and glue sniffing and such...those phenomena make me want to help those underage children rehabilitate from especially drugs and smoking and any psychotropics or narcotics substances." (O, 17 years old).*

The result of the research based on the vicarious learning showed that one of the informants obtained the motivation to be a peer educator from their experience based on their observations toward other people. Informant P experiences having a friend who abused drugs and that motivates the informant to help their friend. That condition strengthens the informant's intention to be a peer educator in the drugs-abuse prevention.

Based on the research administered, peer educator did not experience vicarious learning who had the same ability. The observation, on the contrary, was done to the models with negative experiences such as people with drugs abusive behavior. The observation towards someone with failure in preventing drugs abuse surprisingly can increase one's self-efficacy or faith on ability in doing their job as peer

educators. The observation done by the informant did not make them want to copy or model that person, but instead, turn that person's experience into a form of failure that should be avoided.

The results obtained were different from those obtained by Bandura which stated that an individual or someone who is trusted by others in carrying out similar activities and has equal abilities can increase one's self-effectiveness, on the contrary if someone fails it will reduce individual self-efficacy (Alam, 2018). The results of the study showed that observations made by fellow educators about the failure of peers or other peers who fall for drugs can increase their self-efficacy. The self-efficacy obtained from observing different models, then the self-efficacy obtained will not be too influential (Bandura, 1994; Sulistyaningsih, 2019).

### **Verbal Persuasion**

The results of research related to sources of self-efficacy based on verbal persuasion carried out on all informants obtained the following statements:

*"Just additional information, something like invitation for going to Saka Bhakti Husada Committee (SBH)." (C, 16 years old).*

*"The teachers responsible for counselling guardians/bimbingan konseling (BK) support us by letting us use BK room for meetings." (H, 17 years old).*

*"My friends often said that, your voice may be heard, you should try to be one (peer counsellor)." (N, 17 years old).*

*"In my opinion, the first influence is my parents, then teachers, and the third is friends. In my case, it was my mother, and myself because helping people is rewarding, and human being should help each other. Personally, I became surer when my mom and dad encouraged me to take part in this kind of activity so automatically it boosted my confidence." (L, 16 years old).*

Verbal persuasion is one of the self-efficacy sources which can affect individual in acting or behaving. Verbal persuasion makes an individual gets the sense of direction through advice and

counselling which result in the individual's faith in their ability increases and helps to achieve the aimed objectives (Alam, 2018). Based on Bandura, verbal persuasion occurs when an individual is convinced by other people to do their job optimally. Advice and feedback from the closest ones can boost self-efficacy (Bandura, 1997). According to the research result, information obtained that in order to get faith in their ability, peer educator gets verbal persuasion in the form of teachers, family, and friends' support.

Teacher support is social support that comes from teachers. Teacher support is an important social support for students because student life is closely related to teachers. The teacher support obtained by peer educators is in the form of attention, appreciation, empathy, care, direction, guidance and teaching by the teacher. The teachers' verbal persuasion made the peer educators feel cared for, valued, and guided. The teachers act as a peer educator mentor in schools. The teachers also monitor the conditions and problems faced by peer educators in carrying out their roles and duties. The teachers will invite discussions and provide suggestions and solutions if peer educators face problems. The social support from teachers helps peer educators to be more courageous and confident so that they are able to overcome the problems they are facing. Previous research conducted on high school students stated that there was a positive relationship between teacher support and academic self-efficacy in high school students. The higher the teacher's support is felt, the higher the student's academic self-efficacy will be (Prihastyanti and Sawitri, 2018). Another research that has been conducted on students in Korea states that verbal persuasion through teacher support is one of the sources of self-efficacy in adolescent students. Teachers are the most important social agents that communicate self-efficacy information to adolescent students (Won, Lee and Bong, 2017).

Based on the research results, it was found that peer educators also received support from their families, especially parents. The support received from families, especially parents, is in the form of material and non-material

assistance, motivation, suggestions, advice, and information. Families and parents have a big influence in preventing drugs abuse in children (Lestari, 2017). Family plays a very important role in preventing drugs abuse in adolescents. This is because the family is the main environment that influences the growth of adolescence in behavior and attitudes (Budiman, 2017).

Social support from family has an important role for individuals because family has long-established interpersonal relationships. Family social support is needed by adolescents so that they can feel loved and appreciated. This support can be in the form of love, care, appreciation, and attention. The closeness with their families can increase the adolescent's ability to manage daily problems (Rahma and Rahayu, 2018).

Peer educators also get verbal persuasion from peer support. Based on the research results, it was found that the support received by peer educators was in the form of motivation. Previous research conducted on high school students stated that peer support can increase academic self-efficacy in students. The higher the support from peers, the higher the individual's self-efficacy, and vice versa, the lower the peer support, the lower the self-efficacy of students will be (Taa and Sawitri, 2017).

Another study states that there is a positive relationship between peer social support and early adolescent self-efficacy. The higher the peer social support, the self-efficacy in early adolescents will also increase (Fitriyani, 2016). Other research also states that peer social support has an influence on career self-efficacy in high school students. The higher the peer social support, the career self-efficacy for high school students, and vice versa (Kartikasari and Sawitri, 2015).

In research that has been done, verbal persuasion affects how someone behaves or acts. Peer educators feel the verbal persuasion through social support from teachers, families, and parents. Peer educators get the suggestion that they carry out their roles and duties as well as the problems they will encounter. Peer educators use verbal persuasion to increase their belief in trying to be more persistent in achieving their goals in drug abuse prevention efforts. However,

according to Bandura, the effect of verbal persuasion is not too big because it does not provide direct experience experienced or observed by the individual. The effect of that suggestion will quickly disappear if the individual experiences an unpleasant experience (Bandura, 1997).

### **Emotional and Physiological States**

The results of research related to emotional and physiological sources of self-efficacy obtained the following informants' statements:

*"I feel happy to be honest, feels like sharing something and telling them the right thing." (N, 17 years old).*

*"What are drugs? I didn't know beforehand that drugs including pills or meds that when consumed in a long-term period, will cause damage to the body such as getting extremely underweighted until the bones are super visible." (M, 16 years old).*

*"So previously I wasn't that close with my friend, I mean, I wasn't really the type of advice-giver—more like a good listener. Then, since I become peer educator, I can give solutions and gain more experiences, too." (A, 17 years old).*

*"There are things that make me more grateful because my parents still care about me and give support towards things I do. Most of my friends don't get support from their parents and argue a lot with them, therefore, their escapisms are environment filled with negative influences." (P, 17 years old).*

Emotional/Physiological States relate to anxiety or stress experienced by individuals, stressful conditions that can affect beliefs in an individual's ability to face tasks. If the individual is in prime condition, it will contribute positively to the development of self-efficacy (Alam, 2018). The emotional and physiological conditions experienced by these individuals can affect individual beliefs in carrying out tasks and completing tasks (Prasetio, 2016).

Based on the research results, it is known that the peer educators felt happy in carrying out their duties. Peer educators were happy because by becoming peer educators there have been many positive changes. These positive changes included the opportunity to increase their insight and knowledge about the dangers of drugs. Peer educators felt that their social skills have improved, and they feel more grateful themselves after knowing the various problems faced by their peers that peer educators have known when carrying out their duties as peer counsellors.

In research that has been carried out, self-efficacy can be seen from how peer educators respond to the changes that have occurred to them. Peer educators responded positively to the changes that occurred after becoming peer educators. Emotional and physiological conditions that appear in a person can provide certain cues to individual responses to events that occur around them. In carrying out their duties, the peer educators feel happy because there are many positive changes that have been recorded and they did not experience anxiety or pressure. Peer educators had positive perceptions and perspectives, this made them possess positive self-efficacy as well. This is supported by Bandura's statement that high self-efficacy can be marked. by low individual anxiety, while low self-efficacy is characterized by high levels of stress and anxiety (Bandura, 1997).

## CONCLUSION

Self-efficacy possessed by anti-drugs abuse cadres in Surabaya's high schools can be seen through self-efficacy sources, namely past experiences, experiences through observation of others, verbal persuasion, and emotional and physiological components. This source of self-efficacy will influence peer educators in carrying out their duties as peer counsellors. Peer educators' past experiences include being a peer counsellor in drugs prevention, having participated in the anti-drugs community, and the experience of participating in socialization or counselling while in junior high school being one of the sources of self-efficacy to carry out their roles and duties in efforts to prevent abuse. drugs.

In the component through observing other people, the peer educators did not observe people who have the same abilities, but observations were made to people around the peer educators who have been involved in drugs abuse. This was used as an example of a form of failure that must be avoided and to make peer educators more confident about being able to prevent drug abuse. The verbal persuasion component in this study concluded that there were other people who always supported all decisions and situations experienced by peer educators, namely social support from teachers, parents, and peers. This verbal persuasion made peer educators try to be more persistent in achieving their goals in efforts to prevent drug abuse. The Emotional/Physiological States component, namely the peer educator in carrying out their duties felt happy because they had many positive changes and did not experience anxiety or pressure, this made them self-conscious. positive efficacy.

In this research, it is recommended that peer educators learn more about and understand the basic concepts of peer educators related to the meaning, role, objectives, principles, and duties of peer educators in efforts to prevent drug abuse. Peer educators are expected to have regular meetings with BK teachers, peer educators specifically to discuss the latest issues related to drugs and discuss the problems faced and carry out time management by making a schedule as a means of dividing time allocation for learning and assignments as peer educators.

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## *The Characteristics of Hypertension Patients at Puskesmas Waru, Pamekasan in 2018*

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### ABSTRACT

**Background:** Hypertension is a hidden threat since it often occurs without symptoms. Hypertension disease is the main cause of stroke and heart disease, which affects most of the world's population. The prevalence of hypertension in developed countries is quite high by 37% while in developing countries by 29.9%. **Objective:** To know the hypertension patients' profile at Puskesmas Waru, Pamekasan on January to December 2018. **Method:** This research method used an observational descriptive-qualitative study with a case study research design. The sample was taken with total sampling method from 220 people. **Results:** Among 220 people, who was diagnosed by hypertension was mostly at 45-65 years old by 57.3% and female by 62.3%. For educational factors they mostly had junior high school education by 34.5%. Whereas for the occupational factor more often occurred in housewives by 36.8%. Most of their main problems were headache by 41.8%. The most of hypertension diagnosed type is primary hypertension by 42% and Stage 2 hypertension by 55.4% then also followed by family comorbidity by 60%. **Conclusion:** The aging process in women creates the hormonal factors that trigger the occurrence of hypertension. This is because at the age of 45, blood vessels will start to narrow and become stiff. The lack of education causes the receiving process of information become not maximum so that it will impact on health status and one of the causes is due to the stress that is experienced by many housewives. Stress causes the headaches. Therefore, mostly hypertension patients have the headache. Most hypertension cases occur without any definite cause and with Stage 2 and the presence of family comorbidity due to genetic factors that influence it.

**Keyword:** Age, Characteristics, Education, Gender, Hypertension, Job.

### INTRODUCTION

Hypertension is a disruption to the vascular system that results in an increase of blood pressure. Hypertension is the main cause of heart disease and stroke. Hypertension can occur if the systolic pressure is  $\geq 140$  and diastolic pressure is  $\geq 90$  mmHg with an estimated age of 13 to 50 years, and if the systolic pressure and diastolic pressure are between 160 and 95 mmHg or more, hypertension can occur within age range of more than 50 years. Blood pressure can be checked at least twice to be sure of the results (Puspitasari, Hannan and Chindy, 2017).

According to Joint National Committee (JNC) VII, the degree of hypertension is divided into two groups, namely if blood pressure reaches 140/90 mmHg to 159/99 mmHg, it is categorized under first degree hypertension, and if the blood pressure is  $> 160/100$  mmHg is

grouped in second degree hypertension or prehypertension (Yulanda and Lisiswanti, 2017). Hypertension in female patients is in the order of the highest prevalence, which is around 37%, while for men it is 28%. Developed countries in the world show that the prevalence of hypertension is high enough to 37% and in developing countries it is 29.9% (Longo *et al.*, 2011).

In 2007, the prevalence of hypertension in Southeast Asia showed that Indonesia was in the first place, followed by Singapore, Thailand and Malaysia. Based on *Riset Kesehatan Dasar* (Riskesdas) or Basic Health Research 2018, Indonesia was in the highest rank with 31.7% of the total adult population. This data ranks first, followed by Singapore by 27.3%, Thailand by 22.7%, and Malaysia by 20% (Kementerian Kesehatan, 2018). The total number of people with hypertension in Asia in 2016 shows that Indonesia is in third place after Thailand with a total of

23.6%, Myanmar with a total of 21.5%, Indonesia with a total of 21.3%, Vietnam with a total of 21%, Malaysia with a total of 19, 6%, the Philippines with a total of 18.6%, Brunei Darussalam with a total of 17.95 and Singapore with a total of 16% (World Health Organization (WHO), 2016).

East Java itself ranked 6th out of 34 provinces in Indonesia while the first was occupied by South Kalimantan in 2017. The prevalence of hypertension based on the results of the Riskesdas of East Java Province which is seen based on the measurement has decreased, in 2007 from a total of 37.4% to 8.59 % in 2013 and in 2018 it increased again to 36.3%. Based on the results of Riskesdas 2018, which can be seen from the doctor's diagnosis, there was an increase in the prevalence of hypertension. In 2007 the prevalence of hypertension was 8%, in 2013 it became 11% and in 2018 it became 27%. The number of people with hypertension in Pamekasan was 14.6% in 2016 and increased to 23.16% in 2017. The number of people with hypertension at the Puskesmas Waru, Sumenep alone reached 1,250 people (Dinas Kesehatan Provinsi Jawa Timur, 2018).

This study aims to determine the characteristics of patients with hypertension at Puskesmas Waru, Pamekasan in 2018. The next objective is to describe the characteristics of hypertensive patients based on gender, age, latest education, employment status, family history of disease, major complaints, type of hypertension and degree of hypertension.

## METHODS

The research method used was descriptive qualitative observational with case studies in the research design. The population was all of patients with hypertension at Puskesmas Waru in 2018. The sample was the patients hospitalized at Puskesmas Waru and were included in the inclusion and exclusion criteria for the study.

Inpatient hypertension patients at Puskesmas Waru, Pamekasan were the criteria taken in this study, while outpatient hypertension patients were included in the exclusion criteria in this study. The technique for determining the sample in this study was total sampling.

The research was conducted at Puskesmas Waru, Pamekasan in September 2019.

Secondary data collection in this study was from the results of medical examinations of patients with hypertension who were hospitalized at Puskesmas Waru, Pamekasan in 2018. Secondary data collection and grouping are in tables form, then secondary data that had been obtained was analyzed for later conclusions.

## RESULTS AND DISCUSSION

The data from the results of medical records of patients with hypertension at Puskesmas Waru, Pamekasan in 2018 obtained as many as 220 people with hypertension status. The sample characteristics are presented in Table 1.

### Respondents' Characteristics

The characteristics of patients with hypertension at Puskesmas Waru, Pamekasan in 2018 are presented in Table 1 below.

**Table 1.** The Characteristics of Patients with Hypertension

Characteristics	n	%
<b>Age (Years Old)</b>		
20-45	65	29.5
46-65	126	57.3
>65	29	13.2
<b>Gender</b>		
Male	83	37.7
Female	137	62.3
<b>Latest Education</b>		
Elementary School	27	12.2
Middle School	76	34.5
High School	27	12.4
Academics	49	22.2
Bachelor	41	18.7
<b>Occupation</b>		
Housewife	81	36.8
Farmer	33	15
Civil worker/National Soldiers/Police/Private worker/Pensionary	43	19.6
Entrepreneur/merchant	63	28.6
<b>Total</b>	<b>220</b>	<b>100</b>

Table 1 explains that people with hypertension are dominated by people aged 45 to 65 years old (57.3%). This is because people aged > 45 years old have atherosclerosis and this condition allows the narrowing of the blood vessels and thus stiffen the blood vessels.



Patients with hypertension were dominated by women as many as 137 people (62.3%). This is due to hormonal factors in women as they age. The latest education were mostly junior high school graduates as many as 76 people (34.5%). This was the result of information processing was not maximized yet and affected the health status. Based on the occupation, most of the patients were housewives by 81 people (36.8%). This was because the stress experienced by housewives has an impact on their health status.

Research conducted in 2016 showed that hypertension occurrence is linear with aging (Artiyaningrum, 2015). Age groups > 40 years old have a high risk of uncontrolled hypertension compared to the 18 - 40 years old age group. The elasticity of the arteries begins to decrease at > 40 years old, making it easier to narrow or stiffen due to plaque buildup and are susceptible to high blood pressure. During 18-40 years old, physical condition is still stable, the enthusiasm for doing physical activities is better, so that the health condition tend to be normal (Sutanto, 2011).

Women will be free from hypertension before menopause, this has an effect on reducing estrogen hormone which has an impact on decreasing HDL (High Density Lipoprotein) levels. The artery blockage occurs due to low HDL cholesterol levels. One of the functions of estrogen is to protect women's blood vessels from damage. This function will gradually disappear with the arrival of premenopause. This process will naturally continue according to the age. Estrogen changes its function in women at the age of 45-55 years old (Anggraini, 2012). Women at > 50 years old are more at risk of hypertension. On the other hand, at the younger ages, the one with more risk of hypertension is the men (Angesti, 2018).

Good or bad behavior is influenced by a person's education level in receiving and processing information that will have an impact on their health status. A person's knowledge influences one's behavior in preventing hypertension. A person's good knowledge regarding the causes, risk factors, signs and symptoms of hypertension as well as the limits of stable and unstable blood pressure, will

make a person avoid the triggers (Notoatmodjo, 2010).

Stressful situations such as family problems, work problems and financial crises can trigger high blood pressure. An increasing need with a stagnant income is one of the stress causes for housewives. The difficulty in managing financial flow properly can emerge stress (Santoso, 2016).

Essential hypertension occurs under the influence of stress. Hypertension is affected by stress processed by sympathetic nerve activity. When someone carries out physical activity, the nerve system will be activated (Andria, 2013). Stress happens when arterial pressure increased twice by the normal state in a couple of seconds. The continuous stress can result in hypertension (Nugraha *et al.*, 2015).

### Main Problems of People with Hypertension

**Table 2.** Main Problems of People with Hypertension

Main Problems	n	%
Diarrhea	5	2.3
Edema	7	3.2
Nausea and vomit	1	0.4
Chest pain	26	11.8
Waist pain	18	8.2
Blurred vision	44	20
Migraine	92	41.8
Dyspnea	27	12.3
<b>Total</b>	<b>220</b>	<b>100</b>

Table 2 shows that people with hypertension tend to experience headache with a total of 92 people (41.8%). This condition caused by hypertension often appears as a result of abnormal vascular phenomena. Research conducted by Sumaryati also stated that most respondents with hypertension often had headache symptoms (Sumaryati, 2018).

Hypertension is the third biggest cause of premature death. Moreover, the cause of congestive heart failure and cerebrovascular disease is also hypertension. Symptoms that appear such as dizziness, nausea, vomiting, weakness, decreased consciousness and even sudden nosebleeding. Incorrect life habits are the cause of this disease. Most of hypertension cases are discovered when doing medical check up from another disease, therefore hypertension is often called as "the silent killer" since it usually

comorbid with complication in the brain, heart, and kidney diseases (Saputra, Rahayu and Indrawanto, 2013).

The main symptom of several body disorders, both organic and functional, is headache. Emotions can be affected by headache, whether or not followed by tissue damage as the main cause of organ abnormalities. The onset of migraines is due to pain stimuli arising from inside the head cavity or outside the head cavity (Ballenger, 2010).

Migraine caused by hypertension is classified as pain in the cavity of the head, which is a type of migraine headache. Headaches result from abnormal vascular phenomena. Prodromal sensation is one of the signs of headache, such as blurred vision, nausea, auravision, and sensory hallucinations. The appearance of these symptoms is usually between 30 and 60 minutes before the headache. Reflex vasospasm can arise due to prolonged tension and causes a lack of blood flow to parts of the brain, resulting in migraine head pain (Hall, 2012).

Prevention of migraine can be done through pharmaceutical therapy and non-pharmaceutical therapy. Taking medication as a method of pain relief is the assumption of most patients or members of the healthcare team. Some therapies can also be carried out without giving drugs to treat pain but not as a substitute for drugs (Smeltzer and Bare, 2013).

One of the non-pharmaceutical therapy is relaxation. The part of the body that is feeling pain should be relaxed in order to reduce the onset of pain. When the muscles relax, prevention can be done by slowing the inner abdominal breathing technique with tension in orders. If the relaxation technique carried out correctly, the risk of developing hypertension can be minimized. In addition, it can also reduce excessive heart rate, can reduce muscle tension, reduce tension headaches, and improve well-being. Good cooperation and individual participation can determine the success and effectiveness of relaxation (Potter and Perry, 2010).

#### Respondents' Types of Hypertension

Data on patients with hypertension based on type of hypertension at Puskesmas Waru, Pamekasan in 2018 are presented in Table 3 below.

**Table 3.** Respondents' Type of Hypertension

Types of Hypertension	n	%
Primary	121	55
Secondary	99	45
<b>Total</b>	<b>220</b>	<b>100</b>

Table 3 shows that the majority of the respondents suffer from primary hypertension with a total of 122 people (55%). Most cases of hypertension are primary while 5% of the rest are categorized as secondary.

Primary Hypertension is the kind of hypertension with unknown cause. The one with known cause is called secondary hypertension such as endocrine hypertension or renal hypertension. Most of hypertension occurred by 90% are primary hypertension (Longo *et al.*, 2011). Joint Committee 8 (JNC 8) is used worldwide as standard for hypertension classification (James *et al.*, 2014).

#### Respondents' Stages of Hypertension

**Table 4.** Respondents' Degree of Hypertension

Stages of Hypertension	n	%
Stage 1	98	44,6
Stage 2	122	55,4
<b>Total</b>	<b>220</b>	<b>100</b>

Table 4 shows that the majority of respondents with Stage 2 hypertension were as many as 122 people (55.4%), therefore patients tend to have > 160/100 mmHg blood pressure. JNC VII explains that Stage 1 hypertension occurs when the blood pressure reaches more or less 140/90 mmHg to 159/99 mmHg and > 160/100 mmHg for Stage 2 hypertension (Yulanda and Lisiswanti, 2017).

Based on research administered in 2011 at RSUD Jombang, it was known that from 337 people with hypertension, there were 53.8% included in Stage 2 hypertension (Saputra, Rahayu and Indrawanto, 2013). The research also stated that the most respondents were with Stage 2 hypertension by 59.4% (Sedayu, Azmi and Rahmatin, 2015). This was on contrary with research by Saleh which stated that respondents with hypertension were mostly having criteria for Stage 1 hypertension (Saleh and Huriani, 2014).

**Respondents' Family Comorbidity****Table 5.** Hypertension Based on Respondents' Family Background

Family Comorbidity	n	%
Comorbid	132	60
Not Comorbid	88	40
<b>Total</b>	<b>220</b>	<b>100</b>

Table 5 shows that the majority of respondents as many as 132 people (60%) were having family hypertension comorbidity. In other words, they were more prone to hypertension. This was caused by genetic factors. When one's having hypertension in a family, then the other family members may also be at risk having hypertension. The low ratio between potassium and sodium and the high intracellular sodium are the cause of this. Someone with family hypertension comorbidity is more at risk having hypertension compared to people with no family comorbidity (Widyarthi, Putra and Ani, 2016).

Research conducted by Taslima in 2017 at Puskesmas Kuta Alam, Banda Aceh showed that from 68 people with hypertension, there were 52.9% with family hypertension comorbidity (Taslima and Husna, 2017). The research conducted by Linda also stated that relatives hypertension comorbidity is increasing the risk of having hypertension especially the primary hypertension. Linda's research showed as many as 70.6% respondents with hypertension had relatives hypertension comorbidity (Linda, 2017).

**Medicine Consumption in People with Hypertension****Table 6.** Medicine Consumption in People with Hypertension

Medicine Consumption	n	%
Regular	200	91
Irregular	20	9
<b>Total</b>	<b>220</b>	<b>100</b>

Table 6 shows that most of the patients tended to consume the medicine regularly as many as 200 people (91%). This condition was resulted from the health workers who always monitored their medicine consumption schedule.

One of the indicators of success for a medication can be observed from the betterment of the patients' condition. The research conducted by Tyashapsari in

2012 showed that as many as 69% got better while 31% of the patients were recovered after consuming medicine punctually and regularly (Tyashapsari and Zulkaranain, 2012).

**CONCLUSION**

The majority of patients at Puskesmas Waru, Pamekasan out of a total of 220 people diagnosed with hypertension and undergoing hospitalization at most were aged 45-65 years old and female. The education level of respondents was dominated by junior high school level with "housewife" as the most occupational status. The most experienced problems was headache. The most common type of hypertension is primary hypertension with degree two, followed by a family history.

This research is expected to be used as a reference in an effort to cure hypertension with a healthy lifestyle and have a positive attitude to improve a healthy lifestyle to avoid hypertension. Health workers are expected to provide information so that patients do not wake up too often in the middle of the night, reduce caffeine, reduce smoking, and maintain a healthy diet. Another way is to often socialize with colleagues or neighbors so one do not get bored easily and avoid stress.

Future studies are expected to deepen the causative factors associated with the degree of hypertension. This research can also be used by Puskesmas Waru, Pamekasan as a reference for improving the PTM Posbindu program or Posyandu for the elderly at Puskesmas Waru, Pamekasan.

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## *The Compliance of Hospital Nurse in the Prevention of Urinary Tract Infection in Surabaya, Indonesia*

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### ABSTRACT

**Background:** Catheter-Associated Urinary Tract Infection (CAUTI) is one of the most common infections in the hospital. In order to prevent and control CAUTI incidence, nurses are required to implement bundles of prevention. However, the lack of nurses' compliance behavior in implementing the CAUTI bundle prevention was found. **Objective:** This study analyzes the nurse's compliance behavior in implementing CAUTI prevention using the Theory of Planned Behavior (TPB) approach. **Methods:** This study was an analytical descriptive study with a cross-sectional design. Nurses who work in ICU, ICCU, HCU, and in-patient unit of the hospital were set as study population and taken as samples using simple random sampling. Background factors (age, education, knowledge, employment duration, career levels), attitudes, subjective norms, Perceived Behavior Control (PBC), and intention were determined as independent variables. In contrast, nurses' compliance behavior in CAUTI prevention bundle implementation was determined as the dependent variable. Data were collected using a questionnaire and analyzed using logistic regression with a significance level of  $\alpha < 0.05$ . **Results:** Among 111 nurses, most of them are in the age of 26-45 years (80.1%), has worked as a nurse for 8-13 years (29.7%), reach career level at Clinical Nurse 3 (51.4%), and have good knowledge about CAUTI prevention bundle (83.8%). The employment duration and career levels are background factors that correlate the most to the TPB factors. The nurses' compliance behavior is influenced by attitude, subjective norm, PBC, and intention ( $P$  Value= 0.000). Multivariate analysis shows that intention is associated with nurses' compliance behavior and increases nurses' commitment to implement CAUTI prevention bundle ( $P$  Value= 0.033, OR= 6.46). **Conclusion:** The intention simultaneously influences the nurses' compliance behavior.

**Keyword:** Compliance behavior, bundle of prevention, urinary tract infection.

### INTRODUCTION

Nosocomial infection, or currently commonly referred to Healthcare-Associated Infections (HAIs), can be defined as infections obtained during contact and activity in health facilities. The infection is not due to the patient's disease and is not present or incubated when the patient enters the health facility. Clinical manifestations of HAIs may also appear in patients who have returned home after treatment from health workers due to their mobilizations in the area of health facilities (Haque *et al.*, 2018). The prevalence of HAIs varies depending on technological advances and health policies in each region. Developed countries generally have a prevalence of

HAIs between 3.5% to 12%, while in developing countries, the prevalence reaches between 5.7% and 19.1% (WHO, 2010).

Urinary tract infections due to catheters or CAUTI (Catheter-Associated Urinary Tract Infection) are among the most common types of HAIs, which reach up to 40% of all HAIs. CAUTI occurs due to the installation of a urinary tract catheter (Kausuhe *et al.*, 2017). Catheter-attached patients have bacteriuria that increases with catheterization duration; the daily risk rate reaches 5%. Within four weeks, almost 100% of patients who installed the catheter can contain bacteriuria in their urine. One to four percent of patients with bacteriuria will experience

clinically significant infections, for example, cysts, *pyelonephritis*, and septicemia (WHO, 2018).

CAUTI can lead to complications and an increased burden of the underlying disease. It causes other adverse domino effects such as declining health care quality due to patients' discomfort, increased time of stay, and treatment costs in health facilities. It is one of the causes of approximately 13,000 hospital deaths per year (CDC, 2020). Studies conducted in both adult and children's ICU showed an increase in hospitalization duration caused by CAUTI by 19.2 days, while mortality due to CAUTI increased by 11.1% (Al-Mousa *et al.*, 2016).

CAUTI events can be prevented and controlled by regular regulation of efficient, aseptic, and sterile catheter installation and use. Compliance in performing catheter care and regulation also contributes to the preventive efforts of CAUTI (CDC, 2010). The prevention and control efforts are organized in a preventive bundle. This bundle contains a series of interventions and efforts to reduce CAUTI events. The prevention bundle acts as a barrier nursing (nursing care) that documents evidence of catheter regulation and care (Sari and Satyabakti, 2015). The implementation of good catheter care guidelines in this bundle can reduce the risk of CAUTI because both are related (Perdana *et al.*, 2017) and reduce the risk by 9.3% (Fritsch *et al.*, 2019).

Nurse compliance to perform aseptic catheter care plays an essential role in CAUTI prevention efforts (Anggi *et al.*, 2019). The reality is that nurses are still less compliant to implement the points in the prevention bundle. The factors that affect nurse compliance in implementing this prevention bundle have not been widely explained in previous studies. Information on nurse compliance implementing CAUTI prevention bundles is still limited and has not explained nurse compliance's motives and initiatives in detail (Fritsch *et al.*, 2019).

This study analyzes nurses' compliance in implementing CAUTI prevention bundles through the Theory of Planned Behavior (TPB) approach. TPB explores the relationship between behavior and beliefs, attitudes, perceived

behavior control (PBC) or behavioral control, and intentions (NIH, 2012). The intention is based on nurses' behavior in performing nursing care, especially CAUTI prevention bundles, to provide appropriate intervention and plan to improve patients' services.

## METHODS

This study is a descriptive-analytical study that uses a cross-sectional study design based on the Theory of Planned Behavior (TPB). This study analyzed individual backgrounds consisting of age, education level, knowledge, career level, and TPB components, including attitudes, subjective norms, behavioral control, and intentions. It linked TPB factors to compliance behaviors of CAUTI prevention bundle implementation.

This research is based on primary data obtained through interviews using questionnaires with hospital nurses as respondents. The interview questionnaire is a combined questionnaire between personal data to determine the background characteristics (age, education, knowledge, employment duration, career level) of respondents and TPB measurement instruments to measure attitudes, beliefs, subjective norms, and nurses' behavior control.

The number of research samples is calculated using Slovin's sample formula, which is a formula to determine the minimum sample that represents a large population:

$$n = \frac{N}{1 + N(\alpha)^2}$$

The population (N) of 136 people, with an error value ( $\alpha$ ) of 0.05, so the minimum sample (n) is 100.4, rounded up to 101 people. The number of samples was then increased by 10% to anticipate the dropped out respondents so that the total sample is 111 nurses.

Samples are recruited using the simple random sampling technique. The respondent criteria set out in this study are permanent nurses who have received essential Infection Prevention and Control (PPI) education and training and CAUTI Prevention Bundle Quality Clinic Training. Bivariate data analysis uses the Spearman correlation test and Chi-Square test, and the logistics regression test is used for multivariate analysis. This research has

been approved by the Health Research Ethics Committee of the Nursing Faculty, Universitas Airlangga.

## RESULTS AND DISCUSSION

### Characteristics of Respondents

One hundred and eleven nurses participated in the study. Characteristics of nurse's backgrounds can be observed in Table 1. Table 1 shows that most respondents are in the group age of 31-45 years old (62.2%). A person generally reaches the peak of productivity at the age of 30-40 years (Institute of Medicine (US) Committee on the Long-Run Macroeconomic Effects of the Aging US Population, 2012), which is why many health workers are in this age range. Most respondents had a vocational nursing education background or D3 (73%).

**Table 1.** Characteristics of the Respondent's Background

Characteristics	n	%
<b>Age</b>		
20-30 years old	35	31.5
31-45 years old	69	62.2
≥46	7	6.3
<b>Education</b>		
D3 Nursing	81	73.0
D4 Nursing	2	1.8
S1 Nursing	28	25.2
<b>Employment Duration</b>		
1-7 years	37	33.3
8-20 years	57	51.4
≥20 years	17	15.3
<b>Career Level</b>		
Clinical Nurse 1 (PK 1)	24	21.6
Clinical Nurse 2 (PK 2)	30	27.0
Clinical Nurse 3 (PK 3)	57	51.4
<b>Knowledge</b>		
Insufficient	0	0
Sufficient	18	16.2
Good	93	83.8
<b>Total</b>	<b>111</b>	<b>100.0</b>

Table 1 also shows the respondent's career background as a nurse. Most respondents have worked in the hospital for eight to twenty years (51.4%), with the majority of career levels already at the level of Clinical Nurse 3 (PK 3) (51.4%). The majority of respondents have a good level of CAUTI prevention bundle knowledge (83.8%). This knowledge level is measured by questions regarding nursing, pathogenesis, symptoms, and enforcement of CAUTI diagnosis. The respondents' criteria have met the minimum criteria of

nurses for Infection Prevention and Control (PPI) in hospitals (Kemenkes RI, 2017).

### Theory of Planned Behavior (TPB) Component in CAUTI Prevention Bundle Implementation

Theory of Reasoned Action (TRA) developed into Theory of Planned Behavior (TPB) and was initiated in 1985. The behavior-forming component in TPB consists of attitudes, subjective norms, behavioral controls, and intentions. Intention becomes the main factor of TPB that gathers motivation that influences individuals to perform certain behaviors. The intention is an indication of how much a person attempts to engage in a behavior. Strong intentions produce an outstanding performance as well. The intention is supported by factors of individual subjective attitudes and norms towards the behavior. Behavior control is a new element in TPB that distinguishes it from TRA. Intention itself can predict behavior if individual controls are moderating the same behavior in each individual. In fact, behavior control varies in each individual, therefore to predict the implementation of a behavior, intentions and behavioral controls must interact with each other in order for a person to be motivated to try (Ajzen, 2012).

The distribution of respondents based on TPB components in implementing the CAUTI prevention bundle can be observed in Table 2. Table 2 shows a positive attitude towards implementing the CAUTI prevention bundle (65.8%). Attitudes in the nursing world are related to how a nurse understands problems and determines essential and relevant matters (Price, 2015). Attitude factors were measured through the objectives, functions, and benefits of implementing the CAUTI prevention bundle for respondents. Some respondents have negative attitudes towards the implementation of the CAUTI bundle. This condition occurs because the respondents did not fully understand the purpose, function, and benefits of implementing the CAUTI prevention bundle to improve nursing quality and reduce the incidence of HAIs from the CAUTI type. This condition is because actions considered to be the respondent's priority (nurse) to be carried out and documented are curative and rehabilitative actions related to the patient's vital status.



Table 2 shows a good subjective norm (68.5%). These subjective norms are influenced by those around the individual's normative beliefs and motivations (Kan *et al.*, 2017). Some respondents have unfavorable subjective norms due to the people's unsupportive demands and the surrounding environment, such as the head of the room, which only checks during a debriefing at the beginning of changing shifts and the absence of policies regarding rewards and punishments in implementing the CAUTI prevention bundle. In this study, the respondents with poor subjective norms were usually nurses with a heavy workload, such as an ICU nurse.

**Table 2.** The Theory of Planned Behavior (TPB) in the implementation of CAUTI Prevention Bundle

Characteristics of Factors in TPB	n	%
<b>Attitude</b>		
Positive	73	65.8
Negative	38	34.2
<b>Subjective Norm</b>		
Good	76	68.5
Insufficient	35	31.5
<b>Behavior Control</b>		
Good	50	45.0
Insufficient	61	55.0
<b>Intention</b>		
Strong	86	77.5
Weak	25	22.5
<b>Behavior</b>		
Good	65	58.6
Insufficient	46	41.4
<b>Total</b>	<b>111</b>	<b>100.0</b>

The majority of respondents (55%) still showed poor behavior control. Ease of access to work facilities and environment, work management, information, barriers, and work stressors become behavioral controls that affect nurses' performance and compliance in carrying out their duties (Zúñiga *et al.*, 2015). Respondents who showed reasonable behavior control were still few because there were still many nurses who felt that there were many obstacles in implementing the CAUTI prevention bundle, for example, constraints in time and workload that were felt to be heavy. Respondents also experienced difficulties accessing facilities and information at the hospital where they worked, for example, the limited number of measuring cups for patients' urine collection. The measuring cups for urine

collection should be separated for each patient to prevent bacterial contamination cannot be fulfilled. The difficulty accessing information felt by respondents was that knowledge about infection prevention and control (PPI) was only given once during career advancement certification.

Most of the respondents had a strong intention to implement the CAUTI prevention bundle (77.5%). The intention is measured by the respondent's desire to implement the CAUTI prevention bundle in several situations, i.e., in ordinary situations, situations with rewards, and the application of routine supervision. The existence of supervision and rewards is one of the organizational cultures, where this organizational culture can increase performance and job satisfaction by creating a good quality of work-life (Winasih *et al.*, 2015). The results showed that the respondents desire to implement the CAUTI prevention bundle, especially if rewards bring job satisfaction.

The majority of respondents behaved well in implementing the CAUTI prevention bundle (58.6%). Behavior is measured by observing respondents' habits when treating and monitoring patients with catheters. The results showed that most respondents compliant with implementing CAUTI prevention bundles. The group of respondents who have non-compliant behavior is due to their assumption about the incidence rate of CAUTI in the hospital where they work is relatively low (less than 2% per year). Low perception of infection risk tends to cause non-compliant respondents to take precautions (Haile *et al.*, 2017). In this case, the non-compliance behavior occurs because the respondent assesses CAUTI is not the immediate urgency.

#### **Nurse Background Relationship with Theory of Planned Behavior (TPB)**

The background of the nurses indirectly affects their intentions and behavior (NIH, 2012). The analysis using the Spearman Correlation test was conducted to determine the background relationship with TPB components in the implementation of the CAUTI prevention bundle. The respondents' background relationship with TPB behavior-forming components in implementing the CAUTI prevention bundle is presented in Table 3.

**Table 3.** Relationship between Nurse Background and TPB Behavior Component in CAUTI Prevention Bundle Implementation (\*statistically significant)

Characteristics	Attitude		Subjective norms		Behavior control		Intention		Behavior	
	r	p	r	p	r	p	r	p	r	p
Age	0.216	0.023*	0.089	0.350	0.184	0.054	0.232	0.014*	0.121	0.206
Education	0.264	0.005*	0.190	0.046*	0.226	0.017*	0.081	0.400	0.134	0.160
Employment duration	0.351	0.001*	0.236	0.013*	0.258	0.006*	0.270	0.004*	0.235	0.013*
Career level	0.313	0.001*	0.194	0.042*	0.261	0.006*	0.298	0.001*	0.221	0.020*
Knowledge	0.249	0.008*	0.227	0.016*	0.202	0.034*	0.289	0.002*	0.126	0.187

The correlation test of attitude factors with all background characteristics (age, education, employment duration, career level, and knowledge) shows a statistically significant P value (P Value <  $\alpha$  = 0.05). There is a relationship between age, education, employment duration, career level, and knowledge with respondents' attitude. Strong relationships are known through the value of r. An r-value that gets closer to the value of -1 or 1 indicates an increasingly stronger relationship. The relationship between nurses' background and respondents' attitude in this study was relatively weak because the r-value only ranged from 0.2 to 0.3. The highest r value is found in the working length factor (r = 0.351). The relationship between the nurse's background and attitude is a positive correlation, meaning that the better the nurse's background, the better the respondent's attitude. Subjective norms save a significant P Value on the background of nurses other than age. There is a relationship between subjective norms and education, employment duration, career level, and respondent's knowledge. This relationship is a positive correlation that is relatively weak because the value of r only ranges from 0.08 to 0.2. The background of nurses most closely related to subjective norms is long work (r = 0.236).

Behavioral control has a significant P Value on nurses' background other than age, and it is related to education, employment duration, career level, and knowledge of respondents. This relationship is a weak positive correlation because the r-value only ranges from 0.1 to 0.2. The nurse's background most closely related to behavioral control is the career level (r = 0.261).

The intention has a significant P Value on the background of nurses in addition to education. There is a

relationship between intention and age, employment duration, career level, and respondents' knowledge. This relationship is a weak positive correlation because the r-value only ranges from 0.08 to 0.2. The nurse's background is most closely related to the career level's intention (r = 0.298).

The behavior has a significant P Value on the employment duration and career level of respondents. There is a relationship between behavior with the employment duration and the career level of respondents. This relationship is a weak positive correlation because the r-value is only about 0.2. The nurse's background is most closely related to the behavior that is long work (r = 0.235).

This study showed the background of nurses who are most closely related to TPB factors is the employment duration and career level of respondents. More experience gained by nurses who have gone through a long working period as well as clinical nurses who have had higher career levels usually have a good attitude, behavior, and professionalism to provide safe, effective, and efficient nursing performance and care (Menkes RI, 2017). Nurses' duration and higher career levels are related to the rewards they receive, both intrinsic and extrinsic (Nursalam *et al.*, 2019), improving job satisfaction. Job satisfaction has a positive correlation with attitude in work, where the higher the job satisfaction of nurses, the better the attitude (Nyirenda and Mukwato, 2016). Career levels are also interconnected with subjective norms, both of which encourage each other to improve individual behavior (Balozi *et al.*, 2018). Therefore, duration and career level are the backgrounds most related to the implementation of CAUTI prevention bundles.

#### Influence among TPB Components in CAUTI Prevention Bundle Implementation

The influence between TPB components is presented in cross-

tabulation with intention as the main component in Table 4.

The majority of respondents who have a positive attitude have a strong intention in implementing the CAUTI prevention bundle. In contrast, the weak intentions are owned mainly by respondents who have a negative attitude. A significant P Value was shown in this study, meaning that respondents' attitudes influenced implementing CAUTI prevention bundles. This study is in line with the research results conducted by Ahsan *et al.* (2018) conducted on emergency unit nurses, mentioning that positive attitudes (confident and consequent) can affect the intention to adhere to behavior. Individual attitudes guide him to evaluate his behavior (Park & Lee, 2016).

Good subjective norms were found in respondents who also strongly intended to implement the CAUTI prevention bundle. On the contrary, the weak intention to implement the CAUTI prevention bundle is mainly owned by respondents with poor subjective norms. The results showed a significant P Value ( $P \text{ Value} = 0.000 < \alpha = 0.005$ ), which means there is a subjective norm influence on a nurse's intention to carry out a CAUTI prevention bundle. This research is in line with Kusnanto *et al.* (2020) on nurse compliance to prevent pneumonia infection prevention in the ICU. Subjective norms relate to one's environmental perception, pressure, and social support for carrying out behavior (Best *et al.*, 2018).

**Table 4.** Cross-tabulation among TPB components in CAUTI prevention bundle implementation

Category	Intention				Total		P Value
	Strong		Weak				
	n	%	n	%	n	%	
Attitude							
Positive	71	97.3	2	2.7	73	100	0.000
Negative	15	39.5	23	60.5	38	100	
Total	86	77.5	25	22.5	111	100	
Subjective norms							
Good	73	96.1	3	3.9	76	100	0.000
Insufficient	13	37.1	22	62.9	35	100	
Total	86	77.5	25	22.5	111	100	
Behavior control							
Good	49	98.0	1	2.0	50	100	0.000
Insufficient	37	69.7	24	39.3	61	100	
Total	86	77.5	25	22.5	111	100	

Active nurse participation and adequate policies of her work environment will support nurses in carrying out their duties and improving patient care quality (Jun *et al.*, 2016). That means, in this case, the respondent who is a nurse has a good environment and support from the surrounding authorities so that there is a strong intention to implement the CAUTI prevention bundle.

Intentions are influenced by direct or indirect behavioral control. Behavioral control directly affects intentions through adequate information and resources, while indirectly, behavioral control affects intentions through subjective attitudes and norms formed from an individual environment (Kan *et al.*, 2017).

Most respondents with control on good behavior also intend to implement the CAUTI prevention bundle strongly. However, weak intentions do not apply otherwise, only to respondents with poor behavior control. There are still respondents who intend to implement the CAUTI prevention bundle strongly. This study produced a meaningful ad, meaning that behavioral control influenced the respondent's intentions. Research conducted by Gagnon *et al.* (2015) stated that ease of access to facilities is one form of behavioral control that increases nurses' intention to make clinical

prevention efforts. In addition to facilities, a safe work environment and self-efficacy also trigger a compliance nurse in carrying out nosocomial infection prevention efforts (Adiningsih *et al.*, 2018). In line with this, in this study, respondents had enough information and resources to implement the CAUTI prevention bundle showing a solid intention to implement the CAUTI prevention bundle.

#### **Effect of TPB components on compliance behavior of CAUTI prevention bundle**

Table 5 shows the cross-tabulation of TPB components against nurse compliance behavior in implementing CAUTI prevention bundles.

The cross-tabulation in Table 5 shows a meaningful P Value on each TPB component, indicating that each TPB component affects the behavior of complying with the implementation of CAUTI prevention bundles. TPB factors are intertwined to produce individuals carrying out a behavior. The combination of attitudes, behavioral controls, and subjective norms forms the strength of an individual's intentions. Therefore, the appearance of intention varies depending on the situation. One or two TPB factors may significantly impact intentions and behaviors, but each factor can contribute independently (Ajzen, 2012).



**Table 5.** Cross-tabulation of TPB components with CAUTI prevention bundle compliant behavior

Category	Behavior				Total		P Value
	Comply		Ignore				
	n	%	n	%	n	%	
Attitude							
Positive	55	75.3	18	24.7	73	100	0.000
Negative	10	26.3	28	73.7	38	100	
Total	65	58.6	46	41.4	111	100	
Subjective norms							
Good	57	75.0	19	25.0	76	100	0.000
Insufficient	8	22.9	27	77.1	35	100	
Total	65	58.6	46	41.4	111	100	
Behavior control							
Good	40	80.0	10	20.0	50	100	0.000
Insufficient	25	41.0	36	59.0	61	100	
Total	65	58.6	46	41.4	111	100	
In.tention							
Strong	62	72.1	24	27.9	86	100	0.000
Weak	3	12.0	22	88.0	25	100	
Total	65	58.6	46	41.4	111	100	

**Multivariate Analysis**

The influence of the respondent's TPB's background and components on the compliant behavior of implementing the CAUTI prevention bundle was analyzed simultaneously. The results of multivariate analysis are presented in Table 6.

Multiple logistic regression tests reveal the influence of background and TPB factors on simultaneous behavior. This analysis shows only the intention as a TPB factor that significantly affects the behavior of CAUTI prevention bundle

implementation (P Value = 0.33 <  $\alpha$  = 0.05). That means intent can be a predictor of CAUTI prevention bundle implementation behavior.

The intention is the main factor that directly shapes behavior (Ajzen, 2012). The intention can influence the implementation of the CAUTI prevention bundle. Respondents with strong intentions were 6.46 times more likely to comply with the implementation of CAUTI prevention bundles than those who have weak intentions (OR = 6.46, CI = 1.16-35.86).

**Table 6.** The effect of nurse's background and TPB components on compliance behavior of CAUTI prevention bundle implementation

Dependent Variable	Independent Variable	P Value	OR	CI	Description
Behavior	Age	0.292	0.55	0.18-1.66	No effect
	Education	0.788	1.08	0.60-1.95	No effect
	Employment duration	0.373	1.77	0.50-6.23	No effect
	Career level	0.893	1.09	0.30-3.84	No effect
	Knowledge	0.692	0.74	0.17-3.24	No effect
	Attitude	0.595	1.43	0.38-5.40	No effect
	Subjective norm	0.199	2.33	0.63-8.55	No effect
	Behavior control	0.181	2.07	0.71-6.03	No effect
	Intention	0.033	6.46	1.16-35.86	Have effect

**CONCLUSION**

The intention of respondents (simultaneously) primarily influenced the compliance behavior in performing the CAUTI prevention bundle. Nurses with strong intentions were 6.46 times more compliant with the implementation of the

prevention bundles. Intentions are formed from attitudes, behavioral controls, and subjective norms. These components are directly proportional so that if the components of TPB are stronger, then respondents tend to be more compliant with implementing the prevention bundle. Hospitals are suggested to create an

environment that supports nurses to improve their attitudes, behavioral controls, and subjective norms, such as the fulfillment of facilities, regular training on infection prevention and control, and improving policy regulations. It would encourage strong intention for nurses to comply with the implementation of CAUTI prevention bundles.

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## Efikasi Diri Ibu Primigravida yang Bekerja dalam Keberhasilan Memberikan ASI

### *Self-Efficacy of Primigravida Working Mothers in the Success of Breastfeeding*

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#### ABSTRACT

**Background:** Self Efficacy of breastfeeding greatly affects the achievement of exclusive breastfeeding so that makes the success rate of exclusive breastfeeding in nursing mothers is high. For first-time mothers to give birth and breastfeed their babies (Primigravida) and are at work, identification of the level of self-efficacy of breastfeeding becomes an influential thing. Time constraints, work fatigue, and psychological factors are some of the factors that influence one's level of confidence in doing something. **Objective:** The purpose of this study is to analyze the Self Efficacy of Primigravida working mothers in the success of breastfeeding. **Method:** This study used a qualitative design with a phenomenological approach. Data collection was carried out by using in-depth interviews and interview guidance instruments. In-depth interviews were conducted with six informants, namely Primigravida mothers who were still actively working and had children aged 0-6 months. **Results:** The study showed that the Self Efficacy in the informants was classified as insufficient. This is proven by the fact that of the six informants, none succeeded in giving breast milk for up to six months, they only succeeded in giving breast milk for less than one month. Working mothers experience several problems such as work fatigue and stress that affect the of breast milk, and there is a perception that inadequate milk can affect the success of breastfeeding. Psychological factors of mothers who are less supportive to give exclusive breastfeeding are one of the factors that influence one's level of confidence in doing something. **Conclusion:** The failure of breastfeeding for up to six months is influenced by several factors namely inadequate Self Efficacy, working mothers who experience fatigue and stress, poor milk production, limited information obtained and fear of fussy babies.

**Keywords:** Self-efficacy, Primigravida, Working mothers, Breastfeeding.

#### ABSTRAK

**Latar Belakang:** Efikasi diri dalam menyusui memengaruhi keberhasilan dalam meningkatkan capaian ASI eksklusif pada ibu. Bagi ibu yang baru pertama kali melahirkan dan menyusui (Primigravida) serta bekerja, identifikasi tingkat efikasi diri sangatlah penting. Keterbatasan waktu, kelelahan kerja, dan faktor psikologis merupakan beberapa faktor yang memengaruhi tingkat kepercayaan diri seseorang dalam melakukan sesuatu. **Tujuan:** Penelitian ini bertujuan untuk menganalisis efikasi diri ibu primigravida yang bekerja dalam keberhasilan pemberian ASI. **Metode:** Penelitian ini menggunakan desain kualitatif dengan pendekatan fenomenologi. Pengumpulan data dilakukan dengan menggunakan wawancara mendalam dan instrumen pedoman wawancara. Wawancara mendalam dilakukan terhadap enam informan yaitu ibu primigravida yang masih aktif bekerja dan memiliki anak usia 0-6 bulan. **Hasil:** Hasil penelitian menunjukkan bahwa efikasi diri informan masih kurang. Hal ini dibuktikan dengan fakta bahwa tidak ada informan yang berhasil memberikan ASI sampai dengan enam bulan, mereka hanya berhasil memberikan Air Susu Ibu (ASI) kurang dari satu bulan. Ibu yang bekerja mengalami beberapa masalah, seperti kelelahan kerja dan stres yang memengaruhi produksi ASI dan adanya persepsi bahwa ASI yang tidak mencukupi dapat memengaruhi

keberhasilan pemberian ASI. Faktor psikologis ibu yang kurang mendukung dalam memberikan ASI Eksklusif merupakan salah satu faktor yang memengaruhi tingkat kepercayaan diri seseorang dalam melakukan sesuatu. **Kesimpulan:** Kegagalan pemberian ASI selama enam bulan dipengaruhi oleh beberapa faktor yaitu tingkat efikasi diri yang kurang, kelelahan dan stress yang dialami ibu bekerja, produksi ASI yang kurang baik, keterbatasan informasi, dan ketakutan pada bayi rewel.

**Kata Kunci:** Efikasi diri, Primigravida, Ibu Pekerja, Menyusui

## INTRODUCTION

One of the targets to be achieved in SDGs (Sustainable Development Goals) goals is to stop all forms of malnutrition in order to create qualified Human Resources (HR) that must be started early, especially with the provision of breast milk (Kementerian Kesehatan RI, 2015). World Health Organization (WHO) stated that exclusive breastfeeding is providing only breast milk without any food and other drinks, excluding drugs and vitamins, to the baby from birth until the age of 6 months and continued until the baby is 2 years old (Zehner, 2016). Breast milk can be given directly by breastfeeding to the mother or by pumping the milk (Kementerian Kesehatan RI, 2015).

Breastfeeding or known as ASI in Indonesia (abbreviation of *Air Susu Ibu*) is very beneficial for the baby and also the mother. Breast milk contains antibodies that protect babies from bacterial, viral, fungal, and parasitic infections, increase the intelligence of babies, avoid allergies that usually arise due to consumption of formula milk, babies feel the mother's love directly during the breastfeeding process, and when growing up, will reduce risk for developing hypertension, cholesterol, overweight, obesity and type 2 diabetes (Qudriani and Latifah, 2018). Besides being beneficial for infants, breast milk is also very beneficial for mothers including natural contraception, reducing the risk of developing breast cancer and helping mothers to establish an inner bond with the child (Rahayu, 2018).

Based on data from the Central Statistics Agency (BPS) in 2018, the number of infants in Indonesia aged 0-6 months who received exclusive breastfeeding only amounted to 49.51% (BPS, 2018). This indicates that only half (49.51%) of infants under 6 months had

exclusive breastfeeding. The median duration of exclusive breastfeeding is three months (BKKBN, 2017). The percentage of exclusive breastfeeding decreases with age, from 67% at 0-1 months to 55% at 2-3 months and 38% at 4-5 months (Kemenkes RI, 2017).

The percentage of exclusive breastfeeding in infants aged 0-6 months in East Java Province in 2015 was 68.8%, decreased in 2016 to 50.51%, and in 2017 the number increased to 75.7%. Furthermore, the percentage of exclusive breastfeeding in Surabaya was 64.99% in 2015, 65.1% in 2016 and increased again in 2017 to 71.53% (Dinas Kesehatan, 2018). Despite the increase, the percentage of exclusive breastfeeding in Surabaya is still below the target set at 80%. The number of exclusive breastfeeding in Pacar Keling Health Centre is low compared to the other 63 public health centers Surabaya which only reaches the number 57,71% (Dinas Kesehatan, 2018).

Exclusive breastfeeding has not been fully implemented due to parity and working mothers. For Primigravida mothers who breastfeed their babies, in addition to knowledge about breastfeeding, identification of the level of Self-efficacy becomes an important thing in significantly influencing the process of breastfeeding (Kurnianingtyas, 2017). Moreover, the factors for the failure in breastfeeding are parity and working mothers. Time constraints and work fatigue might affect the production of breast milk to be low and the perception of breast milk inadequacy arises. This phenomenon can occur due to the psychological factors that are unsupportive in providing exclusive breastfeeding. Psychological factor is one of the factors that influence a person's level of confidence in doing something (Ayton *et al.*, 2016).



*Self-efficacy* or self-confidence describes a person's confidence in his ability to take action in order to achieve the expected results (Rahayu, 2018). *Self-efficacy* holds an important role in providing exclusive breastfeeding (Devriany, Wardani and Yuniar, 2018). Self-efficacy in breastfeeding influences the process of exclusive breastfeeding, therefore related to the success rate of exclusive breastfeeding higher in nursing mothers (Fitriani, Wahyuningsih and Haryani, 2016).

Previous research that showed a factor that was proven to influence exclusive breastfeeding was the high Self Efficacy possessed by nursing mothers (Santosa *et al.*, 2019). The study was supported by other studies that stated those postpartum mothers who had high self-efficacy gave breast milk longer than mothers with low efficacy (Rahayu, 2018). The purpose of this research is to Analyze the Self Efficacy of Primigravida working mothers in the success of breastfeeding.

## METHODS

This study was a qualitative research and used phenomenological approach to explain the in-depth picture of the self-efficacy of Primigravida working mothers in breastfeeding their babies. The six participants who were

willing to take part in this study were Primigravida working mothers who had babies aged 0-6 months and were still breastfeeding them. The data was collected by in-depth interviews using interview guidance. Triangulation was carried out for parents of informants and also health workers at Pacar Keling Health Centre Surabaya. The data analysis of this study is conducted by making interview transcripts and rereading, determining the meaning, arranging the meaning, combining the results of the themes, formulating a description, followed by validating the description. The research ethics permit was granted by the Faculty of Dentistry, Airlangga University on September 26th, 2019.

## RESULTS AND DISCUSSION

Participants in this study were six Primigravida working mothers who were breastfeeding and had completed their maternity leave. The characteristics of the participants are presented in Table 1. From Table 1, it can be seen that the age range of participants is 19-29 years; all informants work as private employees; the educational background of four participants is high school, one Diploma and one Bachelor; the age of the informants' children are 3.5 - 6 months.

**Table 1.** Characteristics of the Informants based on age, occupation, education and age of the child.

Informant	Age	Occupation	Education	Age of the Child
A	23	Employees	High school	4 months
B	25	Employees	High school	3.5 months
C	27	Employees	Bachelor	5 months
D	19	Employees	High school	3.7 months
E	29	Employees	DIII	6 months
F	22	Employees	High school	4.3 months

### Knowledge on exclusive breastfeeding

From the findings of research, it can be seen that mothers who do not give exclusive breastfeeding have limited knowledge about exclusive breastfeeding. Moreover, the average informant claimed to have heard about exclusive breastfeeding. However, all mothers who claim to have heard about exclusive breastfeeding can only explain about exclusive breastfeeding with their own language and perspective. Although they cannot explain it in full, they know that exclusive breastfeeding only gives breast milk until the baby is six months old.

*"Giving the baby breast milk up to 6 months"* (informant A)

*"Only giving breasts milk for 6 months and no other meals."* (informant B)

*"6 months long of just breast milk."* (informant F)

The lack of knowledge of the mothers can also be seen from how all the breastfeeding mothers who give formula before the baby is six months

old. The results showed that most informants had given formula starting at the age of the baby less than one month. This action is caused by the fear that the breast milk is not enough and babies become fussy because they are still hungry.

Knowledge is an important factor in the process of exclusive breastfeeding, this is consistent with the study conducted which stated that there was a significant relationship between the level of knowledge of mothers with exclusive breastfeeding in the working area of Kokap 1 Health Centre in Progo, Yogyakarta (Listyaningrum and Vidayanti, 2016). Research conducted in the working area of the Darussalam Meddan Petisah Health Centre showed  $p = 0.005$  or  $<0.05$ , this means that there is a relationship between knowledge and the success of exclusive breastfeeding (Juliani and Arma, 2018).

The lack of informant knowledge in this study turned out to be very reasonable, when the writer asked whether they have ever participated in counseling, almost all informants said that they had never attended counseling on exclusive breastfeeding. Several informants claimed to have been counseled individually but only once during the pregnancy check-up. However, during the private counseling, the informants were only reminded that the baby should be breastfed, because according to the midwife it is good for the baby. This is by following Snehandu B. Karr's Behavior theory states that behavior will be influenced by the presence or absence of health information or health facilities (accessibility information) (Martha *et al.*, 2016).

#### **Modeling (Imitating)**

Bandura mentioned that there are several factors that can affect a person's level of confidence; one of them is modeling (imitating) (Tuthill *et al.*, 2016). The majority of informants get the basic knowledge about breastfeeding from their mothers or their friends who have already had children. The following is the statement conveyed by the informant:

*"My mother-in-law is my role model in breastfeeding. She has 5 children and none of them were given baby formula."* (informant A)

*"My co-worker gave full breast milk, no formula, and her baby is fat and healthy."* (informant C)

*"My mom's relative can fully breastfeed her kids."* (informant D)

The desire to imitate is the desire of the mother to provide exclusive breastfeeding obtained from looking at the environment that can affect her intention. The person closest to the mother is the strongest source of encouragement to the mother in giving exclusive breastfeeding (Kurnianingtyas, 2017). In a previous study, the majority of respondents supported the desire to imitate, that the success of others made mothers want to give exclusive breastfeeding (Yusrina and Devy, 2018). The experiences of others can be good lessons and can be an individual reference for making decisions about actions (Isyti'aroh and Rofiqoh, 2017).

The majority of informants said the experiences of others affected their views on breastfeeding, and only one informant said that they had no effect.

*"It's not that influential to me. I think breastfeeding is personal and not all mothers are the same."* (informant A)

The results of the study showed that most of the mothers said imitating the experience of someone who succeeded in giving exclusive breastfeeding influence on their decision to breastfeed, but in fact none of the informants breastfeed their babies for up to six months. The result of modeling (imitating) as unrelated to the practice of exclusive breastfeeding is supported by the behavioral theory proposed by Bandura (1997), namely Social Learning Theory (Bandura, 1997). This theory explains that human behavior is a continuous mutual interaction between cognitive, environmental, and behavioral factors.

The behavior of working mothers in giving exclusive breastfeeding is not only influenced by cognitive factors, but also environmental factors. Environmental factors are not just support provided by coworkers, rather includes examples provided by coworkers (modeling). This theory suggests that a person adopts

behavior by observing, then considering and deciding to imitate so that it becomes his own behavior (Morin and Bellack, 2015).

#### Social Persuasion (Information)

Social persuasion happens when someone tells an individual that they can complete a task successfully. The general forms of persuasion are verbal encouragement, coaching, and providing performance feedback (Komalasari, Solehati and Widiyanti, 2017). Verbal persuasion or information also influences Self-efficacy. Information can increase knowledge and knowledge will shape attitudes and behavior (Isyti'aroh and Rofiqoh, 2017). The results of the study stated that verbal encouragement of breastfeeding mothers can be obtained from parents, health workers, friends, relatives, and neighbors.

*"Cadres always encourage me to conciseness always give ASI, as well as my mother-in-law, coincidentally the mrs. Hida cadre house is right in front of my house, so it's more frequent and easier to ask questions about breastfeeding."* (informant A)

*"I suppose it's my sister who frequently reminded me to breast feed, my friends also said that exclusive breastfeeding is better for the baby."* (informant B)

*"Sometimes my mom or other relatives, but it's still hard because I have a job"* (informant E)

Support and encouragement from others are accompanying factors that can strengthen one's behavior (Listiani, Irasanti and Nurhayati, 2019). The form of support provided to mothers includes information related to breastfeeding and also the correct way to breastfeed.

Information support is the support that breastfeeding mothers receive from others in the form of advice, guidance, and information that can be used to overcome the problem in exclusively breastfeeding their babies. Postpartum mothers express the importance of information in preparing to give breast milk and to maintain exclusive breastfeeding, especially for young

mothers with first experience of having a baby. Some informants said that he had obtained information about exclusive breastfeeding and breast milk since pregnancy (Aryotochter, 2016).

Support from others can be a motivation especially if the support comes from the closest people such as the family. Other studies have found that family support can make a person decide to give exclusive breastfeeding to mothers after a C-section (Isyti'aroh and Rofiqoh, 2017). However, this research is not in accordance with the results of this study. The results of this study found that the support of those closest to the family was not influential enough to make the mother decide to give breast milk exclusively.

There are many factors on why mothers unable to give breast milk for up to six months, namely low breast milk production, inadequate milk and fussy babies. They argue that breastfeeding alone is not enough to make the baby full and the baby needs other source of nutrition so that they do not get sick easily. However, most mothers respond they did not breastfeed exclusively because of work reasons and a small quantity of milk.

Providing information to nursing mothers properly and the right time can help mothers receive the information provided as well. Mother's decision to breastfeed is exclusively influenced by information provided by health workers (Rahmatnezhad *et al.*, 2018). More efforts are needed to increase knowledge and change the behavior of breastfeeding mothers to provide optimal breastfeeding. Therefore, health workers need to increase their role in providing information about exclusive breastfeeding (Di *et al.*, 2016).

#### Physiological Emotion State

Physiological response, the existence of fatigue, anxiety, and stress can affect self-efficacy in nursing mothers, if the mother feels extremely tired, anxious, and distressed, then it will affect milk production (Jara-palacios *et al.*, 2015). Based on interviews, it was found that informants were generally in a healthy condition, most of whom said they experienced work fatigue and stress.

*"Alhamdulillah, I am healthy but often feel tired after working all day"*  
(informant A)

*"Yes, I get tired from working. I work from 7 AM to 6 PM and often feel irritated when the baby is fussy at night. Thankfully I have my mom and husband to help me"* (informant C)

The results of the interview found that most mothers feel anxious, guilty, and sorry because they cannot give milk exclusively to their babies. Some mothers have made various efforts to be able to give milk to babies such as how to consume vitamins to increase milk production, eating vegetables, and also pumping milk. However, various methods that were done were not successful and made the mother decide to give only formula. They argue that breastfeeding alone is not enough to make the baby full and the baby needs other food / drinks so that it does not get sick easily, even though most mothers respond because of work reasons and small quantity of milk.

The results of previous studies remark that the smoothness of breast milk is strongly influenced by psychiatric factors because maternal feelings can inhibit oxytocin release (Bahriyah, Putri and Jaelani, 2017). Other research states that if a mother experiences stress, a depressed mind, is not calm, anxious, sad, and tense, it will affect the smoothness of breast milk. If the mother's mood feels comfortable and happy it will affect the smoothness of breast milk, but conversely if the mother feels anxious and distressed, will hinder the smooth flow of breast milk (Qiftiyah, 2018). The level of anxiety in the process of breastfeeding Primiparous and Multiparous mothers is different. Primigravida mothers experience higher anxiety than multigravida mothers because Primigravida mothers still need to adapt to their circumstances after the delivery process (Fitriani, Wahyuningsih and Haryani, 2016).

### The Success of Breastfeeding

*Self-efficacy* is described as a person's belief in their ability to perform a particular action in order to achieve the expected or desired results (Widuri *et al.*, 2018). From the results of the study, it can be concluded that the mother's

confidence to breastfeed is lacking, therefore all informants (6 people) did not succeed in breastfeeding for up to six months (exclusive breastfeeding). Some informants only give breast milk less than a month. The reason breastfeeding is not successful is due to the lack of milk production so that it is not sufficient for babies and will make their babies fussy and the mothers have to work and leave their babies, therefore giving milk formula is sufficient. Previous study found that breastfeeding mothers who have high self-confidence has the higher chance for exclusive breastfeeding, whereas breastfeeding mothers who have low self-confidence have low chances of exclusive breastfeeding. Moreover, good confidence will make someone wants and able to learn to do things the right way (Boateng *et al.*, 2019).

### CONCLUSION

Self-Efficacy owned by Primigravida mothers who work based on modelling (imitating) in the success of giving ASI argues that imitating the experience of success is not enough to affect them because the conditions of each mother differ from one another. Social persuasion (information) in the success of giving ASI which is obtained by the mother comes from the family, health workers and also other people (relatives, friends and neighbors). Breastfeeding mothers get enough support from the family in giving ASI. Counselling conducted by the health center about exclusive breastfeeding is still not well received by nursing mothers. The lack of information is caused by several things, one of which is the lack of interest of residents in attending counselling and also in program involvement. Work is a reason for mothers to not be able to attend counselling and get involved with existing programs. The obstacles that are felt by breastfeeding mothers include the lack of milk production so that it is not enough to meet the needs of babies and will make their babies fussy and they have to work and leave their babies, so giving formula milk is the right way. Improving Self Efficacy for working mothers, who are in breastfeeding struggles and extra effort, positive family and social support and previous experience about breastfeeding



increase the commitment, motivation, and self-efficacy of women to breastfeed.

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## Social Media Analytics: Instagram Utilization for Delivering Health Education Messages to Young Adult in Indonesia

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### ABSTRACT

**Background:** Social media marketing has become one of the most widely used forms of digital marketing in social marketing. Organizations that drive change in young people, such as the Center for Indonesia's Strategic Development Initiatives (CISDI), rely heavily on social media marketing in communicating various health issues to the public. However, only a few studies have used social media related data to understand the effectiveness of this media in the delivery of health issues. **Objective:** This study aims to analyze the utilization of social media marketing conducted by CISDI for delivering health messages and its impact to young adult in Indonesia using social media analytics. **Method:** Real-time data were obtained through Keyhole as a social media analytics tool and audience insight of online and offline classes used for social analytic in this study. This research monitored the use of CISDI's social media by using audience metrics and individual post metrics collected from April 2019 to April 2020. Online and offline class audience data were obtained from the CISDI engagement database which was used as a complement to audience metrics information. Analysis of metrics was used to describe the audience that had been reached by the Center for Indonesia's Strategic Development Initiatives, how health messages could engage with the groups of audience, and how social media marketing can move the audience. **Results:** The result of this study shows that social media utilization for delivering health messages brought impact on audience participation. Current issues such as sex education have an average involvement rate of 14.43%. By promoting through social media, CISDI has engaged 10,266 audience to participate in their classes. **Conclusion:** Social media utilization benefit CISDI in engaging audience and move them to participate in their cause.

**Keyword:** Health Communication, Social Analytics, Social Media Marketing.

### INTRODUCTION

The development of technology has brought improvement in our life. We can access everything through the internet. Thus, our relationship with the internet has become inseparable. According to the study done by Polling Indonesia and Indonesian Internet Service Operator Association (APJII) in 2019, there are 117.21 million internet users in Indonesia. The number has increased by 10.12% from 2018. From the same source, it is stated that the internet has been used daily by around 64.8% of the population in Indonesia. (APJII, 2019)

Most internet users access information through social media. Social media is the new effective communication tool. The main user of

social media are young adults (Alhabash and Ma, 2017). Therefore, it is best to use social media as promoting tool to young adults. Instagram is one of the most popular social media used by people globally. (Vinaika and Manik, 2017). This encourages businesses to use Instagram as marketing promotion media. (Turanci, 2019). Social media is used as the new health promoting media due to its effectiveness in spreading information. (Obregon and Waisbord, 2012; Wright, Sparks and O'Hair, 2012; Househ, 2014; Wymer, 2015; Ahmed and Bates, 2016; Marinescu and Mitu, 2016; Syed-Abdul, Gabarron and Lau, 2016; Sekalala and Niezgoda, 2018; Bian *et al.*, 2019). There is also a shift in health marketing as healthcare and health organizations also

implement social media marketing. ((Radu *et al.*, 2017).

The utilization of social media for delivering health messages also face several challenges. There are lot of information posted in social media, therefore the information can be overloaded. Despite the abundant amount of post, it is hard to find reliable resource information in social media as everyone can freely share their thoughts on social media. (Naseri Boori Abadi and Sheikhtaheri, 2015). It should be noted that young people are more attracted to a post with photo with words than the words alone. (Alhabash and Ma, 2017). Therefore, it is necessary for credible public health organization to convey in-depth health promoting messages in interactive way to engage their audience.

In order to fulfill the need of health information among young adult in Indonesia, Center for Indonesia's Strategic Development Initiatives (CISDI) delivers robust and interactive health messages on Instagram. As the urgency of health information dissemination arise during the coronavirus (COVID-19) pandemic, CISDI increase their posting frequency. The shift is made for the sake of engaging more audience.

It is essential for CISDI to measure and evaluate their performance on social media. Social media is the face of the brand. Its implementation benefit the business to gain awareness and reach more potential customers. (Pourkhani *et al.*, 2019). Therefore, organizations need to take social media accounts seriously. It is important to monitor their performance through social media platforms. Social media analytics (SMA) is done by collecting, monitoring, analyzing, summarizing, and visualizing social media data through specific algorithm to conduct research for several purposes. (Andryani, Negara and Triadi, 2019). This analysis can gather information on trends, current issues, and other kind of information. (Stieglitz *et al.*, 2018).

SMA is very beneficial for organizations as it can be used for measuring organizations' performance, whether they attract the right target of audience and improve their sales or their promotion through social media does not give anything in return. This means, frequent use of SMA will help an organization to understand what they can

do to grow as a brand and expand the range of audience.

Many non-profit organizations use social media as a platform to increase their brand awareness as it contributes to attract more sponsors and raise more funds. The utilization of social media benefits non-profit organizations in improving the involvement and engagement, transparency and accountability, organizational image, and operational. (Lauro, Tursunbayeva and Antonelli, 2019). The benefits are categorized into non-financial benefit and financial benefit. Strategic utilization of social media channels can produce a variety of nonfinancial benefits for Non-Profit Organization (NPO), which include access to a global audience, increases in productivity of managers and professionals, provision of continuous feedback channels, and increased web presence. The financial benefits of social media include utilization costs, time savings, fundraising opportunities, and visibility of support.

It is important to non-profit organizations to monitor their impact on society through the social media platform, whether they are influencing enough for people to be aware of the issues they bring or not. By analyzing the metrics of SMA, non-profit organizations can understand the demography of their audience, the reaction to their posts, the type of post their audience likes, and to calculate the number of people they reached and engaged through social media platforms. (Appleby, 2016). SMA helps non-profit organizations to evaluate their current marketing strategy and how to improve them. It will enable non-profit organizations to build an audience-based marketing strategy. Thus, they can generate intriguing content for promoting their good cause.

Research on SMA has been rapidly conducted in the past few years. However, not many studies on the effectiveness of social media in delivering health issues have been found. Previous study only portrayed the implementation of social media in delivering health issues and the exposure to health information but not their impact to the audience. (Dunlop, Freeman and Jones, 2016; Kamel Boulous, Giustini and Wheeler, 2016; Habibi, Farpour and Pirzad, 2017; Roberts, Callahan and O'Leary, 2017;

Khatimah and Laksmi, 2019; Rummo *et al.*, 2020). This study aims to analyze the impact of communication on health issues through social media marketing conducted by CISDI using social media analytics.

## METHOD

This research was a social media analytics research that use secondary data from real-time social media analytics data which had been collected by CISDI through Keyhole analytics as social media analytics tool. Keyhole is a social media analytics tool that provides in-depth data analysis of all social media metrics.

This study monitored the use of the CISDI Instagram account by using audience metrics and individual post metrics collected from April 2019 to April 2020. The sample used in this study was 162 posts on CISDI's Instagram account which delivered health messages related to Sustainable Development Goals' (SDGs). Online class audience data was collected from the CISDI engagement database and used as supplementary information for audience metrics.

The analysis was divided into three main parts of marketing strategy, namely. segmenting, targeting, and positioning. The data of audience characteristics was crawled through followers' insight of the CISDI's Instagram account. Then it was grouped based on their socio demography characteristics. Analysis of audience metrics was used to describe the audience that the CISDI had reached. Positioning was the process of deciding the position a brand wants to occupy their target needs. The positioning strategy was analyzed based on various health programs CISDI has promoted through their Instagram account.

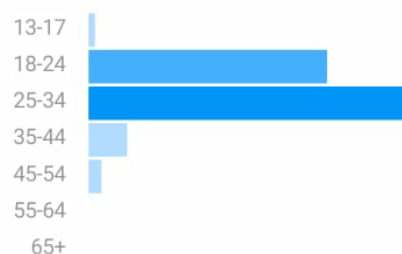
As CISDI's interest is on achieving Sustainable Development Goals (SDGs), the health messages were grouped according to SDGs. Lastly, the engagement of designed health messages to the audience was evaluated by observing the individual post metrics to understand how effective social media marketing could move the audience into the CISDI program. The impact of social media utilization was measured by comparing the number of participants of

CISDI's classes before and after using online platform.

## RESULTS AND DISCUSSION

### Segmenting

CISDI used socio demography characteristics of their audience in segmenting. They segmented their audience into youth which consist of adolescence and young adults. People in such age groups mostly spend their time on social media due to their curiosity and interest in communication tool.(Carceller-Maicas, 2016). Instagram is the most popular social media used by young adults. (Huang and Su, 2018). Therefore, they choose Instagram as the communication and marketing tool.



Source: CISDI's Instagram's followers' insights

**Figure 1.** Characteristics of Audience Based on Age

Based on Figure 1, it is shown that the majority of the audiences are 25-34 years old, followed by audiences between 18-24 years old. Unfortunately, the frequency nor the percentage of each group of age cannot be seen as the data we obtained only presented the graphic of the said characteristics in Figure 1. It is presented that the audiences of CISDI's Instagram account are young adults.

**Table 1.** Characteristics of Audience Based on Sex

Sex	Frequency	Percentage (%)
Male	2186	31
Female	4865	69
<b>Total</b>	<b>7051</b>	<b>100</b>

Based on Table 1, 4865 followers or 69% of the audiences are female. From the description above, it can be concluded that the majority of CISDI's Instagram account's audiences are female young adults.

Segmentation is the primary step of marketing strategy. This is the actual process of dividing a range of customer



into several sub-groups (Ivanova, 2019). The concept of market segmentation is segmenting the customers into distinctive subgroups based on defined characteristics. Referred to the result of analysis above, the CISDI's market segmentation and their audiences on Instagram are aligned.

### Targeting

After the market has been segmented, the company then select their needs, so that they can choose the most profitable segments to be served (Ivanova, 2019). After segmenting the audience into several subgroups, CISDI chose a specific subgroup as their target. As a civil society organization, CISDI aims to ensure equality in health which stated on their vision. Therefore, they chose youth whose concern in health issues as their marketing target.

### Positioning

Positioning is the final stage of basic strategy in marketing. The company needs to show their distinctive feature and authenticity from their competitors, so that consumers will consider their products and or services over other brands. (Ivanova, 2019).

CISDI positioned themselves as civil society the organization working on health issue. Social media has been used for public health communication tool. (Scriven, 2017; Kim and Song, 2020; Stellefson *et al.*, 2020). Therefore, they raise awareness through social media. The positioning strategy in this study is analyzed by observing the content of health messages CISDI delivered through their Instagram account.

As seen on Table 2, SDGs is used as indicators for grouping the health messages delivered by CISDI through their Instagram account. CISDI promoted four health related goals from SDGs—zero hunger, good health and well-being, gender equality, clean water and sanitation.

According to their Instagram post, they often brought topics on good health and well-being containing healthcare and communicable disease messages. The average engagement rate of those topics is 8.15% and 7.93% consecutively. Contrary to the most communicated issues on their Instagram, the most engaging post was about sex education

which average engagement rate reached 14.43%. Meanwhile, their lowest average engagement rate is 4.77% on posts about sustainable gastronomy for food availability and food security.

From the result, it can be seen that the audiences are more interested in topics about sex education as it hit the highest average engagement rate. Sex education are the topics that are frequently brought into discussion these

days. People are curious to dig in more information on those topics. CISDI delivered the messages that have not been brought by other organizations. The innovation and authenticity drive the audiences to interact with CISDI and other audience in the said post to share their

knowledge on the topics. However, the messages were not the only contributor to the engagement rate. When and how the messages were delivered also contribute to determine the engagement rate. It is important to display visually pleasing design to convey the messages.

**Table 2.** Health Promoting Messages Delivered on Social Media

SDGs Goals	Messages content	Average Engagement Rate
<b>Goal 2: Zero Hunger</b>		
Nutrition	The importance of breastfeeding for infant	8.16%
	Breastfeeding regulations	11.32%
	Government's role in increasing breastfeeding rate in Indonesia	6.96%
	Youth involvement in breastfeeding awareness	8.59%
	Key factors of optimizing breastfeeding rate	7.17%
	Research publication in strengthening nutrition through primary healthcare	10.03%
	The difference between nutritional problem on children and adult	9.47%
	Breastfeeding during pandemics	7.25%
	Sustainable gastronomy	4.77%
	Food availability and food security	
<b>Goal 3: Good health and well-being</b>		
Healthcare	The importance of primary healthcare	9.80%
	Discussion on health data digitalization	8.26%
	CISDI's Health Outlook: A comprehensive study on health development	8.22%
	The roles of primary healthcare during pandemic	6.32%
	Strengthening government commitment to reduce the burden on universal health coverage	6.84%
	Tobacco control	6.69%
	Discussion on cigarette smoke	8.05%
	Mental health	7.36%
	Cancer on reproduction system	7.56%
	Diabetes prevention	7.97%
Universal Health Coverage Narcotics Non-communicable disease Communicable disease	Immunization	7.62%
	Malaria awareness	5.47%
	Introduction to hypertension	5.14%
	Tuberculosis prevention and elimination	9.76%
	Health surveillance for battling against COVID-19	9.65%
	Strategy for handling COVID-19 case in Indonesia	8.65%
	COVID-19 prevention	10.27%
	Government's action in reducing COVID-19 infection	7.07%
	Education on personal protective equipment (PPE)	7.70%
<b>Goal 5: Gender equality</b>		
Gender mainstreaming in health	Reinforcing factors of gender mainstreaming	7.76%
	The development of gender equality in Indonesia	4.89%
Contraception	Health related issue in Indonesia Criminal Code Bill (RKUHP)	5.69%
Sex education	Health reproduction program for youth in Indonesia	14.43%
	The importance of sex education	14.34%
<b>Goal 6: Clean water and sanitation</b>		
Sanitation	Waste management during pandemic	7.46%

**Table 3.** The Number of Participants in Classes Conducted by CISDI

Category	Frequency
<b>Online Class</b>	
Diskusi Digital Kaum Muda	267
Kelas Online Series	8457
RuangTemu.Online	473
RuangTemu.Tematik	50
RuangTemu.Spesial	45
SDGs Jakarta Banget	7
Webinar Hari Bumi	245
Webinar Terumbu Karang	682
<b>Total</b>	<b>10226</b>
<b>Offline Class</b>	
YTH TB	240
Lokapala	188
<b>Total</b>	<b>428</b>
<b>Total Participants</b>	<b>10648</b>

As seen on Table 3, CISDI has engaged 10648 participants. The use of social media gives impact on audience participation. Before using online platform for conducting classes, there were only 428 people that participate in CISDI's offline classes (YTH TB and Lokapala). The number of participants increased as CISDI shift their method. CISDI has engaged 10226 people to participate in their online classes. The audience are more likely to participate in online classes as it is accessible for audience who lives remotely from CISDI's location. Social media utilization benefited health organization to be engaged with more people. Thus, this effectively bring impact in raising awareness on health issues to more people.

## CONCLUSION

Social media has been used not only for personal purpose but also for business and organizations. Civil society organizations promote their cause through social media to raise awareness and engage audience. CISDI positioned themselves as civil society organization focusing on health issues. They targeted youth and young adults who have concern in health issues. In order to reach their audience, they use Instagram as platform to deliver health messages. From the social analytics result, their audience are more likely to be engaged to issues that currently trending, such as sex education. CISDI has succeed to move their audience to participate in their classes to discuss health issues.

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## Praktik Pencegahan COVID-19 bagi Pegawai yang Bekerja dari Rumah

### COVID-19 Prevention Practices for Employees who Work From Office (WFO)

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#### ABSTRACT

**Background:** COVID-19 pandemic in Indonesia has not ended yet. Since the New Habit Adaptation, previously known as the New Normal, employees have started return to work in offices. At the end of July 2020, the addition of new cases received a large number of contributions from employees working in the office, raising a new cluster known as the office cluster. **Objective:** This study aimed to analyze the association between characteristics and practice of preventing the transmission of COVID-19 among employees in Purwokerto, Central Java. **Methods:** This is a quantitative study with a cross-sectional design. Online data collection was conducted in early August 2020. The variables were the respondents' characteristics (gender, age, occupation, and income) and the practice of COVID-19 prevention among employees in the office (wearing a mask, maintaining physical distance, handwashing, opening doors and windows for air circulation). Fifty-seven employees started working in offices in Purwokerto who were involved in this research. **Results:** Most respondents were adults (82.5%), women (70.2%), working as private employees (77.2%) with an income above the minimum wage (73.7%). Almost all respondents have widely adopted the practice of washing hands (86%) and using masks (98.2%) since the pandemic's emergence. However, many employees were unable to perform physical distancing (26.3%), stayed away from the crowd (29.8%), opened workspace doors/windows (56.1%), and tried to work outdoor (86%). There is no association between characteristics and prevention practice. Private companies need to tighten their health protocols and monitoring. They should provide rewards and punishments for employees who did not obey the regulation. Also, local governments need to supervise all companies in their area to enforce health protocols seriously.

**Keywords:** COVID-19, preventive, practice, employee

#### ABSTRAK

**Latar Belakang:** Pandemi COVID-19 di Indonesia masih belum berakhir. Sejak diberlakukannya Adaptasi Kebiasaan Baru yang sebelumnya dikenal dengan istilah tatanan kehidupan baru, banyak pegawai yang mulai kembali bekerja di kantor. Pada akhir Juli 2020, penambahan kasus baru mendapat sumbangan besar dari pegawai yang bekerja di kantor hingga memunculkan klaster baru yang disebut sebagai klaster pegawai atau klaster pekantoran. **Tujuan:** Penelitian ini bertujuan untuk menggambarkan praktik pencegahan penularan COVID-19 pada pegawai kantor di Purwokerto Jawa Tengah. **Metode:** Penelitian ini adalah penelitian kuantitatif dengan rancangan potong lintang. Pengumpulan data dilakukan secara daring dan dilaksanakan pada awal Agustus 2020. Variabel dalam penelitian ini meliputi karakteristik responden (jenis kelamin, usia, pekerjaan dan penghasilan) serta praktik pencegahan penularan COVID-19 selama di kantor (memakai masker, jaga jarak fisik, cuci tangan, membuka pintu dan jendela ruangan). Ada 57 pegawai yang mulai bekerja di kantor di daerah Purwokerto yang terlibat dalam penelitian ini. **Hasil:** Sebagian besar responden adalah perempuan (70,2%) berusia dewasa (82,5%), bekerja sebagai pegawai swasta (77,2%) dengan penghasilan di atas UMK (73,7%). Praktik cuci tangan (86%) dan menggunakan masker (98,2%) telah banyak diadopsi oleh hampir seluruh responden sejak pandemi berlangsung. Masih banyak

pegawai yang tidak mampu melakukan jaga jarak fisik (26,3%), menjauhi kerumunan (29,8%), membuka pintu/jendela ruang kerja (56,1%) dan mengupayakan bekerja di ruang terbuka (86%). Tidak ada hubungan antara karakteristik dengan praktik pencegahan penularan COVID-19. Perusahaan swasta perlu memperketat dalam menerapkan protokol kesehatan dan melakukan pemantauan di lingkungan kerjanya. Salah satunya adalah dengan cara memberikan penghargaan dan hukuman bagi pegawai yang tidak mematuhi protokol kesehatan. Seperti halnya perusahaan, pemerintah daerah juga perlu mengawasi semua perusahaan di wilayahnya untuk menegakkan protokol kesehatan secara serius.

**Kata kunci:** COVID-19, praktik, pencegahan, pegawai

## INTRODUCTION

COVID-19 cases in Indonesia were first identified on March 2, 2020. Until the end of July 2020, COVID-19 cases keep increasing (Ministry of Health, 2020a). The World Health Organization (WHO) has declared COVID-19 as a global pandemic (WHO, 2020). The spread of COVID-19 can occur from person to person and have a tremendous impact on the community (Muhammad Adnan Shereen, Suliman Khan, Abeer Kazmi, Nadia Bashir, 2020). On August 8, 2020, positive cases were confirmed in Indonesia, reaching 123,503 cases after 2,277 new cases. The percentage of patients cured reached 64.2% of all COVID-19 cases, and patients who died also continued to grow (Task Force to Accelerate Handling of COVID-19, 2020).

Confirmed cases of COVID-19 on August 8, 2020, in Central Java Province, have reached 10,865 cases. Seven thousand three hundred eight people recovered, and 1,004 could not be saved. Banyumas regency is one of the regencies in Central Java with a high number of COVID-19 cases. The increase in cases every day reaches approximately 100 cases. On August 7, 2020, 200 confirmed cases of COVID-19, with 176 people cured and six people dead (Central Java Provincial Health Office, 2020). Purwokerto is the capital of the Banyumas Regency with a relatively high population density. In Purwokerto, there are many offices compared to other regions in Banyumas. Purwokerto became a center of tourism and education, and urbanization destinations (BPS, 2019).

The government has been working to implement Large-Scale Social Restrictions (PSBB) to break the chain of

transmission of COVID-19. PSBB restricts people from doing activities outside the home, such as studying, working, and worshipping. The spread of the COVID-19 virus is expected to be prevented by controlling activities outside the home (Ministry of Health, 2020b). Since the implementation of New Habit Adaptation, many companies and other agencies have begun to order their employees to work in the office with various protocols that all employees must meet. The protocols include the rules of wearing a mask, always maintaining a safe physical distance, often washing hands with soap and running water, and various other health protocols such as spraying disinfectants and implementing changes to work schedules.

Work from Home (WFH) policy can be applied by some parties, especially for employees who perform their work anywhere and are not limited to the workplace (office locations). On the other hand, there are still many business owners, and government public services require their employees to work as usual in the office while complying with health protocols to prevent the spread of the COVID-19 virus. It is due to the work that relied on available facilities and infrastructure. Since the middle of 2020, many new COVID-19 office clusters began to appear due to the condition of office space that is generally closed and uses an air conditioner (AC) that causes the ease of the COVID-19 virus spreading between employees who work in one room for hours (Yunus and Rezki, 2020). This study analyzes the relationship between characteristics and prevention practices of COVID-19 transmission in-office employees in the Purwokerto area.

## METHODS

This research is quantitative analytics research with online data collection using Google forms. The sample size was calculated using the Slovin formula, with an unknown population, which refers to the proportion of people who wear masks when outdoors by 96.5% (Handayani, Indraswari, and Kusumawati, 2020), so that the minimum sample size is 52 people. The data was collected on May 7-8, 2020, purposively with sample criteria: employees working in Purwokerto and working from the office (WFO) during the pandemic. Fifty-seven respondents met the sample criteria and were taken as samples in this study. Respondents have given written consent to their involvement in this study.

The independent variables were respondents' characteristics (age, gender, occupation, and economic level). The dependent variables are the practice of preventing the transmission of COVID-19, which includes the wearing of masks, hand washing, physical distancing, and the practice of opening doors or windows of workplaces. All variables are descriptively analyzed, and the bivariate relationship is tested using the Chi-square. This research has received ethical approval from the Ethics Committee of the Faculty of Health, the Muhammadiyah University of Purwokerto No. KEPK/UMP/28/VIII/2020.

## RESULTS AND DISCUSSION

The majority of respondents were female (70.2%), with an adult age range (82.5%). A total of 77.2% work in the private sector as permanent employees. Most have an upper middle economic level, characterized by 73.7% of respondents have income above the minimum wage of Purwokerto city of Rp 2,500,000-. Table 2 shows that most employees (98.2%) always wear a mask while in the office. It means that most employees have followed the government's advice to wear masks when outdoors. More specifically, cloth masks are worn by the general public, while medical masks are worn by health workers who are more at risk of exposure to COVID-19 due to direct contact with patients and the general public. The use of masks (medical masks or cloths) is proven to inhibit the growth of viruses, so the correct and consistent use of masks will

reduce the rate of transmission of COVID-19 (Delgado *et al.*, 2020; Feng *et al.*, 2020; Jin *et al.*, 2020; Ma, Q-X, Shan, H, Zhang, H-L, Li, G-M, Yang, R-M, Chen, 2020; Zhang *et al.*, 2020).

**Table 1.** Characteristics of Respondents

Characteristics	n	%
<b>Gender</b>		
Women	40	70.2
Men	17	29.8
<b>Age</b>		
Teenager (12-25 years old)	2	3.5
Adult (26-45 years old)	47	82.5
Elderly (46-65 years old)	8	14.0
<b>Occupation</b>		
Civil servant	3	5.3
Private employee	44	77.2
State-Owned Enterprises Employee	7	12.3
Temporary/honorary/contract employee	3	5.3
<b>Income</b>		
< Rp. 2.500.000,-	15	26.3
≥ Rp. 2.500.000,-	42	73.7
<b>Total</b>	<b>57</b>	<b>100</b>

**Table 2.** COVID-19 Prevention Practices

Category	n	%
<b>Wearing masks</b>		
Yes	56	98.2
No	1	1.8
<b>Physical distancing</b>		
Yes	42	73.7
No	15	26.3
<b>Handwashing</b>		
Yes	49	86.0
No	8	14.0
<b>Open the window/door of the workspace</b>		
Yes	25	43.9
No	32	56.1
<b>Total</b>	<b>57</b>	<b>100</b>

Only 70.2% of respondents are still obedient to maintain a physical distance of at least 1 meter when doing activities in the office. In contrast, others admit it is difficult to consistently apply physical distance because others did not do the same. Often people around them do not empathize with others who try to keep their distance when outdoors. Public ignorance is caused by a lack of awareness of the seriousness of COVID-19 and the perception that they are not susceptible to contracting the virus (Zegarra, Chino, and Ames, 2020). A total of 86% of respondents stated that they washed their hands more often than before the pandemic. Handwashing does sound simple, but this practice can save lives. The practice of washing hands properly is not always done

(Doronina *et al.*, 2017). The current pandemic has made handwashing the focus of attention and must continue (Alzyood *et al.*, 2020). Employees are required to work from the office and placed indoors. Unfortunately, some of them (56.1%) work indoors without opening the window/door of the workroom. This condition is hazardous because the virus is highly contagious in people who gather in one room for more than 30 minutes (Delgado *et al.*, 2020).

Table 3 shows that most respondents from different categories of variable characteristics (more than 95%) have used a mask while working in the office. There was no relationship between respondent characteristics that included gender, age, occupation, and income to the practice of wearing masks. The percentage of employees who do not wear masks is more significant in those earning below the city's minimum wage.

**Table 3.** Characteristic Relationship of Respondents with the Practice of Wearing Masks

Variable	Wearing mask				P Value
	Yes		No		
	n	%	n	%	
<b>Gender</b>					
Women	38	95	2	5	0.348
Men	17	100	0	0	
<b>Age</b>					
Teenager	2	100	0	0	0.802
Adult	45	95.7	2	4.3	
Elderly	8	100	0	0	
<b>Occupation</b>					
Civil servant	3	100	0	0	0.894
Private employee	42	95.5	2	4.5	
State-owned enterprise employee	7	100	0	0	
Temporary/honorary/contract employee	3	100	0	0	
<b>Income</b>					
Below the city's minimum wage	14	93.3	1	6.7	0.439
Above the city's minimum wage	41	97.6	1	2.4	

**Table 4.** The Relationship between Respondents Characteristic and Physical Distancing Practices

Variable	Physical distancing				p-value
	Yes		No		
	n	%	n	%	
Gender					
Women	27	67.5	13	32.5	0.254
Men	14	82.4	3	17.6	
Age					
Teenager	2	100	0	0	0.642
Adult	33	70.2	14	29.8	
Elderly	6	75	2	25	
Occupation					
Civil servant	3	100	0	0	0.370
Private employee	31	70.5	13	29.5	
State-owned enterprise employee	4	57.1	3	42.9	
Temporary/honorary/contract employee	3	100	0	0	
Income					
Below the city's minimum wage	10	66.7	5	33.3	0.597
Above the city's minimum wage	31	73.8	11	26.2	

Employees who are teenagers, civil servants, and non-permanent employees/honorers/contracts always apply physical distancing and handwashing in the workplace. There is no relationship between gender, age, occupation, and income with physical distancing and handwashing practices in the workplace. It

could be observed that employees over the age of 45 practice less handwashing than younger employees. Adults have a smaller chance of recovery than those younger if they are already infected with the COVID-19 virus. The immunity of the elderly tends to be weaker compared to adolescents and other adults (Bencivenga, Rengo, and



Varricchi, 2020). Based on income, the percentage of State-owned enterprise employees does not wash their hands than private employees who do not wash their hands. Employees who do not wash their hands at work are also more done by those who earn above the city's minimum wage.

Employees who are required to work in the office can contribute to a new cluster because they work in a closed room. Many employees do not open the doors or windows of their workspaces.

There is no relationship between respondents' characteristics covering gender, age, occupation, and income to the practice of opening windows/doors of the workspace. Being in a room with good ventilation, the risk of contracting COVID-19 becomes low if the time is short. Indoor activities, such as at work, fall into the very high-risk category even by keeping a distance because it can transmit through objects' surface (CDC, 2020).

**Table 5.** Cross-tabulation among TPB Components in CAUTI Prevention Bundle Implementation

Category	Intention				Total		P Value
	Strong		Weak				
	n	%	n	%	n	%	
Attitude							
Positive	71	97.3	2	2.7	73	100	0.000
Negative	15	39.5	23	60.5	38	100	
Total	86	77.5	25	22.5	111	100	
Subjective norms							
Good	73	96.1	3	3.9	76	100	0.000
Insufficient	13	37.1	22	62.9	35	100	
Total	86	77.5	25	22.5	111	100	
Behavior control							
Good	49	98.0	1	2.0	50	100	0.000
Insufficient	37	69.7	24	39.3	61	100	
Total	86	77.5	25	22.5	111	100	

WFO-required employees must be extra careful and strictly comply with health protocols to prevent covid-19 infection in the office. If only one employee has been confirmed positive for COVID-19, it must be isolated for 14 days. Previous research has found that employees are particularly susceptible to exposure to the COVID-19 virus if they do not comply with applicable health protocols (Delgado *et al.*, 2020).

The COVID-19 pandemic has and continues to affect the economic order of all countries in the world. Not everyone can do work from inside the house. Some people are required to do activities at work at least 8 hours per day to earn income. Almost all business owners also suffered losses and made new policies to keep their businesses afloat during the pandemic (Luisetto and Latyshev, 2020; Ozili, 2020). Therefore, the office's health protocols must be communicated well and consistently (Robin George, 2020).

Everyone is very vulnerable to COVID-19, both working indoors and working outside the home. In a study, it was found that people who do not get sick feel their immunity is in good condition. It

is also due to their presumption that they have performed healthy living behaviors such as eating nutritious food, exercising, and resting enough so that the virus cannot infect them. Everyone should always be vigilant and comply with government requests to break the chain of transmission of COVID-19 despite feeling healthy. A person's carelessness and disobedience to health protocols implemented during a pandemic can have fatal consequences for themselves and others (Khosravi, 2020; Li *et al.*, 2020; Zegarra, Chino, and Ames, 2020).

## CONCLUSION

There is no relationship between the characteristics of respondents (which include gender, age, occupation, and income) with the practice of preventing the transmission of COVID-19 in the workplace, be it the practice of wearing masks, washing hands, physical distancing, or the practice of opening windows/doors of workspaces. Furthermore, private companies need to tighten their employee health protocols and provide penalties for non-compliant

employees or rewards for reward and punishment. Thus, it is expected that employees will be more compliant and consistent in preventing the transmission of COVID-19 and not create new clusters. Local governments need to improve monitoring of all companies and workplaces that carry out WFO and crack down firmly on workplaces that are still lax in implementing and enforcing health protocols for their employees.

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## Gangguan Permainan Internet: Program Pencegahan pada Remaja untuk Indonesia

### *Internet Gaming Disorder: Prevention Adolescent Programs for Indonesia*

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#### ABSTRACT

**Background:** Emerging Internet technologies are now creeping into the game arena. Increased incidence of gaming addiction is felt in the world, and no doubt in Indonesia could have an impact as well, especially in an adolescent. In Makassar, found the incidence of internet games disorders by 30% in high school children. Therefore, internet games eventually became an important issue in the world of health to the World Health Organization (WHO) and making it the responsibility of the world. The state has a duty and responsibility in preventing health problems caused by the development of internet gaming in Indonesia. Internet Gaming Disorder is a mental problem that should be considered in adolescents, and even no single governing restrictions on the use of internet gaming and prevention programs for adolescents in Indonesia. **Objective:** The purpose of this study is to explore the problem of Internet Gaming disorder by describing programs that have been implemented by countries outside Indonesia in terms of health promotion for adolescents. **Methods:** This study was a literature review of several journals, thesis, as well as patient data reports Internet Gaming disorder in Indonesia and the world. **Result:** The result is a necessary regulation involving adolescents, parents, schools, governments, and public health officials to regulate Internet gaming restrictions to prevent Internet Gaming Disorder as has been done in China, Hong Kong, Iran, and Switzerland which can be adopted in Indonesia. **Conclusion:** The problem of Internet gaming disorder being ordered must be a concern of government and cross-sectoral to prevent the development of this problem in Indonesia as a protective way for adolescents.

**Keyword:** Adolescent, Internet Gaming Disorder, Prevention, Regulations

#### ABSTRAK

**Latar belakang:** Teknologi internet yang sedang berkembang kini semakin meluas pada arena permainan (game). Peningkatan kejadian kecanduan game terjadi di dunia, termasuk juga Indonesia, terutama pada kalangan remaja. Di Makassar, ditemukan kejadian gangguan permainan internet sebesar 30% pada anak SMA. Oleh karena itu, permainan internet akhirnya menjadi isu penting dalam dunia kesehatan bagi World Health Organization (WHO) dan menjadikannya tanggung jawab secara global. Negara memiliki tugas dan tanggung jawab dalam mencegah gangguan kesehatan yang diakibatkan oleh perkembangan permainan internet di Indonesia. Gangguan akibat permainan internet merupakan masalah mental yang harus diperhatikan pada remaja, hingga kini bahkan belum ada aturan pembatasan penggunaan permainan internet dan program pencegahannya bagi remaja di Indonesia. **Tujuan:** Tujuan dari penelitian ini adalah untuk mengeksplorasi permasalahan gangguan akibat permainan internet dengan mendeskripsikan program-program yang telah dilaksanakan oleh sejumlah negara di luar Indonesia dalam hal promosi kesehatan pada remaja. **Metode:** Penelitian ini merupakan studi pustaka dari beberapa jurnal, skripsi, serta laporan data pasien yang mengalami gangguan akibat permainan internet di Indonesia dan dunia. **Hasil:** Hasilnya adalah diperlukan regulasi yang melibatkan remaja, orang tua, sekolah, pemerintah, dan pejabat kesehatan masyarakat untuk mengatur pembatasan game internet untuk mencegah gangguan akibat permainan internet seperti yang telah dilakukan di China, Hong Kong, Iran, dan Swiss yang dapat diterapkan di Indonesia. **Kesimpulan:** Masalah gangguan akibat permainan internet harus menjadi perhatian pemerintah dan

*lintas sektoral untuk mencegah berkembangnya masalah ini di Indonesia sebagai cara protektif bagi remaja.*

**Kata Kunci:** Remaja, Gangguan akibat Permainan Internet, Pencegahan, Kebijakan

## INTRODUCTION

Health is a healthy condition, both physically, mentally, spiritually and socially to enable more people to live socially and economically productive (MOH RI, 2009). Health is the right of every human being at all ages, one of which is children and adolescents.

Adolescent according to the Republic of Indonesia Minister of Health Regulation No 35 of 2014 is a citizen in the age ranging from 10-18 years and according to BKKBN with an age range between 10-24 years who are not married. Adolescence is a period in which an individual is still in the supervision of parents in charge until otherwise independent (Ministry of Law and Human Rights of the Republic of Indonesia, 2014).

The state is obliged to protect and guarantee the health of adolescents that are in line with the Ottawa charter, which is to develop health-oriented policies as stated in Health Act Number 36 of 2009, in article 137 that the Government is obliged to ensure that the adolescent can get education, information and, services on health to be able to live a healthy life and responsible. This shows that adolescents already can be responsible for their health but it should be the protection of health information on the right of the government (Department of Health Republic of Indonesia, 2009).

Adolescent health issues today are quite an issue in society that physical changes, psychological problems, emotions, and intellect that can lead to conflict within adolescents who have an impact on health. These days we often hear about the incidence of teenage brawl, promiscuity, and even stress to suicide resulting from uncontrolled adolescent psychology and emotion. If we trace the roots of the problem it can be prevented with proper treatment (Kemenkes RI, 2015).

Adolescent problems that the current trend is the psychological problems associated with technological developments with fairly rapid progress.

Adolescent releases their stress by surfing the internet, one of which is online gaming. Technology is very useful when used properly, but often the technology becomes negative if not controlled. Internet technologies into the current requirement greatly facilitate everyday activities. The adolescent can easily use the internet in exploring science and use it to complete the task as well as socializing (Kaptsis *et al.*, 2016; Rho *et al.*, 2018).

Restriction policy on mobile phone use in school has existed in 2018 the Ministry of Women Empowerment and Child Protection initiated a Joint Decree (SKB) Minister of Communications and Information Technology, Ministry of Education and Culture, and the Minister of Religious Affairs on the restriction of the use of devices, Communications and Informatics, 2018. Regulations that have been going on is the ban on the use of devices in schools for elementary school children, but the middle and high school children are still allowed to contact parents. Use of the device in adolescents is still difficult to control due to the junior high school and senior high school assignments are often looking for material to use device. The need for continuous monitoring with the cooperation of parents and teachers who are not only restrict the use of devices but keep an eye on the use of applications on the device (Kominfo, 2018).

The development of the internet is becoming extremely attractive to adolescents when the game application using the internet as a means to facilitate users to play. No need to meet physically, a group of people on the internet can play the game together from different places. Activities which are ongoing is a threat to young people in various facets of life. Starting with social matters, it will become not only a disruption to the friendship but it can also impair vision, nerves, and even the brain. When it is about the addiction in the brain, it refers to the World Health Organization (WHO) Internet Gaming Disorder. WHO (World Health Organization) declared the Internet



Gaming Disorder (IGD) as a health emergency be one mental health problem that must be prevented by an increase in incidence (WHO, 2018; Alshehri and Mohamed, 2019).

Based on the phenomenon that is growing rapidly at this time, Internet Gaming Disorder is a threat that is not realized by the community, especially in children and adolescents. Like smokers and alcoholics who do not directly feel the impact of the Internet Gaming Disorder can threaten health, especially mental health, people tend to underestimate or assume harmlessly. Internet Gaming Disorder is a condition of someone who plays games excessively both in time and behavior that interferes with routine and adversely affects health and life (Lee, Choo and Lee, 2017).

Internet Gaming Disorder is often experienced at the age of children, adolescents to young adults. In Asia, as in Thailand in the daily Thailand post recorded an increasing number of Internet Gaming disorder of the numbers were 26 cases in 2016 to 129 cases in 2017 and a further increase in 2018 in 146 cases. Some countries also noted the occurrence of Internet Gaming disorder among others in Germany Internet Gaming Disorders in adolescents in 2015 with an age range of 13-18 years by 1.16%, while in some countries in Europe namely France by 2% experienced an Internet Gaming Disorder. Even in Japan, Internet Gaming Disorder was related to ADHD (Attention-deficit Hyperactivity Disorder) with 3.7% had severe Addiction. Based on a survey conducted by AJPII in Indonesia, it was found that the biggest internet users were between the ages of 19-34 years which was 42.52%. From the survey result, the number of internet users is quite large in Indonesia with the most reasons is for social media and online games. Even though data on the number of Internet Gaming disorder events in Indonesia have not yet been recorded, the phenomenon that occurs can already be seen from the impact on children to adolescents in Indonesia (Association of Indonesian Internet Service Providers and Kominfo, 2017; Feng *et al.*, 2017; Przybylski, Weinstein and Murayama, 2017; Wipatayotin and Reksaseri, 2018) (Rehbein *et al.*, 2015; Fam, 2018; Costa *et al.*, 2019) (Tateno *et al.*, 2017).

Internet gaming disorder can cause physical and mental health problems. Physical disorders can become problems in visual acuity (Asthenopia) sleep disorders, headaches. Mental disorders which occur can include anxiety, irritability, or the mental condition that requires special handling. Even grades in school go down because of a lack of focus. As an example, there are Internet Gaming Disorder cases that happened in Semarang. Three children with an average age of 9 years have been treated I by Gondohutomo Regional Mental hospital (RSJD) because they are addicted to playing games due to suffering from a mental disorder. Characteristics of this case are addicted to games include not wanting to go to school, playing games for more than 8 hours a day and continuing to repeat the habit every day as a routine. It prove that IGD is a serious problem for adolescent (Ulfa and Risdayati, 2017; Sundari and Ratna, 2018; Farasonalia and Assifa, 2019)

Internet Gaming is a disorder of this millennium era health problems resulting from deviations of human behavior who overuse technology gadgets without realizing the impact excessive experienced by users (Heryana and Unggul, 2018). By playing games online make a person can lose track of time and leave the daily activities so it is interfering with his life as a whole (Männikkö, 2017; Snodgrass *et al.*, 2019).

Someone with Internet Gaming Disorder cannot be detected at the beginning of the use of games, but the signs that can be known from an early age are the changing priorities of activities carried out such as forgetting to eat, forgetting to sleep. Most are in front of gadgets that are owned from day to day, social life also turns out to Have less frequency of meeting with friends or close people and when it is advanced. They can have extreme emotional changes, for example, when asked to eat and kept away from their gadgets, then he will take action to refuse, therefore Internet Gaming Disorder is considered a psychological problem that is categorized as addicting behavior (Bax, 2015; Rehbein *et al.*, 2015; Kaptis *et al.*, 2016; Chen, Oliffe and Kelly, 2018).

The purpose of this study is to find out about the policies and regulations that can adopt to prevent Internet Gaming Disorder with describing programs that



have been implemented by countries outside Indonesia, in terms of health promotion in adolescents.

## METHODS

This study used research methods literature review. Journals were taken from various sources such as Google Scholar, Scopus, Elsevier, theses, data reports, etc. It was done by using the internet keyword disorder gaming and internet gaming related prevention policy disorder. Criteria journal was the journals from the year 2015 to 2019 which discussed internet gaming disorder and internet gaming disorder prevention policies in some countries.

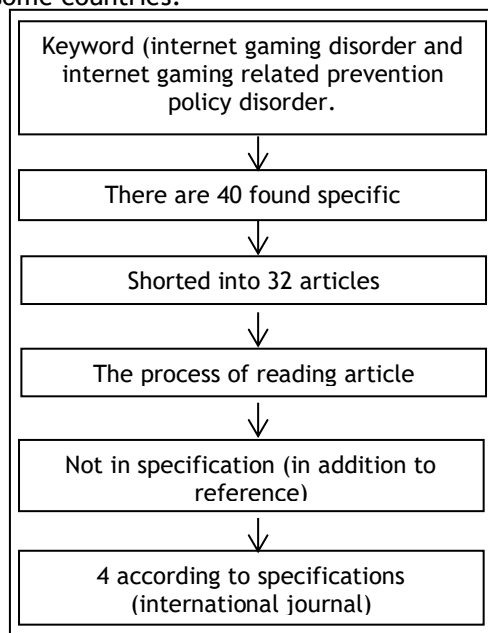


Figure 1. Scheme of Literature Review

## RESULTS AND DISCUSSION

Attention to the dangers of Internet Gaming Disorder in several countries is indeed different based on the goals and needs of their respective countries. The cross-sectoral role is very helpful in achieving policies that have been prepared and planned.

The operation of the policy depends on the problem and policy objectives to be appropriate according to needs. The impact of public health issues Internet Gaming Disorder was discovered when it's most advanced in a stage so in need of rehabilitation and treatment are costly and labor-intensive. Adverse effects caused by Internet Gaming Disorder is a psychological disorder that is severe

enough for the teen and threatening their future.

## Preventing Program and Policy for Internet Gaming Disorder Digital Product

Internet Gaming Disorder Prevention can be done in terms of digital products. Digital products can be defined as one, who was addicted to games, has no more concerns toward product application such as games. Sophisticated features on the phone or computer devices offer superior products each of which is considered as a direct impact. A product of the games in the app starts by offering design, then the form of the game with a market research and done well then the games can be accepted by consumers or users. Games are interesting and harmless but for users who play it over and over again, it can lead to addiction that ended in Gaming Disorder (Berthon, Pitt and Campbell, 2019).

Someone who chooses a game application will not cause problems if used appropriately. But the growth of digital games today require the internet so the game is more interesting because it can be played directly with other people at the same time and in different places. Besides being able to play online, a game application can or cannot have addictive properties. Some games that limit the game with the opportunities provided, the rising level of the more difficult challenge is making it easy for players to win a game and when the game ends, the player must wait for his chance to reappear. However, in this modern digital era, it is certainly not difficult for players to immediately refill their opportunities by conducting a digital transaction which is indeed facilitated by the application by only issuing electronic money, so the opportunity can be fully loaded, and the player can play the game again. The more easily a game-used or accessed, the more it attracts online game users, not just adults and even children can perform transactions very easily even be able to spend millions of rupiah just to play a game (Randy, 2016; Hamari and Keronen, 2017).

The role of government in making policies to protect children and adolescents in accessing gaming applications as prevention is needed. For some applications require the identification number that can only be accessed by adults with considerable age and identity cards. But it was not enough

in restricting the adolescents in accessing the game that causes addiction.

In Europe, restriction rules have been made for the game, for filtering game design from game design, game production up to marketing. Policymaking is done to prevent the occurrence of Internet Gaming Disorder in Europe. Therefore in Indonesia, can also apply to filter outstanding gaming applications but it does require human resource capability and the government's role in preventing Internet Gaming Disorder (King and Delfabbro, 2014; Müller *et al.*, 2015).

#### **Adolescent**

The next target in efforts to prevent Internet Gaming Disorder is the teenagers. Adolescents do not only act as Internet Gaming disorder sufferers but also as prevention actors.

The adolescent can influence others with positive gaming behavior. Most adolescents in the daytime are at school and meet with their peers. The need for a healthy activity program of games that can be used by young people so that they can keep the fun that will distribute the game but is not detrimental to their health (Müller *et al.*, 2015; Mental Health America, 2019).

#### **Adolescent, Parent, and Teacher**

A program involving adolescents, parents, and teachers is a good preventive program and can be implemented. Cooperation between parents and teachers in this school as the target program can help prevention efforts against Internet Gaming Disorder which is currently being developed in the era of technology today (Altafim and Linhares, 2016; Bonnaire and Phan, 2017).

School in China implements this program in a way that it is not easy but it is effective when the focus is done. Each

student whose electronic device used in schools will be directly protected and connected from the applications that are deemed harmful to the students (Schneider, King and Delfabbro, 2017; Chen, Oliffe and Kelly, 2018; Farasonalia and Assifa, 2019; Mental Health America, 2019).

Costs incurred to operate this program at school is not cheap, but with the support of parents and schools as well as the cooperation of students or adolescents can help achieve successful prevention program on the incidence of internet gaming disorder.

#### **Government**

A major program as a form of Internet Gaming Disorder prevention efforts that have been implemented by some countries such as China that makes the education program with a focus on the school environment is a strategy that is being done by the Chinese government. Hong Kong through health agencies makes a comprehensive prevention program established and implemented and it becomes the second program. The success of the first program is not explained, but this second program is not only prevention but also attempt first aid in cases of internet gaming disorder. The Iranian government, like in Hong Kong, is done by the health department with the undertakings of prevention and treatment. While in Switzerland held by the public health department that plays a major role in efforts to prevent Internet Gaming disorder prioritize promotion and prevention that is an effective program carried out in the country Switzerland (Wanpen, 2016; Saunders *et al.*, 2017; King *et al.*, 2018).

**Table 1.** Internet Gaming Disorder Prevention Policies for Youth in The World

Author	Title	Method	Target	Result	Recommendation
Berthon, Pitt and Campbell, 2019	Addictive De-Vices: A Public Policy Analysis of Sources and Solutions to Digital Addiction	Digital Experience	Digital Product	Healthy Application, Marketing Strategy	From the planning, design, production and marketing distribution should see the target market. The regulation will succeed when all the steps are achieved as planned. (Public Policy about game application)
Müller <i>et al.</i> , 2015	Regular Gaming behavior and internet Gaming Disorder in European adolescents: Results from a cross-nation representative survey of prevalence, predictors, and Psychopathological correlates	Questionnaire Survey	Adolescent	Youth Self Report can be preventing Internet Gaming Disorder	Collaboration among government, medical support, school, and Parents is needed this program.
King <i>et al.</i> , 2018	Prevention and Policy Related to internet Gaming Disorder	Literacy Review	Adolescent, Parent, Teacher	School-Based Educational Program (How to used digital device in school, time learning, Online Game Anti-Addiction System (OGAAS))	Collaboration between schools and families that handle adolescent's needs supports each other to lead the program, Committed School policy by adolescents, school, and parents.
Saunders <i>et al.</i> , 2017	Gaming Disorder: Its delineation as an important condition for diagnosis, management, and prevention	International Survey	Government	Prevention and Intervention Plan for Internet Gaming Disorder: - China: Educational Program - Hong Kong: Health program (second Internet Addiction Prevention and Resolution Comprehensive Plan) - Iran: Prevention school-based, health care primary services, treatment technologybased disorder - Switzerland: Health Prevention Program	Recommendation Sector that included: - China (Ministries of Educational and Others) - Hong Kong (Department of Health of Hong Kong) - Iran (Ministries of Health) - Switzerland (Public Health Federal Office)

### Reference Programs for Indonesia

Indonesian society has a different character and culture with foreign countries both in Asia and the West. But seeing some of the programs that can be implemented in several countries and with the goal of which is used as a focus, Indonesia would be able to adopt or even merge with cross-sector cooperation. Regulation that can adopt-for school is to restrict gadget usage and health services can make early detection of Internet gaming disorder symptoms (Anggarani, 2015).

Culture in Indonesia is difficult to filter the cultures that have come from outside. But cultural similarities such as Indonesia and China that have high cultural traits, they involve people who are respected in deciding what to do as parents, teachers, and people who are considered to be a role model. This is what makes the programs from the outside may be adopted in Indonesia (Chang Shia *et al.*, 2015).

Programs from the outside that could be adopted are must-have applications of healthy school children and its use is monitored by the school and parents, precautions can be reported by teenagers or students themselves. With cross-sector cooperation, their parents and, teens that in line with research from Heryana and Unggul, the prevention of Internet Gaming Disorder in Indonesia can be done in two stages: primary prevention among parents, schools, the technology involves control by parents, campaigns, and supportive environment. As well as a secondary that early detection, health checks, educational programs in schools, and Internet policy in the office (Heryana and Unggul, 2018).

The involvement of public health in Indonesia has been the preferred time for prevention. It needs to be the main cause of the deepening of an addicting game that occurs in Indonesian adolescents and then work with the information and technology (IT) and Health Department in making effective prevention programs and can further be applied in cooperation with the Ministry of Education.

### CONCLUSION

Internet gaming disorder which has become the international problem of health should be a concern. The are the

need to establish a program and to be implemented following the root of the problem and the need to target the right. A program that can combine the roles of Public Health, Ministry of Health, Ministry of Education can have the impact of technology information and is effectively applied in Indonesia.

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## Family's Role in Helping Drug Abuser Recovery Process

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### ABSTRACT

**Background:** The National Narcotics Board or Badan Narkotika Nasional (BNN) survey results found the prevalence of drug abuse in 2015 amount 42,900 people, and an increase of 20.84% in 2016, which amounted to 51,840 people. As a result of drug abuse, drug abusers often experience health problems both physically and mentally due to the influence of drugs or the environment that makes drug abusers depressed. One of the health treatments for drug abusers that can be done to motivate drug abusers is to provide family support. The family is a source of social support because, in family relationships, mutual trust is created. **Objective:** This research was conducted to determine how the family's role based on Kroenke helped to recover the health of drug abusers from deciding to stop drug abuse. The government can later consider this research's benefits in creating a family-based drug abuse prevention and recovery program. **Methods:** This study uses a review of international articles. The articles used are twenty articles published in the last ten years. **Result:** Research shows that the family's role in helping recovering drug users' health drug users' health is different but still has the same goal. Support provided is based on the cause of individuals to commit drug abuse. Support could be provided in the form of assessment support, instrumental, informational, and social. A good family role's functioning makes the recovery process more effective because an addict will feel motivated by their support. **Conclusion:** The research conducted that the family's role is essential for the recovery of the health of drug addicts, providing a stimulus for change to stop drug abuse. The family's ability and function in explaining the addict's self-control varies according to how the response and the intensity of family support provided to the addict.

**Keywords:** drugs, drug abused, family role.

### INTRODUCTION

Drug abuse remains a threat to society and the government. This problem arises because the rate of drug abuse in Indonesia is still very high. Drug abuse (narcotics, psychotropics, and other hazardous substances) accompanied by negative implications and impacts is a problem at the national and international level that threatens a society's life. It results in the weak resilience of a nation and country (Bash, 2015)

A report from the world body dealing with narcotics and drugs, the United Nations Office on Drugs and Crime (UNODC), states that 5% of the world's total population has ever tried drugs. Data in 2015 explained that the increase in drug abuse also occurred in several countries that are members of the Association of Southeast Asian Nations (ASEAN), especially Indonesia. Of the 100% of narcotics transactions in the

ASEAN region, 40% are in Indonesia (United Nations Office on Drugs and Crime, 2018)

The handling conducted by the government in dealing with the problem of narcotic abuse, namely by issuing Law No. 35 of 2009 on Narcotics, and Law No. 36 of 2009 on health, which describes the actions on narcotic abusers and addictive substances (*Undang-Undang Republik Indonesia Nomor 36 Tahun 2009 tentang Kesehatan, 2009; Undang-Undang Nomor 35 Tahun 2009 tentang Narkotika, 2009*). There is also a Government Regulation No. 25 of 2011 on the Implementation of Mandatory Reporting of Drug Abusers. The regulation discusses that the government urges the public to report drug abusers to the recipient institutions must report (IPWL) around the residence area (*Peraturan Pemerintah No. 25 Tahun 2011 tentang Pelaksanaan Wajib Laport Penyalahguna Narkotika, 2011; Sari Wulan Rohmah, 2019*) This study explains that

the government's support and efforts in dealing with drug abuse problems already have a written regulation (Dinilah, 2017)

The government's seriousness in building rehabilitation facilities in each area is concrete evidence to deal with drug abuse. The duration of rehabilitation is carried out in about three months to one year. The duration is determined by each individual's motivation and the social support of those around him. It takes social support for drug abusers as one of the motivations to recover from drug abuse (Inassa, 2019)

Social support is an emotional form provided by individuals and groups to other individuals. Social support can be a sense of attention, compassion, help, and a form of support that includes assessment, instrumental, informational, or emotional support (Kroenke *et al.*, 2006).

One social support source is family, where a family is a place for individuals to grow and develop since childhood. Physical and psychological needs can be met from the family environment because it is the closest environment (former drug abuser). The family in question is the core family, consisting of the father, mother, and son (Heaney and Israel, 2018). A core family is considered a social system because social elements include beliefs, feelings, goals, rules, positions and roles, levels, sanctions, powers, and facilities. If the family can apply the social element, then the drug abuser will feel if he is noticed and allow the individual to stop abusing drugs (Ingram, 2005).

Relationships in a family are social support created because of mutual trust. Families for individuals can be considered a collection of expectations, a place to tell stories, a place to ask questions, and a place to issue complaints if they are recovering (Orr, Elliott and Barbour, 2014). Therefore, this article will discuss family support in carrying out its role to help a drug abuser.

## METHODS

Reviews of this literature are searched using electronic databases such as Pro-Quest, Google Scholar, Google Scholar, PubMed, Science Direct, IJERN, and DOAJ. Literature reviews are conducted on articles published in the last ten years. Keywords used to search are

family support, drug abusers, drug abuser rehabilitation, and drug abuse mental health care.

Thirty-five scientific articles were obtained, then selected twenty articles in accordance with the criteria that have been set to compile a review of the literature. The inclusion criteria of the selected article is an international article and discuss the relationship between social networks. The study targeted specific health behaviors, including alcohol and drugs. This literature study analyzes what programs have been applied to recover drug abusers carried out by the family.

## RESULTS AND DISCUSSION

Family support is a process in life that happens all the time. Families have different traits and types of support in different stages of the life cycle. Conceptualization of family support as family coping, both external and internal support. External support includes friends, employers, neighbors, social groups, places of worship, and health practitioners. Internal social support includes the support of a biological family, husband, or wife. The attitude that the family should build toward drug abusers is to provide support to the treatment program. The ability of family members to remind abusers of honesty until the end of the rehabilitation period has a critical role for individual success (Rowe, 2012).

Providing support to family members who abuse drugs cannot be done without understanding the problems faced. These understandings include an understanding of the mindset, attitude patterns, and patterns of drug abusers. This understanding aims to allow the family to provide motivation, attention, and compassion that the family never lacked or never given. A healthy family will make qualified family members intellectually, mentally, and spiritually (Yunitasari, 2018).

Families need to provide a wide variety of information about drugs. The information can range from the dangers of using drugs and their impact on drug abusers to ways to overcome drug addiction. Support in the form of this information will make former drug abusers think positively about the impacts

of using drugs. This support is also expected to allow individuals to stop and not use drugs anymore, given the long-term impact of drug use is that it can destroy the future of individuals (Sanders, 2000).

Family support can provide a place for drug abusers to pour out their hearts, helping individuals during the recovery process. The recovery process time also depends on the condition of the drug abuser. This statement is in line with other studies that explain that the intensity of family support provided will affect the healing process of drug abusers (Jackson *et al.*, 2011).

Social support can be grouped into several components (Kroenke *et al.*, 2006). These components include emotional, instrumental, informational, assessment support.

### Emotional Support

Emotional support can include feelings and emotional closeness between drug abusers and families (Birtel, Wood and Kempa, 2017; Li and Ma, 2018). Through this support, the emotional attachment will be obtained by drug abusers to create a sense of security. This kind of social support is often obtained from a life partner, close family, or even close friends and relatives. Families with harmonious relationships can reduce the risk of drug abuse (Darie, 2015).

Drug abusers can be restored through a lengthy rehabilitation process and with the support of their families and the environment. Drug abusers who have gone through the rehabilitation period can relapse or relapse if they do not get emotional support from the family (Yunitasari, 2018).

### Instrumental Support

The help obtained directly by drug abusers from family members helps overcome shame and be open with trusted people to stop abusing drugs (McCann and Lubman, 2018). Financial assistance and

opportunities to provide jobs will positively impact the mental health of drug abusers (Tomori *et al.*, 2014).

Real support from the family is when the family can appreciate the opinion and willing to listen to complaints from drug abusers and take good care when the drug abuser relapses. Family support can help achieve practical goals and real goals (Baker and Kim, 2019).

### Informational Support

Family members can give explanations to drug abusers about the situation and problems faced by drug abusers. This support can be either advising or explaining how to be good. Families who provide informational support in psychoeducation to drug abusers will help their healing process (Denomme and Benhanoh, 2017).

Information related to drug service agencies' existence for drug abusers will benefit drug abusers to get the proper treatment (Ritanti *et al.*, 2017). The information provided regarding treatment for drug abusers will improve their well-being (Rasdianah and Nur, 2018).

### Assessment Support

Family attitudes that are always cornered, brought up in the past, are often the cause of recurrence (Smestha, 2015). Assessment support to drug abusers, such as giving a little trust and mentoring, will provide a sense of security to help them during the recovery period.

Social networks that can accept drug abusers and do not provide negative stigma will positively impact drug abusers (Montgomery *et al.*, 2020). Similarly, when the family provides positive stimulation in encouragement, then drug abusers who have received themselves first will give a positive response (Nurhidayati and Nurdibyanandaru, 2014). When the social environment responds negatively without reinforcing drug abusers, it will cause anxiety and symptoms of depression (Franco and Carter, 2019).

**Table 1.** Summary of Twenty Articles on Family Support for Drug Abusers

No	Authors	Title	Methods	Results
1.	Harwin <i>et al.</i> , 2019	<i>Tension and Contradiction in Family Court Innovation with High-Risk Parents: The Place of Drug Treatment Courts in</i>	This study uses an observational design that looks from 3 countries, namely the United States, United Kingdom, and Australia.	• The family's drug treatment has spread to the UK, Australia, and Northern Ireland. International research has found that the treatment of the elderly has a more

No	Authors	Title	Methods	Results
		<i>Contemporary Family Justice</i>		significant impact than regular treatment. <ul style="list-style-type: none"> <li>Concludes that the role of the family as a new paradigm for addressing risky parenting and influencing systemic change</li> </ul>
2.	Ritanti et al., 2017	<i>A Phenomenological Study of Families with Drug-Using Children Living in the Society</i>	This study uses a descriptive phenomenological qualitative design. Many participants were recruited for research using snowballing sampling techniques.	<ul style="list-style-type: none"> <li>The medicines service agency commissions public health nurses to act as advisers and advocates to help families manage and address their problems.</li> </ul>
3.	Li et al., 2013	<i>Mental health and family relations among people who inject drugs and their family members in Vietnam</i>	The study used a cross-sectional design and sampled 83 families.	<ul style="list-style-type: none"> <li>The level of behavior of people who abuse drugs is meaningfully associated with higher symptoms of depression.</li> <li>Lower family relationships pose a substantial risk of drug abuse.</li> <li>Develop strategies that increase the role of families in supporting behavioral change among people who inject drugs.</li> </ul>
4.	Birtel, Wood and Kempa, 2017	<i>Stigma and Social Support in Substance Abuse: Implications for Mental Health and Well-Being</i>	The subjects of this study were 64 who were included in substance abuse (alcohol, drugs) and aged between 18-64 years. The design of the research is a case study.	<ul style="list-style-type: none"> <li>Social support is beneficial for combating the negative impacts of stigma and shame that internalize mental health and well-being.</li> </ul>
5.	Zhang et al., 2019	<i>The Impacts of Family Treatment Drug Court On Child Welfare Core Outcomes: A Meta-Analysis</i>	Samples collected in the intervention and comparison groups were 3402 and 3683 for 16 (sixteen) studies on reunification results and 842 and 632 to 8 (eight) studies on child safety outcomes. The design of the research is phenomenology.	<ul style="list-style-type: none"> <li>The synthesized findings reinforce the evidence for implementing and expanding Family Treatment Drug Courts (FTDC) to serve caregivers who abuse substances in the child welfare system.</li> </ul>
6.	Bermas and Masooleh, 2011	<i>Review and Comparison of Affective Family Factors in Prevention of Drug Abuse in View of University Masters, Mental Health Specialist, and Families</i>	Research design includes phenomenology and purposive sampling.	<ul style="list-style-type: none"> <li>Families have an essential role to play in preventing the misuse of narcotic drugs at the initial, secondary, and third levels.</li> <li>Experts consider that this family is more critical in reducing the misuse of narcotic drugs.</li> </ul>
7.	Yusay and Canoy, 2019	<i>Healing the Hurt Amid the Drug War: Narratives of Young Urban Poor Filipinos in Recovering</i>	The number of samples taken is as many as 13 subjects. The research design used is the case study.	<ul style="list-style-type: none"> <li>Drug users position themselves in three different ways: "I am used to it," "I am ignored," "I am angry and hurt." After</li> </ul>



No	Authors	Title	Methods	Results
		<i>Families with Parental Drug Use</i>		the parents of drug abusers complete a community-based rehabilitation program, drug abusers say that parental recovery is a catalyst to improve their situation as a family unit.
8.	Franco and Carter, 2019	<i>Discrimination from Family and Substance Use for Multiracial Individuals</i>	The study used a cross-sectional design involving 466 subjects.	<ul style="list-style-type: none"> <li>• Discrimination from families on drug use is partly explained by anxiety and depressive symptoms.</li> </ul>
9.	Li and Ma, 2018	<i>The Analysis of a Drug Transmission Model with Family Education and Public Health Education</i>	This research is qualitative research. The study focused on populations over the age of 15.	<ul style="list-style-type: none"> <li>• That family education and public health can affect the recovery of drug abusers. The combination of family and community health education will be very effective in reducing the prevalence of drugs.</li> </ul>
10.	Darie, 2015	<i>Child's Exposures to Emotional Neglect in Drug users Families</i>	The subjects in this study were 18 years old using the Freiburg personality inventory method.	<ul style="list-style-type: none"> <li>• Children with high aggression levels were more prone to frustration, while those with low aggression levels had a tolerance level of frustration due to drug use.</li> </ul>
11.	Zamani et al., 2014	<i>Family Functioning, Cognitive Distortion and Resilience among Clients under Treatment in Drug Rehabilitation Centres in Malaysia</i>	The subjects used in this study were 463 subjects.	<ul style="list-style-type: none"> <li>• The family function is at a moderate level, client cognitive distortion is at a low level, while their endurance is at a higher level.</li> <li>• Rehabilitation programs conducted at the institution have an impact on client resilience and cognitive distortion.</li> </ul>
12.	Ghasemi et al., 2018	<i>The effect of an Education Program based on the Family-Centered Empowerment Model on Addiction Severity Among Methamphetamine Users</i>	The study used a randomized trial method with 95 subjects.	<ul style="list-style-type: none"> <li>• Implement a family-centered empowerment model among MA users, and it enhances recovery caused by drug abuse.</li> </ul>
13.	McCann and Lubman, 2018	<i>Help-seeking Barriers and Facilitators for Affected Family Members of a Relative with Alcohol and other Drug Misuse: A Qualitative Study</i>	This research design is qualitative by involving 31 affected family members (AFMs).	<ul style="list-style-type: none"> <li>• Barriers to seeking help: Stigma hinders the search for help, difficulty finding formal and informal support services, negative alcohol and/or drug service assistance search experience (AOD) previously hinders the search for the next search,</li> <li>• Three help-seeking facilitators: Previous positive help-seeking experiences have improved future search for help, overcome shame and isolation, are open with trusted important people,</li> </ul>

No	Authors	Title	Methods	Results
				and are diligent in helping the search to recover from alcohol and other drug addictions.
14.	Denomme and Benhanoh, 2017	<i>Helping Concerned Family Members of Individuals with Substance Use and Concurrent Disorders: An Evaluation of a Family Member-Oriented Treatment Program</i>	The large sample consisted of 125 individual family members with Substance Use and Concurrent Disorders (SUCD), of which 97 participated in treatment programs, and 28 were used as comparison groups.	<ul style="list-style-type: none"> <li>Family-based treatment programs significantly reduce stress, increase perceived social support from family and friends, and improve family function.</li> <li>In general, it is necessary to implement more of the family-oriented psycho-educational treatment program.</li> </ul>
15.	Jackson <i>et al.</i> , 2021	<i>Challenges and Opportunities to Integrating Family Members of Injection Drug Users into Harm Reduction Efforts within the Atlantic Canadian Context</i>	The method in this study is a qualitative approach involving 115 Drug Injections (IDU).	<ul style="list-style-type: none"> <li>Family members engage in a variety of strategies to protect themselves from the dangers associated with drug use.</li> <li>Conceptualizing addiction as a health and social justice issue and providing appropriate interventions can reduce some of the harm experienced by users and family members, thereby fostering sustainable relationships and greater integration and reduction of adverse effects into the environment.</li> </ul>
16.	Orr, Elliott, and Barbour, 2014	<i>Promoting Family-Focused Approaches within Adult Drug Services: The Potential of the 'Senses Framework.'</i>	This is a qualitative study involving eight focus groups and 32 individual interviews.	<ul style="list-style-type: none"> <li>Applying a family-centered approach to care will provide a greater and strategic feel for drug users.</li> </ul>
17.	Tomori <i>et al.</i> , 2014	<i>"In their Perception, We are Addicts": Social Vulnerabilities and Sources of Support for Men Released from Drug Treatment Centers in Vietnam</i>	This research took a sample of 43 male injectable drug users (PWID).	<ul style="list-style-type: none"> <li>Families are sources of support ranging from finances, work, and emotional support, but addiction-related family tensions also have adverse psychological effects.</li> </ul>
18.	Baker and Kim, 2019	<i>Recognizing and Addressing Elder Abuse in the Primary Care Setting</i>	The design of the research is a case study. The sample in this study was 589 subjects.	<ul style="list-style-type: none"> <li>Primary care in the form of support to drug abusers is very beneficial, as they feel they are getting more attention and can stop using drugs.</li> </ul>
19.	Girsang, Susanti and Panjaitan, 2019	<i>The Experience of Family Members Helping Young Adult Drug Abusers Achieve Developmentally-Appropriate Levels of Intimacy</i>	The study used a descriptive phenomenological approach and involved 11 subjects.	<ul style="list-style-type: none"> <li>Internal and external factors may impede the development of adolescent drug abusers</li> <li>Family members as the main companions of juvenile drug abusers can also be a complicated burden experienced by</li> </ul>

No	Authors	Title	Methods	Results
				families due to drug abusers in adolescents.
				<ul style="list-style-type: none"> <li>• This research highlight the importance of psycho-family education for families with drug abusers in their teens.</li> </ul>
20.	Montgomery et al., 2020	<i>Peer Social Network Processes and Adolescent Health Behaviors: A Systematic Review</i>	Researchers used systematic review methods with a teenager population (13-18 years old).	<ul style="list-style-type: none"> <li>• Individuals are influenced by their friends to adopt or adapt behaviors; and the relationship between network popularity and health behaviors.</li> <li>• This study highlights the importance of peer social networks to build and determine a set of individual health behavior choices.</li> </ul>

Table 1 shows that support in the form of emotional attention such as warmth, caring, or expressions of empathy, can ensure that individuals are surrounded with feelings of love and affection. The drug abuser who gets emotional attention feels confident that he is assisted by the surrounding people (Denomme and Benhanoh, 2017). This study is also in line with research on the recovery process dynamics, which explains the importance of families' role in self-control to occur recovery by drug abusers (Riza, 2018).

Individuals need social support to deal with existing issues. Social support can be an encouragement, trust, confidence, and sharing opportunities, helping to make decisions to help individuals solve problems. A wide range of family support has been received, but most drug abusers have received substantial support. This problem is in accordance with the supportive environment, especially the family environment (Girsang, Susanti and Panjaitan, 2019). The role of the family environment influences the healing process of a person who is drug dependent. This condition is caused because not many of them have a desire to heal that comes from themselves. The majority of drug abusers need support from family (Ghasemi *et al.*, 2018).

Family support in the form of advice or input to drug abusers is the most widely given support. Prevention that family members can do is to provide character planting before drug abusers are involved in problems, especially related issues about drug abuse. This support also fosters a positive character in drug abusers so that inside they create a good character (Bermas and Masooleh, 2011). Individuals who lack support from the family and parents who lack control and supervision will make them experience self-control weaknesses and tend to engage in negative behavior (Kroenke *et al.*, 2006). Drug abusers who undergo rehabilitation will be able to control themselves well if they support the family. Through good self-control, the ability of drug abusers to stop using drugs will be better (Bermas and Masooleh, 2011).

The family's responsibility to other family members to protect and provide support is also critical. Family

members who have solid relationships and influences will be a source of strength for individuals to stop abusing drugs (Tomori *et al.*, 2014). When the family does not pay attention or even stay away from drug abusers, then deviant behavior can occur in the individual. Such deviations include not being able to socialize with the environment, disturbed diet, declining academic and non-academic achievement, and the emergence of aggressive attitudes toward drug abusers (Yusay and Canoy, 2019).

Support in the form of attention given by the family in the rehabilitation process will benefit drug abusers. A close relationship between the family and drug abusers will make them feel comfortable and gradually help them get back to health and stop drug abuse. The benefits of family support to prevent drug abuse in one of the family members, among others (Bermas and Masooleh, 2011):

**a. Primary prevention**

Prevention is performed on individuals who have not used drugs. This effort is made by asserting that they could be drug abusers if not careful.

**b. Secondary prevention**

Prevention to people who have used drugs once in a while has not been a dependency not to fall further.

**c. Tertiary prevention**

Prevention is done to people who have dependence (rehabilitation). This effort is made by affirming how not to relapse and return to dependency.

## CONCLUSION

The success of family members in providing social support to drug abusers to stop abusing drugs is by giving self-control to drug abusers. Social support can also be done by maintaining the intensity of relationships with drug abusers. If this action could be done, drug abusers would feel attention and protection. The ability and function of the family in helping self-control drug abusers varies according to how the family responds to drug abusers. The government is expected to consider practical ways of tackling the drug problem in Indonesia. Government-established prevention and recovery programs should also involve families' role to help the successful recovery of drug abusers.

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## Tinjauan Sistematis: Pengaruh Perilaku Kebersihan dan Perawatan Kesehatan Lansia

### Systematic Review: Affecting Behaviour of Hygiene and Health Care of the Eldery

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#### ABSTRACT

**Background:** The Elderly is an age group that has decreased organ function which is susceptible to various diseases. The elderly also experience physical decline which can affect personal hygiene and health care behavior. **Objective:** To determine the factors that affect the personal hygiene and health care of the elderly. **Method:** Personal hygiene referred to in this study was hygiene to care for the whole body including skin, feet, teeth, nails, and hair. This study was a systematic review of studies with primary data related to factors affecting personal hygiene and health care for the elderly. The study was conducted on 35 international journals. **Results:** Personal hygiene of the elderly are feet. Factors that influence their hygiene on demographic factors include residence, education, source of income, gender, age, and knowledge. Factors affecting elderly hygiene on personal characteristic factors include need assistance, perceived benefits, disease, frequency of cleansing, self-efficacy, physical change, degree of independence, mobility, and self-motivation. Factors affecting them on facilities and infrastructure factors supporters include equipment, care services facilities, equipment, distance to care service facilities, social support, and practical conditions. Factors affecting on healthy program factors include training, education caregiver, motivation caregiver, health promotion, health information seeking, satisfaction, informal care, behavioral programs, utilization, and functional health literacy. **Conclusion:** Factors affecting personal hygiene and health care for the elderly include demographics, characteristics of the elderly, supporting facilities, and infrastructure and health programs. Dominant factor affecting personal hygiene and health care for elderly are educational, residence, and income source.

**Keywords:** behavioral, elderly, health care, hygiene

#### ABSTRAK

**Latar belakang:** Lanjut usia (lansia) merupakan kelompok umur yang mengalami penurunan fungsi organ yang menyebabkan mereka rentan terhadap berbagai penyakit. Lansia juga mengalami penurunan kondisi fisik yang dapat memengaruhi perilaku kebersihan diri dan perawatan kesehatan. **Tujuan:** Penelitian ini bertujuan untuk menjelaskan faktor-faktor yang mempengaruhi perilaku kesehatan dan kebersihan diri lansia. **Metode:** Kebersihan diri dalam penelitian ini adalah perawatan kebersihan seluruh tubuh yang meliputi kulit, kaki, gigi, kuku, dan rambut. Penelitian ini merupakan penelitian tinjauan sistematis terhadap penelitian lain dengan data primer terkait faktor-faktor yang memengaruhi kebersihan diri dan perawatan kesehatan lansia. Penelitian dilakukan pada 35 jurnal internasional. **Hasil:** Kebersihan diri lansia salah satunya adalah pada kaki. Faktor-faktor demografi yang memengaruhi kebersihan diri antara lain tempat tinggal, pendidikan, sumber pendapatan, jenis kelamin, usia, dan pengetahuan. Faktor karakteristik individu yang memengaruhi higiene lansia meliputi kebutuhan akan bantuan, manfaat yang dirasakan, penyakit, frekuensi pembersihan, efikasi diri, perubahan fisik, derajat kemandirian, mobilitas, dan motivasi diri. Faktor sarana dan prasarana pendukung yang memengaruhi antara lain peralatan, sarana pelayanan pengasuhan, peralatan, jarak ke sarana pelayanan pengasuhan, dukungan sosial, dan kondisi praktis. Faktor-faktor yang memengaruhi faktor kesehatan program antara lain pelatihan,

*Pendidikan dan motivasi pengasuh, promosi kesehatan, pencarian terhadap informasi kesehatan, kepuasan, asuhan informal, perilaku, pemanfaatan, dan literasi kesehatan fungsional. Kesimpulan: Faktor yang memengaruhi kebersihan diri dan perawatan kesehatan lansia antara lain demografi, karakteristik individu, sarana penunjang, serta prasarana dan program kesehatan. Faktor dominan yang memengaruhi kebersihan diri dan perawatan kesehatan lansia adalah pendidikan, tempat tinggal, dan sumber pendapatan.*

**Kata kunci:** Perilaku, Lansia, Pelayanan Kesehatan, Kebersihan

## INTRODUCTION

World Health Organization states that the elderly population in 2017, the highest number in the world held by Japan reaching 69.785%, in which the 88.1% of their total number were women. In Indonesia, the number of the elderly population in 2017 reached 9.03% or 23.66 million of the whole elderly population (BPS, 2017).

The increase in this population needs to get special attention especially the improvement of personal hygiene so that health can be maintained. The World Health Organization (WHO) states that health is a state of physical, mental and social well-being, not only in the absence of disease or weakness, medical advances increase healing and reduce mortality, therefore it is important to measure health not only in life-saving aspects but also their quality of life (World Health Organization, 2020).

The Elderly has decreased organ function and physical decline that cause limitations in physical activities. These conditions make their personal hygiene an interesting aspect to study. Personal hygiene is very important and must be considered because cleanliness will affect health, safety, comfort, and well-being. Personal hygiene behavior is influenced by personal, social, and cultural factors. If someone is sick, hygiene problems are usually overlooked, especially in the elderly.

The impact that arises on personal hygiene problems is quite alarming, including if the lack of self-care in the head area will cause dandruff on the hair and itching on the scalp, eyes, and ears. Oral care if not done properly will cause oral mucosal disorders such as mouth sores and bad breath. Fingernails and toenails care if not treated properly will result in physical disturbances to the nail area, and skin that is not kept clean

will cause skin integrity disorders such as itching (Tarwoto, 2013).

Poor personal hygiene is balanced by the biological condition of the elderly who experience a continuous decline in physical endurance and make them more vulnerable to diseases that can cause infection. It also needs the support of various care programs and cares service facilities so that the health of the elderly is maintained and can ultimately improve the quality of life of the elderly.

Various researchers have conducted a study of factors affecting the personal hygiene and health care of the elderly with different results. This study conducts a systematic review of factors affecting the personal hygiene and health care of the elderly.

## METHOD

This study used a systematic review method. The source of research data was from the literature obtained through the Google Scholar search engine, Pub Med, Science Direct and Google Scholar. A systematic review of hygiene and health care factors among the elderly was then performed after the reporting items were selected for a systematic review and meta-analysis guidelines (PRISMA). The search was carried out based on inclusion and exclusion criteria.

Population was a research paper on hygiene and health care factors among parents from 2012-2019. Based on a search with keywords hygiene of elderly and health care of elderly in the year published from 2012-2020, research articles and articles in English obtained 2,408 articles which were then obtained 255 articles in full text. Inclusion criteria were investigated that identified hygiene factors and health care among the elderly, using primary data for research in English. Based on the inclusion criteria, 35 articles were obtained which later

became the research sample. Data collection is presented in Figure 1. Data collection was conducted from March 28 to April 2, 2020. The exclusion criteria for

this study were review studies and using secondary data for research and did not have the data needed for this study. Data is presented in tabular form.

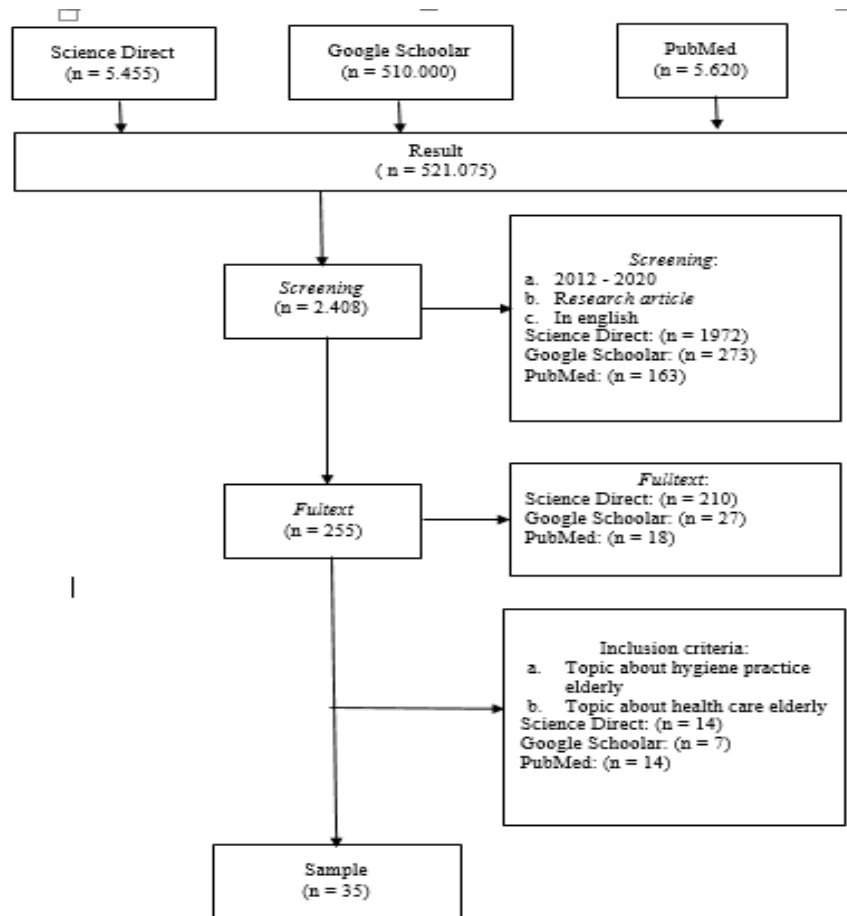


Figure 1. Data Collection

## RESULTS AND DISCUSSION

The results of study involving 35 journals related to factors affecting the health care and hygiene of the elderly are explained in Table 1.

A study of 35 journals from 2012 to 2019 contained study of factors affecting personal hygiene, oral hygiene, foot hygiene, and health care of the elderly from various countries. A total of 15 (42.86%) studies examined personal hygiene. A total of 13 (37.14%) studies studied oral hygiene. A total of 2 (5.71%) studies studied foot hygiene and as many as 5 (14.28%) studies studied health care.

Most studies (48.57%) studied the elderly age  $\geq 65$  years. Elderly aged 65-74 years are young elderly who are still healthy and active. Elderly aged 75-84 years are middle aged, with conditions varying between healthy and active to

have chronic diseases. The elderly aged 85 years and over are the oldest elderly, who tend to be physically weaker. The elderly over 65 years have health problems due to the aging process, so it requires special consideration. At this age, they need general and oral health care, and require the services of these service providers. Some older adults have physical and/or psychological conditions that require special attention to the teeth (Razak *et al.*, 2014).

The study results of the factors that affect personal hygiene and health care for the elderly, can be divided into 4 groups namely demographics, characteristics of the elderly, supporting facilities and infrastructure, and healthy programs.

Factors affecting the hygiene of the elderly on demographic factors include residence, education, sources of income,

gender, age, and knowledge. The affecting factors on personal characteristic factors include need assistance, perceived benefits, disease, frequency of cleansing, self-efficacy, physically change, degree of independence, mobility, and self-motivation. Factors affecting elderly hygiene on facilities and infrastructure factors supporters include equipment, care services facilities, material, distance

to care service facilities, social support, and practical conditions. Factors affecting elderly hygiene on healthy program factors include training, education caregiver, motivation caregiver, health promotion, health information seeking, satisfaction, informal care, behavioral programs, utilization, and functional health literacy.

**Table 1.** Study of hygiene dan healthy care of elderly

No.	Name	Year	Region	Age (Years)	Study
1	Bashet et al.	2019	Bangladesh	≥ 60	Personal hygiene
2	Chapa et al.	2019	USA	> 65	Oral hygiene
3	Ruhaya et al.	2019	Malaysia	≥ 60	Oral hygiene
4	Miikkola et al.	2019	Finlandia	≥ 65	Foot hygiene
5	Kleisiaris et al.	2019	Swedish	≥ 65	Personal hygiene
6	Caner and Cilasun	2019	Turkey	≥ 65	Health care
7	Nawagi et al.	2018	Uganda	≥ 60	Health care
8	Shokry et al.	2018	Egypt	60-82	Oral hygiene
9	Lowe and Rossopoulos	2018	USA	≥ 65	Oral hygiene
10	Sharoni et al.	2018	Malaysia	≥ 60	Foot hygiene
11	Jiang et al.	2018	China	≥ 60	Personal hygiene
12	Atchessi et al.	2018	Nigeria	≥ 50	Personal hygiene
13	Kim and Hong	2018	Korea	≥ 65	Health care
14	Mahdizadeh and Solhi	2018	Iran	60-82	Personal hygiene
15	Wu and Liu	2017	China	≥ 60	Healthy care
16	Linden et al.	2017	Sweden	72-89	Oral hygiene
17	Priyanto	2017	Indonesia	≥ 60	Personal hygiene
18	Hajek et al.	2017	German	≥ 60	Personal hygiene
19	Delgado et al.	2016	USA	≥ 65	Oral hygiene
20	Irwan et al.	2016	Indonesia	≥ 60	Personal hygiene
21	Lestari et al.	2016	Indonesia	79,8 ± 6,4	Personal hygiene
22	Rasool dan Khalifa	2016	Bagdad	≥ 65	Personal hygiene
23	He et al.	2016	China	≥ 60	Personal hygiene
24	Lolita et al.	2015	Cameroon	≥ 65	Oral hygiene
25	Lafortune et al.	2015	Ontario	> 65	Health care
26	Lim et al.	2015	Korea	65-74	Personal hygiene
27	Dahm et al.	2015	USA	> 65	Oral hygiene
28	Kusdhany et al.	2015	Indonesia	≥ 70	Oral hygiene
29	Harooni et al.	2014	Iran	> 65	Personal hygiene
30	Razak et al.	2014	India	≥ 65	Oral hygiene
31	Azizan et al.	2013	Malaysia	> 65	Personal hygiene
32	Chen et al.	2013	North Carolina	≥ 65	Oral hygiene
33	Apartim et al.	2013	India	≥ 65	Oral hygiene
34	Harvey and Alexander	2012	USA	≥ 60	Personal hygiene
35	Al-Sinaidi	2012	Saudi Arabia	62,3 ± 6,8	Oral hygiene



**Table 2.** Factor affecting the hygiene and healthy care of elderly

Factors	Total	Study	References
<b>Demography</b>			
Age	3	Oral hygiene, Personal hygiene	(Kusdhany <i>et al.</i> , 2015); (Bashet <i>et al.</i> , 2019); (He <i>et al.</i> , 2016)
Knowledge	2	Oral hygiene, foot hygiene	(Lowe and Rossopoulos, 2018); (Sharoni <i>et al.</i> , 2018)
Educational	4	Oral hygiene, Personal Hygiene	(Kusdhany <i>et al.</i> , 2015); (Bashet <i>et al.</i> , 2019); (He <i>et al.</i> , 2016); (Atchessi <i>et al.</i> , 2018)
Residence	4	Oral hygiene, Personal Hygiene	(Lolita <i>et al.</i> , 2015); (Jiang <i>et al.</i> , 2018); (Rasool and Khalifa, 2016); (Atchessi <i>et al.</i> , 2018)
Source income	4	Personal Hygiene	(He <i>et al.</i> , 2016); (Jiang <i>et al.</i> , 2018); (Nawagi <i>et al.</i> , 2018); (Atchessi <i>et al.</i> , 2018)
Gender	3	Personal Hygiene	(He <i>et al.</i> , 2016); (Jiang <i>et al.</i> , 2018); (Nawagi <i>et al.</i> , 2018)
<b>Personal Characteristics</b>			
Physically change	1	Foot hygiene	(Miikkola <i>et al.</i> , 2019)
Degree of independence	1	Personal Hygiene	(Priyanto, 2017)
Mobility	1	Oral hygiene	(Lowe and Rossopoulos, 2018)
Need assistance	3	Oral hygiene, Personal hygiene	(Chen <i>et al.</i> , 2013); (Jiang <i>et al.</i> , 2018); (Lafortune <i>et al.</i> , 2015)
Perceived benefit	3	Oral hygiene, Personal Hygiene	(Dahm, Bruhn and Lemaster, 2015); (Lim, Noh and Kim, 2015); (Irwan <i>et al.</i> , 2016)
Disease	3	Personal Hygiene; care service	(Kleisiaris <i>et al.</i> , 2019); (Jiang <i>et al.</i> , 2018); (Hajek, Bock and König, 2017)
Self-efficacy	2	Foot hygiene; personal hygiene	(Sharoni <i>et al.</i> , 2018); (Irwan <i>et al.</i> , 2016)
Frequency of cleansing	3	Oral hygiene	(Al-sinaidi, 2012); (Shokrya, Adelb and Rashad, 2018); (Apratim <i>et al.</i> , 2013)
Self-motivation	1	Oral hygiene	(Lindén <i>et al.</i> , 2017)
<b>Supporting Facilities</b>			
Equipment	3	Personal Hygiene	(Lestari <i>et al.</i> , 2016); (Shokrya, Adelb and Rashad, 2018); (Lindén <i>et al.</i> , 2017)
Care services facility	3	Oral hygiene, care service	(Chen <i>et al.</i> , 2013); (Lolita <i>et al.</i> , 2015); (Lafortune <i>et al.</i> , 2015)
Distance to care service facility	2	Oral hygiene	(Lolita <i>et al.</i> , 2015); (Lowe and Rossopoulos, 2018)
Material	3	Oral hygiene	(Dahm, Bruhn and Lemaster, 2015); (Chen <i>et al.</i> , 2013); (Shokrya, Adelb and Rashad, 2018)
Practical conditions	1	Oral hygiene	(Lindén <i>et al.</i> , 2017)
Social support	2	Personal Hygiene	(Harvey and Alexander, 2013); (Lindén <i>et al.</i> , 2017)
<b>Healthy program</b>			
Trending	2	Oral hygiene	(Chapa <i>et al.</i> , 2019); (Delgado <i>et al.</i> , 2016)
Education	2	Oral hygiene	(Lowe and Rossopoulos, 2018); (Razak <i>et al.</i> , 2014)
caregiver	2	Oral hygiene, care service	(Razak <i>et al.</i> , 2014); (Lafortune <i>et al.</i> , 2015)
Motivation	1	Care service	(Caner and Cilasun, 2019)
Satisfaction	1	Care service	(Wu and Lu, 2017)
Informal care	1	Personal Hygiene	(Azizan, Justine and Kuan, 2013)
Behavioral program	2	Personal Hygiene; care service	(Kim and Hong, 2018); (Harooni, Hassanzadeh and Mostafavi, 2014)
Health promotion	1	Care service	(Caner and Cilasun, 2019)
Utilization	1	Personal Hygiene	(Mahdizadeh and Solhi, 2018)
Functional health literacy	2	Foot hygiene; Personal Hygiene	(Mahdizadeh and Solhi, 2018); (Miikkola <i>et al.</i> , 2019)
Health information seeking			

The Elderly is an age group that has shown a decline in organ function. The older age of a person causes a decrease in bodily functions due to aging which causes a decrease in physical strength. Decreasing physical strength of the elderly can reduce the personal hygiene behavior of the elderly. Elderly personal hygiene includes various skin, mouth, and foot health. Personal hygiene in the elderly can affect the health status of the elderly. Besides, the health status of the elderly is also influenced by care service support.

#### **Effect Demographics on Personal Hygiene and Health Care**

The demographic factors are residence, educational, source income, gender, age and knowledge. Women had better gingival health and oral hygiene than men. This difference is clearly seen in urban and rural populations (Lolita *et al.*, 2015). There are some controversies surrounding the findings of oral medication related to gender. Several studies have shown that women used outpatient services more frequently in the previous two weeks than men. It is related to the physical and psychological characteristics of women. Men are stated to be more likely to delay treatment than women because of social and behavioral factors (Jiang *et al.*, 2018).

Knowledge about health can influence health behavior to some extent. Knowledge about health and health behavior plays an important role in the health literacy of the elderly (He *et al.*, 2016). Some studies denote conflicting results about impact knowledge on elderly healthcare.

Several studies have shown that elderly who live alone are more likely to be hospitalized than those who live with informal caregivers. Education was stated to have a positive and significant effect on the use of outpatient services. Other studies showed that parents with lower levels of education have more visits to their general practitioners (Jiang *et al.*, 2018).

The educational level also show an association with cognitive function (Kusdhany *et al.*, 2015). Cognitive abilities related to memory disorders are expressed as factors that influence oral hygiene among parents. Forgetfulness is

expressed as a frequent occurrence that is part of the daily life of the patient / an older person. These memory disorders make the elderly forget to brush their teeth and how to brush, how to use a new oral care tool, or how to treat new prosthetic construction (Lindén *et al.*, 2017)

Age distribution affects bath, brush, and washing cloth practices in both groups' elderly people. An increase in age reduces practice regarding hygiene. Older ages associated with health problems also related to poor hygiene practices. Common colloquial that increase in ages reduces people's ability in maintaining good health and personal hygiene regarding bath, oral and dress hygiene (Bashet *et al.*, 2019). Older people tend to have more comorbid conditions and suffer worse treatment effects so they have more needs for health care (Jiang *et al.*, 2018). Elderly health behavior is also influenced by economic and environmental factors. Low level of economic development and difficult environmental factors cause low transmission of health knowledge in them (He *et al.*, 2016).

#### **Effect Personal Characteristic on Personal Hygiene and Health Care**

Personal characteristic factors include assistance requirement, perceived benefit, disease, frequency of cleansing, self-efficacy, physical change, degree of independence, mobility, and self-motivation. Aging can cause the skin to become drier. In addition, the elderly also have problems with the skin and nail structures such as calluses and nails growing into the skin (Miikkola *et al.*, 2019; Delgado *et al.*, 2016).

They also have problems with thickened toenails and other foot problems. These problems cause the elderly to need multi-professional care assistance. Research reports that some elderly perform foot care in professional care, some visit podiatrists or other foot care professionals regularly, and few of the elderly perform foot care themselves. However, professional foot care is only considered a pleasure and not as part of health care. Some elderly people do not visit a specialist even though they feel the need to do so. Health care is carried out when there is pain and experience

limitations in carrying out daily activities or if problems occur that cannot be handled alone (Miikkola *et al.*, 2019).

Knowledge and experience of why and how oral hygiene is needed to achieve good oral health. Brushing teeth and other oral hygiene procedures must be learned early because otherwise they will be the main care when elderly (Lindén *et al.*, 2017).

Self-efficacy is an important driver for parents who practice self-care in a calm manner. Self-efficacy has a positive effect on the practice of health promotion. Therefore, self-care education programs are important for the illiterate elderly (Irwan *et al.*, 2016).

### **The Effects of Supporting Facilities on Personal Hygiene and Health Care**

Supporting factors include material, equipment, distance, care, material, distance to care service facilities, social support, and practical conditions. Changes in routine in the daily life of parents due to disability or disease can result in new oral hygiene routines with new tools for cleaning teeth.

The social context of parents can cause social pressure to maintain oral hygiene. Social pressure from relatives or friends or parents themselves who want to maintain oral health. Regarding social support, the expert group states that older people often depend on relatives or others who buy oral hygiene utilities (Lindén *et al.*, 2017).

Access to sanitation infrastructure, including toilets, showers, and handwashing facilities, has long been identified as a precursor for personal hygiene and good health. Difficulty in access to safe drinking water and good sanitation facilities and poor hygienic practices are associated with some diseases like skin diseases, ARIs, and diarrheal diseases, the leading diseases. Without adequate quantities of safe water for personal hygiene, skin and eye diseases spread easily among elderly people. Unless proper sanitation facilities are in use complemented with the right types of hygiene behaviors, elderly people will be vulnerable to recurrent incidences of water and sanitation-related diseases (Bashet *et al.*, 2019).

### **The Effects of Healthy Programs on Personal Hygiene and Health Care**

Inadequate funding can also greatly affect oral care. Elderly can treat the patient's oral cavity due to inadequate supply (Dahm, Bruhn and Lemaster, 2015). Health program factors such as care, training, caregivers, education, caregiver motivation, health promotion, health information seeking, satisfaction, informal care, behavioral programs, utilization, and functional health literacy. People who have low health literacy and seek health information, have better health status than those who do not use health information resources. Those who are actively seeking health information are participants who are more active in their own health care. Functional health literacy has a positive impact on the intention to seek health information and health information resources. Nasrabadi and colleagues (Mahdizadeh and Solhi, 2018).

Inadequate health literacy is one of the obstacles to finding health information in women. People with inadequate health literacy tend to seek health information. There is a reciprocal relationship between health problems and health information seeking. Elderly people with lower levels of health literacy receive health-related information from their family and friends and religious leaders. This result shows the importance of designing culturally appropriate interventions to improve health, in accordance with understanding how to receive and get access to health information in the population (Mahdizadeh and Solhi, 2018).

Caregiver certification was significantly related to looking in the elderly client's mouth and having training in providing oral care. Oral care practices training that was inadequate, with evident deficiencies in providing knowledge of oral care procedures such as flossing, daily brushing, and cleaning their clients' dentures (Delgado *et al.*, 2016).

The higher utilization and satisfaction of health services has two reasons which include an increased level of coverage and increased frequency of visits. Broader coverage and frequent visits are desired, but only to the extent

that negative externalities are generated by visitors who often do not interfere with service to those who do not visit health facilities but may need more. A high number of visits must be tracked to discover any unnecessary procedures or unsolved health problems of the elderly (Caner and Cilasun, 2019).

The health education program for the elderly significantly affects the knowledge of the elderly. The effectiveness of the program carried out causes an increase in health knowledge. This is important for them because they have short-term memory. Thus, program effectiveness can lead to positive changes in the oral health status of the elderly (Shokrya, Adelb and Rashad, 2018).

Preventive dental counseling for elderly patients consists of two components, namely education and motivation, so that caregiver education and motivation is important. Elderly education can be carried out by means of discussion with patients about current causes of disease and past diseases and ways of intervening and preventing future diseases. The discussion of etiology should be complete, but according to the level of understanding of the elderly individual. Home care procedure instructions given to the elderly in caring for teeth must be carried out in a simple but effective model (Razak *et al.*, 2014).

## CONCLUSION

Elderly is an age group of more than or equal to 65 years who have experienced aging. This age also consists of an age range where the age group affects the personal hygiene of elderly behavior. In addition to age, demographic factors such as gender, education, income, and residence as well as elderly knowledge influence the personal hygiene and healthy care behavior of the elderly.

Decreased organ function and physical weakness of the elderly restrict the movement of the elderly which can affect the personal hygiene behavior of the elderly. These limitations make some elderly people need support such as equipment and equipment that supports and requires social support and assistance from the closest parties. Related to health care, the location of health facilities, motivation, and education from caregivers, behavioral programs,

utilization, and functional health literacy also contribute to supporting their health.

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## Tinjauan Sistematis: Pengaruh Perilaku Kebersihan dan Perawatan Kesehatan Lansia

### Systematic Review: The Impact Analysis and Implementation Policies of Exclusive Breastfeeding Programs

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#### ABSTRACT

**Background:** Health promotion is an effort to improve the society's ability in order to make people empower themselves. Exclusive breastfeeding/ASI eksklusif is the practice of giving breast milk to infants for the first six months of life (without any additional food or water) a preventive intervention that addresses the single greatest potential impact on child mortality. **Objective:** To analyze the impact of the availability and unavailability of program policy that support exclusive breastfeeding in improving the implementation of exclusive breastfeeding policy. **Method:** The method used in this research was a systematic review technique. The process of searching for articles through Sagepub, Google, and Google Scholar. The keywords used were breastfeeding policy, breastfeeding policy and health promotion, breastfeeding health promotion, workplace breastfeeding policy, and maternity leaves starting from February 20, 2020, to April 15, 2020, and found 153 articles which were then sorted into 35 articles. The articles discussed the implementation of the exclusive breastfeeding program (10), the exclusive breastfeeding policy (12), and the impacts arising from the exclusive breastfeeding policy (13) with articles in Indonesian (10) and English (25). **Results:** The found policy that have not been implemented by the Indonesian government are policies that adopt the latest version of The International Code of Marketing of Breas Milk Substitutes. Weak implementation of follow-up on sanctions and fines if it violates applicable policy. **Coclusion:** The exclusive breastfeeding program carried out by Indonesia is still in the scope of classes for pregnant women, companion groups, exclusive breastfeeding socialization, and breastfeeding motivator training. Social, economic, and cultural factors are other supporting factors related to exclusive breastfeeding success.

**Keywords:** Exclusive Breastfeeding, Impact, and Policy

#### ABSTRAK

**Latar Belakang:** Promosi kesehatan merupakan upaya untuk meningkatkan kemampuan masyarakat agar masyarakat menjadi mampu dan berdaya. Air Susu Ibu (ASI) eksklusif merupakan tindakan pemberian ASI kepada bayi selama enam bulan pertama kehidupan (tanpa tambahan makanan atau air). ASI eksklusif merupakan satu-satunya upaya pencegahan yang berdampak besar dalam mencegah kematian anak. **Tujuan:** Menganalisis dampak ketersediaan dan tidak tersedianya kebijakan program yang mendukung pemberian ASI Eksklusif dalam meningkatkan pelaksanaan kebijakan pemberian ASI eksklusif. **Metode:** Metode yang digunakan dalam penelitian ini adalah teknik telaah sistematis. Proses pencarian artikel melalui Sagepub, Google, dan Google Scholar. Kata kunci yang digunakan adalah kebijakan menyusui, kebijakan menyusui dan promosi kesehatan, promosi kesehatan ASI, kebijakan menyusui di tempat kerja, dan cuti melahirkan mulai tanggal 20 Februari 2020 sampai dengan 15 April 2020, dan terdapat 153 artikel yang kemudian diurutkan menjadi 35 artikel. Artikel tersebut membahas tentang pelaksanaan program ASI Eksklusif (10), kebijakan ASI Eksklusif (12), dan dampak yang ditimbulkan dari kebijakan ASI Eksklusif (13) dengan artikel dalam bahasa Indonesia (10) dan Inggris (25). **Hasil:** Kebijakan yang ditemukan belum dilaksanakan oleh pemerintah Indonesia adalah kebijakan yang mengadopsi versi terbaru dari The International Code of

*Marketing of Breas Milk Substitutes. Pelaksanaan tindak lanjut sanksi dan denda yang lemah jika melanggar kebijakan yang berlaku. Kesimpulan: Program ASI Eksklusif yang dilakukan oleh Indonesia masih dalam lingkup kelas ibu hamil, kelompok pendamping, sosialisasi ASI Eksklusif, dan pelatihan motivator ASI. Faktor sosial, ekonomi, dan budaya merupakan faktor pendukung lain yang berhubungan dengan keberhasilan pemberian ASI Eksklusif.*

**Kata Kunci:** ASI Eksklusif, Dampak, dan Kebijakan

## INTRODUCTION

The definition of health promotion, based on Indonesia's Ministry of Health, is an effort to enhance society's ability to control the health factors through learning by, from, for, and with the people. It is expected that society can help and empower themselves, develop activities using their own resources according to socio-cultural applied, and supported by public policies related to health (Susilowati, 2016).

The 65<sup>th</sup> World Health Assembly (WHA) supported the Comprehensive Implementation of the Maternal, Infant and Child Nutrition Plan which includes six global targets. These targets aim to reduce stunting and wasting in children under 5 years, stop the obesity epidemic, and reduce anemia in fertile age women. Other targets include reducing low birth weight and increasing rates of exclusive breastfeeding. Global targets are set to identify priority areas, inspire ambition at the country level and develop accountability frameworks (World Health Organization and UNICEF, 2019).

Exclusive breastfeeding can be defined as the practice of giving only breast milk to an infant for the first six months of life (without additional food or other water). Exclusive breastfeeding is a preventive intervention to deal with the greatest potential impact on child mortality. The optimal part about breastfeeding practice is to start with the initiation within one hour of life. Followed by breastfeeding until the age of two years or more. Exclusive breastfeeding is the cornerstone of the child's survival and health. Breast milk can provide essential and irreplaceable nutrients for the growth and development of children (Heymann and Earle, 2013).

Breastfeeding benefits for both women and infants. Women who are breastfeeding can provide a longer

interval between birth and subsequent pregnancies, therefore, the risk of maternal morbidity and mortality rate will be lower. Breastfeeding can reduce the risk of breast cancer before menopause as well as the risk of ovarian cancer, osteoporosis, and coronary heart disease (Heymann and Earle, 2013).

By 2025, WHO targets to increase exclusive breastfeeding in the first six months by up to 50%. This target indicates that the current global average, estimated at 37% for the period 2006-2010, will increase to 50% by 2025. This target would involve a relative increase of 2.3% per year and could result in an estimated more than 10 million children get exclusive breastfeeding until the age of six months. Global rates of exclusive breastfeeding increased from 14% to 38% from 1985 to 1995. Increases in rates of exclusive breastfeeding often exceed the proposed global targets. For example, Cambodia saw an increase from 12% to 60% between 2000 and 2005, Mali from 8% to 38% between 1996 and 2006, and Peru from 33% to 64% between 1992 and 2007 (WHO, 2014).

The WHA Global Nutrition Targets 2025 define a number of targets in an effort to increase exclusive breastfeeding for infants. The first target is to provide the capacity of hospitals and health facilities to support exclusive breastfeeding, including revitalizing, expanding, and institutionalizing baby-friendly hospital initiatives in the health system. Second, providing a community-based strategy to support exclusive breastfeeding, including the implementation of a communication campaign tailored to the local context. Third, limiting the marketing of breast milk substitutes by strengthening monitoring, law enforcement, and legislation related to The International

Code of Marketing of Breast Milk Substitutes and the World Health Assembly resolutions. The fourth target is to empower women to breastfeed exclusively by imposing six months of mandatory maternity leave and policies that encourage women to breastfeed in the workplace and in public. Fifth, invest in training and capacity building exclusively for the protection, promotion and support of exclusive breastfeeding (Lyell, 2012).

WHA Global Nutrition Targets 2025 intend that countries should enact policies that protect and support women in their efforts to exclusively breastfeed their children. Evidence shows that longer maternity leave has an impact on the longer duration of exclusive breastfeeding. The effects may be limited in countries where women are predominantly employed in the informal sector. Six months of maternity leave allows women to continue breastfeeding for longer without having to choose between earning an income and providing the best nutrition for their infants (Lyell, 2012).

The International Code of Marketing of Breast Milk Substitutes and the World Health Assembly resolutions involve the enforcement, enforcement and monitoring of relevant legislation. Aims to protect and ensure the proper use of breast milk substitutes. Restrictions on the marketing and distribution of breast milk substitutes. The policy includes a ban on the promotion of breast milk substitutes, milk bottles and pacifiers. Countries with strong policies regarding enforcement of protection against the marketing of breast milk substitutes have higher rates of exclusive breastfeeding. Policy monitoring and enforcement engages legislative bodies and government agencies to negotiate, defend trade agreements, and regulate labeling and marketing (Lyell, 2012).

According to the theory of the Implementation Model by George C. Edward III, it discusses factors about the successful implementation of a policy. A policy will be successful with factors including communication, resources, disposition, and bureaucratic structures

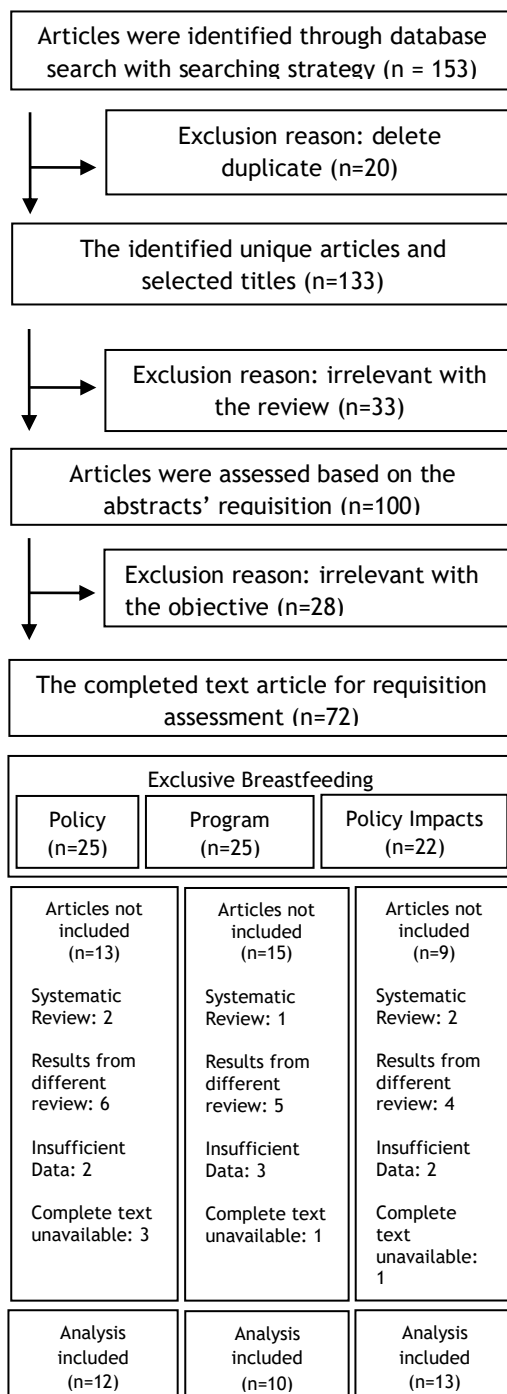
that interact and support each other in a program policy. Amongst the four factors, the one that can be analyzed, both in terms of stakeholders and working mothers is called resource factors (Tasrin, 2018).

The purpose of conducting this review is to analyze the impact of the availability and unavailability of program policies that support exclusive breastfeeding in enhancing the implementation of exclusive breastfeeding policies. Through the results of this review, he hopes to create exclusive breastfeeding policies and programs that are able to support mothers in exclusive breastfeeding for the first 6 months. Especially for working mothers as one of the factors that can affect the quality and success of exclusive breastfeeding. Moreover, WHO and WHA Nutrition Targets 2025 have regulated a number of policies which are expected to make it easier for mothers to exclusively breastfeed.

## METHOD

The method used in this study was by implementing a systematic review technique. The process of searching for articles was through Sagepub, Google, and Google Scholar. The keywords used are *breastfeeding policy, breastfeeding policy and health promotion, breastfeeding health promotion, breastfeeding policy in a workplace, and maternity leave*. Article searches were conducted from February 20, 2020 to April 15, 2020. Search for articles and review articles based on the articles that have been found.

A total of 153 articles discussing the implementation of exclusive breastfeeding policies. The article was published by the World Health Organization (WHO), the WHA global international target, the Indonesian Ministry of Health, the International Labor Organization (ILO), the International Conference on Applied Science and Health (ICASH), and the Lancet article to identify studies examining the policy impact of program implementation of exclusive breastfeeding.



**Figure 1.** Flow Chart Prism Related to The Implementation of Exclusive Breastfeeding Policy Program

First-party review authors (MTN) took articles based on potentially relevant categories of titles, abstracts, and discussion content and independently assessed the feasibility of the study using pre-determined inclusion criteria. First-party review authors (MTN) classify

relevant articles, then consult with second party (OS) authors in determining which articles are appropriate for inclusion in the discussion.

A total of 153 articles were found, then selected 35 articles that discuss the impact of exclusive breastfeeding policies. The article was identified into three reviews that discussed the implementation of an exclusive breastfeeding policy (12), an exclusive breastfeeding program (10), and the impact of the implementation of an exclusive breastfeeding policy (13). The articles consist of articles in Indonesian (10) and English (25). Inclusion criteria were determined by selecting all case study articles, literature reviews, systematic reviews, cross-sectional, qualitative, quantitative, and mixed-method studies. The topics discussed were exclusive breastfeeding policies, exclusive breastfeeding implementation programs, and the impact of the implementation of exclusive breastfeeding policies and programs. Articles were accessed through articles in Indonesian and English. Articles that are not available in Indonesian and English would be excluded.

## RESULTS AND DISCUSSION

The review author screened 153 identified titles. A total of 72 articles were selected for full review based on their titles and abstracts. Seventy-two articles were identified and 35 articles fit the inclusion criteria that have been determined. Among them, exclusive breastfeeding policy (12), the exclusive breastfeeding program (10), and the impact of the implementation of the exclusive breastfeeding policy (13) were discussed. The articles consisted of articles in Indonesian (10) and English (25). The articles taken in publication year between 2010 and 2020. The methods used by the article include case studies, literature reviews, systematic reviews, cross-sectional, qualitative, quantitative, and mix-method studies. The topics discussed were exclusive breastfeeding policy, exclusive breastfeeding implementation programs, and the impact and influence of exclusive breastfeeding policy and program.



**Table 1.** Overview Summary of Journal Articles Used as a Systematic Review

No	Author, Year	Location	Method	Research Topic	Category
1	Afiyanti and Juliastuti, 2017	Indonesia	Qualitative Approach	Implementation of exclusive breastfeeding policy in Indonesia	Implementation of exclusive breastfeeding policy
2	Amran and Afni Amran, 2015	Indonesia	Cross-sectional Design with Quantitative Approach	The impact of the implementation of exclusive breastfeeding policy in Indonesia	The impact of the implementation of exclusive breastfeeding policy
3	Atabay <i>et al.</i> , 2015	Canada	Case Study Analysis	Implementation of exclusive breastfeeding policy at the workplace	Implementation of exclusive breastfeeding policy
4	Bich <i>et al.</i> , 2016	Vietnam	Case Study	Husbands' influence in implementing exclusive breastfeeding program	The impact of the implementation of exclusive breastfeeding policy
5	Chai, Nandi and Heymann, 2018	California	Quantitative	The implementation of exclusive breastfeeding program	Exclusive breastfeeding program
6	Dawn Leeming, Iain Williamson, Sally Johnson, 2015	United Kingdom	Qualitative	The impact of maternal influence and family support in the exclusive breastfeeding program success.	The impact of the implementation of exclusive breastfeeding policy
7	Eidelman, 2012	Amerika	Case Study	Implementation of exclusive breastfeeding policy	Implementation of exclusive breastfeeding policy
8	Ekawati, Parlindungan and Morita, 2015	Indonesia	Qualitative Approach	Exclusive breastfeeding program	Exclusive breastfeeding program
9	Fitria, 2019	Indonesia	Phenomenology Study	The Implementation Program of Exclusive Breastfeeding in Bukittinggi	Exclusive breastfeeding program
10	Francis <i>et al.</i> , 2020	Canada	Case Study	The Support Program for Community Lactation	Exclusive breastfeeding program
11	Handajani, Pamungkasari and Budihastuti, 2018	Indonesia	Analytical Observation	The Effectiveness of Health Promotion Program to Improve the Exclusive Breastfeeding Coverage in Surabaya	The impact of the implementation of exclusive breastfeeding policy
12	Hawke, Dennison and Hisgen, 2013	New York	Analytical Observation	The Exclusive Breastfeeding Policy Improvement in New York's Hospitals	Implementation of exclusive breastfeeding policy
13	Ingram <i>et al.</i> , 2015	United Kingdom	Cross-sectional Design with Quantitative Approach	Exclusive Breastfeeding Program with Health Workers Assistance	Exclusive breastfeeding program
14	Johnson, Kirk and Muzik, 2015	USA	Qualitative	The Impact of Exclusive Breastfeeding Policy as the Support of Exclusive Breastfeeding at Workplaces	The impact of the implementation of exclusive breastfeeding policy
15	Kim, Shin and Donovan, 2019	USA	Systematic Review	The Effectiveness of Lactation Program at Workplaces	The impact of the implementation of exclusive breastfeeding policy
16	Kumar <i>et al.</i> , 2015	India	Case Study	The Practice of Exclusive Breastfeeding Policy for Working Mothers	Implementation of exclusive breastfeeding policy

No	Author, Year	Location	Method	Research Topic	Category
17	Lauer <i>et al.</i> , 2019	USA	Cross Sectional	The Barriers and Support of Exclusive Breastfeeding for Working Mothers	The impact of the implementation of exclusive breastfeeding policy
18	Lin and Fawkes, 2015	Australia	Case Study	The Exclusive Breastfeeding Policy Making as Prevention	Implementation of exclusive breastfeeding policy
19	Morteza, Shokouh and Arab, 2017	Iran	Narrative Review	The Impact of Social Support of Exclusive Breastfeeding Policy Implementation	The impact of the implementation of exclusive breastfeeding policy
20	Navarro-rozenblatt, 2018	Chile	Literature Review	Maternity Leave Policy to Address Exclusive Breastfeeding Coverage	Implementation of Exclusive breastfeeding policy
21	Orr <i>et al.</i> , 2018	Canada	Quantitative	Family Experience and Support as the Influence towards Exclusive Breastfeeding Program Success	The impact of the implementation of exclusive breastfeeding policy
22	Paramita <i>et al.</i> , 2015	Indonesia	Case Study	Exclusive Breastfeeding Program Implementation in Probolinggo	Exclusive breastfeeding program
23	Paynter, 2018	Canada	Case Study	The Exclusive Breastfeeding Policy for Breastfeeding Women Under Law Protection	Implementation of exclusive breastfeeding policy
24	Pramono, 2018	Indonesia	Literature Review	The Analysis of Exclusive Breastfeeding Policy in Indonesia	Implementation of exclusive breastfeeding policy
25	Safon <i>et al.</i> , 2017	USA	Mix- method Study	Exclusive Breastfeeding Policy in Nicaragua	Implementation of exclusive breastfeeding policy
26	Fikawati and Syafiq, 2010	Indonesia	Qualitative Approach	The Cause of Inefficiency in Exclusive Breastfeeding Program	Exclusive breastfeeding program
27	Schafer, 2018	USA	Cross Sectional	The Impact of Spouses' Support in The Exclusive Breastfeeding Program Success	The impact of the implementation of exclusive breastfeeding policy
28	Smith-gagen <i>et al.</i> , 2020	Nevada	Cross Sectional	The Impact of Exclusive Breastfeeding Program Implementation	The impact of the implementation of exclusive breastfeeding policy
29	Soomro, 2015	Pakistan	Cross Sectional	The Factors of Exclusive Breastfeeding Program Success at Workplaces	Exclusive breastfeeding program
30	Soomro <i>et al.</i> , 2016	Pakistan	Cross Sectional	The Factors of Exclusive Breastfeeding Program Success at Workplaces	Exclusive breastfeeding program
31	Suliasih, Puspitasari and Pawestri, 2019	Indonesia	Cross Sectional	The Factors of Exclusive Breastfeeding Program Success at Workplaces	Exclusive breastfeeding program
32	Tsai, 2013	Taiwan	Quantitative Approach	The Improvement of Exclusive Breastfeeding Policy at Workplaces	Implementation of exclusive breastfeeding policy
33	Waddington, 2016	Nova Scotia	Qualitative Approach	The Support for Breastfeeding Based on the Gaps in Policy, Field Practice, and	The impact of the implementation of exclusive breastfeeding policy

No	Author, Year	Location	Method	Research Topic	Category
34	Walters <i>et al.</i> , 2016	South-East Asia	Case Study	Maternal Experience The Policy Related to Formula Feeding Sales	Implementation of exclusive breastfeeding policy
35	Yusrina and Devy, 2017	Indonesia	Quantitative Approach	The Factors Affecting Exclusive Breastfeeding Program Success	The impact of the implementation of exclusive breastfeeding policy

### Existing Policy

The formulation of strategies that will be used is very important in an effort to improve health status. Strategies related to the performance that will be carried out. The performance improvement consists of several stages. First, starting with involving all levels of society then strengthening leadership and coordination in the team. Second, creating sustainable financing by building infrastructure and resources. Third, by integrating evidence, policy, and practice and increasing equality and justice (Lin and Fawkes, 2015). Studies have found that higher paid maternity leave increases the prevalence of exclusive breastfeeding and the length of breastfeeding in high-income countries. These findings cannot be generalized in low- and middle-income countries (Chai, Nandi and Heymann, 2018).

All citizens of the United Kingdom are legally entitled to free health care through the National Health Service (NHS) and formal support from pregnancy to breastfeeding by midwives (NHS) (Dawn Leeming, Iain Williamson, Sally Johnson, 2015). The government of health in Canada establishes health policies and programs to offer safe, cheap and optimal food supplies for both breastfeeding mothers and toddlers. These policies and programs are an effort to protect infants from malnutrition (Orr *et al.*, 2018). Recently, Vietnam and Myanmar have updated the regulations of The International Code of Marketing of Breast Milk Substitutes, in line with the latest WHA. Timor Leste and Thailand have only produced a Draft Law and have not yet been ratified as a Law (Walters *et al.*, 2016).

Research conducted on a group of African-American mothers found that there is still a lack of support from the government, both from policies and the provision of health services in the workplace. This condition makes the mother ultimately choose not to

exclusively breastfeed (Johnson, Kirk and Muzik, 2015). There are six main issues discussed, namely conceptual changes to breastfeeding choices, categorization of health losses due to not breastfeeding, and a focus on duration and exclusive breastfeeding (Eidelman, 2012). A New York City policy that explains that all local hospitals that provide maternity care have a written and documented policy on postnatal breastfeeding (Hawke, Dennison and Hisgen, 2013).

Maternity leave is defined as any part of what is recognized as the legislative provision of maternity protection. Maternity leave includes maternity leave, benefits, job protection, health protection, workplace breastfeeding arrangements, and child care. The ILO advocates for maternity benefits to be provided as part of the minimum basic social security coverage for working women who wish to breastfeed their children (Navarro-rosenblatt, 2018).

The global policy for infant and young child feeding recommends that every workplace has access to full support for maintaining exclusive breastfeeding for up to 6 months complementary feeding, and breastfeeding for up to 2 years. The government is obliged to pass laws promoting the right to breastfeeding for women workers and instituting the means for implementation in accordance with international labor law (Soomro, 2015).

The exclusive breastfeeding policy in Canada is a human right that must be obtained by every citizen, without exception. Canada has laws that regulate female inmates who must exclusively breastfeed. The law stipulates that inmates can make a written statement through the commissioner to allow babies to stay with the prisoner. The government is obliged to provide facilities to have adequate accommodation for detainees to care for children (Paynter, 2018). In 2014, out of 55 countries that did not guarantee

leave for exclusive breastfeeding mothers for the first 6 months after birth. Seven countries including Canada, Denmark, Finland, Gambia, Serbia, England and Iceland guarantee paid maternity leave. Such leave can also facilitate exclusive breastfeeding for the recommended 6 months (Atabay *et al.*, 2015).

Taiwan stipulates that employers need to provide 8 weeks of maternity leave for female employees. The construction and implementation of breastfeeding-friendly policies in the workplace is still a new practice in Taiwan. The government encourages companies or industries to provide breastfeeding support services, such as rest, breast pumping, and lactation rooms. Employees must bring their own breast pumps. Employers allow working mothers to perform two breast-pumping every day with each break of no more than 30 minutes (Tsai, 2013).

Research conducted by Soomro, found that as many as 86% of respondents in Pakistan 86% that in some workplaces in Pakistan even though maternity leave still gets paid. Then 15% of the respondents stated that breastfeeding mothers get relief at work. And 12% of respondents stated that they got 1 hour to rest from 6-8 hours of work (Soomro *et al.*, 2016).

There are policies in several states that have resulted, among others, laws for exempting breastfeeding from public pornography laws. Laws specifically allowing women to breastfeed in any public or private location. A law that exempts breastfeeding mothers from work. Laws implementing or encouraging the development of breastfeeding awareness education campaigns. Legislation requiring a reasonable time off from work to deliver breastmilk. Laws requiring private locations and sanitation for employees to pump their milk. Enforcement of workplace pumping laws and enforcement of public breastfeeding laws (Smith-gagen *et al.*, 2020).

The International Code of Marketing of Breast Milk Substitutes has restricted the promotion of breastmilk substitutes, bottles, pacifiers and baby foods. The ban aims to support exclusive breastfeeding for infants up to 6 months. A literature study conducted in 2018 shows that Indonesia has not been able to adopt the latest version of the regulation of The

International Code of Marketing of Breast Milk Substitutes. This condition is because it can hurt the feelings of mothers who cannot or choose not to provide exclusive breastfeeding and there are still several health facilities that support formula feeding (Pramono, 2018).

### **The Promotional Program of Exclusive Breastfeeding Health**

Research conducted in 2019 found programs provided in the workplace in the USA such as the provision of lactation rooms (Kim, Shin and Donovan, 2019). Every employee who is breastfeeding has the right to get a breast pump facility from the company where they work. The workplace is obliged to provide temporary storage for breastmilk as well as telephone support and consultation for mothers seeking maternity leave. Workers are entitled to free lactation consultations from health workers who have been provided by the company. Comprehensive lactation programs have been shown to increase breastfeeding duration among mothers planning to breastfeed before maternity leave in upper middle-income families (Kim, Shin and Donovan, 2019).

Previous research states that there are several programs that have been launched by health centers and the Health Office to increase exclusive breastfeeding. The program includes classes for pregnant women, companion groups, exclusive breastfeeding outreach, and breastfeeding motivator training. The existence of this program is expected to increase exclusive breastfeeding for infants for 6 months (Ekawati, Parlindungan and Morita, 2015).

### **The Impact and Influence in Improving Program's Policy**

A number of developing countries provide a large potential market for breastmilk substitutes. Collaboration through health workers is carried out to offer formula milk to mothers by giving gifts as bonuses for health workers (Soomro, 2015). Previous research has shown that the resources of health personnel with special expertise in health promotion are still limited. The manager of the health promotion/Promosi Kesehatan (Promkes) program also doubles as a Maternal and Child Health Polyclinic. This condition explains that

the job analysis is not in accordance with the needs of the program, while the original personnel from public health are still in the orientation stage (Paramita *et al.*, 2015).

The cost of a comprehensive lactation program is estimated at \$500 per employee and \$186 to provide a breast pump for one year (Kim, Shin and Donovan, 2019). There is an obstacle is the lack of budget funds specifically allocated for health promotion. Meanwhile, the Health Promotion itself receives funds from Health Operational Assistance if the program does not receive financial assistance from the health office (Paramita *et al.*, 2015). Funds that are devoted to exclusive breastfeeding health promotion program activities do not yet exist, but these funds are combined with other activities and are also taken from BOK funds (Fitria, 2019).

Enhancing the exclusive breastfeeding program can be done in collaboration with health cadres, breastfeeding advisors and breastfeeding support groups in any health institution and community. There is a need for training related to management on how to communicate with peers and on targets. Collaboration between midwives, nurses and other health professionals has the potential to promote and support exclusive breastfeeding for 6 months. Promoting exclusive breastfeeding is family-centered which can help increase the education and awareness of breastfeeding mothers (Afiyanti and Juliastuti, 2017).

Compared with non-working mothers, the likelihood of stopping breastfeeding among working mothers was four times higher. A study from North India reported that 19% of women breastfeed for one hour and 5% of women exclusively breastfeed for six months (Kumar *et al.*, 2015). Mothers who do not work are 24 times more likely to provide exclusive breastfeeding than mothers who work (Suliasih, Puspitasari and Pawestri, 2019).

The rate of breastfeeding in working mothers rapidly decreases after returning to work. A total of 635 subjects (88.8%) started breastfeeding at the start of maternity leave. The rate of continuing breastfeeding rapidly decreased after returning to work (49.8%). Nearly 39% of working mothers stop breastfeeding

within 1 month of returning to work. As many as 7.6% of these women continued to breastfeed for more than 1 year, even if a lactation room was available (Tsai, 2013).

Exclusive breastfeeding in Canada from 1920 to 1960 was lower than it is today. There is an emphasis on scientific knowledge about infant feeding and the use of formulas as a remedy for common childhood illnesses. Since 1970, mothers who provide exclusive breastfeeding have increased consistently, reaching 25-65%. The reason is the increased interest and international advocacy and knowledge of mothers related to breastfeeding (Waddington, 2016).

Mothers aged 25-30 years old are 16 times more likely to provide exclusive breastfeeding than those aged > 30 years (Suliasih, Puspitasari and Pawestri, 2019). Thirty years old mothers give their infants breastfeeding exclusively, while 24 years old mothers do not exclusively breastfeed (Fikawati and Syafiq, 2010).

A number of mothers decide to exclusively breastfeed and try to do it during pregnancy. Exclusive breastfeeding for 6 months is not the norm. Most mothers provide breast milk in combination with formula milk. Many mothers decide to provide exclusive breastfeeding based on their previous breastfeeding experience. Breastfeeding is a learned behavior for both babies and mothers. Prenatal and postnatal guidelines should be provided about what to expect and how to deal with the challenges that might occur (Francis *et al.*, 2020). Lack of breastfeeding, sore nipples, and previous experiences in children are one of the reasons for the discontinuation of exclusive breastfeeding in several countries. These include Malaysia, America and Australia (Eidelman, 2012).

There are determinants, both direct and indirect. Direct determinants, such as mothers' anxiety about meeting the nutritional needs of their babies and about the baby's satiety and anxiety about the mother's own nutrition. There are indirect determinants such as infant feeding by family members and maternal perceptions of infant feeding norms (Safon *et al.*, 2017).

The majority of respondents, namely 47% stated that they intend to provide exclusive breastfeeding on the



grounds that breastfeeding has many benefits and is good for both mother and baby. As many as 25% said they did not intend to provide exclusive breastfeeding because they did not have experience with previous children, working mothers, and the mother's understanding of the baby would not be full if only from breast milk (Yusrina and Devy, 2017).

The breastfeeding gap experienced by low-income women is caused by individual, social and environmental factors. The prevalence of breastfeeding among women enrolled in the Women, Infants, and Children (WIC) Program, is below the national target set in Healthy People 2020. Nationally, mothers enrolled in the Women, Infants, and Children (WIC) Program have breastfeeding rates lower than non-members of Women, Infants, and Children (WIC). Women, Infants, and Children (WIC) continue to strive to encourage breastfeeding through the Loving Support Makes Workfeeding Work campaign and the WIC Peer Counseling Program (Lauer *et al.*, 2019).

Some mothers decide to stop exclusive breastfeeding during the first postpartum month. The influence of mothers' fear of being "deprived" of milk, milk that fails to "come out", and not being able to satisfy their babies with their own milk. Added to this is the influence of family members such as mothers, grandmothers, or mothers-in-law as a factor in deciding to introduce breastmilk substitutes or complementary foods (Safon *et al.*, 2017).

Parents who provide exclusive breastfeeding for their children will experience negative psychosocial impacts from social stigma. Strong partner support with a positive emotional response can increase exclusive breastfeeding (Schafer, 2018). The strength of support from the family can increase the enthusiasm of the mother in giving breastfeeding exclusively. The success of exclusive breastfeeding is influenced by family, especially husband, parents, family, friends, neighbors and the environment (Handajani, Pamungkasari and Budiastuti, 2018). Social and family support are more important components of the social environment than the physical environment (Morteza, Shokouh and Arab, 2017). Husband's support can increase efforts to breastfeed early after childbirth (Bich *et al.*, 2016).

Support from health workers is closely related to the emergence of a mother's confidence in giving exclusive breastfeeding to her child (Ingram *et al.*, 2015). As many as 91.5% of the respondents did not get neonatal visits from health workers. Mothers who received neonatal visits by health workers on the seventh day did not get information about how and when to breastfeed (Amran and Afni Amran, 2015).

## CONCLUSION

It was found that policies that have not been implemented by the Indonesian government are policies that adopt the latest version of The International Code of Marketing of Breast Milk Substitutes. Weak implementation of follow-up of sanctions and fines if it violates applicable policies. The exclusive breastfeeding program carried out by Indonesia is still in the scope of classes for pregnant women, companion groups, exclusive breastfeeding socialization, and breastfeeding motivator training. Social, economic and cultural factors are other supporting factors related to the success of exclusive breastfeeding.

It is expected that in the future, Indonesian government will be able to combine all sectors to adopt the latest version of the regulation of The International Code of Marketing of Breast Milk Substitutes, especially in affirming the follow-up of sanctions and fines if they violate the exclusive breastfeeding policy. Indonesian government is able to adopt comprehensive programs such as providing breast pump facilities, storage of breast milk, consultation on maternity leave, and free lactation consultations from health workers from workplaces. This comprehensive program has been shown to increase breastfeeding duration. It is hoped that the Indonesian government will be able to collaborate between sectors in dealing with social, economic and cultural factors which are other supporting factors related to the success of exclusive breastfeeding.

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