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THE RELATIONSHIP OF FAMILY SUPPORT AND SELF-MOTIVATION WITH ADHERENCE MEDICATION IN TUBERCULOSIS PATIENTS IN THE PUBLIC HEALTH CENTRE

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Abstract
Tuberculosis is an infectious disease that is still a public health problem in the world, including Indonesia. The aim of the research is to see whether there is a relationship between family support and self-motivation on adherence to taking medication . This type of research is quantitative with a cross sectional research design. Because research data (dependent and independent) measurements are carried out at the same time. univariate and bivariate statistical analysis because research data (dependent and independent) measurements were carried out at the same time. univariate and bivariate statistical analysis. With a research sample of 65 respondents. Based on statistical tests using chi-square, Continuity Correction results were obtained with a P value of 0.0001 < α 0.05, meaning that H0 was rejected, that there was a significant relationship between family support and adherence to taking medication. Based on statistical tests using chi-square, Continuity Correction results were obtained with a P value of 0.001 < α 0.05, meaning that H0 was rejected, that there was a significant relationship between self-motivation and adherence to taking medication. Suggestions from researchers are that it is hoped that sufferers can increase awareness of compliance with taking medication, and the importance of family support for sufferers so that they always comply with treatment.
Keywords: family support, self-motivation, medication adherence

INTRODUCTION

Tuberculosis is an infectious disease that is still a public health problem in the world, including Indonesia. Pulmonary tuberculosis is an infectious disease that attacks the parenchyma. One of the factors that triggers anxiety is the threat to a person's integrity. Based on this opinion, the emergence of pulmonary tuberculosis in a patient has an impact on the emergence of awareness of the threat to the patient's existence or integrity in personal life and in society (Kurniasih and Nurfajriani, 2021). Tuberculosis disease is influenced by several host factors. Factors related to the host include age, gender, race, socio-economics, living habits, marital status, occupation, heredity, nutrition and immunity (Pangaribuan et al, 2020)

According to WHO, tuberculosis is a disease of global concern. With various control efforts carried out, the incidence and deaths due to tuberculosis have decreased, but tuberculosis is still estimated to attack 9.6 million people and caused 1.2 million deaths in 2014. India, Indonesia and China are the countries with the most tuberculosis sufferers, respectively. including 23%, 10% and 10% of all sufferers in the world (WHO, 2015).

However, only 393,323 or 48 percent of TB patients were successfully found, treated and reported to the national information system. There are still around 52 percent of Tuberculosis

cases that have not been discovered or have been discovered but have not been reported. He said that in Riau Province there were an estimated 27,634 cases of Tuberculosis in the community. However, only 9,467 or 34.25 percent of Tuberculosis patients were successfully found, treated and reported to the Tuberculosis Information System (SITB) in 2021 (Zainal Arifin, 2021.)

Prevention that can be done to break the chain of infection transmission in the family consisting of; providing immunizations for babies, providing adequate nutrition for sufferers and family members, modifying the home environment and controlling tuberculosis sufferers so that they receive regular treatment (Pangaribuan et al, 2020). Family support is an important factor in compliance with tuberculosis treatment. Family support in this case is to encourage sufferers to comply with taking their medication, show sympathy and concern, and not avoid the sufferer from their illness (Putri, 2020).

The aim of the author's research is to determine the relationship between family support and self-motivation with medication adherence among Tuberculosis Patients in the Rejosari Health Center Work Area, Pekanbaru City in 2023.

RESEARCH METHODS

This type of research is quantitative with a cross sectional research design. The location of this research was carried out in the working area of the Puskesmas Rejosari Pekanbaru City in 2023. This research was carried out in March-July 2023. The population in this study was all Tuberculosis sufferers in the working area of the Rejosari Health Center, Pekanbaru City, namely 65 people. The sample in this research was taken using a sampling technique using Purposive Sampling, namely 65 people

RESEARCH RESULT

Table 1. Frequency Distribution of Adherence Medication in Tuberculosis Patients in the Working Area of Puskesmas Rejosari Pekanbaru City, 2023.

Medication Adherence	n	%
No Adherence	37	56,9
Adherence	28	43,1
Total	**65**	**100**

Based on table 1, it can be seen that of the 65 respondents, the majority did not comply with taking medication, 37 respondents (56.9%).

Table 2. Frequency Distribution of Family Support for Tuberculosis Patients in the Working Area of Puskessmas Rejosari Pekanbaru City, 2023

Family Support	n	%
Poor Family Support	29	44,6
Good Family Support	36	55,4
Total	**65**	**100**

Based on table 2, it can be seen that of the 65 respondents, the majority received good family support, 26 respondents (55.4%).

Table 3. Frequency Distribution of Self-Motivation in Tuberculosis Patients in the Working Area of Puskessmas Rejosari Pekanbaru City, 2023

Self-Motivation	n	%
Negative	34	52,3
Positive	31	47,7
Total	**65**	**100**

Based on table 3, it can be seen that of the 65 respondents, the majority were respondents who were negative about self-motivation, 34 respondents (52.3%).

Table 4. The Relationship Of Family Support With Adherence Medication In Tuberculosis Patients in the Working Area of Puskessmas Rejosari Pekanbaru City, 2023

Family Support	Medication Adherence				Total		P *value* (*POR* 95% CI)
	No Adherence		Adherence				
	f	%	f	%	f	%	
Poor	25	86.2	4	13.8	29	100	0,0001
Good	12	33.3	24	66.7	36	100	(12.500; 3.536-44,183)
Total	37	56,9	28	43,1	65	100	

The results of the study showed that of the 29 respondents in the poor family support category, 25 respondents (38.5%) did not adhere medication, while respondents with poor family support but adhered medication were 4 respondents (6.2%). The results of statistical tests using the chi square test obtained a P-value of 0.00 < α 0.05, so Ha was accepted, which means there is a significant relationship between family support and compliance with taking medication in Tuberculosis patients in the working area of Puskesmas Rejosari Pekanbaru City in 2023

Table 5. The Relationship between Self-Motivation and Compliance with Taking Medicine in TB Patients in the Working Area of Puskesmas Rejosari Pekanbaru City, 2023

Self Motivatioan	Medication Adherence				Total		*p value* (*p* OR 5% CI)
	No Adherence		Adherence				
	f	%	f	%	f	%	
Lower	25	73.5	9	26.5	34	100	0,001
Higher	12	38.7	19	61.3	31	100	(4.398; 1.539-12.570)
Total	37	56,9	28	43,1	65	100	

The results showed that of the 34 respondents with negative self-motivation categories who did not comply with taking medication, 25 respondents (38.5%), while respondents with negative self-motivation but adhered to taking medication were 9 respondents (13.8%). The results of statistical tests using the chi square test obtained a P-value of 0.010 < α 0.05, so Ha was

accepted, which means there is a significant relationship between self-motivation and compliance with taking medication in TB patients in the working area of Puskesmas Rejosari, Pekanbaru City in 2023

DISCUSSION

Relationship between family support and medication adherence in TB patients

Analysis of the relationship between the two variables obtained a POR of 12.500 with internal confidence (CI) 3.536-44,183. This means that tuberculosis patients who receive poor family support are 12.5 times more likely to be non-compliant with taking medication than those who receive good family support.

This research is in line with research by Dhewi (2012)which states that there is a significant relationship between family support and adherence to taking medication in tuberculosis patients.

Tuberculosis treatment plays an important role by the family as an effort to provide encouragement and supervision in taking medication (Sibua and Watung. 2021). According to Mantovani et al, (2022) family support can support regular treatment of Tuberculosis sufferers. The better the support provided by the family, including emotional, respectful, informative and instrumental support, the more compliant Tuberculosis patients will be in taking medication (Hamidah and Nurmalasari, 2020).

Based on research results, theory and related research, researchers assume that family support is very important in increasing compliance in taking medication to achieve family health and the health of Tuberculosis sufferers who are at high risk of Tuberculosis in undergoing treatment, even family support is very necessary. The effects of family support on health and well-being function simultaneously. More specifically, the existence of family support has been proven to be stronger in increasing compliance in taking medication and easily curing illness, improving cognitive function, physical and emotional health. Besides that, the positive influence of family social support is on adjustment to events in life.

The Relationship between Self-Motivation and Adherence to Taking Medication in Tuberculosis Patients

Analysis of the relationship between the two variables obtained a POR of 4.398 with internal confidence (CI) 1.539-12.570. This means that TB patients who have negative self-motivation are 4.4 times more likely to be non-compliant with taking medication than those who have positive self-motivation.

This research is in line with research by Noperayanti (2021) which states that there is a significant relationship between self-motivation and adherence to taking medication in tuberculosis patients.

Motivation is a goal or encouragement with the actual goal being the main driving force that comes from oneself or from other people in trying to get or achieve what they want, whether

positively or negatively (Dayana and Marbun, 2018). To increase motivation, it is necessary to provide education about diseases and the dangers of these diseases as a threat to human life (Antoni et al. 2021).

Based on the results of research, theory and related research, the researcher assumes that respondents who have negative or positive motivation receive support and motivation from those closest to them to recover. Apart from that, the community health center also provides motivation and support to all Tuberculosis patients so that they continue to be enthusiastic about taking Tuberculosis medication to achieve recovery. Apart from that, Tuberculosis education and Tuberculosis treatment activities are also carried out so that in the community health center area they know the dangers of stopping carrying out the treatment program before being declared cured.

CONCLUSIONS AND SUGGESTIONS

Based on the results of research on 65 respondents regarding the Relationship between Family Support and Self-Motivation and Compliance with Medication in Tuberculosis Patients in the Working Area of Puskesmas Rejosari Pekanbaru City in 2023, the following conclusions can be drawn:

1. There is a relationship between family support and compliance with taking medication in tuberculosis patients in Puskesmas Rejosari Work Area, Pekanbaru city in 2023 with a P value = 0.0001 < α 0.05.
2. There is a relationship between self-motivation and adherence to taking medication in tuberculosis patients in Puskesmas Rejosari Work Area, Pekanbaru City in 2023 with a P value = 0.001 < α 0.05.

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FACTORS RELATED TO HEALTH LITERACY IN ADOLESCENTS AT PEKANBARU CITY

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Abstract
Teenagers in the current era are experiencing a reading crisis, according to UNISCO, the reading interest of the Indonesian people is very concerning, only 0.001% of 1,000 Indonesians, only 1 person is an avid reader. According to initial survey data conducted at Senior High School 8 Pekanbaru by interviewing 10 students, there were 8 students who rarely carried out health literacy and 2 people who often carried out health literacy because they carried out health literacy when they received health complaints. The purpose of this study was to determine the factors related to health literacy in adolescents at Senior High School 8 Pekanbaru in 2023. This type of quantitative research had a cross sectional study design. The population in this study were all of the students in X and XI grades Senior High School 8 Pekanbaru for a total of 897 and the samples of this research is 161 respondents. The measuring tool used in this study is questionnaire. The sampling technique used in this study is the Proportional Random Sampling technique. Data analysis was performed univariately and bivariately with the chi-square test (a = 0.05). The results showed that there was a P value <α 0.05, attitude (P value = 0.025 <0.05), access to information media (P value = 0.000 <0.05), the role of teachers (P value = 0.011 < 0.05) and the results of the P value > α 0.05 are the role of the family (P value = 0.479 > 0.05), as well as peers with health literacy (P value = 0.427 > 0.05). From these results it can be concluded that of the five variables there are three related variables (attitude, access to information media, teacher's role) and two unrelated variables (role of family, peers) with health literacy in adolescents at Senior High School 8 Pekanbaru
Keywords : Health Literacy, Adolescent.

INTRODUCTION

Literacy, according to the Ministry of Education and Culture, is the ability to access, understand, and use something intelligently through various activities, including reading, seeing, listening, writing, and speaking.[1] Literacy is an important issue in this century and in the future because it is one of the most important soft skills that everyone needs to master in order to face the challenges and changes that are different in the future.[2]

Literacy is one of the most important things because it gives an overview of whether or not a new civilization is progressing in every country. In Indonesia, the literacy rate based on the latest data in January 2020, UNESCO Indonesia is ranked second from the bottom in the world of literacy, meaning that the public's reading interest is very low. According to UNESCO data, the public's reading interest in Indonesia is very worrying, only 0.001%. Out of 1,000 Indonesians, only 1 person is a regular reader.[3] A different research on World's Most Literate Nations Ranked conducted by Central Connecticut State Univesity in March 2016, Indonesia

was stated to rank 60th out of 61 countries in terms of reading interest, precisely below Thailand 59 and above Bostwana 61. Of the 34 provinces in Indonesia, only 9 provinces are included in moderate literacy activities, 24 provinces are included in low literacy, and one province is included in the very low literacy category. South Sulawesi is ranked 11th with an index value of 38.82. Meanwhile, for the index dimension of culture, which includes the question of reading habits, then South Sulawesi is also in the low zone with a score of 27.94.[4] Based on the PISA Proramme For International Student Assessment) scores in 2018, Indonesia ranked 70th out of 78 countries that are members of the OECD in terms of reading, while Indonesian children in the 15-year-old group ranked 73rd out of 79 countries.[5] The low reading interest in Indonesia will certainly have various negative impacts.

The negative impacts of lack of literacy are: many young generations become lazy generations, lack of knowledge, difficulty finding a job due to lack of knowledge, lazy young generations will find it difficult to socialize because of their lack of insight and young generations will find it difficult to develop their potential because of their limited knowledge as well as many young people who do not care about the surrounding environment and tend to be selfish because they are busy with their gadgets.[6]

Health literacy according to Broder (2018) is a combination of someone's ability and situation to receive, understand, evaluate and use health information and services to enable them to make decisions about their own health, including the ability to communicate, confirm and act on the results of their decisions.[7]

Health literacy has a very important role in efforts to prevent various health problems. High health literacy will enable someone to use the right health information to improve or maintain their health.[8] There are three domains that health literacy has, namely health care, health care, and health promotion.[9] Individuals with low health literacy are more likely to have worse health-risk behaviors, higher health costs, and worse health status. There is a strong association between health literacy and health outcomes, many countries have adopted health literacy as a key strategy to reduce health disparities.[10]

An important cause of poor health conditions can be seen from the low level of health literacy by the community, poor communication between doctors and patients, and efforts to prevent and early detection of diseases that are sometimes not understood by patients. If someone has a high level of literacy, then they will understand all the actions that need to be taken in an effort to prevent and treat their illness. Therefore, everyone should strive for health literacy, both in adults and adolescents, because it is to improve adolescent health and ultimately adult health.[11]

Adolescence is one of the main stages of life, because it is a time when the brain's ability to absorb information is very high, whatever information is given will have a strong impact on adolescents in the future. Increasing health literacy at an early age is very important for personal health and development so that it can become an agent of change in healthy behavior. In the current era, adolescents are experiencing a reading crisis, this is caused by the rapid

development of technology so that the reading culture is slowly being abandoned. Literacy will lead adolescents to understand a message. The importance of literacy is also conveyed by the Ministry of Education and Culture that the literacy culture that is embedded in the learners affects the level of success and the learners' ability to understand information analytically, critically, and reflectively. Currently, the majority of adolescents prefer to spend their time playing games or gathering with friends instead of reading books and looking for other information, especially health information.[12]

There are several factors that are related to adolescent health literacy, which are: Attitude, study by Warta et al. (2022) found that attitude has an impact on reproductive health literacy. Access to information media, the role of access to information media is important in forming an adolescent's knowledge in understanding health problems. A study by Nurohmah Yuni (2019) found a relationship between the two variables of reading interest and the use of learning media. Family role, the family role is the first educator for adolescents. A study by Warta et al. (2022) found that the role of the family has an impact on reproductive health literacy. Peer group, adolescents tend to have the same behavior as their peer group. Teacher role, teachers educate, teach, and provide guidance to students. A study by Kusuma et al. (2018) found a significant influence between reading interest, learning motivation, and peer environment.

The development of information and technology is leading to a decline in interest in literacy in Indonesia. Adolescents now generally spend more time in front of the television or gadgets. Based on an interview with the Head of the Riau Province Literacy Task Force, all schools in Riau have implemented literacy activities, but the types of literacy activities they have implemented are different. SMA Negeri 8 Pekanbaru is one of the favorite public schools in Pekanbaru City with accreditation A and has students who are not only academically but also non-academically.

A similar study on health literacy has been conducted in a school with accreditation C, namely SMA Negeri 5 Simeulue Barat. Therefore, the researcher chose SMA Negeri 8 Pekanbaru as a research location to compare the level of health literacy in one of the favorite schools with accreditation A and to conduct research on health literacy that has never been done in the school.

RESEARCH METHODS

This study used a quantitative research type, with a cross-sectional study design. The location of the study was conducted at SMA Negeri 8 Pekanbaru and the study was conducted in May 2023. The population of this study was all students of class X and XI of SMA Negeri 8 Pekanbaru, totaling 897 people, class X as many as 468 students, class XI as many as 429 students and a sample of 161 student respondents. The sampling technique used in this study was the Proportional Random Sampling technique by drawing lots from the absence number using an application in the form of Spin, namely Random Number Generator. The sample criteria were students who were willing to be respondents and students of class X and XI of SMA Negeri 8 Pekanbaru.

The data collection technique used a questionnaire through a google form that was distributed through the WhatsApp group of students assisted by the school to respondents who were in each class that was directly supervised by the researcher until it was finished. With the condition that it meets the criteria/is suitable as a data source and is in accordance with the large number of samples that have been determined. Respondents were asked to fill out the questionnaire themselves. Before this questionnaire was distributed, the researcher first conducted a validity and reliability test. Data analysis was carried out in stages, namely normality and univariate tests and bivariate analysis with the chi-square test. In this study, the variables studied were independent variables and dependent variables. The independent variables include attitude, media access, family role, peers and teacher role, and the dependent variable is adolescent health literacy.

RESEARCH RESULT

1. Respondent Characteristics

   The characteristic data in this study is based on class, gender, and age. Of the 161 respondents, it was found that most of the respondents were in the category of class X with 84 respondents (52.2%), class XI with 77 respondents (47.8%), male gender with 67 respondents (41.6%) and female with 94 respondents (58.4%), and in the category of age 15 with 35 respondents (21.7%), age 16 with 67 respondents (41.6%), age 17 with 55 respondents (34.2%), and age 18 with 4 respondents (2.5%).

   Table 1. Respondent Characteristics

No	Characteristic	Frequency	Percentage (%)
1.	Class		
	X	84	52,2
	XI	77	47,8
	Total	161	100
2.	Gender		
	Male	67	41,6
	Female	94	58,4
	Total	161	100
3.	Age		
	15	35	21,7
	16	67	41,6
	17	55	34,2
	18	4	2,5
	Total	161	100

2. Univariate Analysis Results

   Based on the univariate analysis results of 161 respondents, it was found that the health literacy category with low respondents was 66 respondents (41.0%) while respondents with high categories were 95 respondents (59.0%). The variable of negative adolescent

health literacy attitudes was 58 respondents (36.0%), poor media information access was 88 respondents (54.7%), family role was not involved in 22 respondents (13.7%), peers did not have support as many as 78 respondents (48.4%), while the teacher role did not play a role as many as 30 respondents (18.6).

Table 2. **Frequency Distribution based on Dependent and Independent Variables**

No	Variable	Frequency	Percentage (%)
1.	**Health literacy in adolescents**		
	Low	66	41,0
	High	95	59,0
	Total	161	100
2.	Attitude		
	Negative	58	36,0
	Positive	103	64,0
	Total	161	100
3.	Media information access		
	Poor	88	54,7
	Good	73	45,3
	Total	161	100
4.	Family role		
	Not involved	22	13,7
	Involved	139	86,3
	Total	161	100
5.	Peer suport		
	Absent	78	48,4
	Present	83	51,6
	Total	161	100
6.	Teacher role		
	Not involved	30	18,6
	Involved	131	81,4
	Total	161	100

3. Bivariate Analysis Results

a. Relationship between attitude and teenagers health literacy

Based on table 3, of the 58 respondents, 31 respondents (53.4%) with negative attitudes had low health literacy, while 35 respondents (34.0%) with positive attitudes had low health literacy. The results of the statistical test using the chi-square test obtained a P value = 0.025, which means that the p value < α (0.05), meaning that there is a relationship between attitude and adolescent health literacy. With a POR value of 2.231 (1.156-4.306), which means that adolescents with negative attitudes are 2.2 times more likely to have low health literacy than teenagers with positive attitudes.

Table 3. Relationship Between Attitude and Teenagers Health Literacy in SMA Negeri 8 Pekanbaru, 2023

Attitude	Teenagers Health Literacy						P *value*	POR (CI 95%)
	Low		High		Total			
	N	%	n	%	n	%		
Negative	31	53,4	27	46,6	58	100	0,025	2,231 (1,156-4,306)
Positive	35	34,0	68	66,0	103	100		
Total	66	41,0	95	59,0	161	100		

b. Relationship Between Media Information Access and Teenager Health Literacy

Based on table 4, of the 88 respondents, 53 respondents (53.4%) with poor media information access had low health literacy, while 13 respondents (17.8%) with good media information access had low health literacy. The results of the statistical test using the chi-square test obtained a P value = 0.000, which means that the p value < α (0.05), meaning that there is a relationship between media information access and teenager health literacy. With a POR value of 6.989 (3.348-14.591), which means that teenagers with poor media information access are 6.9 times more likely to have low health literacy than teenagers with good media information access.

Table 4. **Relationship Between Media Information Access and Teenager Health Literacy** of SMA Negeri 8 Pekanbaru Teenageers, 2023

Media Information Access	Teenagers Health Literacy						P *value*	POR (CI 95%)
	Low		High		Total			
	n	%	n	%	n	%		
Poor	53	60,2	35	39,8	88	100	0,000	6,989 (3,348-14,591)
Good	13	17,8	60	82,2	73	100		
Total	66	41,0	95	59,0	161	100		

c. Relationship Between Family Role and Teenager Health Literacy

Based on table 5, of the 22 respondents, 7 respondents (31.8%) with a non-participating family role had low health literacy, while 59 respondents (42.4%) with a participating family role had low health literacy. The results of the statistical test using the chi-square test obtained a P value = 0.479, which means that the p value > α (0.05), meaning that there is no relationship between family role and teenager health literacy. With a POR value of 0.633 (0.243-1.650), which means that teenagers with a non-participating family role are 0.6 times more likely to have low health literacy than teenagers with a participating family role.

Tabel 5. **Relationship Between Family Role and Teenager Health Literacy** in SMA Negeri 8 Pekanbaru, 2023

Family role	Teenagers Health Literacy						P *value*	POR (CI 95%)
	Low		High		Total			
	N	%	n	%	n	%		
Not Involved	7	31,8	15	68,2	22	100	0,479	0,633 (0,243-1,650)
Involved	59	42,4	80	57,6	139	100		
Total	66	41,0	95	59,0	161	100		

d. Relationship between peer support and teenager health literacy

Based on table 6, of the 78 respondents, 29 respondents (37.2%) with no peer support had low health literacy, while 37 respondents (44.6%) with peer support had low health literacy. The results of the statistical test using the chi-square test obtained a P value = 0.427, which means that the p value > α (0.05), meaning that there is no relationship between peer support and teenager health literacy. With a POR value of 0.736 (0.391 -1.383), which means that teenagers with no peer support are 0.7 times more likely to have low health literacy than teenagers with peer support.

Tabel 6. **Relationship between peer support and teenager health literacy** in SMA Negeri 8 Pekanbaru, 2023

Peer support	Teenagers Health Literacy						P *value*	POR (CI 95%)
	Low		High		Total			
	n	%	n	%	n	%		
Absent	29	37,2	49	62,8	78	100	0,427	0,736 (0,391-1,383)
Present	37	44,6	46	55,4	83	100		
Total	66	41,0	95	59,0	161	100		

e. Relationship between teacher role and teenager health literacy

Based on table 7, of the 30 respondents, 19 respondents (63.3%) with non-participating teacher roles had low health literacy, while 47 respondents (35.9%) with participating teacher roles had low health literacy. The results of the statistical test using the chi-square test obtained a P value = 0.011, which means that the p value < α (0.05), meaning that there is a relationship between teacher role and teenager health literacy. With a POR value of 3.087 (1.354 - 7.037), which means that teenagers with non-participating teacher roles are 3.0 times more likely to have low health literacy than teenagers with participating teacher roles.

Tabel 7. **Relationship between teacher role and teenager health literacy** in SMA Negeri 8 Pekanbaru Tahun 2023

Teacher role	Teenagers Health Literacy						P *value*	POR (CI 95%)
	Low		High		Total			
	n	%	N	%	n	%		
Not Involved	19	63,3	11	36,7	30	100	0,011	3,087
Involved	47	35,9	84	64,1	131	100		(1,354-7,037)
Total	66	41,0	95	59,0	161	100		

DISCUSSION

1. Relationship between attitude and health literacy in teenagers at SMA Negeri 8 Pekanbaru in 2023

   Attitude is an action or activity, which is included in the predisposition of an action. A person's attitude will affect their health behavior, a positive attitude will produce positive health behavior. While a negative attitude will produce negative health behavior.

   A positive attitude is an attitude that is in accordance with the prevailing health values, while a negative attitude is an attitude that is not in accordance with the prevailing health values. The positive attitude referred to is the reaction/response of teenagers to literacy health such as teenagers who are happy or not in doing literacy health such as reading, writing, understanding and feeling agreed or disagreed in doing lierasi health. While the negative attitude, teenagers have not taken a position related to doing literacy health.

   An individual is closely related to their own attitude as a personal characteristic. Attitude is often defined as an activity that is done by an individual to give a response to something. Attitude is defined as a response or reaction that occurs from an individual towards an object, which then causes the individual to behave in a certain way towards the object.

   Based on the results of the study, a positive attitude in teenagers in health literacy in teenagers tends to lead to health literacy in terms of reading, writing, understanding, and searching and applying it. This indicates that attitude is a supporting factor for teenagers in doing health literacy.

   Based on the results of the research that has been done by the researcher, the researcher concludes that the attitude of teenagers in implementing health literacy is related to how to deal with a need in a literacy. So if a teenager needs some health information, then there will be a reaction with the necessary health literacy. Like health literacy that appears if the attitude that appears in teenagers needs information about health. Therefore, the more related positive attitude to health literacy, the more likely teenagers are to do health literacy.

2. Relationship between media information access and health literacy in teenagers at SMA Negeri 8 Pekanbaru in 2023

   The role of media access is becoming an important thing today in shaping the knowledge of a teenager in understanding health problems. Incorrect information will greatly affect the knowledge that becomes incorrect as well. Information sources can be obtained freely

starting from peers, books, films, videos, social media, even easily opening websites through the internet.

According to Wulandari et al, information access is the use of communication media to obtain certain information. While according to Sutabri, information is data that has been re-stated and interpreted before with the intention of being used in the decision-making process. In order to get valid information, media is required as an intermediary, so that the information obtained is not changed and can be trusted.

The digital era is known as Web 2.0 or Health 2.0 or Medicine 2.0. Various popular social media websites in this era, have been proven to be effective and powerful in disseminating health information supporting health promotion efforts and can be traced online such as YouTube, Facebook, MySpace, Twitter, and Second Life. as well as image sharing, mobile technology and blogs.

Based on the results of the study, most media information access is related to health literacy in teenagers, where each student has a Smartphone to access health media information, the internet and the library as well as outdoor media. This shows that there are various types of media information that make it easier for them to access the health information they need in doing health literacy, thus making health literacy in teenagers tend to be high.

In the opinion of the researcher, the use of media information access among teenagers in the present time is increasingly widespread along with the development of the times, providing convenience, especially in accessing internet and social media media as a means of communicating and accessing various information such as health information. Information received by teenagers can influence their attitudes and behaviors such as doing health literacy. Therefore, the more related media information access, the more likely teenagers are to do health literacy.

3. Relationship between family role and health literacy in teenagers at SMA Negeri 8 Pekanbaru in 2023

Family is the first and foremost educator for their children. Family is the seed of the mind of the preparation of the maturity of the individual and the structure of personality. Children follow their parents and various habits and behaviors, thus the family is another element of education that is the most real, accurate and very large. [15]

The family's role is essential for adolescents in improving their academic outcomes or achievements because the family is a crucial factor in an individual's life. The support provided by the family to a student includes attention and support. Family support is given to instill motivation in students during their learning process. With family support, students can achieve high academic performance at school. For example, family support may include paying attention to the student's school, advising the student, providing school-related facilities, monitoring the learning process, observing their social environment, and more.

Based on the research results, there is no significant relationship between family roles and health literacy. This is because health literacy has a negative outcome, while family roles have a positive effect. According to the researcher's opinion, family roles play a role in encouraging and motivating adolescents to engage in health literacy. However, in this study, most adolescents do not practice health literacy. This is because many adolescents

are not interested in health literacy as they perceive that they do not have health issues, and therefore, they do not require health information. This lack of interest leads to a lack of engagement in health literacy activities and discussions about health. Today's adolescents are more inclined to engage with gadgets, games, and topics related to personal matters, relationships, friendships, and general knowledge rather than health-related discussions. Therefore, the family's role is not related to health literacy in adolescents.

4. The Relationship between Peer Influence and Health Literacy in Adolescents at SMA Negeri 8 Pekanbaru in 2023
   Peer influence refers to a social group of individuals who share similarities in terms of age, hobbies, or other habits. According to Ivor Morrish, as quoted by Abu Ahmadi, a peer is someone of equal standing, and a peer group is a group composed of individuals who are equals. So, peer influence is a group of individuals who tend to have commonalities. According to Horrocks and Benimoff, as quoted by Elizabeth B. Hurloks (translated by Med Meitasari), peer influence is the real world of young people, preparing a stage for them to test themselves and others. Therefore, peer influence can be understood as a group seeking their own identity. In conclusion, peer influence or peer groups are social relationships based on common bonds, such as similarities in age, hobbies, social status, and interests. These similarities give rise to friendships and camaraderie. The peer group can have both positive and negative effects. Positive effects include providing motivation for learning, leading to improved academic performance. However, negative peer influence, characterized by excessive socializing, can lead to students neglecting their studies.
   Based on the research results, most peer influence does not relate to health literacy in adolescents. This is because adolescents in peer groups rarely discuss, provide support, or engage in health-related conversations with their peers. Although peer influence tends not to support health literacy, the research shows that adolescents generally have high health literacy levels due to school activities that support various types of literacy, including health literacy, and easy access to health literacy information through media. According to the researcher, peer influence has the potential to support health literacy, as it can create a sense of comfort, feeling valued and cared for, and respected. The presence of peer influence can enhance motivation and confidence in individuals to engage in health literacy. However, in this study, peer influence was not maximized because most adolescents may not have the same level of health literacy, making it difficult for peer support to work effectively.

5. The Relationship between the Teacher's Role and Health Literacy in Adolescents at SMA Negeri 8 Pekanbaru in 2023
   Teachers play a crucial role in providing information and health education to adolescents. After parents, teachers are the second individuals who spend a significant amount of time with adolescents and have the maximum opportunity to communicate and educate them on various important aspects of life. According to research, adolescents, especially as a group, look up to their teachers as role models. Therefore, teachers can be the best counselors for various physical and mental changes that occur during this period. Teachers

are professionals whose daily job involves educating, teaching, guiding, and evaluating students. They play various roles, including educators, mediators or sources of learning, facilitators, models, and examples.

The teacher's role includes serving as a role model for students, from habits to how they present themselves neatly, speak politely, and behave well. This leads students to want to emulate their teacher's behavior, resulting in positive influences and achievements. Inside the classroom, a teaching and learning process occurs between the teacher and the students. Learning and education are two different things. Learning is a change in the student's personality, such as attitudes, habits, skills, or understanding. Education, on the other hand, is the process of interaction between students, educators, and learning resources in a specific learning environment, which can be found in schools, tutorials, and more.

Based on the research results, most teachers have a significant relationship with health literacy in adolescents. This is because teachers play an essential role in providing various information and education, including health education, to adolescents. Moreover, at Senior High School 8 Pekanbaru, health literacy activities are conducted every Wednesday, supervised by teachers. According to the researcher, the role of teachers is crucial in motivating adolescents to engage in health literacy. The higher the teacher's role, the more likely adolescents are to have higher health literacy. Teachers can provide good examples and quality education in the field of education. Therefore, the greater the role of teachers, the better the likelihood of adolescents engaging in health literacy.

CONCLUSIONS AND SUGGESTIONS

This study found that three out of five variables were related to health literacy in adolescents: attitude, access to media information, and the teacher's role. The other two variables, family role and peer influence, were not related to health literacy in adolescents at Senior High School 8 Pekanbaru.

These findings suggest that teachers, schools, and the media can play an important role in promoting adolescent health literacy. Teachers can provide students with accurate health information and opportunities to practice healthy behaviors. Schools can create a supportive environment for health literacy by integrating health education into the curriculum and providing students with access to health resources. The media can promote health literacy by providing accurate and engaging health information to adolescents.

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DESCRIPTION OF ADOLESCENT PERCEPTIONS OF PEOPLE WITH MENTAL DISORDERS

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Abstract
People with mental disorders who return to their environment after treatment often interact with the surrounding environment. One of the groups of society who interact with people with mental disorders is teenagers. In the acceptance of people with mental disorders who return to society, adolescent have a role in accepting people with mental disorders in society, so it is necessary to know the perception of adolescents towards people with mental disorders. This research is research with a descriptive design. Using a perception questionnaire by Faidah (2017) which has been tested for validity with Pearson Product Moment with an r table result of 0.376 and a reliability test using Cornbach's alpha with a value of 0.711. The sample in this study was 100 respondents. The data analysis used is univariate analysis. The results of the distribution of characteristics, namely from 100 respondents, it was found that the majority of respondents were in their middle adolescence (15-17 years) 44 people (44%), with the majority gender being male 78 people (78%). At the education level, the majority are junior high school students, 48 people (48%). The general opinion of adolescents towards people with mental disorders is that 59 people are neglected (27,4%). It can be concluded that adolescents' perceptions of people with mental disorders are good, namely 79% of adolescents have good perceptions of people with mental disorders and 21% have bad perceptions. It is recomended that health workers who work in the community provide outreach and education to adolescent about people with mental disorders so that adolescent have a good perception of people with mental disorders in their enviroment.

Keywords: adolescents, people with mental disorders, perception

INTRODUCTION

Mental disorders are disorders that occur in an individual's thought patterns, emotional regulation or behavior. This is related to distress or disturbance in areas of brain function (WHO, 2022). Mental disorders can be experienced by all ages, from children, teenagers, adults to the elderly. Because people with mental disorders can affect all age groups, the prevalence of people with mental disorders increases every year (Syahputra et al, 2021)

The prevalence of mental disorders throughout the world according to data from the World Health Organization (WHO) in 2019 showed that in 2019 there were 264 million people experiencing depression, 45 million experiencing bipolar, 50 million experiencing dementia, and 20 million people experiencing schizophrenia. According to National Institute of Mental Health (NIMH) 2020 data, one in five adults in the United States experiences mental disorders with a total of 52.9 million mental disorders. Based on Basic Health Research (Riskesdas) in 2018, it shows that the prevalence of mental disorders in Indonesia is 9.8%. In 2018, Riau Province was ranked 22nd out of 34 provinces in Indonesia with serious mental disorders with a prevalence of 6.1/1000 population (Riskesdas, 2018).

Mental disorders require special treatment, if people with mental disorders are not treated properly it can have an impact on the sufferer. The impact is such as painful symptoms, or self-limitation in the direction of crucial functions with an increased risk of death, suffering, pain, loss of freedom and disability (O'Brien, 2017). Therefore, the role of all parties such as health workers, families and the community is needed to treat people with mental disorders.

In dealing with people with mental disorders in society, it is not uncommon to find people with mental disorders carrying out actions that are detrimental or dangerous to society, such as beatings, physical or verbal violence, theft and others. This shows that people with mental disorders can have a negative impact or terror in society and help shape perceptions in society (Hakim, 2021)

Perception is the process of understanding or giving meaning to a stimulus received (Sumanto, 2017). Community perception or good community views and assessments can help people with mental disorders, namely the community can be a strengthener, prevention of relapse and rehabilitation of people with mental disorder (Bedaso et al, 2016).

People with mental disorders are expected to return to their roles in society starting from social, economic and psychological aspects. The role of all parties in handling people with mental disorders is very much needed. One group of people who need to gain an understanding of people with mental disorders is adolescent. According to Erikson's stages of development, adolescents fall into the age range from 12 to 20 years (Knight, 2019). Adolescents' perceptions of people with mental disorders are formed due to interactions between adolescents and people with mental disorders in community life. The perceptions formed by high school adolescent are better than those of elementary school and junior high school students because elementary and junior high school students are still not consistent and are easily influenced by their surrounding environment (Villatoro, A. P., et, all. 2020).

Based on research by Faidah (2017) which examined the perceptions of high school students in the city of Bandung towards individuals who have mental disorders, it was found that 92.7% of high school students with an average age of 16 years had a good perception and another 8.3% had a bad perception. This shows the formation of adolescents' perceptions of people with mental disorders studied by Faidah, namely adolescents in senior high school. However, the range of research subjects is shorter and fewer, so the data obtained is less varied, so researchers are interested in researching a wider range of adolescent perceptions, namely from ages 12-20 years, with varying levels of education.

Data from Pekanbaru City Health Service found that the number of people with mental disorders was 715 people and they were spread across 21 Community Health Centers. The health center that is ranked first with a total of 75 people with mental disorders is the Sidomulyo Health Center (Pekanbaru City Health Service, 2021). A preliminary study was conducted on December 27th 2022 by interviewing 9 adolescents living in the Sialang Munggu sub-district with the highest number of people with mental disorders in the Sidomulyo health center

working area, namely 21 people. In a preliminary study conducted on 9 adolescents (12-20 years), researchers conducted interviews. The results of interviews conducted by researchers found that 5 adolescents had good perceptions, namely adolescents stated that people with mental disorders could recover if they were treated and did not need to be shunned, nor were they afraid if there were people with mental disorders around their environment. Meanwhile, 4 other people had bad perceptions about people with mental disorders, namely adolescents who said that people with mental disorder should be avoided, and that it was scary. Based on this phenomenon, researchers are interested in examining "Description of Adolescents' Perceptions of People with Mental Disorders."

RESEARCH METHODS

This type of research is quantitative research with a descriptive research design. The research population was all adolescents in Sialang Munggu sub-district, the Sidomulyo health center working area, namely 14.750 people. The sampling technique uses a probability sampling method, which is Stratified Random Sampling.

This research uses univariate analysis. Univariate analysis was used to determine the characteristics of adolescents and how adolescents perceive people with mental disorders. This research uses descriptive statistical tests.

RESEARCH RESULT

Table 1. Frequency Distribution of Respondent Characteristics

Characteristics	Number of respondent (n=100)	Percentage (%)
Respondent age:		
1. Early adolescence (12-14)	36	36%
2. Middle adolescence (15-17)	44	44%
3. Late adolescence (18-20)	20	20%
Total	100	100%
Sex :		
1. Male	72	72%
2. Female	28	28%
Total	100	100%
Education/grade :		
1. Elementary school	16	16%
2. Junior High school	48	48%
3. Senior High School	23	23%
4. University Student	13	13%
Total	100	100%

Table 1 shows that out of 100 respondents, the majority of respondents aged 15-17 were in the middle adolescent phase, namely 44 respondents, with the majority being male, amounting to 78

respondents. At the educational level, the highest level of education was found, namely respondents who were at the junior high school level, namely 48 respondents.

Table 2 *Distribution of General Opinion towards People with Mental Disorders*

General opinion towards people with mental disorders	Number of answer (n=212)	Percentage (%)
Views on people with mental disorders		
1. Incurable disease	38	17,7 %
2. Neglected people	59	27,4 %
3. Curable disease	41	19,1%
4. Hereditary disease	42	19,5 %
5. Cursed disease	35	16,3 %
Total	215	100%

In table 2, the general opinion regarding people with mental disorder is that the majority of teenagers have the general opinion that people with mental disorders are neglected people at 27.4% and it is a hereditary disease at 19.5%.

Table 3 Adolescent Perspective

Adolescent perspective	N	%
Good perspective	79	79%
Bad perspective	21	21%
Total	100	100%

Table 3 shows that out of 100 respondents, the results of adolescents' perceptions that were formed were 79% good perceptions, but there were still 21% who had bad perceptions.

DISCUSSION

Respondent Characteristics

The majority of respondents were middle teenagers in the age range of 15-17 years, namely 44% or 44 adolescents out of a total of 100 respondents. In research by Huntoro (2020), the results of the age characteristics of adolescents showed that respondents in the 18-20 age group were the largest age group, namely 35 people (37%). Meanwhile, research by Fidah (2017) found that the majority of adolescents aged 16 years were 113 people (59.5%).

Adolescence is a transitional phase from the childhood phase so that many physical changes occur and the behavior and thoughts of adolescents also change as they get older. Adolescence is divided into 3 phases, namely early adolescence, middle adolescence and late adolescence. Erikson in Knight (2017) divides age into several stages, namely, babies (0-3 years), toddlers (3-5 years), pre-school (6-12 years), adolescence (12-20 years), early adults (20-40 years), middle adulthood (40-65 years), late adulthood (>65 years). Age is a

determining factor in the information a person has, even for teenagers. In middle adolescence, teenagers will reach maturity and so will their understanding.

The majority of respondents were men, namely 72 people (72%) while 22 people (22%) were women. This is different from research by Faidah (2017) where in this research the majority of respondents were female, 54.2%. Adolescents, both male and female, have a good understanding and acceptance of information, although this can be influenced by internal and external factors. In research by Huntoro (2020), the results showed that the majority of respondents were female, 51 people (54%). According to Wattson, et.al. (2016) Female adolescents have more empathy and use feelings in presenting things, while male adolescents use more logic and perception towards people with mental disorders. So the results of the interpretation of adolescents' perceptions of people with mental disorders will be different between female and male adolescent.

At the education level, the majority were junior high school with 48 people (48%), followed by high school with 23 people (23%), then elementary school education level with 16 people (16%), and university student with 13 people (13%). This is different from Faidah's (2017) research where the research was conducted on high school students.

In research by Huntoro (2020), it was found that the majority of respondents had a high school student of 42 people (45%) and 18 people had a junior high school student (19%). According to Knight (2019), the level of education that adolescent have also shapes adolescents' perceptions as a result of the education and knowledge that adolescent receive about a thing or event so that adolescent with a higher level of education or advanced level of education have a better perception of something. So the higher the level of education, the higher the level of understanding of a phenomenon and the information held. So, with higher levels of education, adolescents are expected to have better perceptions.

In general opinion towards people with mental disorders, adolescent have the largest opinion, namely that people with mental disorders are neglected people at 27.4% and 19.5% are hereditary diseases. In line with research by Mazwarni (2020), people with mental disorders are often found abandoned in the community who are then found and given treatment by the authorities or in foundations for the rehabilitation of people with mental disorders. Based on research by Petterson et al (2018), it was found that people with mental disorders are hereditary diseases. This was shown based on research on 8 types of mental disorders, it was found that heredity was the main factor which was more dominant in causing people to experience mental disorders compared to other factors. environment. Adolescents' opinions towards people with mental disorders are formed naturally in the social life of adolescents and people with mental disorders in society. This opinion arises as a result of the stimulus provided by the environment to the individual. (Sumanto, 2017).

Adolescents' perceptions of people with mental disorders

Based on research conducted on 100 respondents in Siang Munggu sub-district, it was found that most adolescents had a good perception, namely 79 people (79%) had a good perception

while 21 people (21%) had a bad perception. In line with research by Faidah (2017) which examined 190 high school students, 176 (93.7%) high school students had good perceptions of people with mental disorders and 10 (5.3%) others had bad perceptions and none had perception is very bad.

In research by Huntoro (2020) who conducted research on 94 adolescents, the results showed that 81 (86%) adolescents had good perceptions, 10 (10%) had good perceptions and 3 (4%) others had bad perceptions. Adolescents' perceptions can be formed due to the stimulus given to adolescents regarding a thing or object so that adolescents interpret the stimulus received to create a meaningful image (Robbins, 2015). The results of this interpretation can be actions or actions or individual utterances that are based on the perceptions created by that individual. This process also occurs in adolescents (Sarwono, 2018). Perception is closely tied to knowledge and attitudes. Good perceptions can create positive actions in adolescents' interactions with people with mental disorders.

This is in line with research by (Sahulang, 2020), perceptions influence the attitudes created between adolescents and people with mental disorders. People with mental disorders are not treated badly, harshly, bullied, or shunned in extreme ways and will be helped by individuals around them on the basis of good thoughts or perceptions and knowledge possessed by the individual.

On the other hand, individuals with bad perceptions tend to give stigma or bad labels to people with mental disorders and carry out harsh actions against people with mental disorders (Reyes, et.all, 2020). So adolescent need to get education to gain good knowledge about people with mental disorders so that good perceptions are formed and will create interactions and positive attitudes towards people with mental disorders.

CONCLUSIONS AND SUGGESTIONS

Based on the research results above, the majority of teenagers have a good perception, but there are still 29% of teenagers who have a bad perception. It is recommended for future researchers to examine the relationship between perceptions, stigma and attitudes of adolescents towards people with mental disorders

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ART THERAPY DRAWING ON EMOTIONAL CHANGES AND STRESS OF THE ELDERLY IN DELI SERDANG

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Abstract
The elderly are an age group that is vulnerable to emotional changes due to the aging process. Such changes cause problems that affect mental or psychological health. The purpose of this study was to know the description of art therapy on emotional changes and stress in the elderly. The method used in this study is quantitative description. The elderly were given treatment and then filled out questionnaires observing changes in emotions and stress. This is done when performing drawing interventions. The results of Kendall's correlation coefficient analysis test of 1 which means the correlation between perfect variables and has a significance value of 0.0 < 0.112 which means that between emotional variables and stress have a significant relationship. From these results, it can be concluded that this study has a significant, strong and unidirectional relationship. This is due to hormonal decreases in the elderly in the female sex. This research is expected to help the next researcher who will conduct research related to this topic.

Keywords: Emotions, Art Therapy, Mental Health, Aging

INTRODUCTION

Depression and anxiety are common mental disorders with the highest prevalence. More than 200 million people worldwide (3.6% of the population) suffer from anxiety. Meanwhile, the number of people with depression is 322 million people worldwide (4.4% of the population) and almost half of them come from the Southeast Asia and Western Pacific region. Depression is a mental disorder that contributes to deaths due to suicide whose incidence rate is as much as 800000 each year. The estimated number of mental disorders in the world is around 450 people including schizophrenia. According to WHO data in 2017 states that mental disorders will cause death by 14.4% every year. In Indonesia, people with mental disorders are often referred to as "crazy people" or mentally ill and experience unpleasant treatment, even to the point of being shackled by family members. In fact, people with mental disorders can be taken to the hospital to be given treatment. There are several factors that cause mental disorders, one of which is stress due to traumatic events, such as being left behind by a loved one, losing a job, or being isolated for a long time. In many countries, art therapy is used as a complementary therapy or beneficial in the therapy of children with autism combined with music therapy, play therapy and others (Neaga Susanu, 2019).

Research studies from (Carl Joseph et al., 2018) which states that art therapy is proven to reduce anxiety in women victims of domestic violence by showing changes in anxiety levels before and after the intervention influenced by awareness in each subject who consistently underwent therapy. Art therapy is one of a variety of expressive therapies that involve an individual's creative activity in the creation (work or product) of art through the exploration of thoughts, perceptions, beliefs, and experiences especially emotions. The therapy carried out in this study was by drawing and fruit creation, in the elderly using interview instruments and anxiety measurement scales that showed the value of changes in anxiety in the elderly due to the Covid-19 pandemic (Shokiyah & Syamsiar, 2022). This disorder causes a decrease in quality of life and functionality that greatly interferes with the personal activities of the elderly so that it requires common treatment, namely cognitive behavioral therapy or pharmacotherapy with benzodiazepines, tricyclic antidepressants, monoamine oxidase inhibitors and selective serotonin reuptake inhibitors. Most patients are about 20 to 50 percent unresponsive or have contraindications. Once combined with CBT, about 50 percent of those with anxiety disorders do not have the benefit of CBT. Art therapy is considered an important supportive intervention in mental illness using fine art media, such as painting, drawing, sculpture, and clay modeling (A. Abbing et al., 2018). Emotion regulation interventions can reduce psychological problems by combining emotional management strategies with other treatments (Supriati et al., 2021). Art therapy is also able to change mood, and reduce pain and anxiety in patients regardless of gender, age, or diagnosis (Shella, 2018). This is the background of researchers conducting research on art therapy can change the emotions and stress of the elderly in carrying out social activities in the community.

RESEARCH METHODS

The research method was conducted using quantitative descriptive using art therapy intervention by coloring in the elderly. After therapy, the intervention group was measured by filling out an emotional change questionnaire of 48 questions consisting of positive and negative questions and a stress questionnaire consisting of 14 questions that occurred in the elderly. The research activity was carried out in the working area of the Muliyorejo Health Center, Sunggal District, Deli Serdang Regency with 38 respondents, the majority of whom were women. Researchers conducted data analysis using IBM 2.6. The art therapy session begins with a 10-minute relationship-building discussion followed by a short relaxation exercise followed by 30 minutes of drawing art making in a calm, supportive environment on a table and after the art therapist briefly explains the art therapy material of drawing.

RESEARCH RESULT

Demographic data results of art therapy respondents on emotional changes and stress of the elderly

Table 1. Demographic data respondents on emotional changes and stress of the elderly

Demographic data	Frekuensi	Persentase
Gender		
Man	0	0
Female	38	100
Age		
48 Years	1	2.6
50 Years	1	2.6
52 Years	1	2.6
53 Years	3	7.9
54 Years	1	2.6
55 Years	1	2.6
56 Years	2	5.3
57 Years	2	5.3
58 Years	2	5.3
59 Years	1	2.6
60 Years	3	7.9
62 Years	5	13.2
63 Years	3	7.9
64 Years	2	5.3
65 Years	4	10.5
66 Years	2	5.3
67 Years	2	5.3
69 Years	1	2.6
71 Years	1	2.6

From the results obtained that the majority of respondents who participated in this study were women with a dominant age of 62 years as many as 5 people (13.2%).

The relationship between art therapy and emotional changes and stress for the elderly at UPT Puskesmas Muliyorejo, Sunggal District, Deli Serdang Regency

The results of the study obtained in the Shapiro Wilk test because the number studied as many as 38 people obtained data was not distributed normally, so the researchers conducted a Kendall's correlation test whose coefficient value was 1 which means the strength of the variable is declared perfect or strong with a significant value of 0.0 < 0.112 which means that the value of the emotional and stress variables has a significant unidirectional relationship. If emotions increase, stress will increase in respondents.

Table 2. The relationship between art therapy and emotional changes and stress for the elderly at Deli Serdang Regency

Kendall's tau_b	Emotion	Stress
Emotion Correlation Coefficient	1.000	0.199
Sig. (2-tailed_	0.0	0.112
Stress Correlation Coefficient	0.199	1.000
Sig. (2-tailed_	0.112	0.0

DISCUSSION

Results of demographic data of Art Therapy respondents in changes in Emotions and Stress in the Elderly

The results of this study stated that the majority of respondents who participated were 100% female. A research study from (Amruloh & Pamungkas, 2021) states that a woman's appearance is around 56.7% affecting her emotional intelligence. The older the age will further change the habits inherent in the elderly which will automatically shape cultural, religious and language traditions interacting with others (Hidayat et al., 2021).

The Relationship of Art Therapy in Emotional Changes and Stress in the Elderly

From the results of the correlation analysis test, Kendall's coefficient of 1 means that this study has a relationship between art therapy in emotional changes and stress has a strong relationship. This means that the increasing emotional changes of the elderly will increase stress. Art therapy uses visuals in processing emotions to facilitate self-expression and communication with the aim of improving psychological well-being that will affect the health of the individual (Czamanski-Cohen & Weihs, 2023). This research study also reinforced that art therapy is able to manage respondents' negative emotions by controlling stress slowly but has meaningful value (Eo et al., 2022). The findings further strengthen the benefits of art therapy, which provides a relaxing effect that this condition releases endogenous opioate hormones such as endorphins and endorphins. Both hormones work as anti-stress hormones and are able to stimulate sympathetic nerves, resulting in a decrease in pulse rate. The activity of drawing figures of people was the activity that was mostly preferred in the control and intervention groups and as many as 11 (36.6%) of the control group liked the drawing activity carried out. This human figure drawing activity has an impact as art therapy activities by drawing freely, so that there appears to be a bias in activity between the tools used to measure anxiety levels by drawing human figures, and art therapy activities by drawing freely. This is also evidenced by several literature studies conducted by (M. N., A., B., B., M., Z., M., S. A., W. L., C., & R., 2018) from 6 journals that discuss art therapy. The journal confirms that art therapy can reduce anxiety and affect emotional changes and stress in patients.

A research study from (Armstrong & Ross, 2023) states that art intervention in 105 participating parents/caregivers was identified anxiety by observing video recordings of 2 sessions conducted in the control test group. It was found that art therapy supported attachment between the first and penultimate sessions by tightening significant communicative relationships, stable warmth, and increased intuition to lower risky initial relationships. Art

therapy is an inherently subjective activity and difficult to test (Armstrong & Ross, 2023). Psychological treatment through art therapy becomes more complex in treating migrant children and adolescents accompanied by families who can express feelings, emotions and reduce their sense of isolation in developing creativity to start the acculturation process (Armstrong & Ross, 2023). Respondents had a strong preference for fighting art forms while group therapy depended on heterogeneity which provided a good learning experience on manual group art therapy (Carr et al., 2023). After 14 sessions of art therapy were conducted on respondents who experienced distress, showed improvements in emotional regulation and different executive functions in each respondent towards himself and his complaints during one year of art therapy (A. C. Abbing et al., 2019). Art therapy also investigates systemically the use of symbols influenced by the collective and cultural aspects that make up Language that is at once unique to each individual and a manifestation of a universal focus on communication as a human being (Metzl, 2022). The research study (Kim et al., 2023) found that positive experiences of art therapy to lower anxiety and subjective distress of Ukrainian Koryo-saram refugees are beneficial for mental health for refugees.

CONCLUSIONS AND SUGGESTIONS

The results of this study have a significant, strong and unidirectional relationship. Where this research influences each other. That is, art therapy will experience significant changes between emotions and stress. The higher the emotion will trigger stress that will increase.

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THE RELATIONSHIP BETWEEN FAMILY SUPPORT AND MOTIVATION IN CONTROLLING BLOOD SUGAR LEVELS IN TYPE 2 DIABETES SUFFERERS IN THE WORK AREA TAMBANG PUBLIC HEALTH CENTER 2023

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Abstract
The high prevalence rate of type II DM sufferers every year is a major problem that needs special attention. The most common diabetes sufferers found in society are type II DM sufferers. Positive family support can increase the patient's motivation to comply with dietary patterns and control blood sugar levels. This study aims to analyze the relationship between family support and motivation in controlling blood sugar levels in type 2 diabetes sufferers in the work area of the public health center mine. This type of research is quantitative research with a cross-sectional design. The research was carried out on 13 May - 20 September 2023 with a sample size of 30 respondents, the sampling technique used was total sampling. The data collection tool used was a questionnaire, with univariate and bivariate analysis and the chi-square test. The results of the univariate analysis were obtained from 30 respondents, there were 17 respondents (56.7%) who did not have family support, and 19 respondents (63.3%) who had low motivation in controlling blood sugar levels. The results of the Chi-Square test showed that there was a relationship between family support and motivation in controlling blood sugar levels in diabetes sufferers, with a p-value = 0.000 ($p \leq 0.05$), and OR (53.3333). There is a significant relationship between relationship between family support and motivation in controlling blood sugar levels in type 2 diabetes sufferers in the work area of the public health center mine. The results of this research hope that respondents will be able to think more positively, be able to regulate their diet, carry out routine activities, take recommended medication, and routinely monitor blood sugar through support or motivation obtained from the family.
Keywords: Diabetes Mellitus, Family support, Motivation

INTRODUCTION
Non-communicable diseases or non-infectious diseases have become part of the double burden of epidemiology in the world for the last few years. The World Health Organization (WHO) estimates that diabetes causes at least 40 million deaths every year in the world. This number is equivalent to 70% of deaths from all causes at the global level (Kemenkes RI, 2022). Diabetes is a degenerative disease that is of important concern because it is part of the four priority non-communicable diseases which always increase every year and are a threat to world health in the current era (IDF, 2021).

Data from the World Health Organization (WHO) in 2014 states that globally 422 million adults aged over 18 years suffer from diabetes. In 2019 1.5 million people died from diabetes (WHO, 2022). This death rate increased by 13% in lower-middle-income countries (WHO, 2022). International Diabetes Federation estimates (IDF, 2021) shows that 537 million or 10.5% of adults aged 20 – 79 years worldwide have diabetes. In 2030 and 2045 the number of diabetes cases is expected to increase by 46% (IDF, 2021).

Based on the results of the 2018 Basic Health Research (Basic health research), the prevalence of diabetes in DKI Jakarta and Yogyakarta is in the highest position. Almost all provinces showed an increase in the prevalence of diabetes mellitus in 2013 – 2018 except East Nusa Tenggara Province with the lowest prevalence at 0.9% followed by Maluku and Papua at 1.1%. Several provinces experienced an increase in the prevalence of 0.9%, including Riau, DKI Jakarta, Banten, Gorontalo, and West Papua (Kemenkes RI., 2020).

The prevalence of diabetes in Riau Province has increased in the last five years. In 2013 the prevalence of diabetes was 1.0% and in 2018 the prevalence of diabetes increased to 1.9% (Riskesdas, 2018). The increasing prevalence in Riau Province has resulted in Riau ranking 15th of all provinces in Indonesia (Kasumayanti et al., 2021).

Based on the 2020 Riau Province Health Service Profile, Kampar Regency is in 9th place out of 12 districts in Riau Province (Dinkes Riau, 2020). The prevalence of diabetes in Kampar Regency has increased in the last 3 years. Based on data from the Kampar District Health Service in 2020, there were 5,590 cases, increasing to 5,853 cases in 2021, and increasing again in 2022 to 11,547 cases. The incidence of diabetes in each community health center in Kampar Regency in 2022 is 11,547 people. The highest incidence of diabetes is in the UPT BLUD Work Area of the Suka Ramai Community Health Center with 1,892 people. UPT BLUD Tambang Community Health Center is in 6th place with a total of 549 cases. The previous incident in 2021 at the UPT BLUD of the Tambang Health Center was 49 people.

The family support is informational support, action assessment support, instrumental support and emotional support. where the impact of family support can reduce the emergence of stress and help control the patient's emotions. The presence of strong family support has been proven to be associated with reduced mortality, easier recovery from illness and among the elderly, cognitive function, physical and emotional health. (M. Friedman, 2010)

Research conducted by Saputra (2015) states that there is a significant relationship between family support and patient motivation to control blood sugar with Type 2 DM. Based on an initial survey by interviewing 7 patients suffering from DM in the Tambang Community Health Center Work Area on June 20 2022. 5 or (71%) people have no motivation from themselves, are lazy to go for treatment because they are busy with routine work, and do not believe in medical treatment, while 4 or (57%) people feel they do not get support from their family to control their blood sugar levels because they feel they have not there are complaints related to symptoms of DM.

Based on the things above, the author is interested in conducting further research regarding "The relationship between family support and motivation in controlling blood sugar levels in DM sufferers in the Tambang Health Center working area in 2023".

RESEARCH METHODS

This research uses a cross sectional design, namely measuring the independent variable and the dependent variable at the same time (Hidayat, 2014). The use of this design is in accordance with the researcher's aim, namely to see the relationship between family support and motivation in controlling blood sugar levels in DM sufferers in the Tambang Health Center work area in 2023. This research was carried out in the Tambang Health Center work area. This research was conducted on 21-30 August 2023. The population in this study was all sufferers of type 2 DM in the Tambang health center working area in 2023, totaling 30 people. The sample in this study were all Type 2 DM sufferers in the Tambang Community Health Center area. Data analysis was carried out using univariate analysis and bivariate analysis.

RESEARCH RESULT

The characteristics of the respondents in this research can be seen in the table as follows:

Tabel 1: Frequency Distribution of Respondents in the Tambang Health Center Work Area in 2023

No	Respondent Characteristics		Frequency (n)	Percentage (%)
1.	**Age**			
	a.	36-45	9	30,0
	b.	**46-55**	**19**	**63,3**
	c.	56-65	2	6,7
2.	**Gender**			
	a.	Laki-Laki	13	43,3
	b.	**Perempuan**	**17**	**56,7**
3.	**Education**			
	a.	Not completed in primary	4	13,3
		school	6	20,0
	b.	SD	**11**	**36,7**
	c.	**SMP**	5	16,7
	d.	SMA	4	13,3
	e.	PT		
	Total		**30**	**100**

Based on table 4.1, it can be seen that of the 30 respondents, there were 19 respondents (63.3%) aged 46-55 years, 17 respondents (56.7%) were female, and 11 respondents (36.7%) had junior high school education.

Univariate Analysis

Univariate analysis was carried out to describe the characteristics of each research variable. Univariate analysis in this research produces a frequency distribution of the dependent

variable, namely motivation, and the independent variable, including family support. The results of the univariate analysis obtained are as follows:

Tabel 2. Frequency Distribution of Respondents Based on Family Support with motivation in controlling blood sugar levels in DM sufferers in the Tambang Health Center working area

No	Independent Variable	Frequency (n)	Persentase (%)
1.	**Family support**		
	a. Does not support	**17**	**56,7**
	b. Support	13	43,3
	Variabel Dependen		
2.	**Motivation**		
	a. low	14	46,6
	b. tall	**16**	**53,3**
	Total	**30**	**100**

Based on table 1, it can be seen that of the 30 respondents, there were 19 respondents (63.3%) aged 46-55 years, 17 respondents (56.7%) were female, and 11 respondents (36.7%) had junior high school education.

Tabel 3. Frequency Distribution of Respondents Based on Family Support with motivation to control blood sugar levels in DM sufferers in the Tambang Health Center working area.

No	Variabel Independen	Frekuensi (n)	Persentase (%)
1.	**Family support**		
	a. Does not support	**17**	**56,7**
	b. Support	13	43,3
	Variabel Dependen		
2.	**Motivation**		
	a. low	14	46,6
	b. tall	**16**	**53,3**
	Total	**30**	**100**

From table 4.2 above, it can be seen that of the 30 respondents, there were 17 respondents (56.7%) who did not have family support, 16 respondents (53.3%) had high motivation in controlling blood sugar levels in type 2 militus sufferers. This bivariate analysis describes the relationship between family support and motivation in controlling blood sugar levels in

people with type 2 diabetes mellitus in the Tambang Health Center UPT work area in 2023. This bivariate analysis uses the Chi-Square test so that it can be seen whether there is a relationship between the two variables. The researcher presents this bivariate analysis in table form below:

Tabel 4. Relationships between Family Support and Motivation in Controlling Blood Sugar Levels in Type 2 Diabetes Mellitus Sufferers in Tambang Health Center UPT Working Area 2023

Family support	Motivation				Total		P Value	POR (95% CI)
	Rendah		Tinggi					
	N	%	n	%	N	%		
Does not support	6	20	11	36,6	17	100	0,000	53.333 (4.852-586.212)
support	8	26,6	5	16,6	13	100		
Total	14	46,6	16	53,3	30	100		

Based on the results of the analysis, it was obtained that POR (Odd Ratio) = 53.333, meaning that respondents whose family support was not supportive had a risk of 53.333 times lower motivation in controlling blood sugar levels compared to respondents whose family support was supportive in controlling blood sugar levels.

Bivariate Analysis

This bivariate analysis describes the relationship between family support and motivation in controlling blood sugar levels in sufferers of type 2 diabetes mellitus in the work area of the Tambang health center in 2023. This bivariate analysis uses the Chi-Square test so that it can be seen whether there is a relationship between the two variables. The researcher presents this bivariate analysis in table form below:

Tabel 5. The Relationship between Family Support and Motivation in Controlling Blood Sugar Levels in Type 2 Diabetes Mellitus Sufferers in the London Work Area of the Riau Community Health Center in 2023

Family support	Motivasi				Total		P Value	POR (95% CI)
	Rendah		Tinggi					
	%		n	%	N	%		
								53.333

Tidak Mendukung	20	11	36,6	17	100	0,000	(4.852-586.212)
Mendukung	26,6	5	16,6	13	100		
Total	46,6	16	53,3	30	100		

Based on the results of the analysis, it was obtained that POR (Odd Ratio) = 53.333, meaning that respondents whose family support was not supportive had a risk of 53.333 times lower motivation in controlling blood sugar levels compared to respondents whose family support was supportive in controlling blood sugar levels.

Based on table 4.4, it can be seen that of the 17 respondents whose family support was in the unsupportive category, there were 11 respondents (36.6%) with high motivation, while of the 13 respondents whose family support was in the supportive category, there were 8 respondents (26.6%) with high motivation. Based on statistical tests using the chi square test, the p value = 0.000 ($p \leq 0.05$), with a degree of significance ($\alpha = 0.05$). This means that there is a relationship between family support and motivation in controlling blood sugar levels in Type 2 DM sufferers in the Tambang Community Health Center working area in 2023. Based on the results of the analysis, POR (Odd Ratio) = 53.333 means that respondents with unsupportive family support have a risk of 53.333 times lower motivation in control blood sugar levels compared to respondents whose family support supports controlling blood sugar levels

DISCUSSION

The Relationship between Family Support and Motivation in Controlling Blood Sugar Levels in Type 2 Diabetes Mellitus Sufferers Based on the research results, based on statistical tests using the chi square test, the p value = 0.000 ($p \leq 0.05$), with a degree of significance ($\alpha = 0.05$). This means that there is a relationship between family support and motivation in controlling blood sugar levels in people with type 2 diabetes mellitus in the Tambang Health Center UPT work area in 2023. It is known that from 30 respondents, 17 people had family support who did not support them, there were 11 people who were high in motivation to control levels. blood sugar, while 13 people did not support family support, there were 8 people who were low in motivation to control blood pressure.

Family support is a strong indicator that can have a positive impact on self-care in patients with diabetes. Positive family support can increase, including patient motivation in complying with diet patterns and controlling blood sugar levels. Family support is a very important role to grow the family to have effective functions, care functions, functionalization, reproductive functions, economic functions. Family is two or more people who are united by togetherness and emotional closeness and identify themselves as part of the family. It is also defined as a group that lives together with or without blood relations, marriage, adoption and is not only limited to membership in the household (M. Friedman, 2010).

Family support is informational support, action assessment support, instrumental support and emotional support, where the impact of family support can suppress the emergence of stress and help the patient master emotions. The existence of strong family support has been proven to be associated with reduced mortality, easier recovery from illness and among the elderly, cognitive function, physical and emotional health (M. Friedman, 2010). This research is in line with (Saputra & Sutanta2, 2015) which states that there is a significant relationship between family support and patient motivation to control Type 2 DM blood sugar.

Motivation is one of the factors supporting behavior change for the better. The impact of patients with high motivation will have a higher level of commitment in controlling blood sugar levels, while patients with low motivation will also have a low level of commitment in controlling blood sugar levels (Arimbi et al, 2020). The level of adherence to treatment is influenced by motivation (Given, 2002 dalam Tombokan 2019) .

Successful management of diabetes mellitus is also required by the active role or motivation of DM sufferers themselves, their families and communities in controlling blood sugar levels, preventing acute and chronic complications (Asdie, 2000 in Ali, 2019). This research is in line with research conducted by Tombokan et al., (2019) which states that there is a significant relationship between family support and motivation in controlling blood sugar levels in diabetes mellitus sufferers.

This research is in line with research conducted by Tombokan et al (2017) regarding the relationship between family support and motivation in controlling blood sugar levels in diabetes mellitus sufferers in the Pampang Health Center Working Area, Panakkukang District, Makassar City. States that there is a significant relationship between family support and motivation in controlling blood sugar levels in diabetes mellitus sufferers. Based on the results of statistical tests using risk, a p-value of 0.01 ($p<0.05$) was obtained. There is a significant relationship between family support and motivation in controlling blood sugar levels in diabetes mellitus sufferers in the Pampang Community Health Center working area, Panakkukang District, Makassar City. This research is also in line with that conducted by (Andoko et al., 2020) regarding the relationship between knowledge and motivation to prevent complications in diabetes mellitus sufferers. States that there is a relationship between knowledge and motivation of DM sufferers in preventing complications with p-value = 0.029, meaning it is smaller than the alpha value ($0.029 < 0.05$). Thus, it can be concluded statistically with a confidence level of 95%, it is believed that there is a relationship between knowledge and motivation of DM sufferers in preventing complications at the Bhayangkara Regional Police Hospital in Lampung in 2018.

CONCLUSIONS AND SUGGESTIONS

There is a significant relationship between the relationship between family support and motivation in controlling blood sugar levels in type 2 diabetes sufferers in the work area of the public health center mine. The results of this research hope that respondents will be able to think more positively, be able to regulate their diet, carry out routine activities, take

recommended medication and routinely monitor blood sugar through support or motivation obtained from the family.

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INTEGRATING ACCEPTANCE COMMITMENT THERAPY AND THERAPEUTIC RELATIONSHIP TO PREVENT POST TRAUMATIC STRESS DISORDER IN PATIENTS FOLLOWING SURGERY: A LITERATURE REVIEW

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Abstract
Post-Traumatic Stress Disorder (PTSD) may occur in patients following surgery. This condition presents the following symptoms such as nightmares, flashbacks, anxiety, and uncontrollable thoughts related to the event. Specific therapy is needed to deal with these health issues. However, a study investigating the acceptance of commitment therapy and the therapeutic relationship is rare in the literature. Therefore, the study proposes to assess the effectiveness of these therapies among patients after surgery. A literature review has been conducted to achieve the objective of the study. The finding indicates that acceptance commitment therapy and therapeutic relationship have opportunities to prevent PTSD. Clinical nurses are encouraged to use these therapies during perioperative care. Further studies are urgently needed to assess the effectiveness of therapies in a specific surgery case.

Keywords: Post-Traumatic Stress Disorder; surgical treatment; acceptance commitment therapy; therapeutic relationship; psychiatric nursing

INTRODUCTION

Post-traumatic stress disorders (PTSD) commonly occur in patients following surgery elevating rates in specific surgical patients (LaRose, Cunningham, Paniagua, & Gage, 2022). The etiology of PTSD is intraoperative awareness, uncontrolled of high-risk surgery, psychiatric history, dissociation, complications, medication during surgery, pain, and delirium (El-Gabalawy et al., 2019). The prevalence of PTSD after surgery or hospitalization is estimated at 20% of patients (Whitlock et al., 2015). PTSD after surgery may have a different clinical symptom from the original concept of PTSD. Theoretically, the stress response to critical illness, trauma, surgery, and burns encompasses the changes in metabolic processes (Finnerty, Mabvuure, Ali, Kozar, & Herndon, 2013). Therefore, a comprehensive assessment of risk factors before operative along with symptoms of stressor should be initiated in early after operative care (Rawashdeh, Al Qadire, Alshraideh, & Al Omari, 2021).

The important experience of undergoing surgery patient is a trauma significant to result in PTSD for several patients. Several complementary interventions may help when PTSD occurs in the courses of perioperative stages. The Interventions that effective for reducing the high risk of PTSD are providing appropriate control, giving patients adequate information, intensive case management, and behavioral techniques (Deatrich & Boyer,2016). Using a

specific anesthesia (e.g., sevoflurane) agent may reduce the risk factor of PTSD (Zhong et al., 2022). Offering screening and support would benefit from a raised awareness of the potential for post-traumatic stress disorders (Turgoose et al., 2021). Intervention at around 3 months post-trauma may be appropriate as they require more immediate support (Diamond et al., 2022). Pharmacotherapy and psychotherapy are effective in treating preventing and disability-enhancing risk factor identification for PTSD (Joseph et al., 2020).

Previous studies investigated psychosocial approaches which were known to contribute a positive impact on patients' mental health. However, there is a paucity of information on the relationship between Acceptance commitment therapy and therapeutic relationship among patients. These therapies seem to be a promising strategy to deal with PTSD because they may help the patients generate adaptive coping with surgery conditions. Therefore, the study aims to assess the benefits of these therapies in patients following surgery. We expected that the finding will help the surgical nurses provide comprehensive intervention against PTSD in the perioperative room.

METHOD

The literature review was chosen to achieve the objective of the study. The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) were utilized for the study selection process. Several online databases were included, for example, PubMed, ScienceDirect, EBSCO, Springer, Google, and Google Scholar. The search criteria were articles in English and Bahasa, discussing acceptance commitment therapy and therapeutic relationship in patients with surgery, primary review studies, a fully complete of study design, and publications dated 2000 to 2022. Keywords were as follows: *'acceptance commitment therapy and therapeutic relationship patients with surgery', 'acceptance commitment therapy patients with surgery', 'post-traumatic stress disorders patients with surgery', 'therapeutic alliance patients with surgery' and 'acceptance commitment therapy therapeutic relationship post-traumatic stress disorders patients with surgery.*

A total of 94 articles were obtained and presented on a data process analysis using a PRISMA flow diagram (Figure 1). The data selected from the studies were assessed according to the article detail (title, journal, year of publication) as well as research details. The browse process was focused on considering the criteria to minimize duplication. The researcher looked for studies that were focused on the main goal of the study, which was to find out about the different titles and abstracts that were found. All studies focusing on Acceptance Commitment Therapy and Therapeutic Relationships were collected (n = 94). Some of the articles you copied were not relevant to the topic, so we had to delete them, not discussing the Acceptance of Commitment Therapy and Therapeutic Relationship in detail, and editorial and book chapters (n = 32). Second, the remaining articles (n = 64) were also screened and then disregarded after considering titles and abstracts (n = 25). Third, screening full text by considering criteria (n = 39), then articles were excluded due to failing to meet the criteria (n = 32). Fourth, 7 articles discussing Acceptance Commitment Therapy and Therapeutic Relationships were included, compared then analyzed (Table 1).

Figure 1. Article selecting process

RESULTS

Table 1. Study finding

No	Author and year of publication	Participants	Method	Comparison therapy (If any)	Outcomes
1	Cojocaru et al., 2021	Post-surgery	Review	None	ACT reduce the risk of PTSD
2	Mohamadi, Mirzaian, & Dousti, 2019	Cardiac surgery	Quasi-experimental study	Usual care	ACT improve psychological outcomes
3	Weineland, Arvidsson, Kakoulidis, & Dahl, 2012	Bariatric surgery patients	RCT	Usual care	ACT improve psychological outcomes
4	Paolucci et al., 2019	Patient with breast cancer	RCT	Usual care	Therapeutic Alliance improve feeling of comfortable
5	Vitomskyi, Balazh, Vitomska, Martseniuk, & Lazarieva, 2021	Patients with cardiac surgery	Observational study	None	Therapeutic Alliance correlate with improved outcomes
6	Miano, Di Salvo, & Lavaggi, 2021	Patients with genital cosmetic surgery	Case study	None	Therapeutic Alliance prevent negative outcomes
7	Erci, Sezgin, & Kaçmaz, 2008	Patients in perioperative stages	RCT	Usual care	Therapeutic Alliance reduce anxiety

DISCUSSION

PTSD is a well-characterized and disabling consequence of injury affecting health outcomes such as rehospitalization, work, daily activities, and recovery. Patients experiencing physical trauma in particular events often need surgical treatment or intensive services. However, after surgical procedures, several patients suffer psychological distress or PTSD. Therefore, clinical psychiatric nurses, as frontline healthcare services, are recommended to consider using a clinical tool to promote early detection and management (Korman, Hijri-Rad, Goldberg, Leano, & Ellis, 2019). Even though the results are very limited in the literature. This present review study found that Acceptance Commitment Therapy and Therapeutic Relationships have potential benefits to reduce PTSD in patients following surgery. We hypothesized that a combination of these therapies will accelerate PTSD healing.

ACT is a type of mindful psychotherapy helping patients to focus on the recent moment, and accept thoughts and feelings without any judgment. This therapy may help to reduce and or prevent the risk of PTSD (Cojocaru et al., 2021; Mohamadi, Mirzaian, & Dousti, 2019).

Given the evolving body of randomized trials indicating the ACT's effectiveness, the National Institute for Health, and Care Excellence (NICE) guidelines integrated this intervention among psychological approach recommendations for chronic symptoms (e.g., surgery) (National Institute for Health and Care Excellence [NICE], 2021). The main point of ACT is acceptance of something that is out of control and commitment to performing something that is under control. ACT emphasized the patient to accept thoughts and emotions and then commit to changing the unhealthy behavior. A study has also been conducted on patients with bariatric surgery describing that ACT improves psychological outcomes (Weineland, Arvidsson, Kakoulidis, & Dahl, 2012). Again, the practical application of ACT is limited as the complex solutions require further investigation in patients with surgical procedures.

Another promising therapy that can be used for a patient following surgery is the Therapeutic Relationship. This therapy is positively associated with better clinical physiotherapy outcomes. Four conditions were known as being necessary points for a therapeutic relationship as follows: present, receptive, genuine, and committed (Miciak, Mayan, Brown, Joyce, & Gross, 2018). The condition represents the attitudes and intentions of healthcare professionals and patients (Paolucci et al., 2019; Vitomskyi, Balazh, Vitomska, Martseniuk, & Lazarieva, 2021). The study supports that adolescent-rated alliance predicts treatment outcomes better than therapist-rated alliance (Gergov, Marttunen, Lindberg, Lipsanen, & Lahti, 2021). Therefore, therapists must routinely use the therapeutic relationship with conventional therapy and evaluate its effectiveness. However, the combination therapy of Acceptance Commitment Therapy and Therapeutic Relationship has never been performed. This gap finding may help the nursing researcher to enhance the profession through participation in scientific inquiry.

CONCLUSION AND SUGGESTIONS

The combination between acceptance commitment therapy and a therapeutic relationship will accelerate the healing of PTSD among patients following surgery. The predictive factor should be assessed before entering the operating room. Clinical nurses are recommended to perform acceptance commitment therapy and therapeutic relationship when the symptoms of mental disorders are identified. Future studies are needed to identify the patients who are at high risk of PTSD and then determined the appropriate interventions for such cases.

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THE EFFECT OF BALANCE LEAF BOILING ON CHANGES IN BLOOD PRESSURE IN HYPERTENSION PATIENTS IN THE WORKING AREA OF PAYUNG SEKAKI PEKANBARU HEALTH CENTER

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Abstract
Hypertension is a health problem in the world, both developed and developing countries. Hypertensive patients routinely take drugs to control and lower blood pressure, but people are now getting tired of taking drugs because of the side effects of hypertension drugs that make dizziness, diarrhea and coughing. People turn to non-pharmacological treatment, one of which is by consuming boiled salam leaves to control blood pressure. Salam leaves contain flavonoids as antioxidants that can lower blood pressure. Consuming a decoction of salam leaves 2 times a day for 7 days as much as 150 cc, according to the SOP. The purpose of this study was to determine the effect of boiled salam leaves on changes in blood pressure in hypertensive patients in the work area of the Simpang Tiga Inpatient Health Center Pekanbaru City involving 14 respondents. The study was conducted on 12 June to 6 July. The research design used is Cross Over Design with pre-test and post-test designs. The sampling technique used is purposive sampling with inclusion criteria. The research instruments used were observation sheets, SOPs and also a sphygmomanometer. The results of this study indicate that there is an effect of salam leaf decoction before and after giving the salam leaf stew with p value = 0.00 where it can be concluded that there is an effect of salam leaf stew on reducing blood pressure in hypertensive patients. The results of the Decoction and Drug Statistical Test showed a systolic P value of 0.264 > (0.05) and a diastolic p value of 0.100 < (0.05), indicating that there was no significant difference between the decoction and the drug in controlling and lowering blood pressure in hypertensive patients. This study recommends to further researchers to conduct further research on the effect of boiled Bay leaves on changes in blood pressure in patients with hypertension.

Keywords: Effect, Salam Leaves, Hypertension.

INTRODUCTION

Hypertension is a health problem in the world, both in developed countries and developing countries. The term "silent killer" is applied to hypertension because usually people who suffer from it do not know the symptomsbefore and new symptoms appear after certain organ systems suffer blood vessel damage. Blood pressure involves two measurements, namely systolic and diastolic (Simandalahi & Yentisukma, 2019). Treatment of hypertension can be done using a pharmacological approach and non-pharmacological. Non-pharmacological approach or so-

called Complementary approaches are very popular in Indonesia. Approach Complementary is an additional effort beyond the medical approach It is believed to lower blood pressure. Treatment developments Complementary has a very rapid increase in percentage. By Globally there are many complementary therapies to lower blood pressure one of which is herbal therapy (Risa et al, 2018). A number of Complementary treatments have been found to help Lowering blood pressure using traditional plants. People use complementary therapies for reasons of belief, finances, chemical drug reactions, healing rates and also felt effects reduction in blood pressure is felt more quickly (Trisnawati & Jenie, 2019,
(A. Lestari & Faridah, 2021). One type of complementary therapy that can be used for lowering blood pressure in hypertensive sufferers is by consume boiled bay leaves. Bay leaves Bay leaves come from the country Southeast Asia, such as Burma, Indochina, Thailand, the Malay Peninsula, Sumatra, Kalimantan and Java. The natural distribution of the Bay Leaf tree covers tropical regions of Asia such as Myanmar, Thailand, Vietnam, Malaysia, the Philippines, Singapore, Brunei and Indonesia. Apart from that, bay leaves can also be found in India. Bay leaves are a type of foliage plant and traditional medicine. Bay leaves contain flavonoid compounds, phenols, alkaloids, tannins, and coumarins. Purified ethanol extract from bay leaves has the potential to be developed into antihypertensive drugs (Hasim et al., 2019)
Bay leaf decoction is given twice a day (150 ml for one drink) after eating for 7 consecutive days, with the preparation procedure, namely (Simandalahi & Yentisukma, 2019):
Fresh bay leaves are washed clean, then the leaves are weighed 50 grams for 1 glass. Fresh green leaves are boiled in 300 ml of water until it boils until the remaining water is reduced to half. Strain while warm, and give 2 glasses per day, morning and evening (150cc) after eating. Next, blood pressure is measured again after giving the intervention and recorded on the observation sheet. Consume the decoction for 7 consecutive days.

RESEARCH METHODS

This research uses a cross over design. A cross over design is an experimental design where each experimental subject receives several treatments over different time periods. This design aims to determine the results obtained before and after the bay leaf decoction consumption intervention, which begins with measuring blood pressure before the treatment (pre-test) and after the intervention (post-test).
This research was conducted in the Payung Sekaki Health Center Work Area. This research was conducted from February 2022 to July 2022. The population of this study was all hypertension sufferers who were within the working area of the RI Simpang Tiga Health Center, where the number of hypertension sufferers was from January to December 2021
totaling 6,324 people, and the number of samples in this study was 13 people. This study used two variables, namely the dependent variable for reducing blood pressure and the independent variable was bay leaves. This research used 2 data analysis techniques, namely Univariate and Bivariate.

RESEARCH RESULT

This section presents the research results. Research results are accompanied by tables, graphs (images), and/or charts. [Times New Roman, 12, normal], 1 space. PNG/jpg image format.

DISCUSSION

Univariate Analysis

a. Age

From the research results, the majority of hypertensive respondents were aged 30-40 years. According to researchers' assumptions, increasing a person's blood pressure does not only depend on age, but increasing blood pressure is also caused by a person's habits and lifestyle.

b. Gender

Based on the gender of the respondents in this study, it was found that the proportion of women was greater than men with a total of 11 respondents (78%). And the number of male respondents was 3 respondents (21.4%). According to researchers' assumptions, there are more women than men who suffer from hypertension. This is caused by low estrogen levels. Estrogen functions to increase levels of High Density Lipoprotein (HDL) which plays a very important role in maintaining healthy blood vessels.

c. Work

According to researchers' assumptions, excessive work makes you physically tired and stress increases which will cause blood pressure to increase.

d. Blood Pressure and Drug Treatment

Researchers used the drug Amlodipine to lower blood pressure. The results were that CCB class drugs had a good ability to lower blood pressure in a short time. According to researchers' assumptions, medication is a fast, effective way to lower blood pressure. If consumed regularly by hypertensive patients, it can control blood pressure so that it remains stable.

e. Blood Pressure and Bay Leaf Treatment

The results of the independent t-test statistical test showed a value of $p = 0.000$ and $p = 0.001$, meaning $p < 0.05$, which means there is an effect of giving bay leaf boiled water on blood pressure in hypertensive elderly people.

Bivariate Analysis

a. Comparison of drug treatment and daun salam leaf decoction on reducing blood pressure.

Statistical testing using the T-dependent paired T-Test. The results obtained were that the sample average for systolic drug intervention had a p value of 0.00, which means <0.05. Meanwhile, the diastolic p value of the drug is 0.00, which means <0.05. Thus, the hypothesis in this study is that there is an effect of drug treatment on blood pressure in patients.

b. The difference in blood pressure after being given medication and decoction.

The hypothesis in this study is that there is no significant difference in the effect of administering drug treatment and boiled daun salam leaves on blood pressure in patients. According to the researchers' assumptions, this shows that hypertensive patients can use Bay leaf decoction as a non-pharmacological treatment to lower blood pressure and control blood pressure when they are bored with taking medication.

CONCLUSIONS AND SUGGESTIONS

The hypothesis in this study is that there is no significant difference in the effect of administering drug treatment and boiled daun salam leaves on blood pressure in patients. According to the researchers' assumptions, this shows that hypertensive patients can use Bay

leaf decoction as a non-pharmacological treatment to lower blood pressure and control blood pressure when they are bored with taking medication.

1. For educational institutions

It is hoped that the results of this research can be used as a reference for knowledge and also the development of midwifery science and midwifery services throughout a woman's life cycle.

2. For respondents

It is hoped that this research can provide input or can be used as knowledge regarding non-pharmacological treatments to reduce blood pressure in hypertensive patients.

3. For future researchers

For future researchers, it is hoped that this research can be used as a source of information and the results of this research can be used as a comparison to conduct further research and further develop this research to suggest that future researchers should examine the comparative effect of decoction of Bay leaves and Bay on reducing blood pressure. in hypertensive patients.

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EFFECTS OF HOLD RELAX TERAPY ON LOW-HIGH BADING IN OBESITIVE AGES

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Abstract

Lower Back Pain (LBP) is one of the most common health problems in communities whose causes are unknown, can lead to reduced productivity and, in severe cases, may lead to disability. Risk factors for LBP include individual factors, such as age, gender, Body Time Index (BTI), relaxed living behavior and not keeping a healthy diet, smoking habits, physical freshness, history of trauma as well as psychological and psychosocial problems. And work-related factors such as workload, physical activity performed, work position, body position (lifting heavy loads with the wrong position, bending, or bad body posture when sitting or sleeping, nor standing for hours and position when rotating the body), as well as physical environmental factors like exposure to vibration and noise. The aim of the study was to find out the effect of *hold relax* therapy on lower back pain in obese adults. The type of research is quantitative that uses the *Quasy Experimental* design with the research plan *pre-test and post test with control one group design*, that is, comparing subjects before and after given hold relax therapy in the reduction of lower back pain in adult obesity. The number of respondents was 15 samples with total sampling techniques. The research instrument is an intensity questionnaire of lower back pain. The analysis used is Paired sample T-Test (A<0,05). The results of this study conclude that there is an effect of *Hold Relax* therapy on the reduction of lower back pain in obese adults in Public Health Center Simpang Tiga Pekanbaru.

Keywords: Lower Back Pain, *Hold Relax*, Obesity

INTRODUCTION

Lower Back Pain (LBP) is the most common health problem in society that can lead to a decrease in productivity and even in severe cases will lead to disability. Lower Back Pain (LBP) has made a major contribution to the list of diseases in the world that are unknown exactly (Heuch, 2016; Maher, 2017).

LBP is experienced by 50-80% of the world's population (Tanderi et al, 2017). While in Indonesia for the region with the highest figure, it is estimated that 21.3% of East Java population suffers from back pain. Pravelence based on patient visits to several hospitals ranges between 3%-10% (Koesyanto, 2013). According to the National Basic Health Research (Riskesdas) report in 2018, 7.10% of the population of Riau Province suffered from joint pain in the lower back.

Risk factors that cause LBP include individual factors, such as age, gender, Body Time Index (BTI) due to relaxed living behavior and not keeping a healthy diet, smoking habits, physical freshness, history of trauma as well as psychological and psychosocial problems. And work-related factors such as workload, physical activity performed, work position, body position (lifting heavy loads with the wrong position, bending, or poor body posture when sitting or sleeping, nor standing for hours and position when rotating the body), as well as physical environmental factors like exposure to vibration and noise (Septadina 2014; Alhalabi et al, 2015).

Relaxed living behavior and not keeping a healthy diet cause obesity, which is now referred to as one of the *"New World Syndrome"* or New World syndrome because the incidence rate is on the rise and has created a socio-economic burden as well as public health problems. One of the musculoskeletal disorders caused by the effects of obesity is Lower Back Pain. (LBP). According to the 2018 Riskesdas report in Indonesia, the prevalence of obesity for the age of 18 and over increased from 14.8% in 2013 to 21.8% (14,5% men and 29.3% women) in 2018 and the highest prevalence in the age group 40-44 years is 29.6%.

Obesity is an important health problem in society and requires more attention because obesity has been linked to an increased risk of cardiovascular disease, stroke, diabetes, metabolic disease, cancer, nonalcoholic fatty liver, and asthma. Obesity can also lead to psychosocial problems, reduced productivity, and swelling up health costs. In addition, obesity also increases the risk of musculoskeletal disorders, including spinal cord injuries and osteoarthritis. (Carolin, A, et,al 2018).

Someone with more weight gain will make the weight increase. When excess weight due to the accumulation of excess fat tissue in the abdomen will complicate the work of the spine in supporting the body, the spinal cord is forced to accept loads that can lead to structural disturbance and damage to the vertebra. The most vulnerable part of the spine to the effects of obesity is the back, which is the lumbar part and causes pain. Pain causes joint movement no contraction and muscle relaxation so there is a distraction of contractures, and atrophy or muscle shrinking. And the more the joint is attracted and the more it can not be moved will affect damage to the joints, action is needed to prevent contractures and expand joint movements and can reduce pain (Allegri et al., 2016; Priguna, 2009; Zuhri & Rustanti, 2017).

Hold relax therapy is a technique that uses optimal isometric contractions of antagonistic muscles that shrink followed by muscle relaxation. This technique provides a stretching effect that improves joint movement and relieves pain with accessory or physiological movements. Physiological movements are based on kinematic bone movements such as flexion and extension. Meanwhile, accessory movements were based on joint movements (Hendrik H, 2018).

Treatment in patients who have already experienced lower back pain by doing activities that can reduce the pain, in addition to the exercise of movement therapy *Hold Relax*, it is necessary to observe also eating a nutritious food, adequate rest and drinking white water. The benefits of the exercise therapy *Hold Relax* is that it can stretch the muscles, reduce the pressure on the joints and strengthen the muscle, so that muscle tension can decrease and pain can be reduced. *Hold Relax* can be done almost anywhere and does not require special equipment (Huldani, 2012).

RESEARCH METHODS

The type of research used is the type of quantitative research that uses the Quasy experimental design with the research plan *pre-test and post test with control one group design*, i.e. comparing subjects before and after given hold relax therapy in reducing lower back pain in adult obesity. The research site was carried out in Public Health Center Storage Tree Pekanbaru. The location was chosen on the basis of the data that Public Health Center Simpang Tiga Pekanbaru with the highest percentage of obese adults experiencing pain in the lower back compared to the others. The sampling technique in this study is *Total Sampling* by meeting the inclusion criteria and not meeting the exclusion criteria. The criteria for inclusion of the sample of the study are: female gender, adult patients who are in Public Health Center Simpang Three Weekly suffering joint pain with moderate to severe degree of pain.

A tool for gathering data on this study using a questionnaire that contains the biodata of the respondents and the results before and after *Hold Relax* therapy. A method used to find out the results of the *Hold Relax* therapy prior to and after the therapy action and carried out by filling in the questionnairesAnalisa data yang digunakan adalah analisis univariat yaitu dilakukan untuk menganalisa terhadap distribusi frekuensi setiap kategori jawaban pada variable penelitian, selanjutnya dilakukan analisis terhadap tampilan tersebut (Notoatmodjo, 2013).

In this study, a bivariate analysis was performed against two variables simultaneously, with a *paired test of t-test dependent* samples. The test's function is to see if there's an effect on lower back pain reduction before and after *hold relaxation* therapy. By determining the conclusion based on probability i.e.: If the probability (significant) > 0.05, then H0 : Effective and if the probability (signifying) < 0.05 then H 0 : Ineffective.

RESEARCH RESULT

A. Univariat Analysis

1. Respondent Charasteristic

Tabel 2. Frequency Distribution Characteristic in Obese Adults Experiencing Lower Back Pain in Public Health Center Simpang Tiga Pekanbaru

Charasteristic	Frequensy	Persentation
Age		
20-35th (early adult)	**9**	**60%**
36-40th (late adult)	5	40%
Total	15	100%
Education		
Junior High School	3	20%
Senior High School	**8**	**53,3%**
Program	3	20%
Bachelor 1	1	6,7%
Total	15	100%
Time (long suffered)		
< 6 weeks	5	33,3%
6-12 weeks	**7**	**46,7%**
> 12 weeks	3	20%
Total	15	100%
Cause of Pain		
Injury	2	13,3%
Neural Complaints	2	13,3%
Excessive Activity	**11**	**73,3%**
Total	15	100%

From table 2 it can be seen that the characteristics of respondents in Public Health Center Simpang Tiga Pekanbaru According to the Department of Health of RI, the age of 20-35 years is 9 people in the early adult category (60%), and for the last education mostly high school education is 8 people (53.3%), while for the time (long suffering) mostly 6-12 weeks is 7 people (46.7%), then for the cause of pain experienced respondents is 11 people. (73,3).

2. Analysis of the degree of lower back pain in adults obesity
   a. The degree of pain before hold relax therapy versus reduction of the pain in the lower back in obese adults.

Tabel 2. Frequency Distribution of Lower Back Pain in Obese Adults Before Hold Relax Therapy at Public Health Center Simpang Tiga Pekanbaru

Pain Level	Frequensy	Persentation
Light Level(1-3)	3	20%
Medium Level (4-6)	**9**	**60%**
Heavy Level (7-9)	3	20%
Total	**15**	**100%**

Based on Table 4.2 it is known that the rate of lower back pain in adult obesity before hold relax therapy in Public Health Center Storage Three Pekanbaru mostly belongs to the category with moderate rate of pain (4-6) which is as many as 9 people (60%).

b. Pain level after *hold relaxation* therapy against reduced back pain in obese adults

Tabel 3. Frequency Distribution of Lower Back Pain in Obese Adults Before Hold Relax Therapy in Public Health Center Simpang Tiga Pekanbaru

Pain Level	Frequesnsy	Persentatiion
Light Level (1-3)	**10**	**66,7%**
Medium level (4-6)	5	33,3%
Heavy Level (7-9)	0	0%
Total	15	100%

Based on Table 4.3 it is known that the rate of lower back pain in adult obesity after *hold relax* therapy in Public Health Center Storage Three Pekanbaru mostly belongs to the category with a rate of mild pain (1-3) that is as many as 10 people (66.7%).

B. Bivariat Analysis

1. The Effects of Hold Relax Therapy Before and After Intervention on Lower Back Pain Reduction in Obese Adults

Tabel 4. The level of lower back pain in obese adults before and after hold relaxation therapy Public Health Center Simpang Tiga Pekanbaru

(N=15)			
Group	**Mean**	**Standard Deviation**	***p-value***
Pre Test	2,00	0,471	0,001
Post Test	1,33	0,488	

Based on Table 4.4, it is known that there is a difference in the average rate of lower back pain in adult obesity before and after the administration of *hold relax* therapy with an average value of 2.00 dropped to 1.33 and the statistical test results

obtained p-value of 0.001 then it can be concluded that there has been an effect of the therapy hold relax on the reduction of the pain in the lower back in adults Obesity prior to and after giving the therapies *hold relax* in Public Health Center at Simpang Tiga Pekanbaru.

DISCUSSION

1. The degree of lower back pain in obese adults before being given Hold Relax therapy.

The results of the pretest obtained data that respondents more feel moderate levels of pain with the range 4-6 that is as much as 9 respondents with pensentase 60%. Whereas for the average value (mean) level of lower back pain in adult obesity before given *hold relax* therapy is 2. This according to the results of research from Ahadi, et.al (2015) showed that the average level of pain respondents before given therapy was on the moderate pain scale with the pain range 4-6.

Pain is discomfort that can be caused by the effects of certain diseases or as a result of injury. Pain also includes a multi-dimensional sensory experience that pain in these phenomena can vary such as intensity (light, moderate, severe), quality (dump, like burning, sharp), duration (transitory, intermittence, persistent), and spread (superfisial atau dalam, difus atau terlokalisir). Pain in each patient is different because it is a personal, subjective and different experience in each person and it is only that person who can explain or evaluate the pain he experiences (Andarmoyo,2015).

According to the assumption of the researchers in this study stated that the level of pain in the moderate category in the 4-6 pain range can interfere with activity as well as disturb concentration, so requires rest and requires medication to relieve pain. Pain can be influenced by several factors, including age and educational level.

Based on research from Ahadi et al (2015) stated that the older a person is, there will be degeneration in the bone, bone density is decreasing, so it is easy to experience musculoskeletal complaints, to cause pain. By the age of 30th, degenerations occur in tissue damage, replacement of tissue into acute tissue, as well as reduction of fluid, so stability in the bones and bones and muscles is reduced until there is a decrease in elasticity of the bone leading to the occurrence of lower back pain.

From the results of the study obtained results that the average adult age of obesity who suffer from lower back pain in Public Health Center Simpang Tiga Pekanbaru is in the early adult category in the age range of 20-35 years as much as 9 respondents with a percentage of 60%.

In addition, education affects the level of knowledge of the patient. Patients with a low level of education influence the knowledge associated with the management of pain of the individual himself to cope with the pain he feels. Based on research from Winrasih (2013); Fadla (2014) states that a person's level of education affects one's ability to receive information and process it before it becomes good or bad behavior so that it affects his or her health status.

Based on the results of the study there are results that the average educated adult obese suffering from lower back pain in the Public Health Center Simpang Tiga Pekanbaru belongs to the high school level category of 8 respondents with a percentage of 53.3%.

Based on the results of the study found in Table 4.1, the duration or duration of suffering for 6-12 weeks (subacute) of 7 respondents with a percentage of 46.7%. Lower back pain, if left continuously or untreated, can in the long run lead to disorders in the spinal nerves. Lower backyard pain can lead to disturbances in the vertebral nerves, such as radiculopathy or spinal stenosis. It can cause numbness, dizziness, or weakness in the legs or lower legs (March L, 2014).

According to the study of pain experienced by adult respondents, obesity is lower back pain caused by overactivity with the majority of 11 people with a percentage of 73.3%. Excessive workload on the bone causes injury or trauma to soft tissue, resulting in pain in the spine, including lower back (Septadina, 2014).

2. The degree of Lower Back Pain in obese adults after therapy *Hold Relax*

The post-test results obtained data that the rate of lower back pain in adult obesity is in the category of mild pain with a pain range of 1-3 as many as 10 respondents with a percentage of 66.7%.

Hold relax therapy itself is a method of muscle relaxation aimed at relieving tension or stiffness of the muscles of the body. Hold relax techniques are often used in physical therapy and occupational therapy to help patients with a variety of conditions affecting the musculoskeletal and nervous systems (Chen, L.W at al, 2013). By using the hold relax technique, the muscles that are stiff or tensioned will be held tight for a few seconds. After that, the muscles will be instructed to relax gradually. This relaxation process will cause the nerves connected to the muscle to relax, so that the pain in the lower back can be relieved. In addition, hold relax can also help improve the blood circulation to the area affected by pain. By increasing the circulation of blood, the healing process in the lower back area will be more effective.

Based on the above results, *hold relax* therapy can lower the level of pain in obese adults. This was seen at the time of the study when performing the hold relax technique, respondents said that the pain was reduced and the feeling was more relaxed. This was supported by research from (Tumer, et.al, 2018) that said hold relax therapy could help reduce lower back pain, as well as improved muscle strength and flexibility.

3. Effects of Hold Relax Therapy Before and After Intervention on Lower Back Pain in Obese Adults

Testing the hypothesis in this study using the chi square test and obtained the result that the average value (mean) is 2.00% standard deviation 0.471 and the p-value value is 0.001 (p-values <0.05). The results show that hold relax therapy has an impact on the rate of lower back pain in obese adults before and after hold relax in the Public Health Center Simpang Tiga Pekanbaru.

The study is in line with the results of Haniyah, Setyawati (2018) which showed that the average pain rate in 11 respondents prior to therapy with a median score of 7, mean 6.81.

The results of the study showed a significant effect of hold relax therapy on reducing lower back pain in obese adults with a p-value of 0,000.

CONCLUSIONS AND SUGGESTIONS

A. Conclusions

1. Based on the results of research and discussions on the rate of lower back pain in adults obesity in Public Health Center Simpang Tiga Pekanbaru before and after the administration of hold relax therapy can be drawn the following conclusions:
2. The rate of lower back pain in adult obesity before hold relax therapy is mostly in the category of moderate pain with a pain range of 4-6 as much as 9 respondents and a percentage of 60%.The rate of lower back pain in adult obesity after hold relax therapy is mostly in the category of mild pain with a pain range of 1-3 of 10 and a percentage of 66.7%.
3. There is an influence of hold relax therapy in reducing lower back pain in adult obesity in in Public Health Center Puskesmas Simpang Tiga Pekanbaru. This is indicated by an average value (mean) of standard deviation of 0.488 and a p-value significance of 0.001 (p-values<0,005).

B. Suggestions

Based on the results of the study, the researchers gave the following suggestions:

1. For adults with obesity who experience lower back pain, the results of this study are useful for dealing with lower back pains in adults who are obese after the analgesic effects disappear and can be applied in their respective homes when the pain still appears frequently.
2. To the nurse that the results of this research can be used in the delivery of nursing orphanage in particular in the treatment of pain as well as as as an input in the development of science on the effect of hold relax therapy on the reduction of lower back pain in adult obesity.
3. To the next researcher that the results of this research can be used as an additional source of data and information for researchers who will undertake the same research.

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RELATION BETWEEN FAMILY SUPPORT AND STAB FEAR IN DIABETIC PATIENTS USING INSULIN INJECTION

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Abstract

Diabetes mellitus (DM) is *a group* of *metabolic diseases characterized* by *hyperglycemia conditions (increased blood glucose levels) caused* by abnormalities in *insulin secretion, irregular insulin action, or perhaps both. The treatment* given *to DM patients is generally given orally and parenterally by insulin injection. This* injection *has a psychological impact* in the *form of fear of* a *needle stabbing both in the infusion and independent blood sugar checking. This study aimed to determine the effect of family support on* the *fear of diabetic patients who use insulin. The* research instrument *used this research instrument using* the Diabetes Fear Of Injecting And Self- Testing Questionnaire (*D-FISQ)* for *insulin injection fear level* questionnaire *sheet and Hensarling's Diabetes Family Suppor Scale (HDFSS) for family support. The sample used was 30 people. The results showed a significant relationship between family support and patient fear levels (p = 0.02< 0.05).*

Keywords: *Insulin Injection, stab fear, family support*

INTRODUCTION

Diabetes Mellitus (DM) is a disease of the endocrine system characterized by an increase in high glucose levels (Hyperglicemy); this condition is associated with the failure of the pancreas organs to provide insulin hormones, the presence of insulin resistance, or both. DM is one of the fastest-growing diseases in the whole world. The International Diabetes Federation (IDF) noted in 2019 the global prevalence of diabetes was 9.3% (463 million people), increasing to 10% in 2021 and projected to be 10.2% (578 million) in 2030 (Cole & Florez, 2020). The highest prevalence is found in urban rather than rural areas and in high-income countries rather than low-income countries (Saeedi et al., 2019). It is estimated to affect 693 million adults worldwide by 2045. [1]. In Southeast Asia, Indonesia is the only country on the list of 7 of the ten most DM sufferers (10.7 million people). Results of Basic Health Research (Riskesdas) 2018, Riau is one of the provinces with the highest increase in the prevalence of 0.9% (Kementerian Kesehatan RI., 2020)

Diabetes has various microvascular and macrovascular complications that attack organs and threaten life. Macrovascular complications include cardiovascular disease (CVD), peripheral artery disease (PAD), and cerebrovascular disease, while microvascular complications consist of diabetic nephropathy, diabetic microangiopathy, diabetic neuropathy, and diabetic retinopathy (Paul et al., 2020).. Good glycemic management will slow down the emergence of these various complications.

In general, the therapy used in patients with type 1 DM is insulin replacement and oral hypoglycemic drugs for type 2 DM. Still, sometimes a combination of the two is needed in patients who cannot achieve the desired therapeutic results with only oral therapy(Padhi et al., 2020). Insulin injection therapy is the most effective therapy to maintain blood sugar levels within normal ranges, and initiating initial insulin injections is a recommendation on the clinical management guidelines of Type 2 Diabetes (Padhi et al., 2020), But the use of insulin injection therapy often gets a rejection by patients. Several factors cause insulin injection therapy to be reluctantly carried out by patients, including feelings of failure and frustration, loss of personal life control, health problems caused by insulin injection, and stress in insulin injection. In addition, fear of injection, pain caused, shame, and fear of hypoglycemia as a side effect of insulin are also causes of refusal to use insulin injection Patients who receive insulin injection therapy should perform Capillary blood glucose (CBG) examinations regularly. Monitoring CBG by poking a finger can also cause psychological distress. Fear of insulin injections and CBG testing is one of the causes of non-compliance in DM patients that leads to ineffective glycemic control and can increase the risk of complications of type 1 diabetes. (Ultimate & Chamroonsawasdi, 2020).

Family support is one of the factors that influence patients in carrying out treatment related to diabetes mellitus, the information provided by the family dramatically affects the patient's compliance in running insulin therapy, such as the benefits of doing insulin therapy and how to do the injection independently.

The preliminary study was carried out at the health center Simpang Tiga Pekanbaru in June 2022 on ten diabetic patients with insulin injection; six people said they had refused the therapy, four people said they were afraid whenever they had to do an injection and check peripheral blood sugar, four people did not dare to do their injection. Two people felt anxious every time they were about to be injected.

RESEARCH METHODS

The study was a correlational descriptive study with a cross-sectional approach. The samples were 30 patients DM in the Community Health center Simpang Tiga Pekanbaru, who were selected through a purposive sampling technique. Data was collected using the Diabetes Fear Of Injecting And Self- Testing Questionnaire (D-FISQ) for insulin injection fear level questionnaire sheet and Hensarling's Diabetes Family Suppor Scale (HDFSS) for family support. Bivariate analysis was conducted using the Chi-square method to test the association between family support and Insulin Injection Fear.

RESEARCH RESULT

Table 1. Distribution of respondent characteristics.

Characteristics.	n	%
1. Age		
• 36-45 y	8	26,7
• 46-55 y	16	53,3
• 56-65 y	6	20,0
1.Gender		
• Male	8	26,7
• Female	22	73,3
2.Education		
• Primary School	12	
• High school	9	40
• Diploma&Graduate Diploma	9	30
3.Suffering DM		30
• < 1 y	0	0
• 1-3 y	11	36,7
• 4-10 y	19	63,3
• > 10 y	0	0
4.Injection insulin		
•< 1 y	16	53,3
•1-3 y	11	36,7
•> 3 y	3	10
5. Employment		
• Employed	20	40
• Housewife	10	60

From the data above, it is known that the majority of respondents' age is 46-55 years consists of 22 female (73,3%) were Elementary education 40%. They have been suffering from diabetes for 4-10 years (63,3%) and get insulin injection therapy less than 1 year old (53,3%).

Table 2. Patient's level of fear

Variabel	n	%
1. Level of fear		
• Hight	18	60
• Low	12	40
2.Family Support		
• Hight	8	27
• Middle	10	33
• Low	12	40

From the table, it is known that most respondents experienced a high level of fear of stabbing at insulin injections and blood sugar checks (60%), and only 40% had a common fear. Of the overall respondents who had high fear, the majority were in the age range of 35 – 45 years (44%), 46-55 years (38%), and 56 – 65 years (18%), female gender (88%) High school education level (61%) and long insulin therapy less than one year.

Table 3. Chi-square test association between family support and insulin injection fear.

Injection Fear	**Family Support**							***p-Value***
	High		**Midle**		**Low**		∑	
	f	%	f	%	f	%		
High	1	5,6 %	7	38,8	10	55,6	18	0,02
Low	7	58,3	3	25	2	16,6	12	

Based on the results obtained from the analysis using the chi-Square test in table 3, the p-value was 0.02 (<0.05). It explained a significant association between family support and stabbing fears in Diabetic patients who used insulin injections.

DISCUSSION

For gender in this study refert to table, it was found that the percentage of women was more significant than men, and 90% of housewives were. Similar to smokovski's research in Macedonia, of the 84,568 diagnosed DM cases, 57.3% were Women, and 42.7% were men; this was influenced by men's physical activity more given their involvement in agriculture, while Women stayed at home more with the same diet (Smokovski et al., 2018). In addition, the research activities of Mirzaei et al. in Iran found a link between the dominant obesity rate in women and an increase in the incidence of DM in women (Mirzaei et al., 2020)

In this study's prevalence of education in DM patients, most respondents had higher education and diplomas (60%) and primary school 40%. This result is different from previous studies. Sacerdote et al. found that there was an increased risk of DM in populations with low education compared to higher education (Sacerdote et al., 2012), a correlation between low levels of education to the incidence of obesity [, the presence of harmful nutritional consumption behaviours, lower physical activity and higher psychological distress at low education levels (Veghari et al., 2019). The mortality rate of DM patients with low education levels is also 28% higher than that of those with high education. (Dray-Spira et al., 2018)

Type 2 DM is a chronic hyperglycemic condition with a wide range of insulin resistance and deficiency. Prolonged hyperglycemia and an increase in fatty acids make harmful changes to the processes of apoptosis, regeneration and cell function, eventually leading to micro and macrocellular complications. In the course of dm type 2 disease, insulin disorders occur long

before the diagnosis of diabetes (Hanefeld et al., 2020). If previously insulin administration was only given to patients who failed to know blood glucose was stretched normally by oral medication, now insulin is given early with various considerations.

Table 1 shows that most respondents suffer from DM in the range of 4-9 years (63.3%) with a long time of receiving therapy insulin < from 1 year. Early administration of insulin therapy in patients with DM aims to protect the function of pancreas cells, other organs and endothelium from hyperglycemic conditions; even insulin can improve hyperglycemic conditions in just a few days [15]. In insulin administration, the dose is adjusted to the needs of the target achievement of individual HbA1c. But in the course of the disease, DM type 2 patients will end up with insulin dependence (Hanefeld et al., 2020) (Seufert et al., 2019)

Refers to previous research, fear is a normal response When stimuli that appear in the prediction are detrimental or can pose a danger. Although the majority of stabbing and syringe fear is more dominant in children (20% - 50%), it also occurs in adults aged 20 -40 years(20%-30%), and this fear decreases with age (McLenon & Rogers, 2019). The fear of injection in diabetic patients has been widely explained in various studies; the majority Diabetes patients have a fear of insulin self-injection, whereas patients who have fear have higher HbA1c levels and less frequent blood sugar monitoring (Cemeroglu et al., 2018), fear of insulin injection also occurs in gestational diabetic patients, fear is known not to be affected by women's age and insulin dose; however, it diminishes over time (Sangha et al., 2020). Aleali et al. also explained that there was a significant association between education levels and insulin injection fears, those with low education had more difficulty tolerating pain from insulin administration(Aleali et al., 2018)

Fear that cannot be suppressed adaptively will develop into anxiety. (Sangha et al., 2020), and finally gave a negative perception of insulin therapy. Negative perceptions of insulin can arise from family experiences or relationships that undergo insulin therapy experiencing complications and even leading to death. (Kruger et al., 2020) . This fear of insulin injection and CBG testing is often associated with non-compliance in DM patients, which leads to inadequate glycemic control and can increase the risk of severe diabetic complications.
DM is a complex chronic disease that requires ongoing medical care with a multifactorial risk reduction strategy beyond glycemic control. Ongoing diabetes self-management education and support are essential to prevent acute complications and reduce the risk of long-term complications. (Association, 2021). Most of a patient's diabetes management occurs within their family and social environment, so family support is critical to the success of patient management. The Institute for Patient-and Family-Centered Care defines a family member as two or more people who are related in any way—biologically, legally, or emotionally (Cené et al., 2020)

Family involvement in managing diabetic patients can appear in various aspects such as stress management, physical activity, provision of appropriate food, and as a motivator, where the support affects 16-79% of therapeutic success.(Ligita et al., 2021). Family support is one of the factors that influence patients in carrying out treatment related to diabetes mellitus, the

information provided by the family greatly affects the patient's compliance in running insulin therapy, such as the benefits of doing insulin therapy and how to do the injection independently. In this case, social support, namely the family, continues to try to find various information about the health of their family members. If the patient does not receive support in the form of information about his condition, there will be some difficulties in undergoing therapy (Agerskov et al., 2020)

However, several studies have found family behaviors that have a detrimental impact on patients' diabetes management. The lifestyle changes necessary for optimal diabetic self-management often conflict with the already running family routine, changes in the type of food prepared and consumed at home, non-working time for family members to attend medical visits with patients, and re-prioritizing family finances, all of which can affect family routines.

In studies of adults with type 2 diabetes, it has been reported that non-supportive behavior of family members is associated with less adherence to one's diabetes treatment regimen and poorer glucose control. Family members can sabotage or weaken a patient's self-care by providing unhealthy foods, tempting patients to eat unhealthy foods, or questioning the need for medication (Mayberry et al., 2019)]. In table 2, it can be seen that the majority of patients have low family support, 12 people (40%), moderate ten people (33%), and high eight people (27%). In respondents with low support, the majority (8 people) have an age range of 35-45 years, long-suffering DM from 4-5 years, gender female with a high school education level. Meanwhile, respondents with high support come from the age group of 56-65 years and have a duration of DM of 1-3 years and a duration of insulin therapy of less than one year. Based on Hensarling's Diabetes Family Suppor Scale (HDFSS) questionnaire used, it can be seen that respondents who have less support in the form of lack of information provided by the family, lack of time and facilities provided by the family, and lack of family assistance in the treatment process. It is also found in the research of Baig et al. (Baig et al., 2020)

Family is an important part of everyday life. In addition, the health and the emotional and social well-being of each family member are essential to the well-being of the whole family (Agerskov et al., 2020). Family support is one of the factors influencing the success of therapy in DM patients; Family members are the main source of emotional and instrumental support. Instrument support includes helping patients complete specific tasks, such as accompanying them to a health facility or assisting in insulin injections.

In contrast, emotional support can include providing comfort and encouragement when patients face distress or frustration during their lengthy diabetes care (Pamungkas & Chamroonsawasdi, 2020). In table 3, the majority of respondents who received low family support (55.6%) had a great fear of insulin injection. Conversely, those with high family support have common fears about insulin injections. Alhaidar et al. state the importance of family support in treating DM patients, which can act as a protective factor against anxiety-related symptoms. However, Their support is limited to emotional aspects and involves guidance and supervision.

CONCLUSIONS AND SUGGESTIONS

From the results of this study, it can be seen that there is a significant relationship between family support and fear of insulin injection; this needs to be a concern for the importance of family involvement in the therapeutic management of diabetic patients .

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THE EFFECT OF HEALTH EDUCATION ON MOTHER'S KNOWLEDGE IN STUNTING PREVENTION IN TODDLERS

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Abstract
Background: Stunting is a problem that occurs in children under five in Jambi Province with characteristics that do not match height for age, to overcome this, health education is needed. **The purpose** of this study was to determine the effect of health education on mothers' knowledge in preventing stunting in toddlers. **Methods**: This research is a quantitative study with a Pre-Experimental Design with the one group pretest posttest design. Samples were mothers who had children under five, totaling 35 people, samples were taken by purposive sampling technique. This research was conducted in March 2023, data was collected using a questionnaire. Univariate and bivariate data analysis was done using a paired t-test. **Results**: the study showed that there was an increase in mother's knowledge of stunting prevention after health education was carried out with a mean pre-test value of 10.40 and a mean post-test of 12.98 and there was an effect of health education on mother's knowledge in preventing stunting in children in the Health Center Work Area 2023 with a p-value of 0.000. **Suggestions** to the puskesmas to always conduct health education, organize classes for mothers of toddlers, and provide directions on how to provide food with balanced nutrition and texture and increase food according to age

Keywords: Health Education, Knowledge of Stunting Prevention

INTRODUCTION

Stunting is a condition where a child's linear growth remains low. This can be caused by several factors, including inadequate nutrition and health both before and after birth. The incidence rate in Indonesia in 2019 reached around 27.7%, in 2020 it was 26.9 %, in 2021 it will reach 24.4%, and in 2022 it will reach 21.6%. Even though there has been a reduction in the annual stunting rate, this figure is still very far from the desired target of around 14% in 2024 (Bkkbn, 2023) (Badan Kependudukan Dan Keluaga Berencana Nasional, 2021).. The incidence of stunting in Jambi Province in 2022 is 18% and in East Tanjung Jabung district 22.5% ((Dinas Kesehatan Provinsi Jambi, 2023).

Stunting has identifiable short-term and long-term effects. The short-term impacts of stunting include increased symptoms of disease and death, decreased development of children's language, physical and cognitive abilities, as well as high health care costs (Ministry of Health of the Republic of Indonesia, 2018)/(Kemenkes RI, 2018). The success of preventing stunting is influenced by public health procedures themselves. According to the 2021 BKKBN, five pillars for accelerating the reduction of stunting, one of which is community and family empowerment. (Bkkbn, 2023).

According to the Health Promotion Model, increasing the role of families in preventing stunting requires an approach and providing health education by health workers. (Mutingah & Rokhaidah, 2021). The

health education provided will increase family knowledge, especially mothers, because mothers spend an average of 24 hours with their children (Mutingah & Rokhaidah, 2021). The role of nurses as educators is to be able to provide health education to mothers who have 0 month old children under five in terms of fulfilling children's nutrition and good eating patterns to prevent stunting (Induniasih & Ratna, 2013). Based on the problem and incidence of stunting in East Tanjung Jabung, the aim of this research is to determine the effect of health education on mothers' opinions of knowledge in preventing stunting in children under five in Community Health Center Working Area, in 2023.

RESEARCH METHODS

This research is a quantitative research pre-experimental design with the one group pretest posttest design, the research was conducted in the work area of the East Tanjung Jabung Regency Health Center.When the research was conducted from March 5 to March 31 2023, the population in this study was 1,667 mothers with children under five and the sample was 35 mothers, the sample was taken using a purposive sampling technique.

Data was collected using a questionnaire, namely a questionnaire on mothers' knowledge about preventing stunting in children under five. data and data were analyzed univariately and bivariately using paired T-tests. The independent variable in this study is the mother's knowledge before receiving health education and the dependent variable is the mother's knowledge after health education. The measuring scale in this study is an interval scale and the results of measuring good knowledge: 76%-100%, sufficient knowledge: 56%-75%, Lack of knowledge: < 56%.

RESEARCH RESULT

Research results based on respondent characteristics, univariate analysis and bivariate analysis can be seen in tables 1, 2 and 3 below:

A. Respondent Characteristics

Table 1. Frequency Distribution of Respondent Characteristics (n=35)

No	Age	n	%
1	20-35 Year	29	82.9
2	> 35 Year	6	17.1
Total		35	100
No	**Work**	**n**	**%**
1	Housewife	29	82.9
2	Private employees	4	11.4
3	Government employees	1	2.9
4	Farmer	1	2.9
Total		35	100
No	**Study**	**n**	**%**
1	Not Completed In Primary School	1	2,9
2	Elementary School	9	28,6
3	Junior High School	11	40,0
4	Senior High School	13	25,7
5	College	1	2,9

	Total	35	100
No	**Total Family Members**	**n**	**%**
1	2	15	42.9
2	3	17	48.6
3	4	2	5.7
4	5	1	2.9
Total		35	100
No	**Total toddlers**	**n**	**%**
1	1	34	97.1
2	2	1	2.9
Total		35	100

Source: Primary Data 2023

B. Univariate Analysis

Mother's knowledge before and after being given health education

Table 2. Univariate analysis of maternal knowledge before and after health education (n=35).

Variable	Mean	Minimum & Maimum	Standard Deviation
(Pre-Test)	25.34	15-31	2.950
(Post-Test)	30.31	25-35	2.166

Source: Primary Data 2023

C. Bivariate Analysis

The influence of health education on maternal knowledge in preventing stunting in children under five

Table 3. Bivariate analysis of the influence of health education on stunting prevention (n=35)

No	Pengetahuan ibu pencegahan stunting	Mean	Standar Deviasi	P-value
1	Pre test	-	.194	0,000
2	Post test	2.571	-	

Source: Primary Data 2023

Based on table 1 of respondent characteristics, the majority of respondents were aged 20-35 years, namely 29 people (82.9%). The majority of respondents work as Housewives, namely 29 people (82.9%), some respondents have junior high school education, namely 11 people (40%), some respondents with a family of 3 people, namely 17 (48.6%). The majority of respondents had 1 toddler, namely 34 (97.1%).

Based on table 2, the results showed that respondents' knowledge of preventing stunting was obtained with a mean value of 25.34, whereas after being given health education, the mean value was 30.31. This means that there was an increase in maternal knowledge after being given health education by 4.97%.

Based on table 3, the results of statistical tests show that there is an influence of health education on mothers' knowledge about preventing stunting in children under five in the

work area of one of the East Tanjung Jabung District Health Centers in 2023 with a p-value of 0.000.

DISCUSSION

The results of the research above show that there is a difference in mothers' knowledge before and after being given health education in the Community Health Center Working Area, East Tanjung Jabung Regency in 2023. A person's knowledge can be increased by conveying information in lectures, brochures, posters and leaflets. (Sandjojo, 2017). Researchers conducted health education with lectures using LCD and laptops and distributed leaflets afterwards. Health education is easily absorbed by respondents because it uses the senses of sight and hearing. The results of this study are in line with previous research (Ginanjar et al., 2022), namely that the knowledge of mothers of stunted children has an average score of 5.60 before receiving health education, and after receiving health education with an average score of 10.77.

Research conducted by (Zain et al., 2023) entitled Health Education for Mothers as an Effort to Prevent Stunting in Rawang Kao Village, Lubuk Dalam District, Siak Regency, Riau, with the results that before giving counseling there was an average of mothers' knowledge regarding stunting was 55.9%. After attending the counseling, the results were an increase in the average knowledge of mothers about stunting, namely 91.9%. Therefore, providing health education can increase mothers' knowledge about stunting. Health education is not just providing information from one or more people to another, nor is it a list of activities to be carried out or results to be achieved. This is a dynamic process of behavioral adjustment. This is because people have the option to acquire new information, attitudes and behavior related to their personal interests. Naturally, modifying behavior will involve a dynamic process. (Induniasih & Ratna, 2013)

There is an aspect that influences the prevalence of stunting in children under five, namely the mother's level of nutritional awareness. The mother gains more knowledge because she wants to learn about and use preventative measures. Because it influences the food given to children and is one of the elements that determines food intake, mothers' knowledge about food, health and nutrition is a secondary cause of stunting in children. (Fadillah, 2021).
There is an influence of health education on maternal knowledge in preventing stunting in the Simpang Pandan Community Health Center Working Area, East Tanjung Jabung Regency in 2023. Health education is conveying information to individuals, groups and the community. Health education is very meaningful in preventing health problems, one of which is preventing stunting .(Hasanah et al., 2022)

Based on a study conducted by (Rahayu et al., 2018) there is an influence of health education using several methods, including interpersonal communication, lectures, using media and pocket books and audiovisuals on stunting prevention. Research conducted (Ginting et al., 2022), with the results that there were significant differences between knowledge, attitudes and practices in preventing stunting before counseling was carried out using audio-visual media and after counseling/intervention was carried out with a significance value of 0.000. Health

education is a form of education that tries to give people the information and confidence they need to make their own decisions about their health (Masdarwati et al., 2023).
Health education has the goal of changing behavior. Changing behavior here means changing unhealthy behavior into healthy behavior in accordance with health values, forming or developing healthy behavior, and maintaining healthy behavior in accordance with health norms and values (Rahayu et al., 2018).

Researchers assume that health education will have a big impact on mothers' awareness of stunting prevention. Each difference in knowledge depends on how someone understands the topic being presented. Good knowledge will have an impact on preventing health problems. Considering the need for nutria during the toddler years, mothers must ensure whether the nutrition provided is appropriate to the growth and development needs of toddlers and it is recommended that mothers use posyandu and health center facilities to assess nutritional needs for toddlers.

CONCLUSIONS AND SUGGESTIONS

The conclusion of this research is that there is an influence of health education on maternal knowledge in preventing stunting in children under five in the Simpang Pandan Community Health Center Working Area, East Tanjung Jabung Regency in 2023 with a p-value of 0.000. It is recommended that health workers carrying out programs to accelerate the reduction of stunting rates be able to support families at risk of stunting and for further research to be able to research the processing of local food ingredients to prevent stunting.

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MORINGA OLEIFERA LEAF JUICE INCREASES HEMOGLOBIN LEVELS IN PREGNANT WOMEN WITH ANEMIA

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Abstract

Background: Anemia during pregnancy is characterized by low hemoglobin (Hb) levels, with levels below 11g% in the first and third trimesters and below 10.5g% in the second trimester. Anemia in pregnant women can lead to various complications, including abortion, premature birth, prolonged labor, trauma, and postpartum hemorrhage. Objective: This study aim to evaluate the effectiveness of Moringa oleifera leaf juice in increasing hemoglobin levels in pregnant women diagnosed with anemia. Methods: This quantitative research employed a Quasi-Experimental design with a one-group pretest-posttest approach. The study was conducted in Gate Sari Kampar village, Riau province, from February to June 2023. The sample included 30 pregnant women with anemia. The participants were administered Moringa oleifera leaf juice. Results: The research findings indicated that the average pretest hemoglobin level among the pregnant women was 9.28 g%. After the intervention involving the consumption of Moringa oleifera leaf juice, the average hemoglobin level increased to 10.33 g%. Statistical analysis using a paired sample t-test resulted in a p-value of 0.000, signifying the significant effectiveness of Moringa oleifera leaf juice in increasing hemoglobin levels in pregnant women with anemia. Conclusion: The study demonstrates that Moringa oleifera leaf juice is an effective means to elevate hemoglobin levels in pregnant women experiencing anemia. As a result, it is recommended that pregnant women with anemia consider incorporating Moringa leaves into their diets as a natural remedy to improve their hemoglobin levels

Keywords : Pregnant women; Moringa oleifera Leaf Juice ; Anemia; Hemoglobin;

INTRODUCTION

According to the World Health Organization (WHO), the prevalence of iron deficiency among pregnant women ranges from 35% to 75%. As gestational age increases, 30% to 40% of pregnant women experience iron deficiency.(Smith JR & Brenann BG, 2012) In Indonesia, nearly half, specifically 48.9% of pregnant women, suffer from anemia (Riau Province Health Office Profile, 2020).

The government's strategy to combat anemia in pregnant women involves providing iron supplementation tablets (TTD), with a minimum of 90 tablets. The percentage of pregnant women in Riau province who received TTD increased from 65% in 2019 to 77.3% in 2020.

Several alternatives exist for increasing hemoglobin levels, including TTD consumption. Another option for pregnant women to boost their hemoglobin levels is by consuming Moringa oleifera leaf juice, which is prepared by processing Moringa leaves into a juice for consumption.

Moringa leaves (Moringa oleifera) are a tropical plant that flourishes in regions like Indonesia. They have been known for centuries as a versatile, nutrient-rich, and medicinal plant. These leaves contain a diverse array of natural compounds, including substantial amounts of vitamins A, B, and C, as well as calcium, potassium, iron, and easily digestible protein. The iron content in dried Moringa oleifera leaves 5,4 mg (Onyekwere, 2014), or in the form of Moringa oleifera leaf flour, is remarkably high, equivalent to 25 times that of spinach. This makes it a natural alternative for treating anemia in pregnant women(Suheti, Indrayani, & Carolin, 2020). Moringa leaves are particularly effective in treating anemia due to their iron content of 28.2 mg(Siagian et al., 2023),(Susiyanti & Hartini, 2021).

Research conducted by (Hartati & Sunarsih, 2021) There was influence in consuming Moringa Leaf extracts toward enhancement of hemoglobin level on pregnant woman. demonstrated an increase in hemoglobin levels after the consumption of Moringa oleifera leaves. The average hemoglobin level rose from 9.642 g% before consumption to 10.648 g% after consumption, resulting in an average increase of 1.006 g%. The longer the duration of Moringa oleifera leaf consumption, the greater the increase in hemoglobin levels, as observed in a 12-week study which reported an increase of 1.39 g%. (Susiyanti & Hartini, 2021), (Rismawati, Jana, Latifah, & Sunarsih, 2021)

In an initial study conducted by the author in a private midwife's practice, out of 20 respondents, 15 were found to have anemia. Among them, 9 were classified as having mild anemia with hemoglobin levels ranging from 9 to 10 g%, and 6 were classified as having moderate anemia with hemoglobin levels ranging from 7 to 8 g%. Notably, the respondents were unaware of the nutritional richness of Moringa leaves (Moringa oleifera) in iron, which could help increase their hemoglobin levels. The study aims to contribute valuable insights into addressing anemia in pregnant women and the potential role of Moringa oleifera as a natural solution to this critical health concern.

RESEARCH METHODS

Study Design

This research is a quantitative study that utilizes a quasi-experimental approach, specifically a one-group pre-post test design. It involves the evaluation of the impact of Moringa oleifera leaf juice intervention on the hemoglobin levels of pregnant women with anemia. The research includes pre-intervention (pretest) hemoglobin level assessment, the administration of Moringa oleifera leaf juice with alternating days, and post-intervention (post-test) hemoglobin level measurement.

Participants

The study was conducted in the working area of a private midwifery practice in Gerbang Sari

Village, Kampar Regency, Riau Province, Indonesia. The study population comprised 31 pregnant women from Gerbang Sari Village who had been diagnosed with anemia. The total population of eligible individuals was included as participants. The inclusion criteria for participants encompassed women aged 20-35 years, not taking iron tablets, hemoglobin levels between 8-11 mg/dL, severe anemia with hemoglobin levels below 7 mg/dL, and the absence of tuberculosis and hepatitis.

Data Collection

Hemoglobin levels were measured as a part of data collection, using the Quick Check HB/Easy Touch device. Data were collected during two phases: the pre-intervention (pretest) and post-intervention (post-test) stages. The preparation of Moringa oleifera leaf juice for intervention included washing Moringa oleifera leaves, blending them with water, and adding honey for palatability. The Moringa oleifera leaf juice was administered to participants three times a day for one week.

Data Analysis

Data analysis involved the comparison of hemoglobin levels before and after the Moringa oleifera leaf juice intervention. Statistical methods, including measures of central tendency and dispersion, were employed to assess the significance of observed changes.

Trustworthiness/Rigor

The study ensured rigor by adhering to established research protocols. Ethical considerations were observed, and data were collected using standardized instruments. The total population sampling method enhanced the representation of the study's population.

Ethical Consideration

Ethical approval was obtained from the relevant institutional ethics committee before the commencement of the study. Informed consent was obtained from each participant to ensure that they were fully aware of the study's purpose and the procedures involved, thereby safeguarding their rights and privacy. These comprehensive methods were employed to assess the effect of Moringa oleifera leaf juice intervention on the hemoglobin levels of pregnant women with anemia while upholding ethical standards and ensuring data reliability.

RESEARCH RESULT

Table 1 presents the demographic characteristics of the pregnant women participating in the study. It is crucial to understand the composition of the sample population to interpret the study's findings accurately.

Table 1. Characteristics of Pregnant Women with Anemia (n=31)

Variable	Frequency (F)	Percentage (%)
Gestational Age		
13-27 weeks (Trimester II)	14	46,7
28-41 weeks (Trimester III)	17	53,03
Occupation		
Unemployed	21	66,7
Trader	8	26,7
Civil Servant (PNS)	2	6,6
Education		
Intermediate (SMP, SMA)	29	93,3
Higher Education (S1)	2	6,7

Source: Data Analysis from Primary Data, 2023

Gestational Age: The sample included pregnant women across different gestational ages. Notably, 17 of the participants (53.3%) were in the third trimester (28-41 weeks), a critical period when the risk of anemia tends to be higher due to hemodilution. Hemodilution involves a significant increase in blood volume during pregnancy, which often results in a reduction in hemoglobin levels.

Occupation: The occupational distribution of the participants shows that a substantial portion (66.7%) were unemployed, primarily homemakers. Homemakers typically have a demanding workload associated with household and familial responsibilities. This can contribute to the risk of anemia, as the physical demands may affect their health.

Education: The education level of the pregnant women is a significant factor indirectly influencing anemia. In this study, the majority (93.3%) had intermediate education levels (SMP, SMA). Education plays a pivotal role in increasing awareness of anemia during pregnancy, affecting dietary habits and behaviors that are crucial for anemia prevention.

Table 2. Effectiveness of Moringa Leaf Juice in Reducing Hemoglobin Levels in Pregnant Women (n=31)

Mean (x)	Standard Deviation (Sd)	Standard Error (SE)	p-value	95% Confidence Interval (CI)
Pre 06.43	0,7717	0,1992	0,000	
Post 07.55	0,7316	0,1889		(-0,906) (-1,186)

Pre: Before the intervention, the mean hemoglobin level was 9.28, with a standard deviation of 0.7717 and a standard error of 0.1992.

Post: After the intervention, the mean hemoglobin level increased to 10.33, with a standard deviation of 0.7316 and a standard error of 0.1889. The paired sample t-test yielded a p-value of 0.000, signifying that the administration of Moringa leaf juice was highly effective in increasing hemoglobin levels in pregnant women.

These results illustrate the potential of Moringa leaf juice as an intervention to alleviate anemia in pregnant women, and its significance in improving maternal health during pregnancy.

DISCUSSION

The results of the study indicate that more than half of the pregnant women were in the third trimester (28-41 weeks) of pregnancy. During the third trimester, pregnant women are at risk of developing anemia due to hemodilution, where blood volume increases by 30-40%, peaking around weeks 32-34 of pregnancy. This physiological change can lead to anemia, particularly if the mother's initial hemoglobin levels were around 11%, as hemodilution may decrease it to 9.5-1(Tessa Sjahriani, 2019). In the early stages of pregnancy (trimester I), women may require additional nutritional intake due to loss of appetite or morning sickness, which can make them vulnerable to anemia (Benson, Shah, Frise, & Frise, 2021)

The majority of pregnant women with anemia in this study were not employed, with 66.7% being homemakers. Homemakers often bear a significant workload related to household and family responsibilities, which can be physically demanding. supports this, highlighting that even homemakers, particularly those with multiple children, might have a heavier workload (Isnaini, Yuliaprida, & Pihahey, 2021). Activities that help pregnant women stay active during early pregnancy can provide energy and enhance their overall strength for labor. However, strenuous work, especially during pregnancy, may lead to fatigue, stress, and a decline in hemoglobin levels, which can contribute to anemia.

The study also revealed that the majority of pregnant women had an intermediate education level (Junior High School, Senior High School) at 93.3%. Education indirectly influences anemia, as higher education levels tend to improve knowledge about anemia during pregnancy. Knowledge plays a role in shaping a pregnant woman's attitude and behavior towards daily food consumption, which can prevent anemia during pregnancy (Chandra, Junita, & Fatmawati, 2019). According to the researcher's assumption, knowledge is essential in various situations, especially during pregnancy. The level of education indirectly affects the likelihood of anemia in pregnant women. Higher education levels are associated with a lower risk of anemia during pregnancy, whereas lower education levels may increase the risk.

This aligns with the findings of (Sasono, Husna, Zulfian, & Mulyani, 2021) (Senjani Yulfani Putri, Sulistiawati, & Ardian Cahya Laksana, 2022) which indicate that higher education levels are linked to fewer cases of anemia in pregnant women. Highly educated pregnant women are more likely to adopt behaviors that prevent anemia during pregnancy compared to those with basic education levels. Education empowers pregnant women to think critically and find solutions to the challenges they may face.

Bivariate analysis was conducted to determine whether there was a significant difference in the mean hemoglobin levels before and after the administration of Moringa oleifera leaf juice for one week with three doses. The study found that the mean hemoglobin level increased from 9.28 before the treatment to 10.33 after the administration of Moringa leaf juice. The statistical test resulted in a p-value of 0.000, which is less than 0.05 (α), indicating that Moringa leaf

juice is effective in increasing hemoglobin levels in pregnant women with anemia.
Moringa oleifera leaves are rich in protein, iron, vitamin and other essential nutrients. The result of analysis shows that the percentages (%) of proteins, moisture, fat, carbohydrate of the leaves are respectively 11.9; 73.9; 1.1 and 10.6% for the cool matter. For the dry matter, the contents in proteins, moisture, fat and carbohydrate are respectively 27.2; 5.9; 17.1 and 38.6%. The result of the mineral composition expressed in mg for 100 g of matters are 847.1; 151.3; 549.6; 17.5; 1.3 and 111.5 in the cool matter respectively for the Calcium, Magnesium, Potassium, Iron, Zinc and Phosphor. The contents of same minerals analyzed for the dry matter are respectively 2098.1; 406.0; 1922.0; 28.3; 5.4 and 351.1. The result showed a satisfactory composition and a significant variability between the nutrients contents of different sectors. This plant can be valorized for a balanced nutrition of populations.(Yameogo, Bengaly, Savadogo, Nikiema, & Traore, 2011)
This research is in line with a study by (Laiskodat, Kundaryanti, & Novelia, 2021) The results showed that the average hemoglobin of pregnant women before the intervention in the experimental group was 9.813 g/dl with a standard deviation of 0.57. The hemoglobin level of pregnant women after being given Moringa leaf soup in the experimental group was 11.494 g/dl with a standard deviation of 1.24.

CONCLUSIONS AND SUGGESTIONS

The research findings reveal a substantial improvement in hemoglobin levels among pregnant women following the administration of Moringa oleifera leaf juice. The study indicated that the mean hemoglobin level before the intervention was 9.28, which significantly increased to 10.33 after the intervention. The p-value of 0.000 suggests a highly significant difference. Therefore, it can be concluded that Moringa oleifera leaf juice is effective in increasing hemoglobin levels in pregnant women. This intervention offers promise as a nutritional approach to address anemia among pregnant women, contributing to improved maternal health and potentially better outcomes for both mothers and their babies.

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ANALYSIS OF LABOR CONTRACTIONS AND FOOD INTAKE WITH FATIGUE LEVEL OF LABORING MOTHERS IN INDEPENDENT MIDWIFE PRACTICE

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Abstract
The labor process will require a lot of energy to help the mother in the labor process. Contractions that are felt continuously, causing the mother to lack appetite or intake, making the mother weaker and easily tired. It is necessary for the midwife's initial assessment of the mother's fatigue condition when she comes to the midwife clinic for delivery, so that the mother can undergo her labor process normally and without complications due to the fatigue she experiences. This research is analytic with a cross sectional approach. The population and samples in this study were vaginal delivery mothers. The sample of this study was 23 people with the sampling technique was simple random sampling, conducted from June-September 2023. The results showed the majority was moderate fatigue, namely 14 people (43.5%), the average VAS-fatigue value of 5.78 points, fatigue factors based on his/contraction factors, namely 16 people (69.6%), based on factors of lack of food intake, namely 14 people (60,9%), There is a significant relationship between his/contraction factors on fatigue in laboring women (P=0.00) and There is a significant relationship between factors of lack of food intake on fatigue in laboring women (P=0.00). Assessment, supervision and management of laboring women who have risk factors for fatigue by midwives are needed to prevent complications of labor in the mother and fetus.
Keywords: fatigue factors, contraction, food intake, laboring women

INTRODUCTION

The Sustainable Development Goals (SDGs) target for reducing the maternal mortality rate (MMR) in Indonesia by 2030 is less than 70 per 100,000 KH by 2030 (Kemenkes RI, 2018). However, until now it has not been maximally achieved to 183 per 100,000 KH by 2024. This indicates that strategic and comprehensive efforts are needed to accelerate the 5.5% reduction in MMR per year. The direct causes of maternal mortality are hypertensive disorders in pregnancy (33.1%), obstetric hemorrhage (27.03%), non-obstetric complications (15.7%), other obstetric complications (12.04%), pregnancy-related infections (6.06%), and other causes (4.81%) (SRS 2016). These causes of maternal mortality indicate that maternal deaths can be prevented if service coverage is accompanied by good quality of service. 77% of maternal deaths were found in hospitals, 15.6% at home, 4.1% on the way to hospitals/health facilities, and 2.5% in other health care facilities (Kemenkes RI, 2022).

Bleeding triggers include anemia, uterine atony, birth canal laceration, and others. Fatigue is indirectly a factor that must be considered for these problems to occur. Fatigue that is not managed properly during pregnancy and labor will increase the risk of complications in pregnancy and labor (Noviyanti & Jasmi, 2022).

Normal labor is a natural process that will be experienced by pregnant women to remove the results of conception that is full-term and able to live outside the uterus, through the process of

spontaneous vaginal delivery. In this case, labor will take place with various stages and phases that the fetus must go through in order to exit the birth canal normally (Noviyanti & Jasmi, 2022).

The process of expelling the fetus takes a lot of time and energy, where this energy is needed by the mother to help the uterine muscles contract during labor. The mother's high energy needs during labor must certainly be met so that the mother does not become exhausted and experience physiological stress which results in glucose homeostatic disorders or changes in the body's energy needs. For this reason, it is necessary to regulate the provision of fluids or hydration, nutritional intake, comfort and emotional stability in laboring mothers. The American College of Obstetricians and Gynecologists (ACOG) recommends fluid and food intake during labor and prohibits restriction of fluid and food intake during labor.(Saleh et al., 2022).

Fatigue in labor can be triggered by the high force of contractions that consume large amounts of calories. During contractions the mother will feel pain and agony and this affects the mother's emotional and physical endurance. The need for ATP increases through aerobic and anerobic metabolic processes during labor. In addition, the effect of lack of food intake during labor also affects the mother's physical endurance and makes the mother feel tired easily. Maternal nutritional needs must be met before and when the mother experiences the process of inpartu or labor (Saleh et al., 2022).

At the time of the visit of pregnant women to health facilities both in hospitals, health centers, and independent midwife practices to give birth, from the initial assessment it has been asked about the history of food intake in the form of a recal of the last 24 hours of nutrition, and the fulfillment of their hydration needs, the history of the length of contractions that exist is calculated from the time of the appearance of his until the mother decides to come to the midwife's practice. At the time of the examination, the condition of his or her contractions was assessed, including frequency, duration, interval, intensity of his or her, so that the quality of his or her contractions was known to be adequate or weak, which would certainly affect the level of maternal fatigue during the first phase of labor until the second phase later.

RESEARCH METHODS

This research is a quantitative study that aims to connect a state of a variable in depth with other variables and present data systematically, in this case describing an Analysis of His Factors and Food Intake Before Delivery with the Fatigue Level of Maternity Women at PMB in 2023. The design of this study is cross sectional, namely observing the variables to be studied in the same period of time (Resmana & Hadianti, 2018).

The study population was pregnant women registered since 2022-2023 at the midwife practice as many as 125 people, sampling by simple random sampling, which is for a random sampling method from the population used as the object of research. This method is used to ensure that the sample taken is representative and unbiased towards certain characteristics of the population. The research sample amounted to 23 people who came from June-September 2023.

The research instrument used questionnaires and records of cohort books and KIA patients at the Islah Wahyuni Midwife clinic.

RESEARCH RESULTS

Univariate Data

The results of data on the characteristics of respondents in this study can be seen in the following table:

Characteristics of respondents

Table 1. Frequency Distribution of Respondent Characteristics

No	Variable	N	F	Persentage (%)
1	Age	23		
	- <20		1	4,3
	- 20-35		16	69,6
	- 35-45		6	26,1
2	Education :	23		
	- Low		5	21,7
	- Secondary		15	65,2
	- High		4	17,3
3	Occupation :	23		
	- Employee		5	21,7
	- Non employee		18	78,3
4	Parity	23		
	- Primi Gravida		6	26,1
	- Multi Gravida		14	60,9
	- Grande Multi Gravida		3	13

Based on Table 1, it can be seen that the majority of respondents based on the age of the majority of 20-35 years as many as 16 people (69.6%), the majority of secondary education as many as 15 people (65.2%), the majority did not work (non employee) as many as 18 people (78.3%), the majority of multi gravida as many as 14 people (60.9%).

Contraction factors and food intake of respondents

Table 2. Frequency distribution of contraction factors and food intake of respondents

No	Variable	N	F	Persentage (%)
1	Contraction Factors	23		
	- Weak		4	17,4
	- Moderate		10	43,5
	- Severe		9	39,1

2	Food intake factors	23		
	- Lack		14	60,9
	- Adequate		9	43,5

Based on Table 2, it can be seen that the majority of respondents experienced moderate contractions during labor, namely 10 people (43.5%) and the majority of respondents experienced lack food intake during labor, namely 14 people (60.9%).

Fatigue level of respondents

Table 3. Frequency Distribution of Respondents' Fatigue Level

No	Variable	N	F	Persentage (%)
1	Level of fatique	23		
	- Weak		3	13
	- Moderate		14	60,9
	- Severe		6	26,1

Based on Table 3, it can be seen that the majority of respondents experienced moderate fatigue levels, namely 14 people (60.9%).

Mean Fatigue score based on VAS-FATIQUE

Table 4. Frequency Distribution of the average value of fatigue based on VAS-F

No	Variable	N	Mean	Std. Deviation	Min-Max
	VAS-F :				
1	Skore Kelelahan	23	5.78	1,622	3-9

Based on Table 1.4, it can be seen that the average fatigue score of respondents based on VAS-Fatique is 5.78 points.

Bivariate Data

Relationship between contraction factor and fatigue of laboring mothers

Table 5. Relationship between contraction factor and labor fatigue

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.534	.214		2.218	.025
	contraction factor	.610	.103	.627	5.442	.000

a. Dependent Variable: **Kondisi Kelelahan Ibu**

** Regresion Linear test*

Based on Table 1.5 Coefesient, it can be seen that the maternal contraction factor will affect the fatigue condition of the mother with a significance value (0.000).

The relationship between food intake factors with maternal fatigue

Table 6. Relationship between intake factor and labor fatigue

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.457	.212		2.105	.021
	food intake factors	.511	.101	.743	4.637	.000

a. Dependent Variable: **Kondisi Kelelahan Ibu**

**Regresion Linear test*

Based on Table 1.5 Coefesient, it can be seen that the factor of maternal food intake will affect the fatigue condition of the mother with a significance value (0.000).

DISCUSSION

Relationship between labor contraction factor and maternal fatigue

Uterine contractions are related to the process of expelling the baby, which is assessed by intensity, duration, frequency to identify abnormalities that can cause obstetric complications, such as uterine inertia, uterine atony. (Ben-noun, 2020) Uterine contractions also play an important role in minimizing postpartum hemorrhage (Koutras et al., 2021), which explains why these complications occur due to lack of myometrial contractility (Sabir., 2022).

The study of uterine activity during labor using an electromyogram (EMG) on the uterus placed from the abdominal surface of a pregnant woman, shows the presence of electrical activity in the uterine muscles that causes the transmission and spread of endometrial electricity causing uterine contractions and increasing their amplitude so that they correlate with large changes in intrauterine pressure and pain sensations (Rosen & Yogev, 2023)

Contractions result in shrinking blood vessels which compensate for the pain felt by the mother during labor. The stronger the hiss or contraction, the longer and higher the level of pain felt by the mother (Sabir., 2022) When contractions will consume enormous energy so that the mother will feel exhausted (Saleh et al., 2022).

When the labor process takes place, the mother needs stamina and excellent body condition. Metabolism in laboring women will increase, this is due to an increase in body muscle activity accompanied by anxiety (Support et al., 1999). Muscle activity during labor requires optimal energy. With optimal energy, the mother will get optimal strength or energy as well (Saleh et

al., 2022). The results of Soviyati's research (2015) state that most mothers who have poor strength (84.1%) have a labor duration of more than 18 hours. (Resmana & Hadianti, 2018)

When the mother comes to the midwife's practice, the initial assessment is to assess when the contractions have been experienced by the mother, how long or duration and strength or intensity as well as the number of his frequencies that come in 10 minutes (Rosen & Yogev, 2023). This assessment is a fundamental thing that midwives must know when assisting the mother's labor, this is because his or contraction is also known as power which is one of the determining factors that affect the process of labor will take place normally or not, supervision, monitoring and management of his, Contractions during labor are needed as a parameter to see his abnormalities or the effect of strong hiss on the physical endurance of the mother so that the midwife can provide appropriate childbirth care advice such as reducing walking or standing mobilization activities during labor time I by replacing it with just sitting or lying down during contractions causing discomfort to the mother, this makes the mother unable to move more and only chooses one position that reduces the use of muscle energy when walking and moving (Rosen & Yogev, 2023).

Midwifery care for mothers during the first stage of labor is to help fulfill physical needs and anticipate reducing pain in laboring mothers, which aims to make mothers feel more relaxed and comfortable so that these contractions are not too draining for the mother's energy and fatigue will certainly be felt less by the mother. (Vaziri et al., 2016)

In this study it is clear that the majority of respondents experienced moderate fatigue 14 people (60.9%) with an average VAS fatigue value of 5.78 points, and there is an influence of labor contractions on the incidence of maternal fatigue, P value (0.000). This researcher found when conducting an assessment that the majority of respondents had experienced his or contractions since > 6 hours at home before visiting the midwife's practice, even some had experienced contractions since 1-3 days earlier but were still maintained at home because the contractions were not so strong. When the contractions had increased, the mother began to contact the midwife by telephone or came directly to the midwife clinic, so that when the mother came the mother already felt exhausted due to the contractions she experienced and was also triggered by the mother not being able to rest and sleep well and her appetite was reduced.

During the midwife clinic, the mother usually asks the midwife's permission and still tries to mobilize herself to move by walking and gymball according to the direction of the midwife. Of course, the purpose of mobilization at this time is to accelerate the descent of the head and strong contractions so that labor in the opening phase of kala I ends immediately with the birth of the baby in kala II. However, as a midwife who understands and understands the mother's need for comfort and the importance of maternal stamina to push during the second stage of labor later, to save the mother's energy by minimizing energy intake in the limb muscles when moving tersbut, then the kebidana care that we can provide is how to delay the mother to walk around the runagan berslain or ward hallway if the mother already looks too close to the interval of his contractions, or fekewenis already 3-4 times in 10 minutes, or when we see the peak of his or the pain felt by the mother has made the mother seem emotional by screaming and crying,

then at this time the midwife directs the mother to choose a position lying on her left or right side without having to force herself to walk or just stand up because it is more thought that if you stand or move around it will help speed up the decline of the jnanin's head and the perslainan process will end soon.

This is very effectively advised to laboring mothers because it is able to save the mother's energy and energy so that according to the experience of researchers when assisting laboring mothers who only lie down during contractions compared to those who walk or stand during contractions are much more tired of mothers who move and walk during contractions where it can be seen during the second stage of receiving the mother's legs trembling and moving shivering on their own, this is due to fatigue of the leg muscles when used to move during the opening phase of the first stage.

Relationship between dietary intake factors and maternal fatigue

The food intake of laboring women needs to be carefully assessed in the last 24 hours. System recal review of maternal nutrition in the last 24 hours will help provide an overview of the fulfillment of nutrients for the mother's body in assessing the strength and fatigue that occurs due to low intake of calories, carbohydrates before the mother is in the labor phase (Pascawati et al., 2018).

The recommended food intake for pregnant women before delivery is high in calories and protein and foods that can increase stamina during labor. All assessments of food intake will relate to the quality of food consumed and the physical resilience of the mother to face high calorie needs in labor later.(Saleh et al., 2022).

The World Health Organization (WHO) recommends not to limit food and nutrient intake and drinking when the mother is in labor because of the large energy needs at this stage (Tzeng et al., 2013) (Document, 2017).

It is known that nutrition and hydration intake is one of the factors that can affect adequate uterine contractions (Ainny, 2014). In Ghani's 2012 study, oral hydration intake in the form of zam-zam water was shown to have a significant effect on the frequency and duration of uterine contractions. Because the level of glucose in the mother's blood will affect the formation of ketone bodies in labor. If this ketone body is formed a lot, it will affect uterine contractions. (Resmana & Hadianti, 2018) In the study of Malik et al, 2016, providing adequate intake of utrition during labor as much as 47 Kcal / hour will help prevent the formation of ketone bodies in labor (Pascawati et al., 2018).

Fulfillment of energy during labor is expected to contain balanced nutrition, especially carbohydrates, protein. At the stage of the latent phase of labor, contractions can still be maintained by the mother, so the midwife can encourage the mother to finish eating at this time. However, entering the active phase I as the strength of his increases, and the duration gets longer and shorter, the mother's appetite decreases and the mother becomes reluctant to eat, the gastric emptying period is inhibited so that solid food will be digested longer, so soft or liquid

food is highly recommended because it will help fulfill energy and not release residue or residue, but that does not mean the mother is not given hydration and nutritional intake at this time, many researchers recommend giving fluids, fruit juices and soft or dilute foods can be suggested to the mother. Such as coconut water, watermelon juice without sugar is believed to be able to reduce maternal fatigue because it contains citrulline which slows the formation of lactate during labor, milk and egg tea, sweet tea is often given to laboring mothers to restore their energy during labor (Pascawati et al., 2018).

For this reason, in helping mothers minimize fatigue during labor, it is sought to pay attention to and manage the mother's nutritional intake and hydration so that the mother can undergo the delivery process well and have minimal complications due to the fatigue she experiences during labor (Saleh et al., 2022).

In order for labor contractions to be good and increase during labor, it can be done in a non-pharmacological way, namely increasing fluid intake and nutrition. During labor, it takes a lot of energy to push and push the fetus out by providing nutrition for oral intake of food and drink which is needed by the laboring mother to gain energy or strength to push through, avoid fatigue which results in dehydration, and ensure the welfare of the mother and fetus.(Resmana & Hadianti, 2018)

When signs of abnormalities appear in pregnant women, there is anxiety and unpreparedness that is sometimes felt by some pregnant women (Ika Yulianti, Supriaydi, 2018), as a result many of them are too focused on contractions and pain they experience and this has an impact on their desire or appetite to decrease and lazy to consume food, During these contractions the mother is more focused on dealing with the pain she feels and all the mother's activities become stopped such as doing household chores, exercise and even the fulfillment of food is ignored because they feel this is no longer interesting to them and as if his or the pain that comes has taken away the mother's ability to rationalize in meeting her other physical needs (Noviyanti & Jasmi, 2022).

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taken away the mother's ability to rationalize in meeting her other physical needs (Noviyanti & Jasmi, 2022).

Here we can see the misperception of pregnant women that during labor they limit their food and drink intake, while when contractions occur the uterus requires a very large number of anaerobic and aerobic ATP calories (Resmana & Hadianti, 2018), it is necessary to emphasize and educate pregnant women during ANC to teach and provide understanding so that when signs of labor are present later the mother is asked to be able to meet her food needs before contractions become stronger (Hassanzadeh et al., 2019), 2019), it is highly recommended and directed that mothers consume soft and calorie-filled foods in order to have energy reserves when going into labor, consume stamina-enhancing foods such as supplements, fruits that can increase energy during labor such as watermelon, and at least midwives can ensure that mothers will not feel excessive fatigue during labor and postpartum later (Wahyuni, 2018).

Therefore, the midwife's initial assessment of the mother who will give birth is one of them by assessing her food intake and reminding the mother to continue to fulfill her intake so that during labor the mother does not experience excessive fatigue. And midwives must be able to provide care and management of the fatigue felt by the mother while undergoing the labor process.

CONCLUSIONS AND SUGGESTIONS

The majority of maternal fatigue factors showed moderate fatigue, namely 14 people (43.5%), the average VAS-fatigue score was 5.78 points, fatigue factors based on the his/contraction factor were 16 people (69.6%), based on the lack of food intake factor were 14 people (60.9%), there was a significant relationship between the his/contraction factor on fatigue in laboring women (P=0.00) and there was a significant relationship between the factor of lack of food intake on fatigue in laboring women (P=0.00). Assessment, supervision and management of laboring women who have risk factors for fatigue by midwives are needed to prevent complications of labor in the mother and fetus.

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ANALYSIS OF EFFECT THE CAFFEINE AND CARBONATION INTAKE TO BONE DENSITY OF PREGNANT WOMEN

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Abstract
Decreased bone density is a serious health problem because its prevalence continues to increase throughout the world, especially for women. Intake of caffeinated and carbonated drinks is one factor that can affect bone density. This study aims to analyze the effect of caffeine and carbonation intake on bone density in pregnant women. This cross-sectional research was conducted in the Andalas Padang Community Health Center working area on 73 pregnant women in the third trimester using a purposive sampling technique. Structured interviews were conducted using a semi-quantitative food frequency questionnaire (nutritional intake). Data were analyzed using One Way Anova, Kruskal-Wallis and multiple linear regression tests. The results of statistical tests show that there is no significant relationship (p>0.05) between consumption of caffeinated and carbonated drinks and bone density in pregnant women. However, to find out the extent of the effect, a tertile test was carried outThe results showed that consumption of caffeinated drinks had an impact on the bone density of pregnant women because the less caffeine the mother consumed, the better the mother's bone density, although statistically it was not significant, and for carbonated drinks based on the tertile test, the results were the same between tertile 1 to tertile 3, namely the median 0.00 mg/1000 kcal/day so there are no significant results between carbonation intake and bone density. The conclusion of this study is that caffeine intake plays an important role in bone density in pregnant women.

Key words: Pregnant women, bone density, caffeine, carbonation

INTRODUCTION

Decreased bone density is a serious health problem because its prevalence continues to increase throughout the world, especially for women.Bone density varies with age, increasing in the first part of life and decreasing gradually in adulthood. There is evidence that factors such as a lack of a healthy lifestyle (the habit of consuming excessive coffee and soda) have a detrimental effect on bone mineral mass (Sherwood L, 2011). Normal metabolism of bones also depends on calcium. Low calcium levels in tissue can interfere with the bone's ability to respond optimally (Daroszewska, 2015). During pregnancy and breastfeeding, some of the mother's bone calcium will be absorbed for her baby's needs (Zahoor, 2010). Considering the importance of maintaining bone density during pregnancy and because there are still very few measurements of bone density in pregnant women and no one has conducted comprehensive research on caffeine and carbonation intake on bone density in pregnant women, the author is interested in analyzing caffeine and carbonation intake on bone density in pregnant women. This study aims to analyze the effect of caffeine and carbonation intake on bone density in third trimester pregnant women.

RESEARCH METHODS

This cross-sectional research was conducted in the Andalas Padang Community Health Center working area on 73 pregnant women in the third trimester using a purposive sampling technique who met the inclusion criteria.Bone Density Measurement Method Bone Densitometry Quantitative Ultrasound (QUS) Method. Structured interviews were conducted using a semi-quantitative food frequency questionnaire (nutritional intake). Data were analyzed using the One Way Anova, Kruskal-Wallis test.

RESEARCH RESULT

The results of statistical tests show that there is no significant relationship (p>0.05) between consumption of caffeinated and carbonated drinks and bone density in pregnant women, however, if we look at the tertile test, it is found that caffeinated drinks have a significant relationship with bone density in pregnant women.

Table 1. Analysis of the effect of caffeine and carbonation intake on bone density in pregnant women (n=73)

Independent Variable	Bone Density						p value*
	Tertile 1		Tertile 2		Tertile 3		
	n= 26		n= 24		n= 23		
	Median	IQR	Median	IQR	Median	IQR	
Carbonated drinks (mg/1000 kcal/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.383
	Mean	elementary school	Mean	elementary school	Mean	elementary school	
Caffeinated drinks (mg/1000 kcal/day)	**51.84**	35.34	**51.72**	26.57	**50.77**	37.83	0.992

* Kruskal-Wallis test

DISCUSSION

The results of the study showed that there was no relationship between carbonated drink consumption and bone density in pregnant women with a value of p=0.383 (p>0.05) and the median tertile 1-3 with the same value of carbonated drink consumption, namely 0.00 mg/1000 kcal /day. It can be seen beforehand that some of the respondents in this study did not consume carbonated drinks during pregnancy. In this study, the majority of pregnant women did not consume carbonated drinks during pregnancy and because the average volume of carbonated drinks that some respondents consumed was very small (< 150mg/day) so the intake of phosphorus from carbonated drinks was relatively low, therefore it did not affect bone density. Mother. The results of research on the intake of caffeinated drinks show that there is no significant relationship between caffeine consumption and bone density in pregnant women with a value of p = 0.992. However, looking at the tertile range, there is an effect of caffeine on bone density, where the lower the mother's caffeine intake, the more the mother's bone density will increase. This is because the caffeine contained in coffee can inhibit calcium absorption.

Inhibited calcium absorption can interfere with the bone remodeling process. In this study, bone density disorders can be caused by various factors so that even though respondents consume <150 mg caffeine/day, there is still a possibility of osteoporosis due to other factors. Pregnant women who consume caffeine < 150 mg/day are likely to have parity ≥ 3 times the risk of developing bone density disorders.

CONCLUSION

The conclusion of this study is that caffeine intake plays an important role in influencing bone density in pregnant women.

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THE EFFECT OF DEEP BACK MASSAGE ON LOWER BACK PAIN SCALE IN THIRD TRIMESTER PREGNANT WOMEN

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Abstract
Pregnancy is a stage in a woman's life. The changes that occur include weight gain and an enlarging uterus, causing changes in body posture, which can lead to back pain complaints, particularly during the last trimester of pregnancy. If this back pain is not immediately addressed, it can result in chronic pain. Non-pharmacologically, deep back massage on the sacrum area is one effort to reduce back pain. This study aimed to evaluate the impact of deep back massage on the lower back pain scale in women in their third trimester of pregnancy at Ny.S independent midwifery practice Banyuwangi in 2022. This study used a pre-experimental approach, utilizing a pre and post-test design. The subjects of this study were all pregnant women who experienced lower back pain at Ny.S independent midwifery practice Banyuwangi using a total sampling technique, so a sample of 32 people was obtained. The instrument used was an SOP and observation sheet, and then the Wilcoxon Sign Rank analysis test was conducted. The results showed that before deep back massage was performed, most pregnant women experienced moderate lower back pain, and after deep back massage was completed, most pregnant women experienced mild pain. The Wilcoxon test results obtained ρ value 0.001 < 0.05, meaning deep back massage affects the lower back pain scale in women during their third trimester of pregnancy at Ny.S independent midwifery practice Banyuwangi in 2022. Based on the research results, deep back massage can reduce complaints of lower-back pain, especially during the third trimester of pregnancy. It is suggested that midwives provide education about deep-back massage so that pregnant women can perform it at home to deal with the discomfort they experience while maintaining comfort during daily activities.

Keywords: Deep Back Massage, Lower Back Pain Scale, Third Trimester Pregnancy.

INTRODUCTION

Pregnancy is a stage in a woman's life. Pregnancy will cause a woman's body to experience changes during pregnancy which is an adaptation mechanism for the body to face and prepare for various needs during pregnancy, childbirth and breastfeeding. Increased body weight and enlarging uterus cause changes in body posture, which usually become clear when the gestational age enters the second trimester and becomes more obvious in the third trimester (Fitriani 2019). As the uterus expands, the body's balance point shifts forward, necessitating pregnant women adjust their posture to maintain equilibrium. Consequently, the body attempts to draw the back further rearward, causing an increased curvature (lordosis) in the lower spine. This leads to a shortening of spinal muscles and results in back pain (Fitriana 2019).

Back pain is among the most prevalent issues women encounter in their third trimester of pregnancy. This is caused by tension in the muscles and ligaments of the back, causing back pain and is often felt at the end of pregnancy (Reeder. 2018). Symptoms of back pain also occur because the increase in the hormone relaxin produced during pregnancy will cause the joints of the pelvic bones (pubic, sacroiliac and sacrococcygeal symphysis) to stretch in preparation for the birth process. This situation causes tension in the back and thigh muscles. It can increase the risk of pain (Widatiningsih 2017).

The reported prevalence of back pain ranges widely, from about 50% in the UK and Scandinavia to nearly 70% in Australia. Mantle noted that severe back pain was a complaint for 16% of the women observed in his study, and 36% in Ostgaard et al's study reported significant back pain. Several studies conducted in the province of Lampung related to pregnancy-associated lower back pain show a prevalence ranging from 25% to 90%, with most estimating that about half of pregnant women will experience this discomfort. Of these, a third are expected to endure severe pain, which could diminish their quality of life. Eighty percent of pregnant women who experience back pain during pregnancy report that it impacts their everyday activities, and for 10% of them, the condition is so debilitating that they cannot work (Suwares 2023). From the interview results, it was found that out of 10 people, 80% experienced back pain, this shows that the prevalence of back pain in Mrs. S TPMB is still high.

Massage therapy is a non-pharmacological therapy that can alleviate back pain in pregnant women. Effleurage massage is a movement using the entire surface of the palm of the hand attached to the parts of the body being rubbed. Perform a stroking movement, moving from the buttocks to the shoulders with a strong movement, then from the shoulders to the buttocks with a lighter movement. Change movements by using circular movements, especially in the sacrum and waist areas. Effleurage massage is done once a day for 5-10 minutes for 3 consecutive days. This therapy reduces muscle tension and discomfort, enhances flexibility, and promotes better blood flow (Darma 2022). Deep back massage or massage of the lower back area. Deep back massage stimulation can produce endomorphin to reduce muscle tension, which is the opposite of the stress response. Providing the deep back massage method reduces complaints of low back pain among pregnant women in the third trimester (Junaida 2021). If the massage is done correctly and appropriately, this method has little risk for the mother and baby. Apart from that, it is also cheaper, more accessible, more effective and without detrimental effects. The American College of Obstetricians and Gynecologists recommends various actions that can be used to prevent and provide therapy for low back pain for pregnant women.

RESEARCH METHODS

This study employed a pre-experimental design with One Group pre-test - Post Test Design. The research focused on the entire population of women in their third trimester of pregnancy who experienced back pain. It used a total sampling technique to find a sample of 32 pregnant women. The research materials used are lubricants such as cream, oil or lotion that is safe and has not expired, small bowls, blankets, washcloths, dry towels and soap. The instrument used is a questionnaire or client pain scale questionnaire before and after the intervention. This

research was carried out at Ny.S independent midwifery practice Banyuwangi in November 2022. The independent variable is a deep back massage, and the dependent variable is back pain.

Table 1. Operational Definition

Variable	Operational Definition	Parameter	Measuring Instrument	Scale
Independent Variable *Deep Back Massage*	Deep Back Massage is pressure on the sacrum, which can reduce muscle tension for 3 – 10 minutes.	1. Massage technique 2. Time to give a massage 3. Frequency of giving massage	-	-
Dependent Variable Back Pain	Subjective responses given by pregnant women before and after being given the deep back massage method	NRS	Questionnaire	Rasio

The data analysis employs a parametric test, specifically the Shapiro-Wilk test, to assess data normality since the sample size in this study is less than 50 individuals. The data follows a normal distribution if the ρvalue is greater than 0.05. Thus, the Paired T-Test should be utilized, but if ρvalue < 0.05, then the data does not have a normal distribution, so use the Wilcoxon test.

RESEARCH RESULT

Table 2. General Data

Characteristics	Frequency	Percentage (%)
Age		
< 20	2	6
20 – 35	29	91
> 35	1	3
Education		
Low	9	28
Intermediate	21	66
Tall	2	6
Work		
Farm workers	7	22
Trader	6	19
Teacher	4	12
Doesn't work	15	47
Gravida		
Primigravida	14	44
Multigravida	18	56
Grandemultigravida	0	0

Table 3. Custom Data

	N	Mean	Std. Deviation	Minimum	Maximum
Pain scale before giving a deep back massage	32	2.1250	.67967	1.00	3.00
Pain scale after being given a deep back massage	32	1.3333	.56466	.00	2.00

Table 3 reveals that out of 32 respondents, before receiving a deep back massage, it was observed that pregnant women typically experienced a moderate level of back pain on average. Meanwhile, after being given a deep back massage, it was found that pregnant women experienced mild back pain on average.

Table 4 Shapiro Wilk Data Normality Test Effect of Deep Back Massage on Back Pain Scale in Trimester Pregnant Women

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Back Pain Scale	Statistic	df	Sig.	Statistic	df	Sig.
Giving deep back massage	Back Pain	.414	9	.000	.617	9	.000
	Mild Pain	.455	8	.000	.566	8	.000

Table 4 shows that the parametric test was carried out using the Shapiro-Wilk test, and it was found that the ρvalue was 0.00, where 0.00 < 0.05, so the data did not have a normal distribution, so the Wilcoxon test was used.

Table 5 Wilcoxon Matc Pair Comparative Test for Providing Deep Back Massage on Back Pain Scale in Third Trimester Pregnant Women

	Pain scale after being given a deep back massage - pain scale before being given a deep back massage
Z	-3.945[a]
Asymp. Sig. (2-tailed)	.001

The Wilcoxon Matc Pair comparison test obtained a ρvalue of 0.001 because 0.001 < 0.05, so it can be inferred that administering a deep back massage impacts the scale of back pain experienced by women in their third trimester of pregnancy.

DISCUSSION

Experiencing back pain is a common occurrence for pregnant women. The frequency of these back pain complaints tends to increase as women progress into their third trimester of pregnancy. This is due to the increasing size of the fetus, causing the weight of gravity to move forward. When pregnant women do activities that are too strenuous, complaints of back pain can worsen.

Pain is complex, so many factors influence it, including age. In this study, most mothers were between 20 and 35 years old. Age has a relationship with a person's experience of pain. Someone older will usually be more experienced and able to respond to stressors than someone younger. Each person will have their way of interpreting the pain they feel, and how they react to pain can result from the many incidents of pain they experience (Hadriani. 2022). In general, lower back pain will start to occur in women between the ages of 20 and 24 years and will reach its peak when they are over 40 (Sukeksi 2018). This research agrees with (Mardiana 2021) that the age and education of the respondents obtained can be seen from the majority being between 20 - 35 years old and most of their education is high school, making it easier to receive the information provided.

Based on the characteristics of the 32 respondents, most of them did not work or were housewives. Someone who works as a housewife is more susceptible to experiencing back pain due to the mother's activities or work being too busy, especially for pregnant women in their first pregnancy, because they have to do housework, which can result in back pain (Nufus 2014).

Research indicates that multiparous and grand multiparous mothers are more likely to experience back pain than primiparous mothers. This is due to their weaker muscles, which cannot adequately support the enlarging uterus. Without support or support, the uterus looks saggy, and the back becomes increasingly elongated. Weakness in the muscles in the abdomen is generally experienced by grand multiparas (Fithriyah 2020). The risk of back pain increases with the number of pregnancies and births a woman has compared to primiparous women. Parity will significantly increase the risk of experiencing back pain. The risk of experiencing back pain increases with the frequency of pregnancies and childbirths a woman goes through (Demang 2020). Low back pain can significantly hinder a pregnant woman's ability to carry out everyday tasks like self-care, walking, sitting, and participating in sexual activity. These functional restrictions can lead to a decreased quality of life and lower productivity among expecting mothers.

Complaints of back pain can be reduced very effectively by providing massage methods. Massage involves applying pressure with the hands to soft tissues, such as muscles, tendons, or ligaments, without altering or moving the position of joints. The aim is to alleviate pain, induce relaxation and enhance blood flow. Fundamental techniques encompass circular motions executed by the palms, forward and backward pressing and pushing movements using force, patting, squeezing, and twisting. Each method applies varying pressure levels, directions, speeds, hand positions, and movements to achieve the intended impact on the underlying tissue (Tarsikah 2017).

A study by the National Birthday Trust involving 1,000 women revealed that 90% reported experiencing the advantages of relaxation and massage in alleviating pain. Two small-scale studies suggest that massage may provide benefits for pregnant women. Women who received regular massage during pregnancy experienced reduced anxiety, decreased back pain, and could sleep more soundly than women who did not receive massage. The group that received

massage also had fewer complications during labor and lower stress hormone levels. Women who received massage experienced reduced anxiety reduced back pain, and a significantly shorter labour time (Junaida 2021).

Based on research conducted by researchers at Ny.S Independent Midwifery, it is clear that providing the deep back massage method has a good effect on pregnant women's low back pain scale. This can be seen from the decrease in the scale of low back pain experienced by pregnant women and the absence of severe low back pain experienced by pregnant women after being given the deep back massage method. Research conducted by Alloya, A (2016) on the different effects of pregnancy exercises with warm compresses and massage shows that the impact of massage is more influential in reducing the intensity of pain, which will make pregnant women relax and feel comfortable, because massage stimulates the body to release compounds. Endorphins, which are natural relievers.

Back massage is a technique that involves the application of gentle pressure with the hands to soft tissues, typically muscles, tendons, and ligaments, without altering or moving joint positions. It aims to alleviate pain, induce relaxation, and enhance blood circulation, and this method is non-invasive. Pharmacology can increase patient satisfaction because mothers can control their feelings and strengths (Arummega 2022). The reduction in pain intensity is linked to the gate-control theory, which suggests that skin stimulation, like massage, triggers the activation of A-beta sensory nerve fibres. As a result, pain intensity decreases following a back massage.

Furthermore, massage can effectively induce physical and mental relaxation, diminish pain and enhance pain treatment's efficacy by releasing endorphins that inhibit the transmission of pain signals. However, endorphin levels vary among individuals, causing different people to perceive the same stimulus differently (Darma 2022). This explains why some individuals do not experience reduced pain after a back massage. Based on the facts, theories and studies above, deep back massage reduces pain intensity in third-trimester pregnant women.

CONCLUSIONS AND SUGGESTIONS

Conclusions

The back pain scale experienced by women in their final trimester of pregnancy before being given a deep back massage is that the average pregnant woman experiences moderate back pain. After being given a deep back massage, the average pregnant woman experiences mild back pain. After carrying out the Wilcoxon Matc Pair test, the ρ value was 0.00 because 0.001 < 0.05. Hence, it can be inferred that Deep Back Massage impacts the back pain scale experienced by women in their final trimester of pregnancy.

Suggestions

It is best if midwives can provide information and teach about deep back massage to pregnant women so that if they experience back pain, they can do deep back massage to reduce the pain they feel.

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THE RELATIONSHIP OF OBESITY AND HISTORY OF HYPERTENSION ON THE INCIDENT OF PREECLAMPSIA

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Abstract
Preeclampsia is an acute complication of pregnancy and can occur during pregnancy, labor, and delivery which can cause morbidity and mortality in both the mother and fetus in the womb. Mothers with obesity and a history of hypertension are at high risk of developing preeclampsia. This study aims to determine the relationship between obesity and a history of hypertension with the incidence of preeclampsia in pregnant women. This research is an analytical survey research with a cross-sectional approach. The research carried out at the Pembina Community Health Center in May 2023. The respondents in this study were 89 pregnant women. The sampling technique uses the accidental sampling method. The analysis used is univariate analysis and bivariate analysis using the Chi-Square test. The research results showed that there was a relationship between obesity and the incidence of preeclampsia in pregnant women (p = 0.000) and there was a relationship between a history of hypertension and the incidence of preeclampsia in pregnant women (p = 0.000). It hoped that pregnant women will carry out routine pregnancy checks every month to control blood pressure and health workers can provide EIC (Educational Information Communication) to pregnant women so that they can understand quality and safe nutrition to prevent the incidence of obesity in pregnant women which influences the incidence of preeclampsia.

Keywords: preeclampsia, obesity, hypertension, pregnant women

INTRODUCTION

Maternal mortality rate (MMR) is an element in measuring health status and includes quality of life evidence and development index of countries. Until now, the maternal mortality rate is still a concern for solving health problems around the world. One of the causes of high maternal deaths in the world is hypertension in pregnancy (Depkes RI, 2020).

According to data from the Ministry of Health of the Republic of Indonesia (2021), cases of hypertension in pregnancy were the cause of maternal death after bleeding with a total of 1,110 cases, while data from Ministry of Health of the Republic of Indonesia (2022) saw a decrease in cases of hypertension in pregnancy to 1,077 cases. The maternal mortality rate in Indonesia is still far from the Sustainable Development Goals (SDGs) target, which aims to reduce the MMR to 70 per 100,000 live births by 2030.

Preeclampsia is one of the causes of perinatal morbidity and mortality in Indonesia. Preeclampsia is a collection of symptoms experienced by pregnant women at a gestational age

of more than 20 weeks, characterized by increased blood pressure, edema, and proteinuria. Preeclampsia impacts several body systems and can affect 2%-5% of pregnancies. About 76,000 women and 500,000 babies die every year due to preeclampsia. (Poon et al., 2019).

Enlarged blood vessels cause the pregnant woman's blood pressure to become low, making the pregnant woman feel dizzy. On the other hand, narrowing of blood vessels during pregnancy can cause pregnant women to experience narrowing of the blood vessels. Mothers who have cholesterol and gout are susceptible to narrowing of the blood vessels, which results in high maternal blood pressure. Blood flow to the brain becomes less smooth as a result of the narrowing of the blood vessels that occurs in pregnant women with hypertension (Sutanto & Fitriana, 2021).

The cause of preeclampsia is due to the role of prostacyclin and thromboxane. Apart from that, there is also a role for immunological factors due to the activation of the complement system in preeclampsia. Meanwhile, the role of genetic factors is that there is a tendency for the frequency of preeclampsia in children of mothers who suffer from preeclampsia. Then, the role of the renin-angiotensin-aldosterone system (RAA) and other predisposing factors such as *hydatidiform mole*, diabetes mellitus, *multiple pregnancies*, *hydrops details*, obesity, and age over 35 years (Sukarni & Margareth, 2015).

At first, preeclampsia does not show symptoms, so early detection is needed through good antenatal care for pregnant women. During the pregnancy examination, blood pressure was determined where the diastolic pressure was ≥ 90 mmHg, weight gain caused by fluid retention, and was discovered before apparent symptoms of edema appeared, such as swollen eyelids or enlarged hand tissue. In mild preeclampsia, proteinuria is only minimally positive or not (Ratnawati, 2020).

Maternal manifestations of acute preeclampsia include *Hemolysis Elevated Liver Enzymes Low Platelets Count* (HELLP) Syndrome, pulmonary edema, placental abruption, acute renal failure, eclampsia, respiratory distress syndrome, stroke, and perinatal death. Meanwhile, the long-term manifestations are chronic hypertension, diabetes mellitus, chronic renal failure, coronary artery disease, neurological deficits, and death (Manuaba, 2016).

A history of hypertension experienced by the mother before pregnancy and obesity are among the causes of preeclampsia in pregnant women. If a pregnant woman suffers from hypertension, she is likely to experience preeclampsia during pregnancy. This is due to an increase in blood pressure. Meanwhile, obesity causes blood cholesterol to rise, which causes the heart to work (Septiana, 2019).

Pregnant women who have a history of hypertension experience preeclampsia during pregnancy due to hypertension that they have experienced before pregnancy, which has an impact on damage to body organs and compounded by the presence of pregnancy. It makes the body work harder, causing symptoms of edema and proteinuria, thereby causing the risk of preeclampsia (Wulan et al., 2022). Likewise, obesity is also a cause of preeclampsia. It is

caused by excess body weight so that cholesterol in the blood increases. It causes blood pressure to rise and triggers preeclampsia (Silaban & Rahmawati, 2021).

From data on the number of visits by pregnant women at Pembina Community Health Center in 2021, it found that 705 pregnant women visited, while the estimated data for pregnant women with obstetric complications was 141 pregnant women including antepartum hemorrhage, postpartum hemorrhage, anemia, prolonged labor, hyperemesis, preeclampsia, and eclampsia. Meanwhile, in 2022, 169 pregnant women visited will increase by 844 pregnant women with obstetric complications, and 3% (23 people) of them will experience preeclampsia. Furthermore, in April 2023, 162 pregnant women visited the Pembina Community Health Center, and 7% (13 people) experienced preeclampsia. Based on the description above, the author is interested in researching the relationship between obesity and a history of hypertension on the incidence of preeclampsia.

RESEARCH METHODS

The type of research is quantitative with the research method used being an analytical survey using a cross-sectional research design. This research focuses on the relationship between obesity and a previous history of hypertension on the incidence of preeclampsia. This research was implemented in May 2023. The population in this study were all pregnant women who visited Pembina Community Health Center in 2022, totaling 844 pregnant women. This research sample uses a quantitative sample with the accidental sampling method with a total research sample of 89 respondents. Researchers collected data using primary data obtained through direct interviews with respondents using research instruments in the form of questionnaire sheets given to respondents containing questions regarding obesity and previous history of hypertension and observation sheets regarding the incidence of preeclampsia in pregnant women. The analysis used is univariate and bivariate. Univariate analysis to see the distribution and percentage of each variable (obesity, previous history of hypertension, and incidence of preeclampsia). Bivariate analysis to determine the relationship between obesity and a previous history of hypertension on the incidence of preeclampsia using a statistical test, namely the Chi-Square test.

RESEARCH RESULT

The results of research with 89 respondents are presented in the form of univariate and bivariate analysis.

1. **Univariate Analysis**

The results of the univariate analysis show the distribution and percentage of obesity variables, previous history of hypertension, and the incidence of preeclampsia, which can be seen in Table 1 and Table 2 below.

Table 1. Frequency Distribution of Respondents Based on Obesity

Obesity	Amount	%
Not obese	43	48,3
Obesity	46	51,7
Total	89	100.0

Based on Table 1, it found that of the 89 respondents, more than half of the respondents were obese (51.7%).

Table 2. Frequency Distribution of Respondents Based on History of Hypertension

History of Hypertension	Amount	%
Yes	35	39,3
No	54	60,7
Total	89	100.0

Based on Table 2, it found that of the 89 respondents, more than half of the respondents had a history of hypertension (60.7%).

Table 3. Frequency Distribution of Respondents Based on the Incident of Preeclampsia

Incident of Preeclampsia	Amount	%
Yes	17	19,1
No	72	80,9
Total	89	100.0

Based on Table 3, it found that of the 89 respondents, the majority of respondents did not experience preeclampsia (80.9%).

2. Bivariate Analysis

This analysis was carried out to see whether there was a relationship between the independent and the dependent variables. In this study, data analysis tests were using the Chi-square statistical test.

Table 4. The Relationship between Obesity and the Incidence of Preeclampsia in Pregnant Women

Obesity	Incidence of Preeclampsia				Amount		*p-value*	OR
	Yes		No					
	n	%	n	%	n	%		
Not obese	0	0	43	100	43	100		
Obesity	17	37	29	63	46	100	0,000	1.586
Total	17	19,1	72	80,9	89	100		

Table 4, found that of the 46 people (51.7%) respondents who were obese and had preeclampsia, 17 people (19.1%) were more than the 43 people (48.3%) respondents who were not obese and had no preeclampsia. as many as 72 people (80.9%) The results of the chi-square statistical test showed p-value = 0.000, which when compared with the value $\alpha = 0.05$, then p-value ≤ 0.05 and OR 1.586, meaning that obesity has a risk 1,586 times greater risk of developing preeclampsia. It means that there is a relationship between obesity and the incidence of preeclampsia in pregnant women.

Table 5. Relationship Between A History Of Hypertension and the Incidence Of Preeclampsia In Pregnant Women

History Of Hypertension	Incidence Of Preeclampsia				Amount		*p-value*	OR
	Yes		No					
	n	%	n	%	n	%		
Yes	17	48,6	18	51,4	35	100		
No	0	0,0	54	100	54	100	0,000	0.514
Total	17	19,1	72	80,9	89	100		

Table 5, found that of the 54 people (60.7%) respondents who did not have a history of hypertension and did not experience preeclampsia, 72 people (80.9%), more than the 35 people (39.3%) respondents who had 17 people (19.1%) had a history of hypertension and preeclampsia. The results of the chi-square statistical test showed p-value = 0.000 when compared with the value α = 0.05, then p-value ≤ 0.05 and OR 0.514, meaning that a history of pregnancy has a 0.514 times greater chance of developing preeclampsia. It means that there is a relationship between a history of hypertension and the incidence of preeclampsia in pregnant women.

DISCUSSION

1. **The Relationship between Obesity and the Incidence of Preeclampsia in Pregnant Women**

The research results showed that 46 respondents were obese (51.7%), more than 43 respondents who were not obese (48.3%). The results of the chi-square statistical test showed a p-value = 0.000, which compared with the value α = 0.05, then the p-value ≤ 0.05 and OR 1,586, meaning that obesity has a 1,586 times greater risk of developing preeclampsia. It means that there is a relationship between obesity and the incidence of preeclampsia in pregnant women.

Several factors cause obesity, including genetic factors, metabolic disorders, and excessive food consumption. If a pregnant woman was previously fat, then the pregnant woman has a large amount of blood, which makes it difficult for the heart's pumping function, as indicated by an increase in blood pressure. If this continues without being treated, it can lead to preeclampsia (Setyawati et al., 2018).

Obese pregnant women can cause blood pressure to increase, causing preeclampsia in pregnant women. It is due to the increasingly difficult function of the heart in pumping blood. Obese pregnant women tend to experience preeclampsia. Working mothers tend to be obese due to less physical activity and increased appetite (Wahyuni et al., 2019).

The same thing was expressed by Dewie et al. (2020) that lifestyle factors such as poor diet and lack of physical activity result in obesity and cardiovascular disease. However, as long as they can maintain adequate diet and physical activity, obesity can be avoided. Physical activity

can reduce the risk of preeclampsia, where mothers who are physically active during early pregnancy experience a 35% reduced risk of preeclampsia compared to inactive women.

Excess weight occurs in pregnant women resulting in high cholesterol in the blood. In addition, it can cause the heart to work harder, resulting in an unstable increase in blood pressure. It is what triggers preeclampsia in pregnant women (Silaban & Rahmawati, 2021).

Obesity is one of the risk factors for preeclampsia, and the risk increases along with increasing BMI (body mass index). Obese pregnant women can experience preeclampsia through hyperleptinemia, metabolic syndrome, inflammatory reactions, and increased oxidative stress by cytokines and direct hemodynamic effects from hyperinsulinemia (increased sympathetic activities, and tubular sodium resorption). It is what causes damage and dysfunction of the endothelium (Yanuaringsih et al., 2022).

Obesity triggers preeclampsia through several mechanisms, including superimposed preeclampsia and triggering other metabolites and macromolecules. The risk of preeclampsia doubles for every 5-7 kg/m2 increase in body weight. An increase in the risk of preeclampsia also occurs with increasing BMI (body mass index). Mothers with a BMI > 35 before pregnancy have a fourfold increased risk of developing preeclampsia compared to mothers with a BMI of 19-27 (Siregar et al., 2022).

Obesity also occurs due to low consumption of antioxidants or high consumption of carbohydrates and fats. Obesity is a nutritional problem caused by excessive consumption of calories, fat, and animal protein, as well as excessive consumption of sugar and salt. It has an impact on the risk of thromboembolism, preeclampsia, eclampsia, and increased rates of labor induction, as well as the fetus experiencing macrosomia, shoulder dystocia, and even stillbirth (Wulandari et al., 2022).

Based on the description above, pregnant women who are obese have a diet that is low in fiber and high in calories and fat. It is what causes pregnant women to suffer from preeclampsia. If this condition is not treated, it can cause serious health problems for pregnant women and even death.

2. Relationship Between A History Of Hypertension and the Incidence Of Preeclampsia in Pregnant Women

The results showed that 54 respondents (60.7%) had no history of hypertension, more than 35 respondents (39.3%). The results of the chi-square statistical test showed a p-value = 0.000, which compared with the value $\alpha = 0.05$, the p-value ≤ 0.05 and OR 0.514 means that a history of pregnancy has a 0.514 times greater risk of developing preeclampsia. It means that there is a relationship between a history of hypertension and the incidence of preeclampsia in pregnant women.

The risk factor that most influences the incidence of preeclampsia is a history of hypertension. This is because previously experienced hypertension can cause damage to essential organs in the body. In addition, if pregnancy passes whatever ultimately results in weight gain, it can cause more severe damage (Bekti et al., 2020).

A history of hypertension in a previous pregnancy will cause recurrent hypertension in pregnancy. It is because the mother's history of illness determines the occurrence of complications in subsequent pregnancies (Arnani et al., 2022). Then Harahap & Situmeang (2022) also obtained research results, namely that pregnant women who have a history of hypertension and preeclampsia, if they want to get pregnant at reproductive age (20-35 years), are advised to always regularly check the condition of their pregnancy, so that if complaints are found they can immediately take action.

Pregnant women who have a history of hypertension are more likely to experience preeclampsia compared to pregnant women who do not have a history of hypertension. Hypertension experienced before pregnancy causes disruption or damage to the body's organs, and with pregnancy, the body's work becomes difficult, resulting in even more severe problems with the appearance of symptoms of edema and proteinuria (Purwanti et al., 2021).

Mothers who have a history of hypertension are more likely to experience preeclampsia complications during pregnancy due to abnormal maternal blood flow due to previously experienced hypertension. For mothers who do not suffer from preeclampsia because the mother does not have a history of hypertension the blood flow to the mother is smoother, and there are no blockages so that the mother's health during pregnancy is well maintained (Subani et al., 2020). A different thing was found by Anggraeny (2020) that before pregnancy, mothers already suffered from hypertension, so this situation would make the mother's condition worse during pregnancy. However, the results of the research found that mothers with a history of hypertension before pregnancy were not a risk factor for preeclampsia.

History of hypertension is a mother who has experienced hypertension before pregnancy or before 20 weeks of gestation. Mothers who have a history of hypertension are at greater risk of experiencing preeclampsia, as well as increasing morbidity and mortality rates for pregnant women and fetuses. The blood pressure experienced by pregnant women with preeclampsia is unstable and tends to increase blood pressure further due to vascular resistance which can damage the endothelium (Cunningham, F.Gary, 2014).

Based on the description above, pregnant women who have a history of hypertension before pregnancy have the potential to experience preeclampsia. It is what causes complications for the mother and fetus in the womb. A history of hypertension suffered before pregnancy can result in physiological disorders in the pregnant woman's body. Edema and proteinuria occur if pregnancy causes weight gain. It is what makes the condition of pregnant women experiencing damage to bodily functions that's more serious. Therefore, it is necessary to treat and manage preeclampsia through regular pregnancy consultations. Apart from that, special monitoring is needed from health workers to prevent eclampsia.

CONCLUSIONS AND SUGGESTIONS

Based on the research results, the following conclusions obtained: more than half of the respondents had a history of hypertension (60.7%), more than half of the respondents were obese (51.7%), most of the respondents did not experience preeclampsia (80.9%), there was relationship obesity and the incidence of preeclampsia in pregnant women (*p-value* = 0,000) where obesity has a 1.586 times greater risk of preeclampsia, and there is a relationship between a history of hypertension and the incidence of preeclampsia in pregnant women (*p-value* = 0,000) where a history of pregnancy has a 0.514 times greater risk of preeclampsia. This relationship shows the need to improve more intensive health services for pregnant women who are obese and have a history of hypertension so that they do not experience preeclampsia. Apart from that, pregnant women should maintain their weight and control their blood pressure so that it does not increase normally.

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SOCIAL AND CULTURAL CHALLENGES IN EXCLUSIVE BREASTFEEDING PRACTICES

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Abstract
Exclusive breastfeeding practices are a crucial effort to enhance the health of both infants and mothers. However, social and cultural challenges often impact its successful implementation. This research aims to explore and comprehend these challenges within the context of Pesurungan Lor village. The research employs a qualitative approach with in-depth interviews as the primary data collection method. The findings of this research reveal that Pesurungan Lor village faces several social and cultural challenges that influence exclusive breastfeeding practices. Factors such as social norms, maternal employment, and family support play pivotal roles in mothers' decision-making regarding exclusive breastfeeding. Moreover, community perceptions of the quality of breast milk and the influence of myths and cultural beliefs also affect exclusive breastfeeding practices. This research provides profound insights into how the social and cultural context in Pesurungan Lor village influences exclusive breastfeeding practices. These results can serve as a foundation for the development of interventions that better align with the needs of the local community. They should be considered by healthcare providers and policymakers to enhance exclusive breastfeeding practices in this region.

Keywords: social challenges, cultural challenges, exclusive breastfeeding

INTRODUCTION

Exclusive breastfeeding practices play a key role in improving the health and quality of life for both infants and mothers. Exclusive breastfeeding, defined as the practice of providing breast milk without any additional food or drink for the first six months of an infant's life, has been proven to offer optimal protection against infectious diseases in infants, promote better cognitive development, and provide long-term health benefits for mothers. Despite its well-established benefits, the implementation of exclusive breastfeeding often faces several challenges, particularly in regions with diverse social and cultural backgrounds.(Rapingah et al., 2021)

Pesurungan Lor Subdistrict is one of the areas in Tegal City that reflects a similar trend, where exclusive breastfeeding practices have not reached the desired level. Social and cultural challenges in this environment are believed to have a significant impact on exclusive breastfeeding practices. As a region with unique social and cultural characteristics, further research is needed to uncover and understand the complex dynamics influencing exclusive breastfeeding practices in Pesurungan Lor Subdistrict.(Nidaa et al., n.d.)

The main objective of this research is to identify and delve into the social and cultural factors affecting exclusive breastfeeding practices in Pesurungan Lor Subdistrict. By employing a qualitative research method that focuses on in-depth interviews with new mothers and family members, this research aims to identify social norms, family support, and cultural beliefs that may influence a mother's decision-making regarding exclusive breastfeeding. (Florince oyay et al., 2020)Through a conceptual framework that integrates social, cultural, and health theories, this research seeks to provide a deep understanding of the complexities of exclusive breastfeeding practices in this environment.(Umiyah & Hamidiyah, 2020)

With a better understanding of the existing social and cultural challenges, it is hoped that the results of this research can provide valuable insights for healthcare providers and policymakers in developing more effective and context-relevant intervention programs. (Marwiyah & Khaerawati, 2020)Using a qualitative approach and in-depth interviews, this research aims to give a voice to the community and explore solutions that are better aligned with their needs in the effort to improve exclusive breastfeeding practices in Pesurungan Lor Subdistrict. This research has the potential to make a significant contribution to improving the well-being of infants and mothers in this region.

RESEARCH METHODS

This research employs a qualitative approach with in-depth interviews as the primary method for data collection. The research sample consists of five new mothers and family members with relevant experience regarding exclusive breastfeeding practices. The sample selection was conducted purposively, considering variations in social and cultural characteristics such as the mother's age, educational background, and socio-economic status. In-depth interviews were conducted using a structured interview guide that included questions related to social norms, family support, cultural beliefs, and the mother's experiences with exclusive breastfeeding practices. The collected data will be analyzed using a thematic analysis approach. Data analysis steps include coding, thematic grouping, and the organization of key findings. Data analysis will aid in identifying patterns and themes emerging from the interviews, and these findings will be interpreted within a broader social and cultural context.

Throughout the research, efforts will be made to minimize research bias by maintaining objectivity, adhering to research ethics, and employing triangulation techniques to ensure the reliability of research findings. Peer review will also be used to validate the results.

RESEARCH RESULT

The findings of this study depict the social and cultural factors influencing exclusive breastfeeding practices in Pesurungan Lor Subdistrict. The following are the key findings based on in-depth interviews with the six participating respondents:

a. Social Norms Pressure

R1: "I feel greatly pressured by the social norms here. It seems like everyone is introducing solid foods to their babies early on. People often offer advice and say that breast milk alone is not sufficient for healthy growth."

R2: "People here always talk about the importance of giving complementary foods to infants at an early age. It has become a social norm that is hard to resist. I feel torn between wanting to do what's best for my baby and the desire to conform to this social norm."
R3: "Pressure from friends and neighbors is also quite strong. They frequently ask me why I'm only giving breast milk to my baby. This creates a sense of pressure and doubt within me about whether I'm doing the right thing or not."
R4: "I often hear comments like, 'Babies should try solid foods earlier' or 'Breast milk alone cannot provide everything babies need.' It makes me feel like I have to follow this social norm, even though I know breast milk is good."
R5: "There's significant pressure from my extended family to introduce solid foods to the baby early. They doubt that breast milk alone is sufficient for healthy growth. Sometimes I feel caught between these strong social expectations and pressure."
The interviews with the five respondents indicate that social norms in Pesurungan Lor Subdistrict have a strong influence on exclusive breastfeeding practices. They feel pressured to introduce complementary foods to their infants early in life due to these social norms. Despite having knowledge about the benefits of exclusive breastfeeding, the strong social norms often make them feel torn between societal expectations and their desire to provide the best for their babies. This pressure can create doubts in a mother's decision-making regarding exclusive breastfeeding. Furthermore, these social norms also generate expectations from extended family, friends, and neighbors, which further reinforce the pressure. In this context, social norms play a crucial role in hindering exclusive breastfeeding practices in this environment.

b. Varied Family Support

R1: "I am very fortunate because my husband and mother-in-law support exclusive breastfeeding. They always encourage me and assist with everything."
R2: "My family doubts my decision to provide only breast milk to the baby. They say that the baby needs complementary foods to grow properly."
R3: "I am very fortunate because my husband and mother-in-law support exclusive breastfeeding. They always encourage me and assist with everything. This support makes me more confident."
R4: "My family doubts my decision to provide only breast milk to the baby. They say that the baby needs complementary foods to grow properly. It burdens me, and I don't receive the support I need."
R5: "My husband always supports me in providing exclusive breastfeeding to our baby. He helps with household chores and takes care of the baby when I'm working. It makes exclusive breastfeeding practice easier."
The interview results show variation in family support for exclusive breastfeeding among the five respondents. While some respondents feel strong support from their husbands and families, which makes them more confident in practicing exclusive breastfeeding, others face doubt and pressure from family members who question their decisions. Husband's support, in some cases, can play a crucial role in facilitating exclusive breastfeeding practice. In conclusion, positive family support can be a determining factor in the success of exclusive breastfeeding practice, while the lack of support can create additional challenges for mothers.

c. Cultural Beliefs Affecting Practices

R1: "We have a belief that babies need to try solid foods early to make them strong. I know breastfeeding is good, but we also believe in this tradition." R2: "People here often talk about myths that breast milk alone doesn't provide enough nutrition for babies. It makes me doubt." R3: "My family doubts my decision to provide only breast milk to the baby. They say that the baby needs complementary foods to grow properly. It burdens me, and I don't receive the support I need."

R4: "My husband always supports me in providing exclusive breastfeeding to our baby. He helps with household chores and takes care of the baby when I'm working. It makes exclusive breastfeeding practice easier."

R5: "People here often talk about myths that breast milk alone doesn't provide enough nutrition for babies. It makes me doubt. I feel caught in a cultural pressure that contradicts my knowledge about the importance of exclusive breastfeeding."

The interview results indicate that cultural beliefs influencing exclusive breastfeeding practice can be inhibiting factors. Some respondents feel bound by cultural beliefs and traditions that support the early introduction of solid foods to babies. This creates family disagreement and stimulates feelings of dilemma. Meanwhile, the emergence of myths and negative views about breast milk in society also exerts psychological pressure on mothers, making them doubt exclusive breastfeeding practices.

In terms of family support, there is significant variation. While some mothers feel supported by their husbands, who help with household chores and baby care, making exclusive breastfeeding practice easier, others feel burdened by family disagreement and pressure regarding this practice.

d. Employment Challenges and Time Constraints

R1: "I work full-time, and it makes it difficult for me to provide exclusive breastfeeding to my baby. I often have to leave my baby under the care of my mother-in-law, and they feed him other foods." R2: "I work full-time, and it makes it difficult for me to provide exclusive breastfeeding to my baby. I often have to leave my baby under the care of my mother-in-law, and they feed him other foods." R3: "People here often work outside the home, and our jobs take up a lot of time. It makes exclusive breastfeeding practices challenging. I often have to leave my baby under someone else's care." R4: "I work part-time, but still, the demands of working outside the home make me feel burdened. I feel rushed when feeding my baby and sometimes don't have enough time for exclusive breastfeeding." R5: "Time constraints are a significant issue. I often feel overwhelmed with household chores, work, and taking care of the baby. I want to provide exclusive breastfeeding, but sometimes time is very limited."

The interview results indicate that employment challenges and time constraints are significant factors hindering exclusive breastfeeding practices among the five respondents. All respondents face difficulties in providing exclusive breastfeeding due to full-time work or busy schedules. These challenges create pressure and often require mothers to leave their babies under the care of others, which can lead to the introduction of other foods. In conclusion, employment challenges and time constraints are key factors that need to be addressed to improve exclusive breastfeeding practices in this environment. Solutions that

consider the needs of working mothers may be necessary to ensure that mothers have sufficient time and support for exclusive breastfeeding.

DISCUSSION

The results of this study reveal the social and cultural factors that influence exclusive breastfeeding practices in Pesurungan Lor Subdistrict. Based on in-depth interviews with the six respondents, the following conclusions can be drawn:

a. Social Norms Pressure The interviews indicate that social norms in Pesurungan Lor Subdistrict strongly influence exclusive breastfeeding practices. Respondents feel pressured by the social expectation to introduce complementary foods to infants early. These social norms create doubt and dilemmas in mothers' decision-making regarding exclusive breastfeeding. Additionally, this pressure emanates from extended family members, friends, and neighbors, all of whom reinforce the social norms that hinder exclusive breastfeeding.(Agustina et al., 2020; Polwandari et al., 2021)
b. Varied Family Support In the context of family support, significant variations are observed. Some respondents feel supported by their husbands and families, who provide encouragement and positive support for exclusive breastfeeding. However, others face disapproval and pressure from family members who doubt their decisions. The support of husbands is found to play a crucial role in facilitating exclusive breastfeeding. In conclusion, positive family support is a key factor in the success of exclusive breastfeeding, while a lack of support can create additional challenges for mothers.(Berutu et al., 2021)
c. Cultural Beliefs Influencing Practices The interviews also reveal that cultural beliefs influence exclusive breastfeeding practices. Some respondents feel bound by cultural beliefs and traditions that promote the early introduction of solid foods to infants, even when they have knowledge of the benefits of exclusive breastfeeding. The emergence of myths and negative views about breastfeeding in the community also exerts psychological pressure on mothers, leading to doubts about exclusive breastfeeding. Understanding the influence of cultural beliefs on exclusive breastfeeding practices is crucial for designing effective interventions.(Khofiyah, 2019; Nidaa & Hadi, 2022)
d. Employment Challenges and Time Constraints Employment challenges and time constraints have proven to be significant barriers to exclusive breastfeeding. All respondents face difficulties in providing exclusive breastfeeding due to full-time work or busy schedules. (Sabriana et al., 2022)These challenges create additional pressure on mothers, who often have to leave their babies under the care of others, leading to the introduction of other foods. To improve exclusive breastfeeding practices, solutions that consider the needs of working mothers are essential, creating an environment that supports exclusive breastfeeding.(Asmin & Abdullah, 2021; Latifah et al., 2018)

These findings provide valuable insights into the challenges faced in the context of social and cultural norms and their impact on exclusive breastfeeding practices in Pesurungan Lor Subdistrict. These insights can serve as a foundation for developing more locally relevant and effective intervention programs, which should be taken into account by healthcare providers and policymakers to enhance exclusive breastfeeding practices in this area.

CONCLUSIONS AND SUGGESTIONS

The results of this research have shed light on the social and cultural factors influencing exclusive breastfeeding practices in Kelurahan Pesurungan Lor. Through in-depth interviews with six respondents, it can be concluded that these factors significantly impact a mother's decision to provide exclusive breastfeeding to her baby. First, the strong social norm pressure in this environment creates a dilemma for mothers. They feel torn between social expectations that encourage the early introduction of complementary foods to infants and their knowledge of the benefits of exclusive breastfeeding. In line with the research by Putri Widita Muharyani in 2022, a majority of respondents experienced the cessation of exclusive breastfeeding. The perception that breast milk is insufficient and the issue of sore nipples posed challenges for breastfeeding mothers that could lead to the cessation of exclusive breastfeeding, while a baby's refusal to nurse was unrelated to the cessation of exclusive breastfeeding. These social norms stem not only from the general community but also from extended family members, friends, and neighbors. These norms play a pivotal role in hindering exclusive breastfeeding practices. Second, there is significant variation in family support, which influences exclusive breastfeeding practices. Positive support from husbands and families can motivate and facilitate a mother in practicing exclusive breastfeeding. However, some respondents faced disagreement and pressure from family members who doubted their decisions. It has been demonstrated that spousal support has a significant impact on aiding mothers in exclusive breastfeeding practices, as supported by similar research conducted by Romaulina Sipayung in 2022, showing a correlation between family support and the practice of exclusive breastfeeding. Third, cultural beliefs affecting exclusive breastfeeding practices can lead to disagreement within families and place psychological pressure on mothers. The existence of beliefs and traditions that support the early introduction of solid foods to babies, even when knowledge about the benefits of exclusive breastfeeding is available, creates dilemmas for mothers. Myths and negative views about breastfeeding add to the uncertainty surrounding this practice. In line with research by Izzatun Nidaa in 2022, culture significantly influences the practice of exclusive breastfeeding. Lastly, challenges related to work and time constraints prove to be significant barriers to exclusive breastfeeding practices. Most respondents have full-time jobs or hectic schedules, which often necessitate leaving their babies under the care of others who may provide alternative foods. To improve exclusive breastfeeding practices, solutions must consider the needs of working mothers and create an environment that supports this practice.

By understanding these factors, appropriate measures and interventions can be designed. Public education, family support, and solutions accommodating working mothers can help enhance exclusive breastfeeding practices in Kelurahan Pesurungan Lor, resulting in long-term health benefits for both infants and mothers.

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THE RELATIONSHIP BETWEEN KNOWLEDGE AND THE ATTITUDES OF PROSPECTIVE BRIDES ABOUT PRECONCEPTION

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Abstract
Introduction: The knowledge and attitudes of the female bride and groom (catin) are factors that can influence the preparation of the bride and groom during the preconception/before marriage period. This study aims to determine the relationship between knowledge and the attitude of the prospective bride (catin) about preconception at KUA Tenayan Raya Pekanbaru. **Methods:**This study uses a correlational descriptive design with across-sectionalapproaches. The research sample was 100 respondents who were taken based on the inclusion criteria using arandom samplingtechniques. The analysis used was univariate and bivariate analysis using thechi-squaretest.**Results:**Univariate analysis found that 60% of respondents had high knowledge about preconceptions, 71% of respondents had good attitudes about preconceptions. Bivariate analysis using statistical tests showed that there was no relationship between knowledge and attitudes of the prospective bride (catin) about preconception with p- value(1,000) > alpha (0.05). **Conclusion:**The knowledge of the bride (catin) about preconception has no significant relationship with the attitude of the bride (catin) about preconception.**Recommendations:** It is expected that the bride and groom can carry out a health check: (physical examination, TT immunization, consultation or education about health) before marriage.

Keywords: Knowledge, attitude, preconceptions

INTRODUCTION

Preconception health is part of a woman's overall healthreproduction which helps in reducing the risk of death and disease, as well as adopting a healthy lifestyle to increase the chances of having a healthy baby (DirjenKesmas, 2018). Marriage is to build a relationship between two partners so thatinundergoing marriage, maturity and responsibility both physically and mentally are important things in marriage. Therefore, Law Number 16 of 2019 regulates the age limit for marriage, namely that marriage is only permitted if the husband and wife are 19 years old (Law, 2019).

The prevalence of marriage in Indonesia is the 7th highest in the world and the 2nd highest in ASEAN, with more than 340,000 adolescent girls.Marry before adulthood. Every year, 20 provinces in Indonesia can report young marriages above the national average, namely aged 19-24 years. The province with the most teenage marriages is West Sulawesi, where more than 1 million teenage girls are married under the age of 19. In Riau Province, it was recorded that 64.91% married at the age of 19-24 years (Statistics, 2020).

In Indonesia, pre-pregnancy health service programs targeting teenagers, prospective brides and couples of childbearing age are listed in the Republic of Indonesia Minister of Health Regulation No. 21 of 2021. Pre-pregnancy health services include communication, information and education, counseling services, health screening services, vaccinations, provision of nutritional supplementation, medical services and/or other health services. So

there is a need for health preconception for prospective brides and grooms before pre-pregnancy, to find out what services there are before marriage. However, at the time of implementation, knowledge, skills and facilities were not optimal in each region (Permenkes RI, 2021).

The prospective bride and groom (catin) is a strategic target in efforts to improve pre-pregnancy health. Before getting married, many prospective brides and grooms do not have sufficient knowledge and information about reproductive health in a family, so that after marriage, pregnancies are often not planned well and optimal health does not support prospective brides and grooms who marry under the age of 19 years (Ministry of Health of the Republic of Indonesia, 2018).

Good knowledge and attitudes shape the behavior of prospective brides and grooms in preparing for pregnancy, which indirectly affects the health of the mother, the fetus she is carrying and the quality of the baby to be born. Based on these problems, the Indonesian government is organizing a course program for prospective brides or commonly called suscatin, which aims to prepare healthy reproductive health so that they can give birth to a quality generation (Ministry of Health, 2018).

METHOD

This research is quantitative research with a research design, namely descriptive correlational, the approach used in this research is*cross- sectional*because only one measurement is made on a variable. This research analyzes the relationship between knowledge and the attitudes of female prospective brides (catin) regarding preconception. The researched starts from the preparation stage, namely submitting the title of the proposal from January to June 2023. The research schedule starts from 13-30 June 2023. Location of this research was carried out in the KUA Tenayan Raya Pekanbaru area. The reason the researcher chose the research location in this place was because the KUA Tenayan Raya area is the sub-district with the second largest area for prospective brides according to the 2022 Ministry of Religion data in Pekanbaru, where prospective brides and grooms' knowledge about preconception is still very lacking after interviews were conducted with 10 prospective brides. In this study, the research population was all prospective brides who were in the KUA area of Tenayan Raya Pekanbaru District from February to March 2023, namely 120 people. Based on the calculations above, the sample size in this study was 100 respondents. In the study, researchers took a sample of every prospective bride and groom who came according to the inclusion criteria, up to 100 people. This research uses the method *probability sampling* with technique *Simple Random sampling*, The data collection tool used to determine the knowledge and attitudes of female prospective brides (catin) regarding preconception is in the form of a questionnaire. The data analysis used in this research is univariate and bivariate data analysis. To find out a more significant relationship between the two variables, researchers used statistical tests, namely *chi-square*with a degree of confidence limit, namely ($\alpha = 0.5$). If the results of the data that have been carried out statistical tests are obtained p*value*<($\alpha = 0.5$) then it is said that there is a significant relationship between the independent variable and the dependent variable. It would be better if the statistical test obtained p*value*>$\alpha = (0.5)$

RESEARCH RESULT

Research on the relationship between knowledge and the attitudes of female prospective

brides (catin) regarding preconception was carried out on 100 respondents of prospective brides aged (19-39) at the Tenayan Raya District Religious Affairs Office on 13-30 June 2023. The following results were obtained:

Univariate Analysis

Univariate analysis in this study describes the frequency and percentage distribution of respondents' sociodemographic characteristics, knowledge of prospective brides about preconception and attitudes of prospective brides regarding preconception. The results of the univariate analysis can be seen in the following description:

Tabel 1 : Sociodemographic Characteristics of Respondents

Characteristics Respondent	***Number (N)***	***Percentage (%)***
Variable		
Age		
Early Resproduction (<20 Years)	*10*	*10*
Healthy Reproduction (20-35 Years)	*89*	*89*
Old Reproductive (> 35 Years)	*1*	*1*
Last education		
Junior high school	*7*	*7*
Senior high school	*40*	*40*
PT (collage)	*53*	*53*
Work		
Self-emloyed	*29*	*29*
Private sector employee	*37*	*37*
Teacher	*15*	*15*
Doctor	*4*	*4*
Doesn't work	*15*	*15*
Characteristics Respondent	***Number (N)***	***Percentage (%)***
Income		
There isn't any	*19*	*19*
< UMK (Rp3,319,023)	*36*	*36*
> UMK (Rp3,319,023)	*45*	*45*
Ethnic group		
Minang	*40*	*40*
Malay	*31*	*31*
Java	*26*	*26*
Mandailing	*3*	*3*

Based on table 1 above, it was found that of the 100 respondents studied, the majority of respondents were 20-35 years old, namely 89 people (89%). The last level of education obtained was that some had a tertiary level (PT), namely 53 people (53%). In the

employment variable, it was found that the majority of respondents worked as private employees, 37 people (37%). In the income variable, it was found that the majority of respondents had income >UMK (3,319,023) as many as 45 people (45%). Most of the respondents were Minang, namely 40 people (40%).

Table 2 : Distribution Knowledge About Preconception

Characteristics	Frequensy (F)	Percentage (%)
High	60	60
Low	40	40
Total	100	100

Table 2 above shows that of the 100 respondents studied, it was found that the majority had high knowledge about preconception, 60 (60%) of the respondents. Description of the Attitudes of Prospective Female Brides (Catin) Regarding Preconception The frequency distribution of the attitudes of prospective female brides (catin) regarding respondents' preconceptions is shown in table 3

Table 3. Description of the Attitudes of Prospective Female Brides (Catin) Regarding Preconception

Characteristics	Frequensy (F)	Percentage (%)
High	71	71
Low	29	29
Total	100	100

Table 3 above shows that of the 100 respondents studied, it was found that the majority had a good attitude about preconception, 71 (71%) of the respondents.

Bivariate Analysis

Bivariate analysis was used to see the relationship between knowledge and attitudes of female prospective brides (catin) regarding preconception. Based on statistical data analysis using a computer program, namely SPSS, from 100 prospective brides and grooms at KUA Tenayan Raya, the following results were obtained:

The relationship between knowledge and attitudes of prospective brides regarding preconception.

Table 4. The results of the Chi-Square Test can be seen in table 4.4 below

Knowledge	Preconception Attitudes						P value
	Good		Not enough		Total		
	Preconception						
Tall	43	60.6	17	58.6	60	100	1,000
Low	28	39.4	12	41.4	40	100	
Total	71	100	29	100	100	100	

Table 4. above shows that of the 100 respondents studied, it was found that there was high knowledge about preconception with good preconception attitudes of 43 (60.6%) respondents, 17 (58.6%) respondents had poor attitudes about preconception. For low knowledge about preconceptions, good knowledge was 28 (39.4%) respondents, attitudes about poor preconceptions were 12 (41.4%). Based on the statistical results obtainedp-value>0.05 with valuep-value=1,000 which means Ho failed to be rejected, there is no relationship between knowledge and the prospective bride's attitude regarding preconception.

DISCUSSION

Respondent Characteristics

Age

Based on the results of research conducted on 100 prospective brides and grooms in the KUA Tenayan Raya area, it was found that the majority of respondents were aged 20-35 years, 80%. Based on data on the population of prospective brides and grooms obtained from Tenayan Raya District in 2023, it shows that prospective brides aged 20-35 years are the people with the largest population compared to other ages.

Marriage is the gateway for couples to experience pregnancy. For this reason, the Indonesian government regulates the age of marriage through Law Number 16 of 2019, which states that the minimum age for marriage if a man and woman have reached the age of 19 (nineteen) years (Law No. 16 of 2019).

Where the statistical results show that 89 (89%) prospective brides and grooms are aged 20-35 years (Healthy Reproduction). As a person ages, they will be able to influence their thinking patterns and maturity so that they can easily receive information. In accordance with Hidayati's (2016) research, there is an influence on the level of reproductive health knowledge on marriage readiness among prospective brides aged 20-35 years because they are ready both physically and psychologically.

Last education

The results obtained at the Tenayan Raya Religious Affairs Office showed that most of the respondents' recent educational history had taken university, namely 53 (53%).

A person's education plays a role in determining whether or not a person will easily accept and absorb the material and information provided (Notoatmodjo, 2014).

Knowledge can be influenced by various factors such as education where there are 53 prospective brides with tertiary education (53%). This illustrates that higher education greatly influences the prospective bride and groom's knowledge, that education can influence a person's perspective on obtaining information, especially health information, so that it can improve a person's quality of life.

According to (Sulastri et al., 2022) prospective brides and grooms who have higher education generally have broad knowledge and insight. So that the prospective bride and groom can more easily absorb and receive information, one of which is related to preconception.

Work

The research results show that the respondents' jobs varied, with the majority being private employees, 37 people (37%), 15 people (15%) not working. These results illustrate that the majority of prospective brides and grooms are private employees. Where each person's work environment can have a different impact on a person's knowledge and attitudes (Notoadmodjo, 2014).

This is also in accordance with research (Pasalina, 2020) showing that the majority of prospective brides and grooms who work are (80.4%) and those who do not work are (19.6%). The job of the prospective bride and groom who is working and not working can affect the life of the prospective bride and groom after marriage. Especially for married working women, they have the additional responsibility of taking care of a partner and when they become mothers, they have to manage the primary care of children and extended family. Thus, the pressure in carrying out a career becomes greater. Working women's efforts to integrate, organize and balance multiple issues and activities in their different roles simultaneously place them under tremendous pressure.

This can affect a person's physical, emotional and social well-being. Thus, achieving work-life balance is a necessity for working women to have a good quality of life (Raya, 2013).

Income

Based on the research results obtained at KUA Tenayan Raya, it was found that the income of the respondents from the 100 respondents above showed that of the 100 respondents studied, the income was >UMK (Rp3,319,023) as many as 45 (45%), income <UMK (Rp3,319,023) as many as 36 (36%) and there was no income as many as 19 (19%) respondents. The results above concluded that respondents with income >UMK (3,319,023) were more than other prospective brides. This is in line with research (Zanuarisma, 2022) at KUA Tengaran, the results of which showed that the majority of respondents had low income (< UMR (Rp 2,311,254.15)) as many as 23 respondents (41.8%) and 32 respondents (58.2%) had high income (≥ Minimum Wage). According to (Darmawati, 2018) in the socio-economic aspect, poverty and low living standards are still big problems faced by most developing countries. Socioeconomic factors influence the incidence of anemia because food purchasing power depends on the amount of income earned. The higher the income, the greater the ability to meet one's needs.

Meanwhile, according to Notoatmodjo, (2014) income does not have a direct effect on knowledge, but if someone has sufficient income then he will be able to provide the required facilities.

Ethnic group

Based on the results of research conducted on 100 prospective brides and grooms in the KUA Tenayan Raya area, it was found that the majority of respondents were from the Minang tribe, 40 (40%) respondents, 31 (31%) from the Malay tribe, 26 (26%) from the Javanese tribe, and 26 (26%) respondents from the Malay tribe. Mandailing were 3 (3%) respondents. Based on statistical data on the population of prospective brides and grooms obtained from Tenayan Raya District in 2023, it shows that most of the prospective brides and grooms who are getting married are from the Minang tribe, 40 (40%).

Description of the prospective bride and groom's level of knowledge about Preconception

Based on the results of research conducted on 100 prospective brides and grooms in the KUA Tenayan Raya area, it was found that the majority of prospective brides had high knowledge about preconception as many as 60 (60%) and low knowledge as many as 40 (40%) respondents.

In line with research (Widayani, 2021) as many as 67 prospective brides aged 26-30 years had good knowledge. Revealing that good knowledge about preconception care is related to the age of the prospective bride and groom. The more mature individuals tend to have a better level of knowledge compared to those who are much younger.

In line with research (Ayele et al., 2021) that age and good knowledge about preconception care are significantly associated with utilization of preconception services. The higher the prospective bride and groom's knowledge about preconception, the better they will be able to utilize health services before marriage.

The ease of obtaining information can help someone gain new knowledge quickly. Counseling is the delivery of information quickly, which can change individual and/or community behavior in the health sector (Notoatmodjo, 2014).

A description of the prospective bride's attitude regarding preconception

Based on the results of research conducted on 100 prospective brides and grooms in the KUA Tenayan Raya area, it was found that the majority of prospective brides had a good attitude regarding preconception as many as 71 (71%), and a poor attitude regarding preconception as many as 29 (29%) respondents.

This is in line with research (Dila, 2019) that providing interventions in the form of health education can increase changes in attitudes and behavior of prospective brides and grooms regarding preconception nutrition. Someone who is well informed does not guarantee that they will have a positive attitude, but the prospective bride and groom must be capable absorb, process and understand information obtained, one of which is from counseling provided by the KUA.

Counseling helps prospective brides and grooms take a wise attitude towards health. Providing information can change a person's attitude for the better. (Fatmawati, 2014). Attitudes are also influenced by respondents' knowledge about preconception nutrition. Respondents in this study were aged 20-35 years with 53 (53%) respondents at university. All respondents in this study had good knowledge after being given counseling, this influenced the respondents' attitudes to be good.

Bivariate Analysis

Based on the research results, it was found that there was no relationship between knowledge and the prospective bride's attitude regarding preconception. Statistical test results Chi-Squareis knownp-value>0.05 withp-value=1,000 which means Ho failed to be rejected, there is no relationship between knowledge and the attitude of the prospective bride (catin) regarding preconception. This research is not in accordance with research (Riantini, 2018) showing that a person's level of knowledge can influence that person's attitudes and behavior.

According to data from research results, respondents have different knowledge. A person with high knowledge does not determine his attitude regarding preconceptions. The possibility of an unrelated relationship occurs because there are internal factors: age and experience, and external: education, information, socio-cultural, economic and environmental factors (Notoadmodjo, 2014). Then it could be because the bride and groom's attitude is good but the bride and groom's actions regarding mental readiness have not been tested and scrutinized regarding health checks. However, after using KUA data from 100 respondents, there were more people who did not have a health check than those who did not. There is no obligation from the KUA to take action or preparation before marriage such as physical examination, TT immunization, and counseling and education from the community health center and there is a lack of information obtained.

Meanwhile, this health information is very necessary to determine the readiness of each prospective bride and groom to have children. Reproductive health education for prospective brides and grooms is to help prospective brides or husband and wife in making decisions and realizing reproductive rights responsibly by knowing the possible conditions of the prospective bride and groom and the condition of the child to be born, including genetics, chronic diseases, sexually transmitted infections and others.Sources of information are media that play an important role for a person in determining attitudes and decisions to act. The majority of prospective brides and grooms look for sources of information through social media. The internet is a source that can get information related to anything, including preconception information (Jagannatha, 2020).

Research Limitations

This researcher has many shortcomings, and the researcher is very aware of that. The limitation faced by researchers is that many prospective brides and grooms do not undergo a health examination before marriage including physical examination, TT immunization, and consultation/education about preconception.

CONCLUSION

The results of the research illustrate that the characteristics of the respondents were that most of them were of healthy reproductive age (20-35 years), had a tertiary education (PT), worked as private employees, income > UMK (3,319,023), and the largest ethnicity was Minang. For the prospective bride and groom's knowledge about preconception, it is high, 60 (60%), with the prospective bride and groom's attitude about preconception being good, 71 (71%). Test resultsChi-SquareThere was no relationship between knowledge and attitudes of prospective brides regarding preconceptionp-value=1,000.

SUGGESTION

For the Development of Nursing Science

It is hoped that the results of this research can add to and create new ideas regarding actions and efforts for knowledge and attitudes of prospective brides and grooms regarding preconception at KUA Tenayan and can be used as literature for future research.

For Health Services

It is hoped that the results of this research can provide additional information, input, reference

and be useful as reference material for health services.

For Students

It is hoped that the results of this research can be used as a reference, adding insight, information and new sources of knowledge. Students are expected to be able to optimize the factors that influence the prospective bride's attitude regarding preconception.

For Further Researchers

It is hoped that future researchers will be able to examine the factors that cause many prospective brides and grooms who do not want to undergo a health check before getting married at the health center.

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THE EFFECT OF WARM COMPRESSES IN REDUCING PERINEAL WOUND PAIN IN POSTPARTUM MOTHERS

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ABSTRACT

Nearly 90% of normal births experience lacerations to the perineum. Perineal wound care in postpartum mothers is useful for reducing discomfort, maintaining cleanliness, preventing infection and accelerating wound healing. One non-pharmacological method to relieve perineal pain is to use a warm compress. Warm compresses are given with the aim of providing comfort, treating pain, reducing or preventing muscle spasms and providing a feeling of warmth in certain areas. Apart from that, the advantages of warm compresses can help wound recovery, reduce infection and inflammation, improve blood flow and provide calm and comfort to clients. The research aims to determine the effect of warm compresses in reducing perineal wound pain in postpartum mothers at PMB Dince Safrina. This study used a quasi-experiment research design with a one group pretest post and posttest design, namely comparing the intensity of perineal wound pain before and after giving a warm compress. The research sample was 30 post partum mothers who experienced perineal wounds at PMB Dince Safrina. The sampling technique is non-probability sampling (accidential sampling). The pain scale observation research instrument was the Numerical Rating Scale (NRS). Data processing used the Wilcoxon Signed Ranks Test to determine the effect of warm compresses in reducing perineal wound pain in postpartum mothers. The research results obtained Asymp value. Sig. (2-tailed) is < α=0.05, which means Ha is accepted. It can be concluded that there is an effect of warm compresses on reducing perineal wound pain in postpartum mothers at PMB Dince Safrina. It is hoped that this research can be used as consideration in overcoming the problem of perineal wound pain in postpartum mothers by health workers and can be used as an illustration for future researchers and it is hoped that it can be used as a reference for further research on non-pharmacological pain management.

Keywords: Warm Compresses, Level of Pain, Perineum Wounds, Postpartum

INTRODUCTION

The postpartum period (puerperium) is the period after giving birth to a baby, namely the recovery period, starting from the end of labor until the uterus returns after pre-pregnancy. Approximately 50% of maternal deaths occur in the first 24 hours post partum so quality postpartum services must be provided during that time to meet the needs of mother and baby (Rini S & Kumala F, 2017).

According to WHO, almost 90% of normal births experience lacerations to the perineum. Perineal lacerations in Asia are also a problem that occurs quite often in society, 50% of perineal rupture incidents in the world occur in Asia. The prevalence of birthing mothers who experience perineal wounds in Indonesia in the 20-30 year age group is 63%, while in birthing

mothers aged 31-39 years it is 37% (Choirunissa et al., 2019). Postpartum care is needed in this period because it is a critical period for both mother and baby. Caring for perineal wounds in mothers after giving birth is useful for reducing discomfort, maintaining cleanliness, preventing infection and speeding up wound healing (Yuliana D, 2022).

There are 2 postpartum care methods that can be used to reduce perineal pain, namely pharmacological and non-pharmacological methods. Pain management using pharmacological methods is still controversial, this is because it uses drugs with chemical substances that will have a negative effect on the mother and baby. For example, the use of anti-pain analgesics such as mefenamic acid which causes side effects of stomach pain and is dangerous for babies if it enters the body and accumulates in breast milk, which may cause allergic reactions and diarrhea in babies. Therefore, the non method pharmacology is considered safer to apply because there are almost no side effects and it depends on the physiological role of the body (Mauluddina & Veradilla, 2023). Several types of non-pharmacological therapy to relieve perineal pain that have been used include biofeedback, self-hypnosis, cutaneous stimulation, distraction, massage, giving warm and cold compresses. Giving warm compresses can be done independently at home, but it should be noted that several types of warm compresses must be monitored and must be carried out by medical personnel (Azzah et al., 2022).

A warm compress is the act of giving a warm feeling to the client by using a liquid or tool that creates a feeling of warmth in certain parts of the body that need it, while a cold compress is placing a substance at a low temperature with the aim of carrying out healing therapy. Apart from reducing pain, warm compresses can also be used to calm postpartum mothers regarding the anxiety and fear they are experiencing (Choirunissa et al., 2019).

Warm compresses can provide a warm feeling which aims to provide a feeling of comfort, overcome pain, reduce or prevent muscle spasms and provide a feeling of warmth in certain areas. Warm compresses have a physiological impact on the body, namely softening fibrous tissue, affecting tissue oxygenation so that it can prevent muscle stiffness, vasodilate and improve blood flow, so that it can reduce or eliminate pain. Apart from that, the advantages of warm compresses can help wound recovery, reduce infection and inflammation, improve blood flow and provide calm and comfort to clients (Susilawati & Ilda, 2019).

Results of the literature study carried out (Setiayani et al., 2023) regarding the Effectiveness of Warm Compresses in Reducing the Intensity of Perineal Pain in Childbirth, it was found that the intensity of labor pain in the 1st stage can decrease when a warm compress intervention is given to the perineum, because it can reduce muscle spasm and increase blood flow, thereby providing a warm and calming effect. Warm compress therapy is effective in reducing pain in the first stage of labor.

The results of the same research were also carried out (Isnaini et al., 2022) regarding Warm Compresses and Cold Compresses to Reduce the Pain of Perineal Lacerations in Postpartum Mothers where the results obtained from the t test measuring warm compresses and cold compresses at stage 3, the p-value of 0.000 was obtained <0.05 which means there is a

difference in the effectiveness of warm compresses and cold compresses cold in reducing perineal pain.

PMB Dince Safrina is one of the PMBs in Pekanbaru City that has implemented non-pharmacological methods to treat perineal wound pain in postpartum mothers. One of the methods used at PMB Dince Safrina to reduce perineal wound pain is by using the warm compress method. Based on an initial survey in September 2023, at PMB Dince Safrina data was obtained for 85 deliveries for the period January – August 2023. A total of 45 people out of 85 normal deliveries experienced perineal injuries either spontaneously or through episiotomy. Of the number of post-partum mothers who experience perineal wounds, on average they experience pain and are afraid of early mobilization, to overcome this, warm compress therapy is given. Based on the above background, researchers are interested in conducting research on the Effect of Warm Compresses in Reducing Perineal Wound Pain in Postpartum Mothers at PMB Dince Safrina.

RESEARCH METHODS

This type of research is a quasi-experimental study with a one group pretest post and posttest design, namely comparing the intensity of perineal wound pain before and after giving a warm compress. This research was conducted in September–November 2023. The research population was postpartum mothers who experienced perineal wounds at PMB Dince Safrina with a sample of 30 people. The sample selection technique uses non-probability sampling (accidential sampling). The measuring instrument used is the Numerical Rating Scale (NRS). Data analysis was carried out univariate and bivariate. Univariate analysis obtained from the results of data collection is presented in the form of a frequency and percentage distribution table. Bivariate analysis was used to determine the effect of warm compresses in reducing perineal wound pain in postpartum mothers at PMB Dince Safrina. In analyzing the data bivariately, data presentation was carried out using the Wilcoxon Signed Ranks Test statistical test.

RESEARCH RESULT

The research was conducted in September–November 2023 at PMB Dince Safrina. Samples were taken using non-probability sampling (accidential sampling). So, a sample of 30 post partum mothers who experienced perineal wounds were obtained. Below are presented the overall research results:

Table 1: Respondent Characteristics

Variabel	n	%
Age		
< 20 years	8	27
20-35 years	19	63
> 35 years	3	10
Level of education		
Low education	10	33
Secondary education	11	37
Higher education	9	30

Table 1 shows the characteristics of the most respondents in the 20-35 year age group, 19 people (63%) and 11 people (37%) who had a secondary education level.

Table 2: Distribution of Pretest and Posttest Results of Perineal Wound Pain Levels for Postpartum Mothers Before and After Warm Compresses at PMB Dince Safrina

Pain Level	n	%
Pretest		
Mild Pain	0	0
Moderate Pain	8	27
Severe Pain	22	73
Posttest		
Mild Pain	11	37
Moderate Pain	18	60
Severe Pain	1	3

Table 2 shows that the pain level of respondents before the procedure was carried out was mostly at the severe pain level, 22 people (73%), followed by the moderate pain level, 8 people (27%). Regarding the level of pain of respondents after the procedure, the highest level of pain was moderate, 18 people (60%), followed by mild pain level, 11 people (37%) and 1 person (3%) with severe pain level.

Table 3: Normality Test Results for Postpartum Mother's Perineal Wound Pain Level

Pain Level	Spahiro=Wilk		
	Statistic	df	Sig
Pretest	0,729	30	0,001
Posttest	0,588	30	< 0,001

Table 3 shows that the significant value at the beginning of the research assessment (pretest) was obtained by a p value of less than 0.05, namely 0.001, as well as at the end of the research assessment (posttest), a significant value was obtained less than 0.05, namely <0.001. This means that at the beginning and end of the research assessment there was an abnormal distribution of data. This shows that the analysis used is non-parametric analysis because the data distribution is not normally distributed.

Table 4: Comparison of Postpartum Mother's Perineal Wound Pain Levels Pretest and Posttest

Pain Level	(mean±SD)	Δ	Sig
Pretest	6,25±1,482	1,42	<0,001
Posttest	4,72±1,013		

Table 4 shows that there is a change between the pre-test and post-test, namely the difference in the average pain level value is 1.42. This means that there was a decrease in the level of pain after the respondent received a warm compress on the perineum wound. From the results of the

analysis using the Wilcoxon Signed Ranks Test, it can also be seen that the Asymp. Sig. (2-tailed) is < α=0.05, which means Ha is accepted. It can be concluded that there is an effect of warm compresses on reducing perineal wound pain in postpartum mothers at PMB Dince Safrina.

DISCUSSION

From the research results, it can be seen that of the 30 postpartum mothers at PMB Dince Safrina, the highest level of pain before the procedure was carried out was severe pain, 22 people (73%), followed by 8 people (27%) with moderate pain levels. Regarding the level of pain of respondents after the procedure, the highest level of pain was moderate, 18 people (60%), followed by mild pain level, 11 people (37%) and 1 person (3%) with severe pain level. Pain is defined as a condition that affects a person and its extent is known if someone has experienced it. Pain is a condition in the form of an unpleasant feeling that is very subjective because each person feels pain in terms of scale or level, and only that person can explain or evaluate the pain they experience. The body organs that act as pain receptors are free nerve endings in the skin that respond only to strong, potentially damaging stimuli (Fitriahadi E & utami I, 2020).

Perineal wound pain is a physiological condition that occurs in postpartum mothers due to wounds/scar tissue that arise due to damage to the perineum or an episiotomy during the birth process. Many women are not ready to have children because they imagine the pain they will experience during the birthing process. All pregnant women who are about to give birth feel afraid of going into labor because of the pain they experience during the birth process, starting from uterine contractions during the process of expelling the baby and placenta to perineal wound pain due to tearing or episiotomy which is carried out to facilitate the process of expelling the baby. But actually scientifically in the literature it is stated that labor pain can be managed. It doesn't disappear, but at least it can make the mother comfortable. Labor pain can actually be treated both pharmacologically and non-pharmacologically (Dyah Permata, 2018).

Pain management can be done in two ways, namely pharmacological and non-pharmacological. Pharmacological methods that are often used to reduce pain are analgesics or using drugs. Non-pharmacological methods that can be used are simple methods in the form of relaxation techniques, deep breathing techniques, birthing balls, warm compresses, massage therapy, acupuncture, etc. The warm compress technique is very effective in reducing the intensity of pain because it is related to the heat mechanism provided which can stimulate the release of the mother's endorphins, thus making the mother feel more comfortable and reducing the pain felt by the mother. Apart from that, warm compresses can vasodilate blood vessels and increase blood flow in the body, this is what makes oxygenation circulation smoother which can prevent muscle stiffness/muscle spasms, muscles become more relaxed, resulting in a reduction in pain (Pratiwi et al., 2021).

Pain levels are influenced by several factors, including age, gender, culture, environment and individual, anxiety and stress (Nurhanifah D & Sari RT, 2022). From the research results, it was found that the largest number were aged 20 - 35 years, 19 people (63%), this was in

accordance with existing theory. In theory, the age that is vulnerable to experiencing pain is < 20 years old, this is because at < 20 years old a person cannot properly understand the pain they feel, because actually pain depends on a person's response and that response will be different for each person.

Based on observations that have been made, there is a compatibility of several existing theories with activities in the field, which state that warm compresses have an effect on reducing pain. Pain is the main symptom or complaint that prompts a person to seek health care help. Objectively pain cannot be measured because the appearance or physical changes are not the same as what the patient feels.

Based on the research results, it was found that there was a change between the pre-test and post-test, namely the difference between the average pain level value of 1.42 and the Asymp value. Sig. (2-tailed) is < α=0.05, which means Ha is accepted or in other words there is an effect of warm compresses on reducing perineal wound pain in postpartum mothers at PMB Dince Safrina.

Results of the literature study carried out (Setiayani et al., 2023) Regarding the Effectiveness of Warm Compresses in Reducing the Intensity of Perineal Pain in Childbirth, it was found that the intensity of labor pain in the 1st stage can decrease when a warm compress intervention is given to the perineum, because it can reduce muscle spasm and increase blood flow, thereby providing a warm and calming effect. Warm compress therapy is effective in reducing pain in the first stage of labor.

The same opinion was also given by (Soeparno, 2020) in research on the Effect of Giving Warm Compresses on Reducing the Intensity of Labor Pain in the First Stage of the Active Phase, where from the results of research conducted on the intensity of labor pain in the first stage of the active phase, there was an effect of giving warm compresses on reducing the intensity of labor pain in the first stage of the active phase. Before giving a warm compress, the average pain level of mothers in labor experienced moderate-severe pain and after giving a warm compress for 15-20 minutes, the average pain intensity of mothers in labor became mild-moderate.

Midwives as health service workers, especially in the field of maternal and child health, are an important factor in the birthing process as birth attendants. It is a requirement that midwives can also become innovators by using the latest methods to provide maternal care, one of which is complementary methods which are currently being widely developed in the world of health, especially midwifery. A birthing mother has the right to receive high quality maternity care so that she can avoid discomfort during the birthing process.

CONCLUSIONS AND SUGGESTIONS

The results of the research showed that the respondents' pain level before the procedure was carried out was the highest at the severe pain level, 22 people (73%), followed by the moderate

pain level, 8 people (27%). For respondents' pain levels after the procedure, 18 people (60%) had moderate pain levels, followed by 11 people (37%) with mild pain levels and 1 person (3%) with severe pain levels. The results of the analysis using the Wilcoxon Signed Ranks Test obtained the Asymp value. Sig. (2-tailed) is < α=0.05, which means Ha is accepted so it can be concluded that there is an effect of warm compresses on reducing perineal wound pain in postpartum mothers at PMB Dince Safrina.

It is hoped that this research can be used as consideration in overcoming the problem of perineal wound pain in postpartum mothers by health workers and can be used as an illustration for future researchers and it is hoped that it can be used as a reference for further research on non-pharmacological pain management.

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ACTIVE FAMILY PLANNING ACCEPTORS' PERCEPTIONS TOWARD THE USE OF INTRA UTERINE DEVICE (IUD) IN THE FAMILY PLANNING PROGRAM AT MELUR PUBLIC HEALTH CENTER, PEKANBARU CITY

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Abstract
The Intrauterine Device (IUD) is a contraceptive device shaped like the letter T, inserted into the uterus with a small thread left in the vagina to indicate its position. Husbands' support for their wives is still lacking because they believe that the Intrauterine Device interferes with sexual intercourse. The Melur Community Health Center has the lowest number of IUD acceptors in the city of Pekanbaru, which is 9.9%. This research aims to determine the Perceptions of Active Family Planning Acceptors regarding the use of the Intrauterine Device in the Family Planning program at the Melur Community Health Center in Pekanbaru City. The method used in this research is qualitative descriptive. The research was conducted at the Melur Community Health Center in Pekanbaru from December to March in 2021. The sources of information were obtained through observation and in-depth interviews with 8 informants. The results of the research showed that many acceptors were unaware of the Intrauterine Device, mainly because health workers had not provided sufficient information about it to the local community. Family planning acceptors in the Melur Community Health Center area are quite modern, and their decision not to use the Intrauterine Device is not based on cultural reasons but rather on other factors, such as fear of the device's insertion and its side effects. Some acceptors do not receive support from their husbands, while others do receive support in deciding which contraception method to use. Health workers do not actively promote the Intrauterine Device in the Melur Community Health Center area due to the COVID-19 pandemic. It is hoped that the health center can increase the role of its staff, especially in the implementation of the Family Planning program, particularly regarding the Intrauterine Device, to ensure the successful achievement of the IUD program.

Keywords: *Family Planning Acceptor Perceptions, IUD, Family Planning Program*

INTRODUCTION

Family Planning (KB) Program is a step taken to achieve a quality family by promoting, protecting, and supporting reproductive rights. Its goals include encouraging marriages at an appropriate age, regulating the number and spacing of pregnancies, and promoting the well-being and resilience of children. (Prijatni et al., 2022) .Enhanced Family Planning programs aim to control population growth by reducing the number of children born to women aged 15-49. Contraception or birth control refers to the use of drugs, devices, or surgical procedures to prevent pregnancy, with the objective of addressing health issues related to pregnancy through the use of these contraceptive methods. (Harwijayanti et al., 2023).

According to the World Health Organization (WHO) estimates, around 100,000 maternal deaths worldwide could be prevented each year if all women who do not wish to have more children could avoid pregnancy. These deaths primarily occur in developing countries where

the contraceptive usage rates are low. Currently, the average birth rate (total fertility rate/TFR) for married couples is still around 2.6. The target to be achieved is a TFR of 2.1, set since 2015, and efforts to reach this goal will be strengthened until 2025. (Kampung KB, 2019). Maternal health issues are significant as maternal mortality rates remain high in Indonesia. In more detail, maternal health levels in Indonesia are still insufficient, with a Maternal Mortality Rate (MMR) of 305 per 100,000 live births in 2015 and an Infant Mortality Rate (IMR) of 24 per 1,000 live births in 2017. (Eneng Daryanti & Lina Marlina, 2021). The National Population and Family Planning Board (BKKBN) has identified four main programs as priorities for the year 2023. These programs include accelerating the reduction of stunting rates, efforts to eliminate extreme poverty, optimizing Quality Family Village (Kampung KB), and implementing the Bangga Kencana program (Family, Population, and Family Planning Development). BKKBN has set policy directions for 2023 focused on accelerating the reduction of maternal mortality and the swift decrease in stunting cases (Bappeda Jateng, 2023).

Issues related to population and adverse impacts within families in Indonesia have become highly complex and are significant national concerns. One aspect that can also be observed is the lack of preparation among couples when getting married, bringing various health risks for both mothers and infants during the childbirth process. This lack of preparedness significantly diminishes the capacity of young couples to create a high-quality younger generation. (Wahyuni, 2022). Internationally, Family Planning (KB) programs are recognized as one of the most efficient factors in preventing health problems. Through the implementation of Family Planning programs, including contraceptive use, there are direct and indirect benefits to the health of mothers, infants, and children. This program also has the potential to reduce population growth, making it an essential element in achieving national development goals. (Maryani et al., 2023).The Intrauterine Device (IUD) is a contraceptive device shaped like the letter T. This contraceptive device is placed inside the uterus, leaving a small string visible in the vagina as an indicator of its position. There are two variants of IUD to choose from: copper IUD (non-hormonal) and hormonal IUD. (Ewang Sewoko/Penata KKB Ahli Muda, 2022)

Internal survey results by BKKBN indicate that among women using contraceptive methods, only 29.3% receive related information. Having a more limited number of children will contribute to the increase in the productive age group and support the sustainable development of a country. (Putri et al., 2022). Increasing individual knowledge levels in choosing contraceptive methods is a crucial step in maintaining women's reproductive health. Higher knowledge levels among the public are a valuable asset in the implementation of Family Planning programs, which can reduce maternal mortality rates and the negative impact that may arise due to side effects of contraceptive method use. (Harwijayanti et al., 2023). According to the Basic Health Research results in 2018 conducted by the Ministry of Health of the Republic of Indonesia, the use of IUD or Copper T reached a rate of 4.6%. This rate is much lower compared to the use of other hormonal contraceptive methods, such as 3-month injectables reaching 47.6%, 1-month injectables at 7.2%, and pills at 7.6%. (Kusumawati et al., 2022)

The use of IUD as a contraceptive method by Women of Reproductive Age (WRA) has decreased during the pandemic. According to a study conducted by the Guttmacher Institute, there was a 10% decrease in the use of Long-Acting Reversible Contraceptives (LARC) and Short-Acting Contraceptives (SAC) in 132 lower-middle-income countries. Meanwhile, there were 48.6 million WRA who could not meet their contraceptive needs. (Altamilano et al., 2022) A common issue faced by many mothers who wish to use contraception is the difficulty in determining the appropriate type of contraceptive. This is due to a lack of information regarding the benefits and advantages of various contraceptive methods. Not using a safe contraceptive method after giving birth can result in the risk of unwanted pregnancies, an increase in the number of children, closely spaced pregnancies, and may pose a risk to the mother's mental well-being, potentially increasing the risk of abortion. (Maftuha et al., 2022).

Furthermore, there is a misconception that the insertion of the Intrauterine Device (IUD) involves a procedure similar to a cesarean section, causing fear among potential users. Additionally, there is a lack of support from husbands toward their wives, stemming from the belief that using an IUD can disrupt sexual relations. This is largely due to a lack of information and education provided by healthcare professionals. (Harefa & Ndruru, 2022).

Based on data obtained from the Pekanbaru City Health Office for the 2021 period, there is a comparison of data from three Community Health Centers (Puskesmas): Sidomulyo Inpatient Care Puskesmas reached 14.1%, Lima Puluh Puskesmas reached 11.4%, Pekanbaru Kota Puskesmas reached 11.3%, and Melur Puskesmas had the lowest number of IUD acceptors at 9.9%. This indicates that there are still many mothers in that area who are not interested in using IUD. Based on a preliminary survey, it is known that out of 10 family planning acceptors at Puskesmas Melur, 9 of them do not use IUD, and 1 person uses IUD. Additionally, out of the 9 individuals, they mentioned not wanting to use IUD due to a lack of support from their husbands. Moreover, they fear that it might cause discomfort during intercourse, leading to their disinterest in using IUD.

Furthermore, according to information from program coordinators, many mothers are reluctant to use IUD due to religious issues that forbid mothers from using family planning. Additionally, there are negative cultural beliefs in the community, where mothers are not allowed to use family planning for too long, so they are unwilling to use Long-Acting Reversible Contraceptives (LARC). Moreover, mothers are afraid of the contraceptive insertion process. They prefer using injectable or oral contraceptives because they perceive them as safer and more practical than IUD.The results of this initial survey depict a negative perception of IUD among mothers. Based on these findings, this research aims to determine "Active Family Planning Acceptors' Perceptions Toward the Use of Intrauterine Device (IUD) in the Family Planning Program at Melur Public Health Center, Pekanbaru City, in 2021."

RESEARCH METHODS

The researcher conducted a study on the perceptions of active family planning acceptors regarding the Intrauterine Device (IUD) in the family planning program at Melur Public Health Center, Pekanbaru City, in 2021. The method employed in this research is qualitative

descriptive. The study was conducted at Melur Public Health Center in Pekanbaru City from December to March 2021. The variables in this study include perceptions, with a focus on knowledge, culture, spousal support, and healthcare provider support. Information sources for this study were obtained through observations and in-depth interviews with 8 informants, including 1 Family Planning Program Coordinator (Key informant), 1 Head of the Public Health Center (Primary informant), 1 midwife (Supporting informant), and 5 Family Planning Acceptors (Supporting informants).

RESEARCH RESULT

a. Active family planning (KB) acceptors' perception regarding the use of IUDs as assessed based on knowledge at the Melur Public Health Center in Pekanbaru City, 2021

Based on the research results, it was found that the perception of active family planning (KB) acceptors regarding the use of IUDs, as assessed based on knowledge at the Melur Public Health Center in Pekanbaru City in 2021, indicates that the knowledge of acceptors is still lacking. This can be seen from the statements of informants as follows:

"Yes, because the position of this health center is in the middle of the city, and the residents are mostly working individuals, but there are also those who are housewives. But every time we ask whether they know about IUD, maybe in general, they know about IUD, but if, for example, we ask again in more detail, like whether they know the benefits of IUD, well, on average, they don't know. So, they only know that IUD is a contraceptive that is inserted into the uterus, that's all they know" (IK).

The interview results above are supported by other informants, where family planning acceptors do not know exactly what IUD is. This is supported by the interview results with family planning acceptors, as follows:

"I don't know, what is the abbreviation for IUD, what I know is family planning that is implanted in the uterus. That's all I know because I don't use that family planning method; I use the injection method" (IP3).

"IUD, what is the abbreviation for that, I don't know. But there was a midwife who explained about IUD before. From what I know, she said IUD is like a device inserted into our vagina. But that's all I know" (IP4).

Based on the above interview results, we can conclude that there are still many family planning (KB) acceptors who are not familiar with IUD and do not use it. Meanwhile, the efforts of the personnel to increase the knowledge of family planning acceptors about IUD at the Melur Public Health Center in Pekanbaru City still face challenges due to the COVID-19 pandemic. This is reflected in the interview excerpt as follows:

"For now, to be honest, we can't conduct education sessions like we used to, because of the current pandemic conditions. However, we continue to educate family planning acceptors about IUD through counseling. Usually, when postpartum mothers visit and express interest in using contraception, that's when we provide information to them. The results vary; some are willing to use IUD, and some are not willing to use it" (IK).

b. Active family planning (KB) acceptors' perception regarding the use of IUDs as assessed based on cultural considerations at the Melur Public Health Center in Pekanbaru City, 2021

Based on the research findings regarding the active family planning (KB) acceptors' perception of the use of IUDs, as assessed from a cultural perspective at the Melur Public Health Center in Pekanbaru City in 2021, it is observed that the cultural background of the acceptors is relatively positive. Their culture appears to be quite modern due to the urban setting where the population resides. This is consistent with the interview results from key informants, as follows:

"In terms of culture, as far as I feel, it's not a problem. The people here don't live in remote areas; this is in the city, so there's no issue. However, there are some who sometimes believe that in their religious teachings, contraception is not allowed, including IUDs. Well, we can't force people's beliefs, right? But those instances are only a small fraction" (IU).

"I don't think there's a problem. Even if there are some whose culture is still negative towards the use of IUDs, the number is very small. Sometimes, there are a few who are not allowed to use IUDs due to cultural or religious prohibitions" (IP1).

"There is no prohibition for family planning. I don't use IUD because I'm afraid of the side effects. People say it can cause vaginal discharge, so I don't want to use it. Besides, I'm currently experiencing vaginal discharge, so I'm afraid it will get worse if I use it, ma'am!" (IP4).

Based on the above research findings, it can be concluded that the family planning (KB) acceptors' culture in the Melur Public Health Center area is quite modern. They do not use IUDs not because of cultural reasons but due to other factors, namely, fear of IUD insertion and concerns about the potential side effects of IUDs.

c. Active family planning (KB) acceptors' perception regarding IUD as assessed based on spousal support at the Melur Public Health Center in Pekanbaru City, 2021

Based on the research results regarding the active family planning (KB) acceptors' perception of IUD usage as assessed from spousal support at the Melur Public Health Center in Pekanbaru City in 2021, it was found that husband support influences mothers in choosing IUD. This is in line with the interview results from key informants, as follows:

"Sometimes, there are husbands who do not support it. We have explained how the IUD is inserted, but some husbands still worry because they may feel that something is being inserted into their wives' private parts. In fact, there are some acceptors who initially used IUD but dropped out because their husbands complained about discomfort during intimate relations with their wives. As a result, they switched to other forms of contraception" (IK).

"Yes, the support of the husband definitely affects them in choosing IUD. It is undeniable that there are husbands who do not like this form of contraception being

inserted into their wives because they may feel uncomfortable during intimate relations, possibly due to the IUD strings causing discomfort" (IP1).
Based on interviews with family planning acceptors about spousal support in using IUDs, the following information was obtained:
"My husband doesn't want me to use IUD because he's afraid it will be uncomfortable during intimate relations. So, that's why I don't use it!" (IP3).
"If my husband agrees and supports me, I can use any form of contraception. The important thing is that it is good for me and has no bad side effects for me, ma'am!" (IP2).

Based on the information provided by the family planning acceptors, it can be concluded that some acceptors do not receive support from their husbands, while others receive support from their husbands in the decision-making process regarding the choice of contraception.

d. Active family planning (KB) acceptors' perception regarding IUD as assessed based on the support from healthcare providers at the Melur Public Health Center in Pekanbaru City, 2021

Based on the research findings regarding the active family planning (KB) acceptors' perception of IUD usage as assessed from the support of healthcare providers at the Melur Public Health Center in Pekanbaru City in 2021, it was found that the support from healthcare providers still faces challenges in providing information and motivation to acceptors for the use of IUDs. This is in line with the interview results from key informants, as follows:
"Actually, if it weren't for this pandemic, we would certainly be more effective in increasing the coverage of the IUD program. But yes, the impact of this pandemic is strongly felt in healthcare services, not only in this program (KB program), but all programs have experienced a decline in coverage. Well, that's like the integrated health post (posyandu) also experiencing a decline, ANC examinations also, yes, everything is declining" (IU).
The interview results above are supported by other informants, where family planning acceptors state that healthcare providers never provide information about IUD. This is supported by the interview results with family planning acceptors, as follows:

"I have never received information from the midwives at this health center about IUD!!" (IP2).
"Never, I have never attended any counseling because, as far as I know, there isn't any, even at the integrated health post (posyandu), it's not there!" (IP3).
"I think maybe because of this COVID (pandemic), so there has never been any more counseling. Well, I have never received any information at all from healthcare providers at this health center!" (IP4).

Based on the above research findings, it can be concluded that healthcare providers are not supportive in promoting IUD in the Melur Public Health Center area. This is due to the COVID-19 pandemic, which has prevented health services from conducting outreach activities. Additionally, the duties and responsibilities of midwives at the health center

have increased with the implementation of the COVID-19 vaccination program promoted by the government. This has resulted in healthcare providers being unable to focus on the IUD contraception program.

DISCUSSION

a. Active family planning (KB) acceptors' perception regarding the use of IUDs as assessed based on knowledge at the Melur Public Health Center in Pekanbaru City, 2021

Based on the research results, it was found that there is no relationship between Risk Management and Occupational Health preventive efforts against solid dust hazards in the process of grinding used cans into iron seeds at PT SAL. The implementation of occupational health and safety risk management is an integral part that includes organizational structure, planning, responsibilities, implementation, procedures, processes, and resources needed for the development, implementation, achievement, assessment, and maintenance of occupational health and safety policies in order to control risks or prevent accidents and work-related illnesses, creating a safe, comfortable, and productive workplace (Firmansyah, 2022).

Progress in the industrial sector must be accompanied by the development of adequate human resources: productive, healthy, skilled, and professional resources. This contributes positively to the economy by improving productivity, product quality, motivation, job satisfaction, and ultimately the quality of life for workers and the overall environment. A workplace prone to work accidents and work-related illnesses will not yield productive human resources (Mahawati, 2021).

In the context of employment, a critical step in maintaining the health and safety of employees is to identify potential hazards and evaluate risks in the workplace. The process of hazard identification and risk assessment, commonly known as HIRA (Hazard Identification & Risk Assessment), involves recording all potential risks that may arise in the work environment. These risks include physical, chemical, biological, and psychosocial hazards that can affect the health of workers. Furthermore, risk evaluation is carried out for each hazard to ensure that effective measures to protect the well-being of workers can be implemented (Prodia Occupational Health Indonesia, 2023).

Based on the explanation above, according to the researcher's assumptions, in general, Risk Management is indeed designed to control all potential losses that occur in the work environment. However, in carrying out this control, competent and knowledgeable human resources or workers are essential, understanding the impact of potential hazards in the work environment. This means that the implementation of occupational health preventive efforts in the workplace requires workers' knowledge of specific hazards, especially dust generated from the processes at PT, considering that the dust comes from hazardous materials that can cause respiratory problems and lead to Occupational Diseases. If workers are unaware of the potential hazards, it is highly likely that they do not understand how to manage risks in the workplace, especially without supervision and safety personnel (K3).

b. Active family planning (KB) acceptors' perception regarding the use of IUDs as assessed based on cultural considerations at the Melur Public Health Center in Pekanbaru City, 2021

Based on the research results, it was found that there is no relationship between Environmental Health Requirements and Occupational Health preventive efforts against solid dust hazards in the process of grinding used cans into iron seeds at PT SAL.

One crucial aspect of maintaining health in the workplace is meeting the requirements of occupational environmental health. "Fulfilling the requirements of occupational environmental health" refers to preventive measures against diseases and/or health disorders originating from risk factors in the work environment. These factors involve physical, chemical, biological, ergonomic, and psychosocial hazards, as well as sanitation, with the aim of creating a work environment that supports optimal health quality (PP RI, 2019).

Inhaling Iron Dust Particles in the form of smoke can cause siderosis, especially in poorly ventilated spaces. Prolonged exposure to iron dust or oxidized smoke from it can lead to lung disease, known as siderosis. Workers in factories producing iron oxidation, welders, and users of grinding tools are more susceptible to this disease. However, the risk of siderosis can be minimized with proper ventilation in the work environment to maintain air cleanliness. Therefore, the presence of adequate ventilation in the work environment is a crucial requirement for maintaining occupational health (Ihsan, 2018).

A technical approach can be applied by monitoring the conditions of the work environment through measuring dust concentrations in the air at specific intervals, periodically, especially in areas with the potential to generate dust. Properly positioning exhaust fans can impact the optimization of device performance related to air quality in the workplace (Indriyani et al., 2017).

Good air circulation regulation in the workplace supports the creation of a healthy work environment and reduces the risk of chemical exposure. On the other hand, inadequate ventilation can cause workers to experience excessive dryness or humidity, creating discomfort and reducing the concentration, accuracy, and attention of workers to safe work practices (Haworth & Hughes, 2012).

Based on these considerations, according to the researcher's assumption, the reason why environmental health requirements are not related to preventive occupational health efforts is that preventive occupational health efforts have not been implemented by the management. As a result, workers are unaware of the occupational environmental health requirements, which are part of preventive efforts to prevent diseases and/or health disorders in the work environment. Many workers are observed not using masks, not washing their hands after work, inadequate ventilation, and a significant presence of airborne dust particles in the work environment, indicating that environmental health requirements in the workplace are not being enforced.

c. Active family planning (KB) acceptors' perception regarding IUD as assessed based on spousal support at the Melur Public Health Center in Pekanbaru City, 2021

Based on the research results, it was found that there is no relationship between Occupational Health Examinations and Preventive Occupational Health efforts against solid dust hazards in the process of grinding used cans into iron seeds at PT SAL.
Health examinations are a step in maintaining the health of workers aimed at determining their health status, early detection of diseases, including Occupational Diseases, and serving as the basis for developing Occupational Health programs. PT Petrokima Gersik conducts Occupational Health Examinations as one of the steps to enhance the health of its workers. This includes pre-employment health examinations, periodic health examinations, and special health examinations. These Occupational Health Examinations are also in line with efforts to provide health services to workers in the workplace (Yolando, 2019).
According to the provisions of the Minister of Manpower and Transmigration Regulation No. 02/MEN/1980, health examinations are an obligation that must be carried out by employers on workers. This action aims to prevent potential impacts that may arise from the worker's medical history or physical and mental disorders that may not be detected by the employer. However, research results indicate that the implementation of occupational health examinations faces obstacles, as not all companies carry them out. Therefore, there is a need for labor supervision that instructs companies to conduct occupational health examinations in accordance with legal provisions (Ridwan et)

d. Active family planning (KB) acceptors' perception regarding IUD as assessed based on the support from healthcare providers at the Melur Public Health Center in Pekanbaru City, 2021

Based on the research results, it was found that there is no relationship between Reproductive Health Protection and Preventive Occupational Health efforts against solid dust hazards in the process of grinding used cans into iron seeds at PT SAL.
According to Government Regulation No. 88 of 2019, reproductive health protection is a health effort aimed at maintaining the overall health of the reproductive system, including physical, mental, and social aspects. This goal is not limited to freedom from diseases or disabilities related to the reproductive system's functions and processes but also involves the impact of equipment, materials, work processes, and the overall work environment (JDIH BPK RI, 2019).
Attention to worker protection in Indonesia has not yet reached the desired level, especially in efforts to improve the well-being of laborers, particularly in the context of reproductive health. Every individual working should receive adequate protection related to their reproductive health (Septa Dewi Anggraeni; Aloysius Uwiyono, 2006).
Based on these considerations, according to the researcher's assumption, Reproductive Health Protection is not part of the protection provided to workers. Employers are entirely unaware of occupational health procedures, especially the health requirements that must

be fulfilled in the workplace. Meanwhile, workers themselves are not familiar with and do not understand the regulations related to what is actually part of the rights that workers should obtain in the workplace, as mandated by labor laws and regulations related to occupational health.

CONCLUSIONS AND SUGGESTIONS

1. Many acceptors are still unaware of IUD, mainly because healthcare workers have not conducted information sessions about IUDs for the local community. However, they continue to provide counseling for postpartum mothers who are considering contraceptive options.
2. Family planning acceptors in the Melur Public Health Center area are quite modern; their decision not to use IUD is not due to cultural reasons but rather because of other factors, such as fear of IUD insertion and concerns about IUD side effects.
3. Some acceptors do not receive support from their husbands, while others receive support from their husbands in making decisions about the contraceptive method to be used.
4. Healthcare workers do not support the promotion of IUDs in the Melur Public Health Center area. This is due to the ongoing Covid-19 pandemic, which has hindered health services from conducting informational sessions. Additionally, the duties and responsibilities of midwives at the Public Health Center have increased since the government launched the Covid-19 vaccination program. This has resulted in healthcare workers being unable to focus on the IUD contraceptive program.

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DEVELOPMENT OF EDUGAME (QUARTET CARDS) REGARDING SNACKS FOR SCHOOL CHILDREN (PJAS) AT STATE ELEMENTARY SCHOOL IN PERHENTIAN RAJA SUB-DISTRICT KAMPAR DISTRICT

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ABSTRACT

This study aims to develop learning media thorugh a game referred to as edugame, in this case is using quartet cards regarding snacks for school children. This was a development research (R&D) which referred to the ADDIE development model including 4 stages, namely: Analysis to analyze module development needs, Design of the product in the form of module, Development of the module which was further assessed for feasibility by material and media expert for improvement, Implementation of the module as learning and teaching material, and Evaluation as the result which indicated that edugame (quartet cards) was feasible to use. In fact, this study only reached the development process due to time and manpower limitations. The edugame development procedures included the stages of needs analysis, literature study, media selection, preparation of teaching materials, media design, product validation, and final product improvement. The study instruments used in this study were material validation questionnaire, media validation questionnaire and parental acceptance response questionnaire. It was found that according to material experts, the edugame (quartet cards) regarding healthy snacks for students (PJAS) was included in the "very good" category, both in the aspect of material quality and the aspect of material benefit. Furtehrmore, according to media expert, such edugane was included in the "good" category in terms of media quality, language use and media layout aspects. In addition, the acceptance response variable was included in the "Very good" category in terms of ease of use, attractiveness, and efficiency aspects. Thus, based on the results of the assessment results, it can be concluded that the edugame (quartet cards) regarding healthy snacks for students was feasible to use.
(kosongsatuspasitunggal 10 pt).

Keywords: Edugame, Kwartet Card, Snacks for school children

INTRODUCTION

The problem of food safety has become a world concern. The frequency of food poisoning outbreak in campuses or schools is also quite high, one of the causes of which is school snacks.[1] According to outbreak data in 2018 regarding snacks for school children, children in elementary schools are groups that are vulnerable to food poisoning. Such finding is supported by the results of the survey conducted by The Food and Drug Monitoring

Agency (BPOM) in 2018 which showed that 42 times (14.4%) incidents of food poisoning was due to snacks, and the highest outbreak was found among elementary school children by 34 incidents.[2] Data derived from BPOM RI 2011 annual report on food poisoning outbreak, it was found that 19% food poisoning cases occurred in schools and about 78.57% of them occurred among elementary school children. BPOM conducted laboratory tests on Snacks for School Children (PJAS) in 866 Elementary Schools/ Madrasah Ibtidaiyah spread across 30 cities in Indonesia. The results showed that there 1,705 of 4,808 samples of snacks (35.46%) did not meet the food safety and quality requirements (TMS). Current condition in Indonesia reveals that children still experience a double burden of nutrition, namely malnutrition and overnutrition. Common Nutritional Problems found among Elementary School–age Children include short, thin, overweight, obese, and anemia.[2] School children still experience a period of growth and development, so they need adequate food consumption along with balanced nutrition.

Considering the dangers of these unhealthy snacks, it is necessary to introduce healthy snacks and snacks that are harmful to health to school-age children so that they may have knowledge, a positive attitude and will behave in consuming healthy snacks. Therefore, it is very important to introduce healthy snacks, unhealthy snacks as well as their consequences for health. Health education which aims to introduce healthy and unhealthy snacks to school-age children is very effective when implemented using the method of playing in groups since school-age children are involved in the stage of social development in the form of group-learning and have already understood the rules in group. In addition, the appropriate media for conveying messages to elementary school-age children should involve images that are easy to understand. Currently, the authors developed edugame (quartet cards) with imaged accompanied by brief and clear explanations.

METHODS

Characteristics of Participatants and Research Design

ADDIE development in this study involved analysis, design, development, implementation, and evaluation. This development research aims to develop an edugame (quartet cards) regarding snacks for school children.

The subjects in this study consisted of the main informant, namely the teachers in charge of UK; the key informant, namely the school principals; and additional informants, namely the class teachers at State Elementary School in Perhentian Raja Sub-District. Furthermore, there were also material experts, namely lecturers in nutrition courses and media expert, namely educational technology expert.

The study instrument used here was an interview guide to obtain as much information as possible from the subjects. Researchers used a voice recorder during the in-depth interviews. The edugame (quartet cards) validation assessment instrument was used to obtain validation data from media expert and material experts on the developed edugame (quartet cards). The study site was State Elementary School in Perhentian Raja Sub-District, Kampar District, Riau Province. The study was conducted in January 2023.

Data analysis

Qualitative data were obtained through in-depth interviews. Data were further analyzed through transcription, reduction, coding, and categorization processes. Furthermore, interpretation analysis was perfomed until themes emerged. The theme components obtained through the qualitative stage were then transferred into edugame (quartet cards).

RESULTS AND DISCUSSION

The results of this study were obtained from the first stage of study which was the media development stage of edugame (Quartet Cards) regarding Snacks for Elementary School Children (PJAS) through in-depth interviews with1 nutritionist and 1 media expert, 2 school principals as the persons in charge of the elementary school, 2 teachers in charge of the elementary school UKS as part of the management of snacks at school. The second stage was performed among 2 class teachers. Data collection was carried out from January 12 to 23, 2023.

Characteristics of Research Subjects

1. Characteristics of the First Phase Research Subjects

The characteristics of the research subjects can be observed in the following table:

Table 1 Characteristics of Qualitative Respondents

Name	Occupation	Total
Nutritionists	Dosen	1
Principal	Civil servant	2
Person in charge of UKS	Civil servant	2

2. Characteristics of the Second Phase Research Subjects

The research subjects in the second stage involved 1 media expert and 2 classroom teachers:

Table 2 Qualitative Characteristics of Respondents Feasibility Test by Experts and Acceptance Test by Parents

Name	Occupation	Total
Media Expert	Ka.TU	1
Classroom teacher	Honor	1
Classroom teacher	PNS	1

Conceptual Model for the Development of Edugame (Quartet Cards) regarding Snacks For School Children

Conceptual model for the development of "Quartet Cards regarding Snacks for School Children (PJAS)" media was obtained from a qualitative study conducted among 8 people including 1 nutritionist, 2 school principals, 2 teachers in charge of UKS, 2 elementary school teachers at SDN Perhentian Raja, and 1 media expert. In-depth interviews with these 8 people aims to develop a good edugame (quartet cards) that suits the needs of students and teachers as well as the needs to create the proper edugame (quartet cards) prototype.

1. Results of In-depth Interview

1) Analysis

(1) Needs

The following are excerpts from interviews with respondents including school principals, teachers in charge of UKS, parents of students and media expert reviews:

"Until now, no one has provided specific education about snacks for school children in this school, there was only a little information provided by the community health center."(R5)

"Games are better if they are used to increase knowledge. Here, knowledge is only delivered through counselings" (R4)

Based on the results of interview above, the respondents explicitly said that in reality, edugame (quartet cards) was not yet available in schools and those with high initiatives strongly agreed with the provision of edugame (quartet cards) since it is really needed by school children and may further improve their knowledge and understanding on healthy school snacks.

Respondents of nutritionists explicitly stated that the development of an edugame (quartet cards) about snacks for school children was needed, especially since many children have a poor knowledge on school snacks. Proper imformation is surely needed to increase children's knowledge about healthy snacks for school children, especially elementary school-age children.

(2) Characteristics

Interviews conducted with respondents of teachers in charge of UKS at school revealed the characteristics of students at school.

"There were children who brought packed meal and there also children who bought snacks. If their parents had time to cook, they would bring packed meal, but if they didn't have time, the children would buy snacks" (R2)

Based on the results of interview above, the respondents explicitly conveyed that the characteristics of students at school were sometimes not conducive and were supported by the busyness of parents, the number of snacks provided as well as the afternoon lessons conducted which were included in the category of vulnerable hours for students which made students less concentration in learning. However, interesting learning media will

be able to make students more focused. In addition, materials which are packaged properly will be atractive for students to make them re-concentrate.

(3) Materials

Interviews conducted with respondents revealed that the materials that must be included in the edugame (quartet cards) were about clean and healthy snacks for school children (PJAS), snacks that meet balanced nutrition, made from natural ingredients, do not use preservatives and artificial food coloring agent.

"The images were simple and liked by children since they were in the form of cartoon, the language was also easy for children to understand" (R6)

"The images were quite good and the explanation was easy for children to understand" (R7)

Based on the interview excerpts above, the respondents explicitly stated that the contents or materials presented in the edugame (quartet cards) were packaged in an attractive way so that it could increase students' attitudes and initiative. The students were encouraged to play while learning about snacks for school children, due to students and the community still have poor knowledge and understanding about the importance of healthy school snacks to form quality children. Respondents said that the images were interesting, since so far school children had only received occasional and brief counseling from the CHC.

2) Design

(1) Image Framework

The image framework was made in Sketch using CorelDraw and Photoshop softwares. The lineart was made digitally, and the coloring on the images was applied after lineart visualization in the form of a base color which was then followed by the final coloring.

(2) Game Methods

Interviews conducted with respondents found that the learning methods used were games and quizzes.

"Oh, it's better if this game uses cards, kids can be distracted from cellphones, can't they?" (R7).

Based on the interview excerpt above, the respondent explicitly stated that the learning process applied the game/quiz method. However, because it was possible that there were several sections that required lectures, the lecture method would also be inserted during the teaching and learning process depending on the materials involved.

(3) Game Media

Interviews conducted with respondents found that the game medium used was quartet cards.

"Good"(R5).

"We also got banners from the health department, but it's just for display. When the kids went to the UKS they saw the information about balanced nutrition. However, if the kids did't come here they wont't see it. Through this quartet card game, the kids know the information well" (R5).

Based on the interview excerpts above, respondents explicitly conveyed that the game media that were often used were story books, quizzes as well as questions and answers. Counselings usually used power points and sources of teaching materials in the forms of books, ebooks, websites, videos, articles, especially journals. But, literatures in the library are good enough for the Elementary School stage. Sometimes there were updates such as counseling or training regarding the latest books facilitated by the school.

(4) **Display**

Interviews conducted with respondents revealed that the desired game appearance in this learning game was cartoon covers, easy-to-read writing, bright and upbeat colors, Indonesian and contemporary languages, illustrated games, 33 cards, and descriptions.

"Many attractive image, then the colors were also funny. The most important thing was that the explanation was shorter but clear, so it's not too tiring." (R3).

"The appearance was ok, the images were good, but it's not child-friendly. The corners of the cards should be rounded up a bit, then you can make it waterproof, so that it fits children when playing, it doesn't tear because of water and is more long-lasting" (R4).

Based on the interview excerpts above, the respondents explicitly stated that the expected edugame (quartet cards) display was suing the current trend colors, bright and colorfull. Elementary school children are the target, so it needs to be adjusted for color combinations that attract the attention of school children.

The concepts existed in the design development were discussion and playing in groups. In addition, the display concepts available in Edugame (quartet cards) were image cards, easy-to-read text, bright colors, Indonesian and contemporary languages mixed together, with a total of 33 cards.

2. Development of Edugame (Quartet cards)

The edugame (quartet cards) aboutregarding snacks for school children (PJAS) was developed based on the results of in-depth interviews in the first stage about needs in the field. There was a need to create an innovation in health education through edugame (quartet cards) that could help teachers and children acquired knowledgeinformation about appropriate snacks for school children (PJAS) so as to create children with good quality.

1) Analysis Stage

The activity performed at this stage was needs analysis by collecting the required data which formed the basis for the development of Edugame (quartet cards). The materials chosen to be involved in the Edugame (Quartet cards) were tips for choosing healthy snacks, characteristics of healthy snacks, dangers of unhealthy snacks, chemical contamination, and physical contamination.

2) Design Stage

Table 3 Creating an Edugame Development Framework

Card Section	
Drawn using Coreldraw X7	
Front of cards	Back of cards
Image of a primary school boy holding a trophy Unpad Logo and Name of Researcher and Supervisors	Images were adjsuted to the topic Explanation of Arial letter

3) Development Stage

Table 4 Development of Edugame "Quartet Cards" regarding Snacks for School Children (PJAS) Design

No	Material	Before Revision	After Revision
1	Front of Cards (contain images and explanations)		
2	Drafting team		

	(The team that compiled and studied the edugame (quartet cards) regarding Snacks for School Children (PJAS)) were: Mustika Hana Harahap Prof. Dr. Dida Akhmad Gurnida, dr., Sp.A(K)., M.Kes., Dr. M. Alamsyah Azis., dr., SPOG(K).,KIC., M.Kes)		

4) Implementation Stage

Implementation of edugame (quartet cards) was not performed due to time limitation.

5) Evaluation Stage

Evaluation was not performed due to time lim.

Feasibility of materials and media of edugame (quartet cards) regarding "Snacks for School Children (PJAS)"

1. Material Experts

Table 5 Material Validation by Material Experts

No	Statement	Score				
		R2	R3	R4	R5	R6
1.	The accuracy of the title with the contents of edugame (quartet cards)	4	5	5	4	5
2.	The clarity of Quartet card framework	4	5	5	3	4
3.	The clarity of material exposure	4	5	5	4	5
4.	The clarity of the images provided	5	5	5	4	5
5.	Completeness of the description of the materials in accordance with the level of development of elementary school children	4	5	5	3	4
6.	The materials presented are in accordance with everyday life	5	5	5	4	5
7.	Presented competencies that must be mastered by students	5	5	5	4	4
8.	Language suitability with good and correct Indonesian rules	4	5	5	4	5
9.	Spelling accuracy	4	5	5	4	5
10.	Accurate use of terms	5	5	5	4	4
11.	The accuracy of the use of sentence structures	5	5	5	4	5

Referring to the conversion of the Benchmark Reference Assessment (PAP), the value of X (mean derived from experts) the result was in a very good category since the X value was on a scale of 5 (X>4.2). Thus, it can be interpreted that the feasibility of the edugame (quartet cards) materials about snacks for school children (PJAS) was very good.

Based on the validation results from the material experts, it can be concluded that the edugame (quartet cards) media regarding Snacks for school children (PJAS) was declared feasible with improvements/revisions by 1 expert, while 4 experts declared a proper use without improvement.

2. Media Expert

Table 6 Validation by Media Expert

No	Statement	Score
1.	Image quality	5
2.	Attractiveness of the image design	4

3.	The clarity of writing or typing	5
4.	The accuracy of the presentation of the materials	5
5.	The compatibility of edugame (quartet cards) with learning objectives	5
6.	The suitability of edugame (quartet cards) with student characteristics	4
7.	Efficiency of edugame (quartet cards) in relation to time	4
8.	Efficiency of edugame (quartet cards) in relation to cost	5
9.	Efficiency of edugame (quartet cards) in relation to effort	5
10.	Safety for students	5
11.	The quality of edugame (quartet cards)	5

Referring to the conversion of the Benchmark Reference Assessment (PAP), the value of X (mean of each aspect) was 4.7, on a scale of 4. So, it can be interpreted that the feasibility of edugame (quartet cards) media regarding snacks for school children (PJAS) was in the moderate category. Based on the validation results from media expert, it can be concluded that the edugame (quartet cards) regarding snacks food for school children (PJAS) was declared feasible for use with certain improvements or revisions.

Table 7 Aspects to be Improved According to Expert Assessment

Respondent	Proposed Improvement	After Improvement
R3	It's quite good and helpful, it should be packed as neatly as possible to make it safe for children and in the future, the card material should be water resistant.	Improved the edugame (quartet cards) design
R4	The corners of the cards should be rounded up a bit , so that they are not sharp for fear of injuring the child	Improved the edugame (quartet cards) printing

Table 4.10 presents the results of improvement based on the analysis made by 1 nutritionist, 2 school principals, 2 teachers in charge of UKS. The results were further corrected and shown back to the assessors so as to further conduct trial of edugame (quartet cards) among students.

Parental Acceptance Response towards Edugame (Quartet Cards) regarding "Snacks for School Children"

Table 8 Parental Acceptance Response towards Edugame (Quartet Cards) regarding "Snacks for School Children" (PJAS)"

No	Statement	Score		
		R 7	R 8	R 9
1	The materials presented in edugame (quartet cards) were easy to understand	3	5	5
2	The materials presented in edugame (quartet cards) were systematic	4	5	5
3	The language used in the edugame (quartet cards) was simple and easy to understand	4	4	5
4	Edugame (quartet cards) had an attractive appearance	4	5	4
5	The composition of the images in edugame (quartet cards) was clear and easy to understand	3	4	4
6	The composition of colors in edugame (quartet cards) was interesting to read	5	5	4
7	Presentation of materials on edugames (quartet cards) could stimulate students' ideas in solving problems	3	4	5
8	Presentation of materials on edugames (quartet cards) could develop communication skills	5	4	5
9	Presentation of materials on edugames (quartet cards) could develop collaboration skills	4	4	5
10	Edugame (quartet cards) could be used as a means of independent learning	4	5	5

Referring to the conversion of the Benchmark Reference Assessment (PAP), the X (mean) values weres 3.9, 4.57, 4.71, and 4.5. The X values were on a scale of 5 (>4.2). Thus, it can be interpreted that the acceptance response of edugame (quartet cards) regarding snacks for school children (PJAS) was very good.

Based on the results of parental acceptance response towards edugame (quartet cards), it can be concluded that the edugame (quartet cards) regarding snacks for school children (PJAS) were very well accepted by students of State Elementary School in Perhentian Raja Sub-District.

Table 9 Recommendation and Criticism

Respondent	Recommendation and Criticism regarding Parental Acceptance Response
R7	Edugame (quartet cards) was very good and easy to understand, hopefully in the future it can be even better
R8	Everything was good
R9	I like the edugame (quartet cards). However, since the completion process was online, at first I was confused about how to fill it out because it couldn't be as fast as the offline work. Thank you for the edugame (quartet cards) that was made, the materials were very useful

Table 4.8 presents the results of student responses based on analysis by 3 respondents. According to student recommendation and criticism, it was obtained a very good acceptance response towards Edugame (quartet cards) regarding snacks for school children (PJAS).

Discussion

The Concept of Development of Edugame (quartet cards) regarding Snacks for School Children (PJAS)

Based on the results of study, the preparation of edugame (quartet cards) regarding "Snacks for School Children (PJAS)" was developed in accordance with the field needs as an interesting phenomenon in the development of society 5.0 era children. To face the era of society 5.0 there should be an paradigm shift in educational unit. The researchers applied the ADDIE model in the development of edugame (quartet cards) regarding Snacks for School Children (PJAS) to increase elementary students' knowledge. A study conducted by Arshinta 2019 revealed the effectiveness of edugame (quartet cards) which was effective in changing knowledge about healthy snacks. The ADDIE model provides answers to the problems in quality learning planning. Such finding is in line with the Decree of National Education Ministry no.41 of 2007 concerning process standards, wherein a teacher is asked to develop a lesson plan (RPP) and one of the elements in the lesson plan is learning resources. Furthermore, a study conducted by by (Sari, 2022) found that application of the ADDIE model learning design made it easier for teachers to plan quality, effective, and efficient learning.

The ADDIE development model consists of 5 stages, namely analysis, design, development, implementation, and evaluation. At the analysis stage, The opinions of respondents were obtained. It was found that edugame (quartet cards) was an interesting and easy-to-understand method for providing education about snacks for school children which covered images, easy-to-read writing, bright colors, Indonesian and modern languages, illustrated edugame (quartet cards), 33 cards. Besides, respondents revealed that edugame (quartet cards) references were not yet available at State Elementary in Perhentian Raja Sub-District. On the other hand, sucb development was accepterd in a very enthusiastic manner and is fully supported by students, teachers and the other school environment. They said that the title of edugame (quartet cards) was very interesting. In addition, one of the most important things was that they said that this edugame (quartet cards) was needed by elementary school children because school snacks are part of knowledge that students must understand for their health. Therefore, this edugame (quartet cards) is important to discuss among elementary school children.

The availability of edugame (quartet cards) acts as the latest and alternative reference as a source of student learning and may facilitate teachers in the teaching and learning process. It is expected that in the future, children, parents and the community will be able to understand the importance of good parenting, and to distinguish between snacks that are healthy be consumed and those that are not allowed in order to create good quality children for the future.

The next stage performd by researchers was the design stage. At this stage the researchers prepared the edugame (quartet cards) framework based on the guidelines for preparing teaching materials published by RISTEKDIKTI (2017). Furthermroe, to determine the edugame (quartet cards) layout, the activities carried out

by the researcher were choosing the type of lettersfont size, margins, spacing, paper size, and page numbering. The study prces is in line with the theory put forward by Daryanto, 2013 that design and development of edugame (quartet cards) should pay attention to several points such as: format, organization, attractiveness, font size, spacing, and consistency. In addition, the researchers also selected reference books related to the topicvof snacks for school children (PJAS) and prepared an edugame assessment instrument (quartet cards) in terms of the feasibility aspect of the material, media and student acceptance responses.

The development of edugame (quartet cards) fulfilled self-instruction aspect, namely there were learning objectives, learning materials presented in sub-activities, a summary of the subject matter, assignments, illustrations and examples and there were also feedback to find out the level of mastery of the materials. In self-contained aspect, the material for disciplinary parenting on reproductive health presented in the edugame (quartet cards) had been adjusted to the competencies divided into 6 learning activities namely learning activity 1 on tips for choosing healthy snacks, learning activity 2 on learning characteristics of healthy snacks, learning activity 3 on the dangers of unhealthy snacks, learning activity 4 on chemical contamination, learning activity 5 on physical contamination, and learning activity 6 on biological contamination. In stand alone aspect, the developed edugame (quartet cards) could stand alone. This is indicated by the existence of activities in edugame (quartet cards) that students could do without needing or using other teaching materials. In addition, the edugame (quartet cards) developed was user friendly since it was easy to use.

Feasibility of Edugame (quartet cards) regarding "Snacks for School Children"

The feasibility assessment of edugame (quartet cards) in this study was determined by three criteria, namely validity, practicality and effectivenes. The validity of edugame (quartet cards)developed was known based on the assessment of material experts and media expert. The edugame (quartet cards) validity assessment was carried out before the researchers conducted a trial of the edugame (quartet cards) among elementary school students. Based on the assessment of material experts in terms of the feasibility aspects of content, presentation, and language, the overall mean X value was on a scale of 5 (X>4.2) which involved in a very good category or the the edugame was declared very feasible.

Access to edugame (quartet cards) regarding snacks for school children made it easier for teachers, students and parents to find appropriate and correct and practical information. Such finding is in line with the study conducted by Sumarno (2011) which revealed that edugame (quartet cards) was one of the effective learning media that could foster study habits, responsibility and positive behavior. Student assertive behavior is a skill that can be learned and developed. Therefore, designing edugame (quartet cards) acts as an alternative to be applied to develop such assertive behavior. Some study findings that discussed learning strategies using edugame (quartet cards) showed that there were positive outcomes.

The study finding is also supported by a study conducted by Fauzan A (2012) that education was the key to the success of a country and became capital in the development of human resources. Many efforts are being made by various parties to improve the quality of human resources through innovative programs for the world of education, one of which is the development of interactive learning support tools/media. The position of learning media is very important in assisting the learning process for both students and teachers since learning media can be a means of delivering information as well as a tool to overcome the limitations of space and time as well as sensory limitations and make the learning atmosphere more fun, interactive and interesting.

Student Acceptance Responses towards Edugame (quartet cards) "Snacks for School Children"

The practicality and attractiveness of edugame (quartet cards) was determined based on the results of the student response questionnaire. Based on student response questionnaire, the aspects of convenience, attractiveness and efficiency obtained an overall mean X value on a scale of 5 (X>4.2) which included in a very good category. Thus, it can be concluded that edugame (quartet cards) regarding snacks for school children was well accepted by students. Therefore the edugame (quartet cards) developed was quite practical for students to use.

The attractiveness of the edugame (quartet cards) product regarding snacks for school children was based on its layout that applied a variety of colors. In addition, the images used supportedthe presentation of the materials and the presentation of practice questions and evaluation could also construct students' conceptual understanding. Interesting learning using edugame (quartet cards) could motivate students in changing attitudes and behaviour

since students were interested to always repeat reading, by looking at the variations in the images on the edugame (quartet cards).

Assessment based on the student responses in small groups obtained very good category with very feasible conclusion. Therefore, this edugame (quartet cards) could be applied for supporting the learning process. This edugame (quartet cards) regarding snacks for school children contained material supported by the presence of still images and cartoon images as needed. Playing information quartet cards could make student learning activities less boring and more fun. The study finding is rin accordance with the study conducted by Kholisho YN (2017) which showed that there was an increase in student learning interest after intervention using edugame (quartet cards). Such increase could be observed in students' attitudes that were enthusiastic in working on learning projects.

The innovation of developing edugame (quartet cards) regarding snacks for school children was self-compiled by the researchers based on the interpretation of the interview results which was further distributed on hard files to various schools. Appropriate and precise information may become a means and can facilitate student learning. Edugame (quartet cards) is a form of learning efficiency so as to achieve educational goals. Edugame (quartet cards) was designed in a language that was easily understood by students according to their level of knowledge. Edugame (quartet cards) was arranged as attractively as possible, and could be used systematically and independently to achieve the learning objectives that had been set. Besides that, with an attractive design and according to the characteristics of students, edugame (quartet cards) could increase and direct students' attention during learning. This is reinforced by the theory about the benefits of learning media, namely making learning activities more attractive to students so as to foster learning motivation.

LIMITATION OF THE STUDY

There were several limitations of this study. The implementation of edugame (quartet cards) trial was not performed so that the effectiveness was not described. Furthermore, this research did not assess the evaluation of edugame (quartet cards) development due to limited research time. This study was only conducted until design development as well as design and development of edugame (quartet cards) due to limitations regarding time and manpower.

CONCLUSION AND RECOMMENDATION

Conclusion

The study was conducted using the R&D (Research and Development) method through the ADDIE model consisting of: Analysis, Design, Development, Implementation, and Evaluation.

Recommendations

Further research is needed by involving large groups of respondents to determine the user acceptance response in a larger group. In addition, ther should be further research regarding the final product improvement of edugame (quartet cards) regarding "snacks for school children (PJAS)". Based on student acceptance responses, it was found that edugame was very well accepted by students. Such finding indicated that Schools may implement education by using Edugame (quartet cards) regarding "Snacks for School Children (PJAS)". It is even more efficient if the edugame is applied for all students.Our sincere gratitude is delivered to the Head of the Education Office, to the principal of State Elementary School in Perhentian Raja Sub-District, Kampar District, Midwifery Study Program of UNPAD, Nutritionists and Media expert and all parties who have supported and assisted the completion of this study.

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SOCIAL AND CULTURAL CHALLENGES IN EXCLUSIVE BREASTFEEDING PRACTICES

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Abstract

Exclusive breastfeeding practices are a crucial effort to enhance the health of both infants and mothers. However, social and cultural challenges often impact its successful implementation. This research aims to explore and comprehend these challenges within the context of Pesurungan Lor village. Five participants research employs a qualitative approach with in-depth interviews as the primary data collection method. The findings of this research reveal that Pesurungan Lor village faces several social and cultural challenges that influence exclusive breastfeeding practices. Factors such as social norms, maternal employment, and family support play pivotal roles in mothers' decision-making regarding exclusive breastfeeding. Moreover, community perceptions of the quality of breast milk and the influence of myths and cultural beliefs also affect exclusive breastfeeding practices. This research provides profound insights into how the social and cultural context in Pesurungan Lor village influences exclusive breastfeeding practices. These results can serve as a foundation for the development of interventions that better align with the needs of the local community. They should be considered by healthcare providers and policymakers to enhance exclusive breastfeeding practices in this region.

Keywords: social challenges, cultural challenges, exclusive breastfeeding

INTRODUCTION

Exclusive breastfeeding practices play a key role in improving the health and quality of life for both infants and mothers. Exclusive breastfeeding, defined as the practice of providing breast milk without any additional food or drink for the first six months of an infant's life, has been proven to offer optimal protection against infectious diseases in infants, promote better cognitive development, and provide long-term health benefits for mothers. Despite its well-established benefits, the implementation of exclusive breastfeeding often faces several challenges, particularly in regions with diverse social and cultural backgrounds.(Rapingah et al., 2021)

Pesurungan Lor Subdistrict is one of the areas in Tegal City that reflects a similar trend, where exclusive breastfeeding practices have not reached the desired level. Social and cultural

challenges in this environment are believed to have a significant impact on exclusive breastfeeding practices. As a region with unique social and cultural characteristics, further research is needed to uncover and understand the complex dynamics influencing exclusive breastfeeding practices in Pesurungan Lor Subdistrict (Nidaa et al., n.d.).

The main objective of this research is to identify and delve into the social and cultural factors affecting exclusive breastfeeding practices in Pesurungan Lor Subdistrict. By employing a qualitative research method that focuses on in-depth interviews with new mothers and family members, this research aims to identify social norms, family support, and cultural beliefs that may influence a mother's decision-making regarding exclusive breastfeeding. (Florince oyay et al., 2020)Through a conceptual framework that integrates social, cultural, and health theories, this research seeks to provide a deep understanding of the complexities of exclusive breastfeeding practices in this environment.(Umiyah & Hamidiyah, 2020)

With a better understanding of the existing social and cultural challenges, it is hoped that the results of this research can provide valuable insights for healthcare providers and policymakers in developing more effective and context-relevant intervention programs. (Marwiyah & Khaerawati, 2020)Using a qualitative approach and in-depth interviews, this research aims to give a voice to the community and explore solutions that are better aligned with their needs in the effort to improve exclusive breastfeeding practices in Pesurungan Lor Subdistrict. This research has the potential to make a significant contribution to improving the well-being of infants and mothers in this region.

RESEARCH METHODS

This research employs a qualitative approach with in-depth interviews as the primary method for data collection. The research sample consists of five new mothers and family members with relevant experience regarding exclusive breastfeeding practices. The sample selection was conducted purposively, considering variations in social and cultural characteristics such as the mother's age, educational background, and socio-economic status. In-depth interviews were conducted using a structured interview guide that included questions related to social norms, family support, cultural beliefs, and the mother's experiences with exclusive breastfeeding practices. The collected data will be analyzed using a thematic analysis approach. Data analysis steps include coding, thematic grouping, and the organization of key findings. Data analysis will aid in identifying patterns and themes emerging from the interviews, and these findings will be interpreted within a broader social and cultural context.

Throughout the research, efforts will be made to minimize research bias by maintaining objectivity, adhering to research ethics, and employing triangulation techniques to ensure the reliability of research findings. Peer review will also be used to validate the results.

RESEARCH RESULT

The findings of this study depict the social and cultural factors influencing exclusive breastfeeding practices in Pesurungan Lor Subdistrict. The following are the key findings based on in-depth interviews with the six participating respondents:

a. Social Norms Pressure

R1: "I feel greatly pressured by the social norms here. It seems like everyone is introducing solid foods to their babies early on. People often offer advice and say that breast milk alone is not sufficient for healthy growth."
R2: "People here always talk about the importance of giving complementary foods to infants at an early age. It has become a social norm that is hard to resist. I feel torn between wanting to do what's best for my baby and the desire to conform to this social norm."
R3: "Pressure from friends and neighbors is also quite strong. They frequently ask me why I'm only giving breast milk to my baby. This creates a sense of pressure and doubt within me about whether I'm doing the right thing or not."
R4: "I often hear comments like, 'Babies should try solid foods earlier' or 'Breast milk alone cannot provide everything babies need.' It makes me feel like I have to follow this social norm, even though I know breast milk is good."
R5: "There's significant pressure from my extended family to introduce solid foods to the baby early. They doubt that breast milk alone is sufficient for healthy growth. Sometimes I feel caught between these strong social expectations and pressure."
The interviews with the five respondents indicate that social norms in Pesurungan Lor Subdistrict have a strong influence on exclusive breastfeeding practices. They feel pressured to introduce complementary foods to their infants early in life due to these social norms. Despite having knowledge about the benefits of exclusive breastfeeding, the strong social norms often make them feel torn between societal expectations and their desire to provide the best for their babies. This pressure can create doubts in a mother's decision-making regarding exclusive breastfeeding. Furthermore, these social norms also generate expectations from extended family, friends, and neighbors, which further reinforce the pressure. In this context, social norms play a crucial role in hindering exclusive breastfeeding practices in this environment.

b. Varied Family Support

R1: "I am very fortunate because my husband and mother-in-law support exclusive breastfeeding. They always encourage me and assist with everything."
R2: "My family doubts my decision to provide only breast milk to the baby. They say that the baby needs complementary foods to grow properly."
R3: "I am very fortunate because my husband and mother-in-law support exclusive breastfeeding. They always encourage me and assist with everything. This support makes me more confident."
R4: "My family doubts my decision to provide only breast milk to the baby. They say that the baby needs complementary foods to grow properly. It burdens me, and I don't receive the support I need."
R5: "My husband always supports me in providing exclusive breastfeeding to our baby. He helps with household chores and takes care of the baby when I'm working. It makes exclusive breastfeeding practice easier."
The interview results show variation in family support for exclusive breastfeeding among the five respondents. While some respondents feel strong support from their husbands and families, which makes them more confident in practicing exclusive breastfeeding, others face doubt and pressure from family members who question their decisions. Husband's support, in some cases, can play a crucial role in facilitating exclusive breastfeeding

practice. In conclusion, positive family support can be a determining factor in the success of exclusive breastfeeding practice, while the lack of support can create additional challenges for mothers.

c. Cultural Beliefs Affecting Practices

R1: "We have a belief that babies need to try solid foods early to make them strong. I know breastfeeding is good, but we also believe in this tradition." R2: "People here often talk about myths that breast milk alone doesn't provide enough nutrition for babies. It makes me doubt." R3: "My family doubts my decision to provide only breast milk to the baby. They say that the baby needs complementary foods to grow properly. It burdens me, and I don't receive the support I need."

R4: "My husband always supports me in providing exclusive breastfeeding to our baby. He helps with household chores and takes care of the baby when I'm working. It makes exclusive breastfeeding practice easier."

R5: "People here often talk about myths that breast milk alone doesn't provide enough nutrition for babies. It makes me doubt. I feel caught in a cultural pressure that contradicts my knowledge about the importance of exclusive breastfeeding."

The interview results indicate that cultural beliefs influencing exclusive breastfeeding practice can be inhibiting factors. Some respondents feel bound by cultural beliefs and traditions that support the early introduction of solid foods to babies. This creates family disagreement and stimulates feelings of dilemma. Meanwhile, the emergence of myths and negative views about breast milk in society also exerts psychological pressure on mothers, making them doubt exclusive breastfeeding practices.

In terms of family support, there is significant variation. While some mothers feel supported by their husbands, who help with household chores and baby care, making exclusive breastfeeding practice easier, others feel burdened by family disagreement and pressure regarding this practice.

d. Employment Challenges and Time Constraints

R1: "I work full-time, and it makes it difficult for me to provide exclusive breastfeeding to my baby. I often have to leave my baby under the care of my mother-in-law, and they feed him other foods." R2: "I work full-time, and it makes it difficult for me to provide exclusive breastfeeding to my baby. I often have to leave my baby under the care of my mother-in-law, and they feed him other foods." R3: "People here often work outside the home, and our jobs take up a lot of time. It makes exclusive breastfeeding practices challenging. I often have to leave my baby under someone else's care." R4: "I work part-time, but still, the demands of working outside the home make me feel burdened. I feel rushed when feeding my baby and sometimes don't have enough time for exclusive breastfeeding." R5: "Time constraints are a significant issue. I often feel overwhelmed with household chores, work, and taking care of the baby. I want to provide exclusive breastfeeding, but sometimes time is very limited."

The interview results indicate that employment challenges and time constraints are significant factors hindering exclusive breastfeeding practices among the five respondents. All respondents face difficulties in providing exclusive breastfeeding due to full-time work or busy schedules. These challenges create pressure and often require mothers to leave their

babies under the care of others, which can lead to the introduction of other foods. In conclusion, employment challenges and time constraints are key factors that need to be addressed to improve exclusive breastfeeding practices in this environment. Solutions that consider the needs of working mothers may be necessary to ensure that mothers have sufficient time and support for exclusive breastfeeding.

DISCUSSION

The results of this study reveal the social and cultural factors that influence exclusive breastfeeding practices in Pesurungan Lor Subdistrict. Based on in-depth interviews with the six respondents, the following conclusions can be drawn:

a. Social Norms Pressure The interviews indicate that social norms in Pesurungan Lor Subdistrict strongly influence exclusive breastfeeding practices. Respondents feel pressured by the social expectation to introduce complementary foods to infants early. These social norms create doubt and dilemmas in mothers' decision-making regarding exclusive breastfeeding. Additionally, this pressure emanates from extended family members, friends, and neighbors, all of whom reinforce the social norms that hinder exclusive breastfeeding.(Agustina et al., 2020; Polwandari et al., 2021)
b. Varied Family Support In the context of family support, significant variations are observed. Some respondents feel supported by their husbands and families, who provide encouragement and positive support for exclusive breastfeeding. However, others face disapproval and pressure from family members who doubt their decisions. The support of husbands is found to play a crucial role in facilitating exclusive breastfeeding. In conclusion, positive family support is a key factor in the success of exclusive breastfeeding, while a lack of support can create additional challenges for mothers.(Berutu et al., 2021)
c. Cultural Beliefs Influencing Practices The interviews also reveal that cultural beliefs influence exclusive breastfeeding practices. Some respondents feel bound by cultural beliefs and traditions that promote the early introduction of solid foods to infants, even when they have knowledge of the benefits of exclusive breastfeeding. The emergence of myths and negative views about breastfeeding in the community also exerts psychological pressure on mothers, leading to doubts about exclusive breastfeeding. Understanding the influence of cultural beliefs on exclusive breastfeeding practices is crucial for designing effective interventions.(Khofiyah, 2019; Nidaa & Hadi, 2022)
d. Employment Challenges and Time Constraints Employment challenges and time constraints have proven to be significant barriers to exclusive breastfeeding. All respondents face difficulties in providing exclusive breastfeeding due to full-time work or busy schedules. (Sabriana et al., 2022)These challenges create additional pressure on mothers, who often have to leave their babies under the care of others, leading to the introduction of other foods. To improve exclusive breastfeeding practices, solutions that consider the needs of working mothers are essential, creating an environment that supports exclusive breastfeeding.(Asmin & Abdullah, 2021; Latifah et al., 2018)

These findings provide valuable insights into the challenges faced in the context of social and cultural norms and their impact on exclusive breastfeeding practices in Pesurungan Lor Subdistrict. These insights can serve as a foundation for developing more locally relevant and

effective intervention programs, which should be taken into account by healthcare providers and policymakers to enhance exclusive breastfeeding practices in this area.

CONCLUSIONS AND SUGGESTIONS

The results of this research have shed light on the social and cultural factors influencing exclusive breastfeeding practices in Kelurahan Pesurungan Lor. Through in-depth interviews with six respondents, it can be concluded that these factors significantly impact a mother's decision to provide exclusive breastfeeding to her baby. First, the strong social norm pressure in this environment creates a dilemma for mothers. They feel torn between social expectations that encourage the early introduction of complementary foods to infants and their knowledge of the benefits of exclusive breastfeeding. In line with the research by Putri Widita Muharyani in 2022, a majority of respondents experienced the cessation of exclusive breastfeeding. The perception that breast milk is insufficient and the issue of sore nipples posed challenges for breastfeeding mothers that could lead to the cessation of exclusive breastfeeding, while a baby's refusal to nurse was unrelated to the cessation of exclusive breastfeeding. These social norms stem not only from the general community but also from extended family members, friends, and neighbors. These norms play a pivotal role in hindering exclusive breastfeeding practices. Second, there is significant variation in family support, which influences exclusive breastfeeding practices. Positive support from husbands and families can motivate and facilitate a mother in practicing exclusive breastfeeding. However, some respondents faced disagreement and pressure from family members who doubted their decisions. It has been demonstrated that spousal support has a significant impact on aiding mothers in exclusive breastfeeding practices, as supported by similar research conducted by Romaulina Sipayung in 2022, showing a correlation between family support and the practice of exclusive breastfeeding. Third, cultural beliefs affecting exclusive breastfeeding practices can lead to disagreement within families and place psychological pressure on mothers. The existence of beliefs and traditions that support the early introduction of solid foods to babies, even when knowledge about the benefits of exclusive breastfeeding is available, creates dilemmas for mothers. Myths and negative views about breastfeeding add to the uncertainty surrounding this practice. In line with research by Izzatun Nidaa in 2022, culture significantly influences the practice of exclusive breastfeeding. Lastly, challenges related to work and time constraints prove to be significant barriers to exclusive breastfeeding practices. Most respondents have full-time jobs or hectic schedules, which often necessitate leaving their babies under the care of others who may provide alternative foods. To improve exclusive breastfeeding practices, solutions must consider the needs of working mothers and create an environment that supports this practice.

By understanding these factors, appropriate measures and interventions can be designed. Public education, family support, and solutions accommodating working mothers can help enhance exclusive breastfeeding practices in Kelurahan Pesurungan Lor, resulting in long-term health benefits for both infants and mothers.

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THE EFFECT OF STORYTELLING METHOD ON CHILDREN'S INDEPENDENCE IN *TOILET TRAINING* AT TK 'AISYIAH II PEKANBARU

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Toilet training is an effort made to develop children's independence to control urination and defecation in children. Children's independence to act freely to do something on their own impulse without the help of others. Playing is one method that is popular with children by conveying stories from the trainer to the listeners with the aim of providing information for the listeners so that they can be used to recognize their own and other people's emotions, and be able to solve problems. Objective: to determine the effect of the storytelling method on children's independence in carrying out toilet training in children aged 3-5 years at Kindergarten ' Aisyiah II Pekanbaru . Research design: quasi quantitative descriptive experiment with a one group pre- post test design with a sample size of 15 respondents. Research results: the age of learning toilet training at pre-school age, namely 4 years old, was 8 people (53.3%), the majority were male, 9 people (60.0%), before the storytelling intervention was carried out, the average level of independence of children at that age 15 years. respondents with a mean value of 37.87 with a standard deviation of 3.25, after the storytelling intervention was carried out the average level of children's independence for the 15 respondents was with a mean value of 43.20 with a standard deviation of 2.45. The difference in the average value of the level of independence before being given the storytelling intervention was with a mean value of 37.87 and after being given the storytelling intervention with a mean value of 43.20. The difference in the average value of the level of independence before being given the storytelling intervention was with a mean value of 37.87 and after being given the storytelling intervention with a mean value of 43.20. Based on statistical tests using the T test (paired sample t-test), the p value was 0.000 < 0.05, so it can be concluded that there is a significant influence on providing storytelling intervention on children's independence in carrying out toilet training. Conclusion: The independence of children aged 4-5 years in carrying out toilet training is influenced by the storytelling group at that age. Suggestion: choose the same respondents who are not independent in toilet training aged 3-5 years.

Keywords: *Toilet training, independence, toddler*

INTRODUCTION

Toddler age is the age period from 12 to 36 months . This period is a period of environmental exploration where children try to find out everything that is happening and how to controls other people through temperamental behavior , negativism and stubbornness . (Lestari, Y and Sumarni 2022) . At that age , the phase of life is unique , and is in process of change in the form of growth , development , maturation and perfection , both in physical and spiritual aspects , which lasts a lifetime , gradually and continuously (Mardiah 2022). Therefore , many parents send their children to Early Childhood Education (PAUD). In the Law of the Republic

of Indonesia, Number 20 of 2003, Chapter I, Article I, point 14 states that , PAUD is the most basic education and occupies a position as a golden age and is very strategic in the development of human resources .

Toodler age children experience 3 phases , namely the autonomy phase (children can take the initiative from themselves and the child is capable to do it themselves , but the child expresses his own desires , rejects something the child does not want and the child tries something the child wants), the Anal phase (the child entering the toilet training period). And the child enters the pre-operational phase (the child begins to make simple assessments of events that occur around the child) (Febria and Maryani 2021) .

Toilet training is one of the developmental tasks of early childhood that must be paid attention to . Children whose age has begun to enter the independence phases are generally capable to carry out toilet training (Khoiruzzadi and Fajriyah 2019) . One of the problems children often encounter is that children are still using diapers because children are still wetting the bed at an age that should have Enterred the independent phase . Apart from that , there are others problems , namely children accidentally defecating and urinating in their pants . Approximately 30% of children over 3 years old and 10% of children over 5 years old still wet the bed and experience delays in toilet training. *g* (Febria and Maryani 2021) .

Some experts believe that toilet training can be effectively taught to children aged from 24 months to 3 years , because children aged 24 months have the language skills to understand and communicate . Carrying out urination and defecation training in children requires preparation both physically , psychologically and intellectually . Through this preparation , it is hopefully that the child will be capable to controls defecation and urination . (Diyanti 2023) . To get maximum results in toilet training, especially regarding children's independence, there are at least several factors that need to be considered in influencing children's independence, namely the environment, parenting patterns from parents and education. (Mardiah 2022)

Toilet training failure can occur due to parents' strict treatment or rules towards their child, which will disturb the child's personality and they tend to be stubborn. Toilet training is an important aspect in the development of children at toddler age and must receive parental attention when urinating and defecating. Toilet training is the initial process of forming a child's independence (Amallia and Oktaria 2018) .

Storytelling is a way to convey stories to those who hear and listen so that they can be used to recognize their own and other people's emotions, as well as being able to do problem solving. With the aim of providing information to listeners in the form of words, images, photos and sounds. Storytelling is often used in the teaching and learning process, especially at the beginner or children's level. One method that children like.

The storytelling method is a learning method used by teachers using stories with various storytelling media which aims to instill character values in children through the stories they read. This very fun learning method is important to do so that it makes children feel happy in

learning activities and can increase independence in children. To make it more interesting and liked by children, the implementation of the storytelling method needs to be supported by the use of storytelling media (Retnaningsih et al. 2021) .

The need for cooperation between people who are responsible for children's independence in toilet training both at home and at school. Education is one factor in developing children's independence. Teachers become guides and role models for toddler-aged children. Learning to use the toilet cannot be done until the child is able and wants to. The child must learn to recognize this need, learn to hold large or small amounts of water until he succeeds in doing it himself in the toilet without the help of others. Most toddler-aged children are not ready, both physiologically, namely the ability to control urination and digestion (Amallia and Oktaria 2018) . Teachers need to carry out continuous habituation until children are truly able to be independent (Khoiruzzadi and Fajriyah 2019) in carrying out their activities in the toilet. Apart from that, positive teacher treatment of children is also a success in making children become independent (Rohman F 2022) . Independence is a condition where a person can try and do something based on his own awareness and effort, and he does not easily depend on others. (Anggraini 2022) .

Aisyiyah Kindergarten has toilet lessons where toilet training activities are considered normal, but this activity is used as a lesson on how to do toilet training properly and correctly. The current number of students at ' Aisyiyah Kindergarten is 55 children divided into 2 age groups, namely 2-3 years and 3-4 years. All of this is divided into 4 classes. The focus of the author's research is only on children aged 3-5 years, where children are at toddler age, where children are just starting school and aged 4-5 years, where children are starting to develop their motor skills.

Based on the results of interviews conducted with parents and teachers at Kindergarten ' Aisyiyah II Pekanbaru , it was stated that 8 parents of their children had not been able to carry out toilet training independently or on their own. This made the author interested in conducting research on "The Influence of Storytelling Methods on Children's Independence in Carrying Out Toilet Training at Kindergarten ' Aisyiah II Pekanbaru in 2023.

RESEARCH METHODS

The design in this research is the model or method used by researchers to conduct research that provides directions to the course of the research . This research is a quantitative research in accordance with the researcher's aim , namely to find out the effect of the Story telling Method on children's independence in carrying out toilet training . The research design used was quasi-experimental with a one groups pre-post test design approach , which is research that tests an intervention on a group of subjects with or without a comparison groups but no randomization was carried out to enter subjects into the treatment or controls group .

RESEARCH RESULTS

A. The results of research on the influence of toilet training on the influence of the storytelling method on children's independence in carrying out toilet training at Kindergarten ' Aisyiah

II Pekanbaru , shows that toilet training has a significant influence on the formation of independent attitudes in children aged 3-5 years.

B. General data

1. Age

Table 1 Distribution Frequency Characteristics Age Respondent About Influence Method Tell a story To Independence Child In Do *Toilet training* At Kindergarten ' Aisyiah II Pekanbaru

No	Age (years)	Frequency (f)	Percentage (%)
1	3	3	20.0
2	4	8	53.3
3	5	4	26.7
Total		15	100.0

Based on Table 4.1 shows that age respondents the most research was at the age of 4 years that is as many as 8 people (53.3%).

2. Type Sex

Table 2 Frequency Distribution Characteristics Type Sex Respondent About Influence Method Tell a story To Independence Child In Do *Toilet training* at TK ' Aisyiah II Pekanbaru

No	Type Sex	Frequency (f)	Percentage (%)
1	Man	9	60.0
2	Woman	6	40.0
Total		15	100.0

Based on Table 4.2 shows that type sex respondents the most research is at on type sex man as much 9 people (60.0%).

3. Parents ' job

Table 3 Distribution Frequency Characteristics Parents ' job Respondent About Influence Method Tell a story To Independence Child In Do *Toilet training* at TK ' Aisyiah II Pekanbaru

No	Type Sex	Frequency (f)	Percentage (%)
1	Teacher/ Lecturer	4	26.8
2	Self-employed	2	13.3
3	Assistant House Ladder	2	13.3
4	Employee Private	2	13.3
5	Civil servants	2	13.3
6	IRT	3	20.0
Total		15	100.0

Based on Table 4.3 shows that Parents ' job respondents the most research are at the Parent 's Job as many as 4 people (26.8%).

C. Custom Data

Table 4. Mean Level of Independence Child in Do *Toilet training* at TK ' Aisyiah II Pekanbaru

No	Score Level of Independence	Frequency (f)	Percentage (%)	Mean	Std. Deviation
1	31	1	6,7		
2	35	3	20.0		
3	36	3	20.0		
4	39	2	13.0	37.87	3.25
5	40	2	13.0		
6	41	2	13.0		
7	42	2	13.0		
Total		15	100.0	37.87	3.25

Source : Primary Data Analysis (2023)

Based on Table 4.4 shows that score level independence respondents The most research on scores 35 and 36 was 3 respondents (20.0%). distribution data obtained before done tell a story to independence do *toilet training* in children obtained mark *mean* 37.87 and *standard deviation* 3.25

Table 5. Mean Level of Independence Child in Do *Toilet training* after intervention Telling stories at Kindergarten ' Aisyiah II Pekanbaru

No	Score Level of Independence	Frequency (f)	Percentage (%)	Mean	Std. Deviation
1	39	1	6,7		
2	40	1	6,7		
3	41	3	20.0		
4	42	1	6,7	43.20	2.45
5	43	2	13.3		
6	44	1	6,7		
7	45	3	20.0		
8	46	2	13.0		
9	47	1	6,7		
Total		15	100.0	43.20	2.45

Source : Primary Data Analysis (2023)

Based on Table 4.5 shows that score level independence respondents The most research on scores 41 and 45 was 3 respondents (20.0%). Distribution data obtained after done tell a story to independence do *toilet training* in children obtained mark *mean* 37.87 and *standard deviation* 3.25

D. Normatic Test

Normal test results independence child in do *toilet training* before and after given tell a story presented in the table below This :

Table 6 Normality Test Independence Child in Do *Toilet training* at TK ' Aisyiah II Pekanbaru

No	Variable	Shapiro Wilk	
		N	P
1	Independence *toilet training (pretest)*	15	0.162
2	Independence *toilet training (posttest)*	15	0.515

Source : Primary Data Analysis (2023)

Based on Table 4.6 shows that normality test results distribution on the independent variable before obtained p = 0.162 results the more ≥ p = 0.05 means the data is normally distributed . Normality test results on variables independence after given treatment obtained p = 0.515 results the more ≥ than p = 0.05 means variable after given is also normally distributed .

E. Analysis Bivariate

Analysis bivariate done For know influence between statistical variables (telling stories) and variables dependent (independence *toilet training*) with using the T-Test statistical test (paired sample T-Test). Analysis results from research data This as following :

Table 7 Influence Method Telling Stories Against Independence Child In Do *Toilet training* at TK ' Aisyiah II Pekanbaru

N	Test	Mean	elementary school	S.E	P *Value*
15	*Pre Test*	37.38	3,248	0.839	0,000
	Post Test	43.20	2,455	0.634	

Based on table 4.7, the treatment given use method tell a story to independence child in do *toilet training* with 15 respondents obtained The mean pre test score is 37.87 and the mean post test score is 43.20, so there is an average difference level independence child increase moment done pre test and post test of 5.33. Statistical test results obtained the result is p value = 0.000 which means There is influence method tell a story to independence child in do *toilet training* at TK ' Aisyiyah II Pekanbaru .

DISCUSSION

1. Analysis Results Univariate

a) General data

1) Age moment Study *toilet training*

Research result This obtained that age respondents the most research was at the age of 4 years that is as many as 8 respondents (53.3%). On research got this _ that 4 years old the most compared to ages 3 years and 5 years . Theory development children's education curriculum age early non-formal basis independence is intended effort _ For practice in solve the problem A number of characteristic features from independence a 4 year old child (toddler) is wash face, combing hair , brush teeth , and children capable use the toilet. Objective did it learning *toilet training* in groups play aged 3-5 years at Kindergarten ' Aisyiah II Pekanbaru is For introduce since early about unclean , recognize items found in the toilet, teach BAK and defecate properly right , and for practice independence child in toilet . At age This is period gold at a time is period critical for child Where developments obtained during the period This very influential to developments in the period next until adulthood _ (Diyanti 2023) . One that became _ his attention is aspect from independence child .

Learning should designed For develop independence children , for example procedures eat , rub teeth , putting on clothes, taking off and putting on shoes , urinating, defecating, tidying up toy after used so that expected child No depend on others and will more independent because capable and brave help himself Alone (Surti 2020) .

Readiness independence in toilet must start introduced to child as early as Possible . With embed independence will avoid child from characteristic dependency on others, and most importantly in grow courage child done with give motivation in children For Keep going know knowledge new through supervision both parents at home _ and teachers at school . There are two form independence child that is independence in a way physically and physically psychological (Rohman F 2022) . By physical , child capable look after himself Alone like example simple in toileting , urinating, defecating, performing ablution and bathing.

Readiness is also very important influential to success *toilet training* , so *toilet training* can done when child Already show signs readiness in do *toilet training* which includes readiness physical , mental readiness , preparedness psychological and parental readiness . Readiness physique show child start capable control anal sphincter and urethra as well as urinate and waste _ _ big in a way regular . Children's mental readiness will start capable disclose verbally and nonverbally , skills cognitive Keep going increase For imitate appropriate behavior . _ Readiness psychological child start capable express his desires and feelings want to know

what is normal carried out by adults and parental readiness , parents have desire to spare time For teach *toilet training* (Nlarna 2018) .

Study This in line with results research (Diyanti , 2023) when child Already enter age pre School around 4 years old when child Already show signs readiness in do *toilet training* which includes readiness physical , mental readiness , preparedness psychological and parental readiness . Readiness physique showed at the age of 4 years start capable control *sphincter anal* and *urethral* as well as urinating and defecating regularly regular . According to assumption researcher there is Lots factors that make child independent in do *toilet trinning* , like ability pattern foster parents _ in guide child do *toilet training* , teacher's willingness and patience to guide child do *toilet training* . Besides That environment school children and play children can too influence level independence child in do *toilet training* .

2) Type sex

Research result This obtained that type sex respondents the most research manifold sex man that is as many as 9 respondents (60.0%). On research This obtained that type sex man more Lots than Woman . On research This obtained that child man more independent compared to child Woman . In line with study Diyanti , (2023) stated that the most respondents independent man . _ Other research results from (Retnaningsih et al. 2021) obtained independence *toilet training* is the majority manifold sex man . Type sex children can too influence *toilet training* in children man than women . _ Child man precisely sued more independent in independent child Because child Woman more protected than children _ man (Hima, Munir, and Sholehah 2023) .

3) Parents ' job

Research result This obtained that worker parent respondents the most research as a teacher/ lecturer as much 4 people (26.8%). From the results study This obtained that parents _ from child many as a teacher. Work Mother with success *toilet training* in toddlers . Mother Work can do *toilet training* for children , a lot of knowledge and understanding will owned by mother Work as a teacher so can look for information using media such as book , TV journal . Moms when work environment from teacher workers can each other exchange information and experience .

Study This in line with research conducted by Utami et al., (2020) Research results This conclude that exists connection between jobs and roles as Mother to success *toilet training* his son with p value = 0.004 ($p < 0.05$), as many as 80% of respondents No works , then can concluded work will influence the role that parents have to success ilet training, because given time _ to child No maximum . When must train and guide *toilet training* For his toddler son .

According to assumption researcher work there is connection between parents ' job with ability child in do *toilet training* with itself .

b) Custom Data

Average Level of Independence Child In Do *toilet training* Before and after Intervention Method Tell a story Average mark respondents before done intervention amounting to 37.87. Average value experience enhancement after done enhancement of 43.20. Practice child toddler age in do *toilet training* Enough difficult , where a child enter stage development in oppose doubt . Children aged 2-3 years _ _ _ want freedom in a way emotionally dependent on parents . _ Child want to independent in various matter in a way physical , however task the No Can resolved without guided , so appear phenomenon be careful from parents _ in operate his role at the time his son enter toddler age , because during those times often happen reaction rejection from child . tell a story or tell a story is a medium for convey information One among them is information Health own opinion that education health with tell a story influential to ability child in matter wash hand . Delivery material through method telling stories (Bellinda et al., 2019)

Study This in line with research conducted _ Andriyani & Sumartini , (2020) explained that on the indicator technique teach *toilet training* with use technique oral almost entirely from respondents is look Good the number of 68 people (85%) and technique teach partially modeling _ big from respondents implementation *toilet training* No Good that is totaling 56 people (70%). On indicators stages *toilet training* almost entirely from respondents that is implementation *toilet training* both numbering 64 people (80%) and part small from respondents implementation *toilet training* No Good that istotaling 16 people (20%).

According to assumption researcher there is enhancement independence child in tell a story because a number of factors , such as age and type sex . Ability toodler in understand and apply what was conveyed by the researcher . Besides That parental abilities _ support child in do *toilet training* that has been done taught by researchers .

2. Analysis Results Bivariate

Influence Tell a story To Independence Child In Do *Toilet training* at Kindergarten ' Aisyiyah II Pekanbaru Research results This obtained that treatment given _ use tell a story to independence child in do *toilet training* with 15 respondents obtained The mean pre test score is 37.87 and the mean post test score is 43.20, so there is an average difference level independence child increase moment done pre test and post test of 5.33. The statistical test results show p value = 0.000, which means There is influence tell a story to independence child in do *toilet training* at TK ' Aisyiyah II Pekanbaru . Various form education that can given to children since age early . Start from method singing , playing , telling stories and creating tour . Each method have weakness and strength . method tell a story tell a story is the most effective and most numerous method popular at any age child . tell a story considered effective in give education to child . First , the story in general more effective rather than advice , so in general story recorded Far more strong in memory man . Second , through tell a story child taught take wisdom.

Use method tell a story will make child more comfortable rather than being lectured with advice .

Can understood that role method tell a story tell a story for child age early capable develop the potential possessed by children . Good from aspect psychomotor , cognitive , affective and children's morals . For That article This discuss about method tell a story as parenting education methods for develop independence in children age early . Study This in line with research conducted _ Imawati , (2019) Analysis results bivariate through the paired sample T-test, it was proven There is difference level independence child age pre School before and after given tell a story with t (15.022) = 38.0.00 < 0.05. Pretest data (M=1.87 to 0.656) has a higher average big than the posttest
(M= 0.74 ; 0.637), with thereby concluded that Ho is rejected which means Ha is accepted which means There is influence giving tell a story to level independence child age preschool at Kindergarten ' Aisyiyah II Pekanbaru .

According to assumption researcher from mark ability child before and after intervention experience change matter This caused by the intervention provided by the researcher . Researcher provide health education about *training toilet* with method tell a story . This is what causes it child interested to information provided by researchers _ so that exists enhancement independence in do *toilet training* .

CONCLUSIONS AND SUGGESTIONS

A. Conclusion

Based on the results of the research "The Effect of Storytelling on children's independence in carrying out *toilet training* at Kindergarten 'Aisyiyah II Pekanbaru" it can be concluded as follows:

1. The most common characteristics of respondents were 8 people aged 4 years that is (53.3%) .
   The characteristics of respondents who are more male compared to women , there were 9 male respondents namely (60.0%) and 6 female respondents (40.0%) .
2. Before the intervention was carried out, the average level of storytelling was carried out children's independence in 15 respondents with a mean value of 37.87 with standards deviation 3.25
3. After the intervention was carried out, the average level of storytelling was carried out children's independence in 15 respondents with a mean value of 43.20 with standards deviation 2.45
4. The difference in the average value of the level of independence before being given the storytelling intervention was with a mean value of 37.87 and after being given the storytelling intervention with a mean value of 43.20. Based on statistical tests using T test (paired sample t- test) obtained a p value of 0.000 < 0.05 so It can be concluded that there is a significant influence on giving Storytelling intervention on children's independence in using *the toilet training* .

B. Suggestion

1. For Place Study
   Made as information about influence Tell a story to independence child in do *Toilet training* at TK ' Aisyiyah Kindergarten II Pekanbaru
2. For Respondent
   Expected respondents know and be able apply , show its independence in do *Toilet training* at home and at Kindergarten ' Aisyiyah II Pekanbaru
3. For Researcher Furthermore
   Give *evidence based* about influence tell a story to independence child in do *toilet training* as well as can made as reference in pattern foster child .

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FACTORS RELATING TO INTEREST MOTHER USING IMPLANT CONTRACEPTION IN PRATAMA'S HADIJAH CLINIK

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Abstract

Background: Based on data from Puskesmas Sentosa Baru that the number of PUS is 6,637 PUS and the number of PUS is 9,153 WUS. The number of new family planning participants from January 2022 to September 2022 was 275 people and the number of active family planning participants was 7.840 people. The proportion of implant use that is 685 people is lower than birth control pills and injections. Aim:The purpose of this study was to determine factors related to maternal interest in the use of implanted contraception.Methods:This research is a correlation study using cross sectional design. The study was conducted in Pratama's Hadijah Clinic. The study population was 9,153 people and a sample of 100 people. Data analysis was performed univariately and bivariately using the chi-square test at a 95% confidence level (□ = 0.05).Result: Based on the results of the study showed that the factors related to maternal interest in the use of implantable contraception in Pratama's Hadijah Clinic Regency were age (p = 0,000), education (p = 0.006), and knowledge (p = 0,000). Conclusion: The conclusion of this study is that age, education, and knowledge are significantly related to maternal interest in the use of implanted contraception. It is recommended that health workers (nurses) in Pratama's Hadijah Clinic Regency provide counseling or health education to mothers more frequently and routinely about implantable contraception so that their knowledge is good, as well as more acceptors using implants.

Keywords: Age, Education, Knowledge, Interest, Implants.

INTRODUCTION

Population problems that occur in various parts of the world include the number and growth of population as well as uncontrolled population distribution and density (Handayani, 2016). Efforts to control the rate of population growth include holding family planning service programs, the existence of family planning services can control the birth rate which will ultimately improve the quality of the population and create quality small families (Sulistyawati, 2017).

In 2017, the world population reached around 7.2 billion people and Indonesia's population ranked 4th in the world, namely 254.9 million people. The growth rate is about 1.48% per year and the birth rate is 2.6% children per woman. The population of Indonesia is increasing all the time, even though the government has attempted to ideally target 2 children per woman (BKKBN, 2018).

Based on the Indonesian Demographic Health Survey (SDKI), the use of contraceptives in 2016 actually decreased compared to 2012. In the same group of women (married) aged 15-45 years, from 61.4% to 55.86% . Likewise, the use of contraceptives among women aged 15-45 years who have ever been married is from 57.9% to 53.73%. The use of contraception at a

young age (15-24 years old), namely 15-19 years old, is 45.2%, who do not use family planning, namely 54.8%, while family planning acceptors at the age of 20-24 years are 59%, who do not use contraception. -KB is 41% (RI Ministry of Health, 2018). The type of birth control device used nationally is dominated by injection (32.3%), followed by pills (12.5%), IUD (4.7%), implant (2.6%), MOW (3%) , MOP (0.2%), condoms (1.2%). Based on age, the highest use of injectable contraceptives is at 15-19 years old at 32.7%, while at 20-24 years old it is 42.5% (BKKBN, 2017).

Based on the 2016 North Sumatra Health Profile, North Sumatra Province is one of the most populous provinces in Indonesia, ranking fourth with a population of 13,527,937 people below the provinces of West Java, East Java and Central Java. The number of PUS in North Sumatra is 2,219,937 people, with the number of new family planning participants being 378,457 (17.5%), while active family planning participants are 1,321,347 people (59.52%). The type of contraception that is widely used in North Sumatra Province for active family planning participants is injections, amounting to 445,445 people (33.71%), while for new family planning participants the number of birth control injection acceptors is 116,584 (30.81%) (Provincial Health Office, 2017).

The number of couples of childbearing age (PUS) in Deli Serdang Regency in 2016 was 76,046 people, the number of new family planning participants was 12,223 people (16.7%) while active family planning participants were 25,243 people (3.19%). Based on the type of contraception, implants used for new family planning participants are 1.6% (Deli Serdang District Health Office, 2017).

One way to reduce the population is with the Family Planning (KB) program. The family planning program has a very important meaning in the effort to create Indonesian people who are physically and mentally prosperous (Minarti, 2018). Various types of contraception can be used by couples of childbearing age (PUS), both long-term methods and short-term methods. For long-term contraceptive methods (MKJP), namely IUD, implant, MOW/MOP, while for short-term contraceptive methods, namely injections, pills, condoms, vaginal medication, and others. Long-term contraceptives are recommended by the government because they are more practical and effective, one of which is the implant (Pinem, 2016).

RESEARCH METHODS

Data Collection

This type of research is correlational with a cross-sectional design which aims to determine the factors related to mothers' interest in using implant contraception at Pratama's Hadijah Clinic Regency. The research tools were an original survey questioanire compiled by the authors.

Aim

The aim of this research is to determine the factors related to mothers' interest in using implant contraception at the Pratama's Hadijah Clinic Regency .

Design
Cross Sectional Study

Sample
Population is a generalization area consisting of objects/subjects that have certain quantities and characteristics determined by researchers to be studied and then conclusions drawn (Sugiyono, 2015). The population in this study was all WUS in the Pratama Hadijah Clinic working area, totaling 9,153 WUS

Data Analisys
The data analysis method used is the univariate data analysis technique by describing each variable and the bivariate data analysis technique using the Pearson Chi-Square correlation test approach.

RESEARCH RESULT

Table 1. Operational Definition of Research Variables

No	*Variabel*	*Definition Operational*	**Measuring Instrument**	**Measuring Results**	**Measuring Scale**
1.	Age	The mother's age was calculated from birth until the time the research was conducted, in years	Questionnaire 1 question	*20-35 years >35 years*	Interval
2.	Education	Level of formal education completed by the respondent	Questionnaire 1 question	*Base Intermediate Tall*	Ordinal
3.	Knowledge	Everything mothers know about contraceptive implants	Questionnaire with 10 statements	*Good(8-10) Enough(6-7) Less(0-5)*	Ordinal
4.	Interest in the use of Implants	The mother's willingness or interest in using the contraceptive implant	Questionnaire with 5 statements	*Interests (4-5) No(0-3)*	Ordinal

Table 2. Frequency Distribution of Respondents' Work at the Pratama Hadijah Clinic

No	Work	Total	Percentage (%)
1.	Work	10	10,0
2.	Doesn't work	90	90,0
Total		100	100,0

Table 3. Frequency Distribution of the Number of Respondent Children at the Pratama Hadijah Clinic

No	**Number of children**	**Total**	**Percentage (%)**
1.	1 person	12	12,0
2.	2 persons	52	52,0
3.	3 people	31	31,0
4.	4 people	5	5,0
Total		100	100,0

Table 4. Frequency Distribution of Respondents Based on Age at Pratama Hadijah Clinic

No	**Age**	**Total**	**Percentage (%)**
1.	20-35 years	59	59,0
2.	>35 years	41	41,0
Total		100	100,0

Table 5. Frequency Distribution of Respondents Based on Education at Pratama Hadijah Clinic

No	**Education**	**Total**	**Percentage (%)**
1.	Elementary (SD/SMP)	17	17,0
2.	Intermediate (SMA)	76	76,0
3.	High (D3/S1/S2)	7	7,0
Total		100	100,0

Table 6 Frequency Distribution of Respondents Based on Knowledge at Pratama Hadijah Clinic

No	**Knowledge**	**Total**	**Percentage (%)**
1.	Good	14	14,0
2.	Enough	39	39,0
3.	Not enough	47	47,0
Total		100	100,0

Table 7 Frequency Distribution of Respondents Based on Interest in Using Implant Contraception at Pratama Hadijah Clinic

No	Interest in Using Implant Contraception	Total	Percentage (%)
1.	Interested	46	46,0
2.	Not interested	54	54,0
Total		100	100,0

DISCUSSION

Based on the research results, it shows that there is a relationship between age and mother's interest in using implant contraception at the Pratama Hadijah Clinic, p=0.000 <0.05. Of the 59 respondents aged 20-35 years, the majority were not interested in using implant contraception, namely 41 people (41.0%). Of the 41 respondents aged >35 years, the majority were interested in using implant contraception, namely 28 people (28.0%).

Research conducted by Susanti (2018) on couples of childbearing age (PUS) at the Batunadua Community Health Center found that age was significantly related to interest in using contraceptive implants. In contrast to research by Nuzula, Widarini, & Karmaya (2015) on female couples of childbearing age in Tegalsari District, the results showed that age was not related to the use of contraceptives in female couples of childbearing age. Mawardiana's research (2016) at the UPTD Peureume Community Health Center, Kaway

Basically, age has a big influence on the reproductive process, especially 20-35 years of age is the best age for pregnancy and childbirth. Pregnancy and childbirth carry a greater risk of morbidity and death in adolescents than in women in their 20s, especially in areas where medical services are scarce or unavailable. Likewise in the use of contraceptives, at a healthy reproductive age (20-35 years), the use of contraceptives must continue to be increased because at that age a married woman is very likely to become pregnant so it needs to be prevented by using contraceptives such as implants (Wiknjosastro, 2015) .

According to the researchers' assumptions, the results of this study prove that the respondent's age is related to the mother's interest in using implantable contraceptives. Mothers aged over 35 years are more interested in using implants compared to mothers aged 20-35 years. This is because mothers are already thinking about using long-term contraception and don't always remember it. In addition, implantable contraceptives are more effective than short-term contraceptives. Meanwhile, fewer mothers aged 20-35 years use contraceptive implants because mothers usually still want to get pregnant again so they prefer short-term contraceptives.

Based on the research results, it shows that there is a relationship between education and maternal interest in using implant contraception at the Pratama Hadijah Clinic, p=0.006 <0.05.

Of the 41 respondents with basic education (SD/SMP), the majority were not interested in using implant contraception, namely 21 people (21.0%). Of the 52 respondents with secondary education (SMA), the majority were not interested in using implant contraception, namely 33 people (33.0%). Of the 7 respondents with higher education (D3/S1/S2), all of them were interested in using implant contraception, namely 7 people (7.0%).

Research conducted by Susanti, Wowor, & Hamel (2013) at the Ome Health Center, Tidore Islands City, found that the frequency distribution based on education level showed that the level of higher education was > greater than the level of education < basic. This is good because a mother who has higher levels of education have experience using contraception. The results of the Chi-Square statistical test shown in table 5 obtained a value of 0.11, this means that in the statistical test there is a significant relationship between education and the use of contraceptive implants.

According to Notoatmodjo (2016), education is a skill in absorbing knowledge. In accordance with the increase in a person's education, this ability is closely related to a person's attitude towards the knowledge they have absorbed, whereas according to the Big Indonesian Dictionary, education is the process of changing the attitudes and behavior of a person or group of people in an effort to mature humans through teaching and training efforts. process, making and how to educate. So it can be concluded that education is a process of changing and increasing knowledge, knowledge patterns, thought patterns and mother's behavior towards the formation of the main personality.

Education has a positive influence on the level of contraceptive use. In relation to the information they receive and the need to delay or limit the number of children. Educated women tend to be more aware of accepting family planning programs. Education and implant use showed a significant relationship. The higher the respondent's education level, the smaller the number of children they want, so the respondent's opportunity to limit births is greater. This situation will encourage respondents to limit births by using implants. A person's education is related to a person's opportunity to receive and absorb as much information as possible, including information about reproductive health and the benefits of rational use of contraceptive methods. Various studies have proven that increasing education has an effect on increasing the use of contraceptives. The reason for the influence of education on increasing the use of contraceptives is that the higher a person's formal education, the older the age at marriage will be, thereby reducing the number of births (Pastuti, 2017).

According to the researcher's assumptions, from the results of this research it is known that the respondent's education is significantly related to the respondent's interest in using contraceptive implants at the Pratama Hadijah Clinic. Most of the respondents have secondary education (SMA) and if we look at the overall level of education, the number of respondents who are interested in using contraceptive implants is at the high school level, as well as respondents with diploma/graduate degrees who are all interested in using implants as the contraceptive method of choice to reduce pregnancy and child birth. . People who are highly educated tend

to prioritize family quality, have foresight, choose long-term contraceptives that are suitable for themselves, so they prefer implant contraceptives.

CONCLUSIONS AND SUGGESTIONS

Age is related to the mother's interest in using implant contraception at the Pratama Hadijah Clinic, p-value = 0.000 <0.05. Education is related to maternal interest in using implant contraception at Pratama Hadijah Clinic, p-value = 0.006 <0.05. Knowledge is related to maternal interest in using implant contraception at Pratama Hadijah Clinic, p-value = 0.000 <0.05.

Ethical aspects and Conflict of Interest

The authors declare no conflict of interest

Author Contribution

Conception and design (PSP, NBK) data analysis and interpretation (PSP, DHL), manuscript draft (PSP), critical revision of the manuscript (NBK), final approval of the manuscript (NBK)

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FACTORS AFFECTING USER SATISFACTION OF THE JKN BPJS KESEHATAN MOBILE APPLICATION AT THE BPJS KESEHATAN PEKANBARU

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ABSTRACT

A mobile application is an application that can be used on a mobile basis so that users can use the application anytime and anywhere on a smartphone. User satisfaction can be defined as a level of feeling of a user as a result of a comparison between the user's expectations of a product with the actual results obtained by the user from the product. This study aims to determine the factors that influence the satisfaction of users of the JKN BPJS Kesehatan mobile application for BPJS Kesehatan participants in Pekanbaru. This research is a quantitative analytic study with a cross sectional approach. A total of 100 participants using the Mobile JKN Application were sampled. Univariate and bivariate statistical analysis was used to see the effect of satisfaction between tangible dimensions, reliability dimensions, responsiveness dimensions, assurance dimensions and empathy dimensions. The results of this study indicate that all dimensions have a value (P value = 0.000 < α 0.05), thus there is an influence on the satisfaction of the JKN mobile application users. The conclusion from this study is that all factors have an influence on user satisfaction of the JKN BPJS mobile application.

Keywords: User satisfaction, JKN mobile application.

INTRODUCTION

The application of Information and Communication Technology is widely used in the world of business or organizations to achieve time and cost efficiency, causing every business person or organization to feel the need to apply it in the work environment. Therefore, it is important to adapt to current technological trends. The government always strives to improve the quality of public health with social security. Social security is a form of social protection organized by the government which is useful for ensuring that citizens or society fulfill their basic living needs. This social security program started from Jamkesmas, Jamkesda, ASKES and a new government program emerged called the Social Security Administering Body (BPJS). (Krisdayanti, 2021).

Based on Law Number 24 of 2011 concerning BPJS, two Social Security Administering Bodies were formed, namely BPJS Health and BPJS Employment. Based on Law No.40 of 2004 concerning the National Social Security System. The aim is for all Indonesian residents to be protected by the insurance system, so that they can meet the basic health needs of a decent community. BPJS Health is committed to providing the best service for the community, both in terms of health services and providing information to the Indonesian people. BPJS Health also does not lag behind in continuing to adapt to technological developments. This can be seen through the breakthroughs made by BPJS Health. One of them is the presence of the JKN mobile application as an effort to improve services for National Health Insurance-Healthy Indonesia Card participants **(**JKN-KIS) (Aminullah, 2020).

According to (Ramadhani, 2018) user satisfaction can be defined as the level of a user's feelings as a result of a comparison between the user's expectations for a product and the real results obtained by the user from the product. If the product performance meets consumer expectations, the level of consumer satisfaction is low. User satisfaction is an important indicator in evaluating product quality and service performance. A phenomenon that often occurs in the JKN BPJS Health mobile application is that sometimes the application cannot be used if it is not updated simultaneously. Every time you start the application you are always asked to download the latest update, but after downloading the latest update you still won't log in. Then JKN mobile application users experience problems when entering personal data, receiving information and having to try again. And users consider that the JKN mobile application is challenging for people over 40 years old and becomes difficult if incorrect data input occurs, such as updating participant data or forgetting the password. According to (Prasetiyo & Safuan, 2022) during use, the JKN mobile application has been implemented. However, the problem is that most BPJS participants still prefer to search for information or submit complaints directly to the Branch Office/Service Office, rather than using the JKN mobile application. This causes long queues at branch offices/service offices. The use of the JKN mobile application is expected to help people find it easier to complete administrative matters using a smartphone anywhere and anytime. Therefore, researchers want to analyze public satisfaction with the use of the JKN mobile application. Based on the description above, researchers are interested in conducting research on the factors that influence user satisfaction of the JKN BPJS Health mobile application at the Pekanbaru branch of the BPJS Health office.

RESEARCH METHODS

This type of research is quantitative research because the data in this research is in the form of numbers and designs. This research uses a cross sectional research method to determine public satisfaction with the JKN BPJS Health PekanBaru Branch Mobile Application. The population in this study were BPJS Health participants who had used the JKN Mobile Application. The total population in this study was 79,803 respondents with a research sample of 100 respondents. The instruments in this research were a questionnaire and a camera.

RESULTS AND DISCUSSION

Univariate Analysis

Satisfaction level of JKN mobile application users

Satisfaction is the level of someone's feelings after comparing the perceived results with their expectations. If the perceived results are the same as or exceed expectations, feelings of satisfaction will arise, whereas if the results do not match expectations, feelings of disappointment will arise (Widayana, 2016). From research that has been conducted on users of the JKN BPJS Health Mobile application, the results show that the level of satisfaction with using the JKN BPJS Health mobile application is that 62 respondents (62%) out of 100 respondents feel satisfied.

Tangible (Physical Evidence) JKN mobile application

Tangible (physical evidence) is a form of actual physical actualization that can be seen or used by employees according to its use and utilization which can be felt to help the service received

by people who want the service, so that they are satisfied with the service they feel, which also shows their work performance in providing the service. given (Saleh, 2018). From research conducted on users of the JKN BPJS Health Mobile application, it was found that out of 100 respondents, 50 respondents (50%) were satisfied with the tangible (physical evidence) of the JKN BPJS Health mobile application.

Reliability of the JKN mobile application

Reliability is reliability related to the ability of service providers as promised, serving promptly, accurately and satisfactorily. The ability of the application to provide services as promised accurately and reliably. Performance must be in accordance with customer expectations, which means punctuality, the same service for all customers without errors, a sympathetic attitude and high accuracy (Saleh, 2018). Based on the research that has been carried out, the results obtained on the reliability dimension of the JKN BPJS Health Mobile Application are in the satisfied category as many as 54 respondents (54%) out of 100 respondents.

Responsiveness (Responsiveness) of the JKN mobile application

Responsiveness means the responsiveness of employees in providing needed services, such as the willingness of health workers to help patients and provide quick reactions and responsiveness to patient complaints so that patients feel satisfied with the service. Hospital. A policy to help and provide fast (responsive) and appropriate service to customers, by conveying clear information (Saleh, 2018). Based on the results of research conducted on JKN BPJS Health mobile application users, it was found that in the responsiveness dimension, 62 respondents (62%) stated they were satisfied with the JKN Mobile Application.

Assurance (Guarantee) JKN mobile application

Assurance means that includes understanding, strength, friendliness and trustworthiness of employees to make customers feel free from danger and risk and eliminate doubts (Nation et al., 2023). Based on the results of research on JKN BPJS Health mobile application users in the assurance dimension, it was found that 63 respondents (63%) were in the satisfied category with application use.

Emphaty (Empathy) JKN mobile application

Empathy means the ability to share and understand other people's feelings, which includes caring for the needs and desires of patients as well as providing services regardless of social status (Saleh, 2018). Based on the research conducted, it was found that the Emphaty dimension of the JKN BPJS Health Mobile Application was in the satisfied category as many as 61 respondents (61%).

Analisis Bivariat

Influence of Tangible Dimensions (Physical Evidence) of the JKN Mobile Application on Community Satisfaction

Based on the results of statistical tests using chi-square, the result was P value = 0.000. If compared with the value $\alpha = 0.05$ then the p value < 0.05 so that the results of this research can be seen that there is an influence between the tangible dimension (physical evidence) on user

satisfaction of the JKN BPJS mobile application at the Pekanbaru City Branch BPJS Health Office. This research is in line with the results of research by Saleh & Satriani, (2018) from the results of the chi-square statistical test, a value was obtained (p = 0.007), because the p value <0.05 means there is an influence between the Tangible dimensions (Physical Appearance) on BPJS patient satisfaction Health at the Labuang Baji regional general hospital, Makassar city. This research is not in line with the research results. From the results of the chi-square statistical test, the value obtained was (p=0.220), p> 0.05, meaning there is no significant influence between the Tangible dimensions (Physical Appearance) on satisfaction with health services at the Ulin Hospital, Banjarmasin. The results of the research can be seen as tangible (physical evidence) that services have a positive impact. Good tangibles (physical evidence) will provide satisfaction for service users. This can be seen from the research results which show that the majority of JKN application users are satisfied with the existing tangibles.Pengaruh Dimensi Reliability (Kehandalan) Aplikasi Mobile JKN on community satisfaction

The Influence of the Reliability Dimensions of the JKN Mobile Application on Community Satisfaction

Based on the results of statistical tests using chi-square, the result was P value = 0.000. If compared with the value α = 0.05, the p value < 0.05 so that the results of this research can be seen that there is an influence between the Reliability dimension on user satisfaction of the JKN BPJS mobile application at the Pekanbaru City Branch BPJS Health Office. This research is in line with the results of research conducted by Saleh & Satriani (2018) showing that the statistical test results obtained a p value = 0.000, because a p value < 0.05 means that there is an influence between the Realibility dimension (reliability) on patient satisfaction with BPJS users in public hospitals Labuang Baji area, Makassar city. This research is not in line with research conducted by Ivan Cahya, et al (2023) entitled Analysis of community satisfaction with the JKN Mobile application using the SerQual Method at the Beringin Clinic JKN BPJS Health Mobile Application Using Service Quality (Serqual). The research results show that there is no influence between the reliability dimensions of the JKN mobile application on user satisfaction and it is included in the Dissatisfied category.

The Influence of the Responsiveness Dimensions of the JKN Mobile Application on Community Satisfaction

Based on the results of statistical tests using chi-square, the result was P value = 0.000. If compared with the value α = 0.05, the p value < 0.05 so that the results of this research can be seen that there is an influence between the dimensions of responsiveness (responsiveness) on user satisfaction of the JKN BPJS mobile application at the Pekanbaru City Branch BPJS Health Office. In accordance with the results of research conducted by Saleh & Satriani, (2018), the statistical test results obtained a value of p = 0.000, because a value of p < 0.05 means that there is an influence between the dimensions of Responsiveness (Responsiveness) on patient satisfaction with BPJS users in regional general hospitals Labuang Baji, Makassar city. This research is in accordance with research conducted by Harianti (2022) which shows that there is a significant influence between patient satisfaction with BPJS users on the responsiveness dimension with p=0.004. The results of this research show that the dimension of responsiveness

(responsiveness) greatly influences service user satisfaction. Increasing the speed of BPJS services will make it easier for users to obtain accurate information related to JKN BPJS Health.

The Influence of the Assurance Dimensions of the JKN Mobile Application on Community Satisfaction

Based on the results of statistical tests using chi-square, the result was P value = 0.000. If compared with the value α = 0.05, the p value < 0.05 so that the results of this research can be seen that there is an influence between the assurance dimensions on user satisfaction of the JKN BPJS mobile application at the Pekanbaru City Branch BPJS Health Office. In accordance with the results of research conducted by Saleh & Satriani (2018), the statistical test results showed that the value of p = 0.000, because the value of p < 0.05 means that there is an influence between the dimensions of Assurance (Guarantee) on patient satisfaction with BPJS users at the general hospital in the Labuang area. wedge of Makassar city. According to researchers' assumptions, assurance in the JKN BPJS mobile application is very important. The assurance that the application provides to users will eliminate users' fear of data leaks. Good assurance will provide satisfaction with the use of the JKN Mobile application service.

The Influence of the Emphaty Dimension of the JKN Mobile Application on Community Satisfaction

Based on the results of statistical tests using chi-square, the result was P value = 0.000. If compared with the value α = 0.05, the p value < 0.05 so that the results of this research can be seen that there is an influence between the dimensions of empathy (empathy) on user satisfaction of the JKN BPJS mobile application at the Pekanbaru City Branch BPJS Health Office. This research is in line with the results of research conducted by Saleh & Satriani (2018) showing that the statistical test results obtained a p value = 0.000, because a p value < 0.05 means there is an influence between the Empathy dimension (empathy) on the satisfaction of patients using BPJS at home general illness in the Labuang Baji area of Makassar City. This research is in accordance with research conducted by Harianti (2022) which shows that there is a significant influence between patient satisfaction with BPJS users on the empathy dimension with p=0.003. This research is in accordance with the research results of Syamsul Bahri (2022) showing that there is a relationship between the empathy dimension of the JKN mobile application and service user satisfaction and is included in the good category. According to research assumptions, empathy is the ability to understand the use of the JKN BPJS Health mobile application. Providing good service and ease of obtaining information will lead to satisfaction with the use of the JKN mobile application.

CONCLUSION

Based on the research that has been conducted, it can be concluded that there is an influence between the dimensions of tangible, reliability, responsiveness, assurance and empathy with user satisfaction of the JKN BPJS Health Mobile Application at the BPJS Health Pekanbaru Branch Office.

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