



INTERNATIONAL NURSING CONFERENCE

"Nursing Challenges in 5.0 Society Era"

*October 8th, 2022
Magelang, Indonesia*

*Magelang Nursing Department
The 5th Campus of Health Polytechnic of Semarang
Poltekkes Kemenkes Semarang*



5th INC INTERNATIONAL NURSING CONFERENCE

"Nursing Challenges in 5.0 Society Era"

Conference PROCEEDINGS

October 8th, 2022

*Magelang Nursing Department
The 5th Campus of Health Polytechnic of Semarang
Poltekkes Kemenkes Semarang*

*in collaboration with:
Indonesian National Nurses Association
Magelang City Regional Board*



**THE PROCEEDING OF
THE 1st INTERNATIONAL NURSING CONFERENCE
“NURSING CHALLENGES IN 5.0 SOCIETY ERA”**



**MAGELANG NURSING STUDY PROGRAM
HEALTH POLYTECHNIC OF SEMARANG
2022**

The Proceeding of 1st International Nursing Conference:
Challenges on 5.0 Society Era

Prodi Keperawatan Magelang, Poltekkes Kemenkes Semarang



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The Proceeding of 1st International Conference on Health and Nursing:
Nursing Challenges on 5.0 Society Era

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GREETING FROM STEERING COMMITTEE

Assalamualaikum warahmatullahi wabarakatuh

I Respect all of the attendees who have attended here. especially to Professor Doctor Che An Binti Ahmad and Doctor Suharsono, Master of Nursing as the speaker at the 1st International Nursing Conference who attends offline in Magelang Nursing Department and Mr. Muhammad Arsyad Subu, Registered Nurse. Diploma. HEd., Master Science Degree in Nursing, Doctor of Philosophy with Doctor Reynold C. Padagas, Registered Nurse as the speaker at the 1st International Nursing Conference who attends online in zoom meeting.

First of all, let us say praise to God for giving us His blessing so that we can realize the first internasional nursing conference. Before I say something on this greeting, i wanna say thankyou to MC that has give to me a time to welcome you as Chairman of the committee on the First Internasional Nursing Conference.

Especially for the komiti, the part of Hima Aksara solid and always helps me and my partner Anis Muwakidah as Chairman of the komiti. Last but not least, i want yo say thankyou and apologize if we as the organizers especially me personally many sorry with, perfect and imperfection and facilities, and many other deficiencies, we are the komiti always tried to be professional, but the limitation makes us just giving like this is, before I close i want to say thankyou for all, best regards.

Wassalamualaikum warahmatullahi wabarakatuh

**OPENING REMARK
FROM THE HEAD OF NURSING DEPARTMENT REPRESENTATIVE
OF MAGELANG**

Assalamualaikum warahmatullahi wabarakatuh

Distinguished Director of Polkesmar, professors, lecturers, fellow speakers, ladies and gentlemen, and audience joining us online.

I am pleased to welcome you to this campus for the international nursing conference. May I thank each of our speakers for taking part in this event. Moreover, I honorably welcome our keynote and invited speakers Prof. Che An Ahmad from Malaysia. Dr. Reynold C. Padagas, RN from Philippines. Muhammad Arsyad Subu, RN, Ph.D from Uni Eirat Arab, and Dr. Suharsono, MN form Magelang Nursing Department. The quality and calibre of speakers is outstanding. I also want to thank all of you for connecting this morning.

The theme of this conference is nursing challenges in the era of society five point zero. This theme was raised considering the challenges of nursing today are quite diverse. Along with the development of technology supported by the internet of things, various challenges are increasingly complex. For this reason, the theme is breakdown into several sub-themes according to actual problems. Telenursing, anxiety related to health seeking behaviors indigital platforms, nomophobia and lifestyle, and mental health in 5.0 era.

Last but not least, my deepest gratitude goes to the Director of Polkesmar, Organizing Committee, International Nursing Conference Committee, and all those who have directly and indirectly supported the success of this conference. The committee has organized the scientific program well and is working hard to provide the best. Although we try our best to be professional, on behalf of Magelang Nursing Department, we apologize profusely if there is any inconvenience at this conference. I would like to express my gratitude towards you all who sincerely contributed to this event in order to make it a success. This wouldn't have been possible without the support of each and everyone present here.

Ladies and gentlemen, I wish the conference a successful run. And I hope you all enjoy it.

Wassalamualaikum warahmatullahi wabarakatuh

Head of Nursing Department Representative of Magelang
Hermani Triredjeki, S.Kep., Ns., M.Kes.
NIP. 19690222 198803 2 001

**OPENING SPEECH
FROM THE DIRECTOR OF HEALTH POLYTECHNIC OF
SEMARANG**

Assalamualaikum warahmatullahi wabarakatuh

In the name of Allah, the Most Beneficent and the Most Merciful. May peace, mercy, and blessings of Allah be upon you. Dear colleagues, professors, lecturers, researchers, fellow speakers, ladies and gentlemen, and audience joining us online, from around the world.

I would like to express my sincere gratitude and welcome you to the 1st Magelang International Nursing Conference. This is the first time the nursing department in Magelang has held an international conference, which on this occasion was held in a hybrid format.

First, may I thank each of our speakers for taking part in this event, the quality and calibre of speakers this year is outstanding. I also want to thank all of you for connecting this morning, and I hope you are looking forward to the discussions as much as I am.

Moreover, I honorably welcome our keynote and invited speakers Prof. Che An Ahmad from Malaysia. Dr. Reynold C. Padagas, RN from Philippines. Muhammad Arsyad Subu, RN, Ph.D from Uni Eirat Arab, and Dr. Suharsono, MN form Magelang Nursing Department. It is my hope that this 1st International Nursing Conference would be able to achieve its objective in providing an effective forum for academicians, researchers, and practitioners to advancing knowledge, research, and technology for humanity. There has always been a gap between peoples and communities who can make effective use of technology and those who cannot. 'Humanity' (or being 'humane') can also in one usage refer to civil rights and social causes, or in other words to people treating each other with care, compassion, and dignity; respecting the common 'humanity' in the other person. This is also a concern for health workers, especially nurses.

We believe knowledge, research and technology for all people, for minorities, people with disabilities, and to help anyone. No matter how much we can accomplish by ourselves, whether it be research or development, it is never sufficient in this world of knowledge. Therefore, the focal drive of this conference is to exchange ideas, and by participating in this exchange, it is hoped that all parties who may benefit from the conference can apply it in managing activities in their areas. It is pleasing to note that the agenda of this conference covers a wide range of interesting topics related to all theoretical and practical aspects.

Last but not least, my deepest gratitude goes to the Advisory Board, Organizing Committee, International Nursing Conference Committee, institutions, companies, and volunteer who have directly

and indirectly supported the success of this seminar. The committee has organized a vibrant scientific program and is working hard to present highly respected and internationally notorious speakers to lead it. Although we try our finest to be professional, on behalf of Poltekkes Kemenkes Semarang, please accept our sincere apologies should there be inconveniences that occur before, during, or after the event. I wish you a very productive conference with exciting and encouraging discussions and exchange of knowledge so that together we can anticipate a future of groundbreaking knowledge, research, and technology for humanities. May God bless us all with good health to make this event a successful and enjoyable one!

Ladies and gentlemen, let me once again thank our fantastic speakers for giving their time and insight today. And I hope all of you watching enjoy the conference.

Wassalamualaikum warahmatullahi wabarakatuh

Director of Health Polytechnic of Semarang
Dr. Marsum, BE., S.P.d., MHP.
NIP. 19630727 198403 1 001

**COMMITTEE OF 1st INTERNATIONAL CONFERENCE ON
HEALTH AND NURSING: NURSING CHALLENGES ON 5.0
SOCIETY ERA
MAGELANG NURSING STUDY PROGRAM
HEALTH POLYTECHNIC OF SEMARANG
2022**

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TIME SCHEDULE
1st INTERNATIONAL CONFERENCE ON HEALTH AND
NURSING: NURSING CHALLENGES ON 5.0 SOCIETY ERA
MAGELANG NURSING STUDY PROGRAM
HEALTH POLYTECHNIC OF SEMARANG
2022

TIME	SCHEDULE	MASTER	RESPONSIBLE PERSON
07.00 – 07.50	Participant Registration	All Participants Committee	Nisaul Hidayah
08.00 – 08.15	Opening of National Seminar	MC	Uhti Wahidah
08.15 – 08.35	<ul style="list-style-type: none"> ◆ Singing Indonesia Raya ◆ Singing Of Two National Anthems ◆ Singing Mars Poltekkes Kemenkes Semarang ◆ PPNI Mars ◆ Prayer 	All participants	Meita Ratri N
08.35 – 08.40	Opening traditional dance performance		Triana Bunga D
08.40 – 09.55	Director's Message	Mr. Marsum, BE, S.Pd, M.	Nasya Ayunindhita
08.55 – 09:35	Speaker I	.	Deswimar Olgaliana
09.35-10.45	Q&A Session 1		Deswimar Olgaliana
10:45– 11.25	Speaker II		Putri Agesti F

TIME	SCHEDULE	MASTER	RESPONSIBLE PERSON
11.20-11.35	Q&A Session 2		Putri Agesti F
11.35-12.00	Ishoma	Committee	Arini Miftahul
12.00-12.40	Speaker III		Nurul Fadia
12.40-12.50	Q&A Session 3		Nurul Fadia
12.50 – 12.55	Closing	MC	Uhti Wahidah
12.55-13.25	Evaluation Attendance	All Participants	Nisaul Hidayah

Effectiveness of Different Physical Activities Toward Glycemic Control in Prediabetes Mellitus Clients in Semarang Municipality

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Department of Nursing – Politeknik Kesehatan Kemenkes Semarang

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ABSTRACT

Introduction – Currently, the prevalence rate of diabetes mellitus in Indonesia based on relevant diagnoses or symptoms reaches 2.1%, and it is estimated that by 2030 the number of people suffering from diabetes mellitus will reach 21.3 million. The case of diabetes mellitus in Central Java ranks second for non-communicable diseases after hypertension with the number of cases which tends to increase every year. On the other hand, the number of people with prediabetes also shows a number that tends to increase. The proportion of people with prediabetes is 2-4 times higher than the proportion of people with diabetes. One of the prevention efforts is through physical activity. Several studies have shown that physical activity has a significant effect on glycemic control. The study aimed to determine the effectiveness of giving different physical activities to glycemic control in prediabetic clients in Semarang municipality.

Methods – A randomized control trial (RCT) with a pretest-posttest design was conducted on 60 prediabetic clients using different treatments (healthy / slow walking, brisk walking, combination of both slowly and brisk walking). Random allocation was conducted to determine the research sample in each group. An initial measurement (pretest) of glycemic control was carried out using an indicator of HbA1c levels and was remeasured (posttest) after treatment for 3 months. Research Data were analyzed using univariate, bivariate, and multivariate analysis.

Results – The average level of glycemic control (HbA1c levels) before the intervention in the healthy walking group was 5.57% and decreased to 5.46% after the intervention; the combination group decreased from 5.93% to 5.78%, and in the slowly walking group decreased from 5.74% to 5.71%. However, there was no significant effect of slowly walking on glycemic control (HbA1c levels). Meanwhile, brisk walking and combination of slowly walking and brisk walking had a significant effect on glycemic control (HbA1c levels) ($p < 0.05$).

Conclusion – The combination of physical activity group (brisk walking and slowly walking) has a better effect on glycemic control

(HbA1c levels), compared to the slowly walking group, and brisk walking group.

Keywords: physical activity, slow walking, speed walking, combination, prediabetes, glycemic control

Introduction

Nowadays, diabetes mellitus becomes global health problem. Epidemiologically, the prevalence of people with diabetes mellitus at all ages in 2000 was 2.8% and is estimated to increase to 4.4% in 2030 (Wild et al., 2004). People with diabetes mellitus in 2035 are estimated to increase almost twice from 2030, which is as many as 592 million cases (Malik, et al., 2006). According to the WHO report there were 422 million people worldwide suffering from diabetes mellitus, and a prevalence of 8.5% occurred in the adult age group (WHO, 2016).

In Indonesia, the prevalence rate of diabetes mellitus based on relevant diagnoses or symptoms is 2.1% (Kemenkes RI, 2014), and it is estimated that in 2030 the number of people with diabetes mellitus will increase to 21.3 million (Kemenkes RI, 2014). In Central Java, based on the report of the 3rd quarter of 2015 of the Provincial Health Office of Central Java, diabetes mellitus ranks second to non-communicable diseases after hypertension with the number of cases which tends to increase every year, which is 110,860 cases in 2013 and increasing to 121,203 cases in 2014 (Semarang Municipality Health Office, 2015). On the other hand, the number of people with prediabetes also shows a number that tends to increase. There was an increase in the prediabetes population from 11.6% in 2003 to 35.3% in 2011.

Prediabetes is an important factor related to metabolic conditions that predispose individuals to a high probability of developing diabetes. Individuals with prediabetes have a high risk for pathological disorders such as diabetic retinopathy, neuropathy,

nephropathy, and macrovascular complications (Tabak, et al. 2012). The results showed that the prevalence of diabetic retinopathy was 7.9% (Diabetes Prevention Program Research Group, 2007), and the prevalence of peripheral neuropathy was higher in individuals with prediabetes than in individuals based on normal glucose tolerance (Lee et al. 2015). Prediabetes also increases the risk of chronic kidney disease (CKD) cardiovascular disease, coronary heart disease, and stroke (Hostalek, 2019).

Healthy behavior for people with diabetes mellitus who require long-term care is important. The health behavior recommended by WHO to manage diabetes mellitus effectively is the behavior of controlling sugar levels (glycemic control) to keep it stable (WHO, 2016). Long-term control of glucose concentration which is relatively stable is carried out through examination of HbA1c levels which can be used as material for treatment planning. Good glycemic control (A1c < 7%) provides benefits for people with type 2 diabetes mellitus. heart disease by 78% (Skyler, 2004; Clement, Bhattacharyya, & Conway, 2009). On the other hand, poor glycemic control can cause death in elderly people with type 2 diabetes mellitus.

Stability of sugar levels in people with type 2 diabetes mellitus can be performed in various ways, including through physical activity. Several research results show that there is a relation between physical activity and type 2 diabetes mellitus. Patients with type 2 diabetes mellitus who participate in self-management training for type 2 diabetes mellitus have an impact on the level of knowledge, frequency and accuracy of self-monitoring of blood sugar, and self-reporting behavior eating habits (diet) (Colberg, et al., 2010). Other studies have shown that people with type 2 diabetes mellitus who engage in regular physical activity have a positive

impact on preventing the development of Impaired Glucose Tolerance (IGT) into type 2 diabetes mellitus (Sigal, et al., 2006). Similar studies also concluded that people with type 2 diabetes mellitus who perform physical activity in the form of aerobic (aerobic exercise) and resistance training (resistance training), both increase insulin sensitivity (Burr, et al., 2015). Increased insulin sensitivity will have an impact on decreasing the concentration of blood glucose levels in people with type 2 diabetes mellitus (Borghouts & Keizer, 1999).

Lack of physical activity, especially for people with type 2 diabetes mellitus, will have a negative impact on the health status of people with diabetes mellitus. Physical activity that is carried out irregularly will increase the risk of diabetes mellitus, and if this continues for a long time it will lead to unwanted complications of diabetes mellitus such as increased heart disease and stroke, neuropathy in the legs which can lead to gangrene of diabetes mellitus and amputation, diabetic retinopathy which leads to blindness and kidney failure. Conversely, if physical activity is carried out regularly, it will generally have a positive impact on blood sugar levels (glycemic control) and can prevent diabetes mellitus (Kemenkes RI, 2014). The impact of regular physical activity or exercise can also be seen from the level of Hemoglobin A1c (HbA1c) which is below the value of 48 mmol/mol (6.5%) (d'Emden, et al., 2015). This is understandable because HbA1c is formed by glycation of the N-terminal valine in the beta chain in hemoglobin, a non-enzymatic reaction occurring in red blood cells. So that the more glucose in the bloodstream, the higher the HbA1c value (Mahajan & Mishra, 2011).

Physical activity can be performed in various ways. In general, physical activity can be implemented in 3 ways: light-intensity

physical activity, moderate-intensity physical activity, and vigorous-intensity physical activity (WHO, 2010). Light-intensity physical activity is physical activity that requires light effort, such as walking slowly, sitting, standing, fishing, and playing music. Moderate-intensity physical activity is physical activity that requires sufficient effort and significantly increases the heart rate. Examples of this type of physical activity are brisk walking, dancing, gardening, housework, painting the walls of the house, installing tiles, moving items < 20 kg. Meanwhile, vigorous-intensity physical activity is physical activity that requires more effort and causes breathing and heart rate to increase significantly. This type of activity can be done by running, walking on an incline, cycling quickly, aerobics, swimming, and carrying / moving objects > 20 kg.

Methods

This study was a randomized control trial (RCT) using a pretest – posttest design, conducted on 60 prediabetic clients with different treatments (slowly walking, brisk walking, combination of both slowly and brisk walking). Random allocation was conducted to determine the research sample in each group. An initial measurement (pretest) of glycemic control was carried out using an indicator of HbA1c levels and was measured for the second measurement (posttest) after treatment for 3 months. The total sample was prediabetes clients who is literate, lived with their families, became active participants in PROLANIS program, and participated in the entire series of studies. Clients who suffer from chronic kidney failure, suffer from anemia (Hb levels below normal values), and refuse to participate were excluded from the study. Data analysis was performed by univariate, bivariate, and multivariate analysis.

Results and Discussion

1. Univariate Analysis

1) Characteristics of samples

Tabel 1 Characteristics of samples

Characteristics	Physical Activity															p
	Brisk Walking					Combination					Slowly Walking					
	n	Min	Max	Mean	SD	n	Min	Max	Mean	SD	n	Min	Max	Mean	SD	
Age	20	21	52	39,4	9.93	20	23	52	40.1	7.19	20	48	41.2	5.24		0.756*
HbA1c	20	4.3	6.2	5.6	0.54	20	5.7	6.3	5.9	0.20	20	6.2	5.7	0.52		0.045*
Education																
Elementary School	2	10%				4	20%				4	20%				0.045**
Primary School	3	15%				5	25%				2	10%				
Secondary School	9	45%				9	45%				12	60%				
Tertiary School	6	30%				2	10%				2	10%				

*one-way Anova **Fisher Exact

Table 1 illustrates that in general the characteristics of the study samples in the three study groups were comparable (homogeneous), except for the HbA1c level.

2. Bivariate Analysis

1) HbA1c development (before and after doing activities)

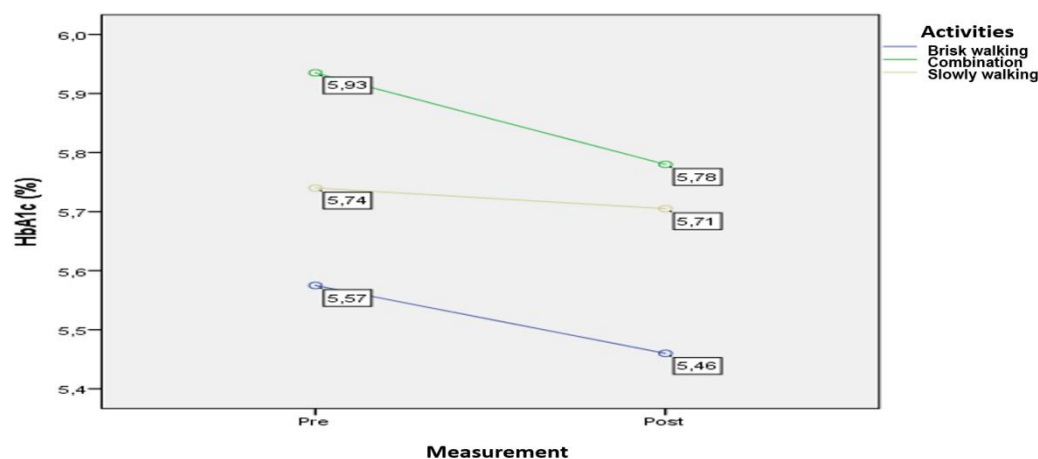


Figure 3. HbA1c development (before and after doing activities)

Figure 3 shows that the three groups had different initial HbA1c levels (pretest), and this situation affected the post-test HbA1c levels. In such circumstances, in measuring the effect of

brisk walking activity and the combination of slowly walking and Brisk walking compared to slowly walking, there will be an overestimation. Therefore, to measure the exact effect, it is necessary to control the initial HbA1c data.

2) Effectiveness of Physical Activity in Lowering HbA1c

Table 3. Effectiveness of Physical Activity in Lowering HbA1c

Activities	B	Std. Error	t	p	95% Confidence Interval		Partial Eta Squared
					Lower Bound	Upper Bound	
Brisk walking	-0,25	0,14	-1,76	0,084	-,524	,034	5%
Combination	0,07	0,14	0,54	0,593	-,204	,354	1%
Slowly walking	Reference Group						

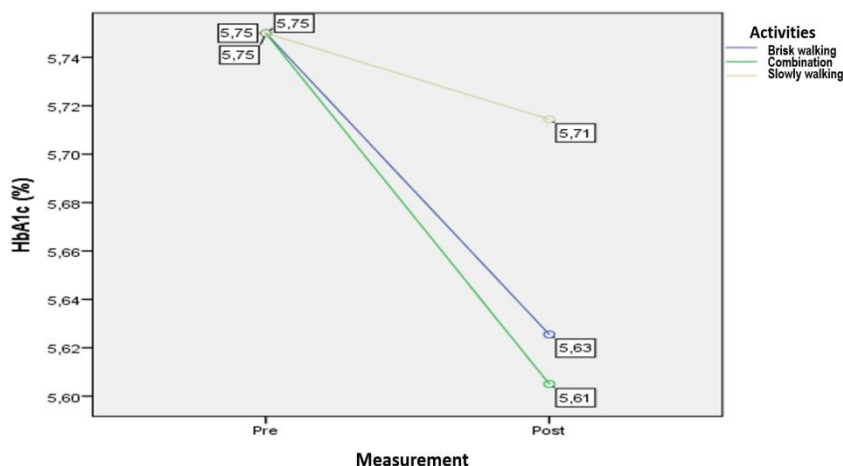
Activities	B	Std. Error	t	p	95% Confidence Interval		Partial Eta Squared
					Lower Bound	Upper Bound	
Brisk Walking	-0.25	0.14	-1.76	0.084	-.524	.034	5%
Combination	0.07	0.14	0.54	0.593	-.204	.354	1%
Slowly Walking	Reference group						

The results of this analysis are provisional, because the magnitude of the effect is still disturbed by the pre HbA1c data. Therefore, the effect analysis must be controlled by pre HbA1c data with multivariate tests, in order to obtain the right amount of activity effect.

3. Multivariate analysis

1) HbA1c development before and after doing activities

The development of HbA1c levels in patients with Type 2 Diabetes Mellitus (DM) before and after carrying out activities in the three groups after controlling for pre HbA1c data can be seen in Figure 4.



Covariates appearing in the model are evaluated at the following values: HbA1c_pre2 = 5,75

Figure 4. HbA1c development before and after doing activities

Figure 4 shows that after the control was carried out through analysis of the pre HbA1c data, the initial HbA1c data appeared to be in the same condition at the position of the HbA1c level of 5.75. In the brisk walking group, HbA1c was reduced to 5.61; Likewise, the combination group (brisk walking and slowly walking) can reduce HbA1c to 5.63; while in the slowly group it can only decrease by 5.71. From the three treatments, it appears that the brisk walking group and the combination group (brisk walking and slowly walking) were able to lower HbA1c which was greater than that of the leisurely walking group.

2) The Effectiveness of Physical Activity in Lowering HbA1c

Table 4. Effectiveness of Physical Activity in Lowering HbA1c

Activities	B	Std. Error	t	p	95% Confidence Interval		Partial Eta Squared
					Lower Bound	Upper Bound	
Brisk walking	-0,09	0,04	-2,09	0,041	-,174	-,004	7%
Combination	-0,11	0,04	-2,56	0,013	-,195	-,024	11%
Slowly walking	Reference group						

5% Confidence Partial Eta

Activities	B	Std. Error	t	p	Interval		Squared
					Lower Bound	Upper Bound	
risk Walking	-0.09	0.04	-2.09	0.041	-.174	-.004	7%
ombination	0.11	0.04	-2.56	0.013	-.195	-.024	11%
lowly Walking	reference group						

Table 4 shows that patients with pre-diabetes mellitus (DM) type 2 who did brisk walking were able to lower their HbA1c by 0.09 compared to patients with Diabetes Mellitus (DM) type 2 who took a slowly walking, and the decrease was statistically significant ($p=0.041$). Doing brisk walking can reduce HbA1c by 7%. Even type 2 Diabetes Mellitus (DM) patients who did a combination of brisk walking and slowly walking were able to lower their HbA1c by 11% compared to Type 2 Diabetes Mellitus (DM) patients who took a slowly walking alone, and the decrease was statistically significant ($p=0.013$).

A. Discussion

1. Effect of Physical Activity on HbA1c Levels

The results showed that in the three study groups there was a decrease in HbA1c levels after physical activity. In the brisk walking group, the HbA1c can be reduced to 5.61, as well as the combination walking and brisk walking group can reduce the HbA1c to 5.63. while in slowly walking alone group can only decrease by 5.71. From the three treatments, it appears that the brisk walking group and the combination group (brisk walking and slowly walking) were able to lower HbA1c which was greater than that of the slowly walking group.

The results showed that physical activity was able to have a significant effect on glycemic control or HbA1c levels (Sigal, et al.,

2006). Regular physical activity or exercise will reduce the level of HbA1c formed by the glycation of N-terminal valine in the beta chain in hemoglobin which will become more normal in levels due to the decrease in blood glucose levels as a result of using it for energy when doing physical activity (Mahajan and Mishra, 2011).

Physical activity is all forms of body movement as carried out in this study (slowly walking, brisk walking, and a combination of both) produced from skeletal muscles that require energy expenditure. When a person does physical activity, there will be a process of hydrolysis of ATP to produce energy. Hydrolysis of 1 mole of ATP in muscle tissue will produce energy of 31kJ (7.3 kcal), and will produce other products in the form of ADP (Adenosine diphosphate) and Pi (inorganic phosphate). During physical activity, there are three energy metabolism pathways that can be used by the body to produce ATP, namely hydrolysis of phosphocreatine (PCr), anaerobic glycolysis of glucose, and burning of stored carbohydrates, fats and proteins (Irawan, 2007). This condition allows glucose reserves in the blood to be taken to meet the energy needed in the process of physical activity. The heavier the physical activity, the greater the use of energy reserves.

The results of this study indicate that the lowest ability to reduce HbA1c levels is in the group of leisurely walking physical activity. Casual walking is included in the category of light-intensity physical activity, namely physical activity that requires light effort that does not cause the respiratory and heart rates to increase significantly when compared to moderate-intensity physical activity and vigorous-intensity physical activity (WHO, 2010). 2010). While brisk walking physical activity and the combination of brisk walking and leisurely walking are physical

activities that have a significant impact on the use of the body's energy stores, namely carbohydrate stores (blood glucose, muscle and liver glycogen), and fat stores in the form of triglycerides to contribute to the rate of energy production in the body. in the body (Irawan, 2007). This condition has a direct impact on the use of energy sources including blood sugar levels so that it has an impact on the value or level of glycemic control, namely HbA1c levels.

2. The Most Effective Physical Activity in Lowering HbA1c Levels

The results of the study showed that the physical activity of a healthy walk and a combination of a healthy walk and a leisurely walk had a better effect on HbA1c levels than leisurely walking. In this study, it was found that patients with pre-diabetes mellitus (DM) type 2 who did brisk walking were able to significantly reduce HbA1c levels by 7% compared to patients with pre-diabetes mellitus (DM) type 2 who did a leisurely walk. Likewise, patients with pre-diabetes mellitus (DM) type 2 who did a combination of brisk walking and leisurely walking were able to significantly reduce HbA1c levels by 11% compared to patients with pre-diabetes mellitus (DM) type 2 who did a slowly walking alone.

The results of this study concluded that although brisk walking physical activity and a combination of brisk walking and leisurely walking both significantly affected HbA1c levels, combined physical activity gave a better effect because it was able to lower HbA1c levels higher than brisk walking.

Combination activities of brisk walking and slowly walking are carried out by combining physical activities of walking-slowly and brisk walking which are carried out for 4 weeks with details on day 1, 2, 3, and 4 with the duration of each -each day for a

minimum of 25 minutes for normal/slowly walking and days 5, 6 and 7 with a minimum time duration of 25 minutes for each day for brisk walking. This method has an impact on the process of burning carbohydrates as a process of energy metabolism from blood glucose or muscle glycogen from the consumption of carbohydrates consumed. The glucose formed is stored as energy reserves as glycogen in the liver and muscles and can be stored in the bloodstream as blood glucose or can also be carried into the body's cells that need it. Blood glucose or from muscle glycogen will undergo a glycolysis process that can produce ATP molecules, where as many as 2 ATP molecules can be produced if the source of glucose comes from blood glucose and as many as 3 ATP molecules if the glucose comes from muscle glycogen (Irawan, 2007). The process can be achieved well when a person performs regular physical activity such as brisk walking.

In the combination group, physical activity was also given a leisurely walk. This combination of physical activity will provide a comfortable feeling after the person concerned does physical activity that is sufficient to trigger heart and respiratory rates. This comfortable feeling allows a person to feel unburdened by physical activity so that it triggers stress which can affect blood sugar levels that rise. The accumulation of high blood sugar levels in the blood vessels will give an idea of higher HbA1c levels (Iemitsu et al., 2016).

B. Research Limitation

Many factors have an influence on glycemic control (HbA1c levels), but in this study it was not possible to completely control these factors, including: behavior in carrying out a special diet, drinking alcohol, and also body mass index (BMI). Another factor that was not controlled in this study is the forms of family support that

may have an influence on the pattern of physical activity carried out even though in this study it was controlled with SOPs for physical activity.

Conclusion and Recommendation

The average picture of glycemic control (HbA1c levels) before the intervention in the healthy walking group was 5.57% and decreased to 5.46% after the intervention; the combination group from 5.93% to 5.78%, and in the leisurely walking group from 5.74% to 5.71%. There was no significant effect of leisurely walking physical activity on glycemic control (HbA1c levels), and there was a significant effect of both brisk walking physical activity or combined physical activity (fast walking and slowly walking) on glycemic control (HbA1c levels). The combination physical activity group (brisk walking and slowly walking) had a better effect on glycemic control (HbA1c levels), compared to the slowly walking group.

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References

- Borghouts LB, Keizer HA. (1999). Exercise and Insulin Sensitivity: A review. *Int J Sports Med*, 20, 1–12.
- Bonita R, Beaglehole R, Kjellstrom T. (2006). *Basic epidemiology*. 2nd Ed., World Health Organisation.
- Burr JF, Rowan CP, Jamnik VK, Riddell MC. (2015). The role of physical activity in type 2 diabetes prevention: Physiological and practical perspectives. *The Physician and Sportmedicine*, 38(1), 72–82. <https://doi.org/10.3810/psm.2010.04.1764>
- Clement M, Bhattacharyya O, Conway JR. (2009). Is tight glycemic

- control in type 2 diabetes really worthwhile? Yes. *Canadian Family Physician Medecin de Famille Canadien*, 55(6), 580–588.
- Colberg SR, Sigal RJ, Fernhall B, Regensteiner JG, Blissmer BJ, Rubin RR, Chasan-Taber L, Albright AL, B. B. (2010). Exercise and type 2 diabetes. *Diabetes Care*, 33(12), 2692–2696. <https://doi.org/10.2337/dc10-1548>
- d'Emden MC, Shaw JE, Jones GR, Cheung NW. (2015). Guidance concerning the use of glycated haemoglobin (HbA1c) for the diagnosis of diabetes melitus. *MJA*, 203(July), 89–91. <https://doi.org/10.5694/mja15.00041>
- Dinas Kesehatan Kota Semarang. (2015). *Profil kesehatan kota Semarang*. Dinkes Kota Semarang.
- Iemitsu K, Iizuka T, Takihata M, Takai M, Nakajima S, et al. (2016). Factors influencing changes in hemoglobin A1c and body weight during treatment of type 2 diabetes with ipragliflozin: Interim analysis of the ASSIGN-K study. *J Clin Med Res*, 8(5), 373–378.
- Irawan MA. (2007). Metabolisme energi tubuh & olahraga. *Sport Science Brief*. 01(07), 1-9.
- Kementerian Kesehatan RI. (2014). *Waspada diabetes: Situasi dan analisis diabetes mellitus*. Jakarta.
- Mahajan RD; Mishra B. (2011). Using glycated hemoglobin HbA1c for diagnosis of diabetes mellitus : An Indian perspective. *International Journal of Biological & Medical Research*, 2(2), 508–512.
- Malik S, Basit R, Naz S, Mawani M, Masood MQ, Akhte J. (2006). Adherence to lifestyle advice and treatments in Pakistani patients with type 2 diabetes mellitus. *Journal of Diabetes Mellitus*, 6, 49-57.
- Sigal RJ, Kenny GP, Wasserman DH, Castaneda-Sceppa C. (2006). Physical activity / exercise and type 2 diabetes: A concensus statement from the American Diabetes Association. *Diabetes Care*, 6, 1433–1438. <https://doi.org/10.2337/dc06-9910>
- Skyler JS. (2004). Effects of Glycemic Control on Diabetes Complications and on the Prevention of Diabetes. *Clinical Diabetes: A Publication of the American Diabetes Association*, 22(4), 162.
- WHO. (2003). *Adherence to long-term theraphies*. Switzerland: WHO Library Cataloging-in-Publication Data.
- WHO. (2010). *Global recommendations on physical activity for health*. Switzerland.
- Wild S, Roglic G, Green A, Sicree R, King H. (2004). Global prevalence of diabetes: Estimates for the year 2000 and projections for 2030. *Diabetes Care*, 27(5), 1047-53.

Indonesian Nurses Professors Assessment Tools

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ABSTRACT

Good points in the role of Professor of Nursing in Indonesia are very much needed. Be the potential relevance of research to address the country's problems in defining the role of nursing professors needed for a more appropriate professional direction. The validity of the tool was determined by assessing the content validity, using the content validity index (CVI) of 6 nursing experts. Of the eight valid instruments that can be used as guidelines that must be carried out by nursing professors are about the role of leadership, authority, research and scholarship, teaching, and the acquisition of internal and external resources, which support scientific activities, the power of communication, and service to the community. Wider University. It is hoped that prospective nursing professors can improve their quality according to existing and valid indicators on the instruments that have been built.

Keywords: *Assessing, Indonesia, Instrument, Professors, Validity*

BACKGROUND

This tool has only become a guideline for a nursing professor in the academic field, not yet playing a role in a clinic or hospital environment. Measuring the validity of the instrument's content is essential. This type of validity can help ensure validity and give readers and researchers confidence in the instrument. Content validity refers to the degree to which the instrument includes the content it is supposed to measure. The absence of research that discusses measuring instruments to measure the role of nursing professors in Indonesia is the main reason this research needs to be done.

Nursing Competency Standards are intended to assure the

community in getting services in the form of nursing care by competent nurse (Fukada, 2018). Nursing service is a form of professional service that is an integral part of health services based on Nursing knowledge and tips for healthy individuals, families, groups, or communities (Karami et al., 2017).

A nurse's desire to earn the title of professor in nursing deserves an honour (Kavanagh and Szveda, 2017). Through high abilities and desires, it is not enough that nursing academics continue to work hard to achieve the highest degree at the tertiary institution. The requirements for a person to become a professor in Indonesia, according to the PAN-RB Regulation 46 of 2013, are as follows: Have a doctoral certificate (S3) or the equivalent At least three years after obtaining a doctorate certificate. Having scientific papers published in international journals has a reputation. They have work experience as a lecturer for at least ten years (JDIH BPK RI, 2013).

With the increasing number of professors in the field of nursing at universities in Indonesia, it can bring the nursing profession in a better direction, significantly improving the quality of nursing personnel. By adding professors 'enthusiasts at this time, it can inspire others to increase enthusiasts for future professors' titles so that they can compete with other professional, scientific disciplines. Nurses already have expertise from specialist education and doctoral education, and there are even ten professors in Indonesia. The primary role is to keep emphasizing the caring aspect.

This study aims to develop and test the validation of the Indonesian Nurse Professor Assessment Tools. The measuring instruments to be tested for validity of Indonesian Nurses Professors Assessment Tools.

METHODS

As a measuring tool, this statement measures the role one must perform as a qualified nursing professor. So before this tool is valid for use, it is necessary to test its validity of the tool first (Parsaeian et al., 2021). This study uses a quantitative approach with analytic observational research designs and cross-sectional data designs. Inclusion criteria are general requirements that respondents must fulfil to be used as respondents. The inclusion criteria in this study were:

1. Nurses who are still actively working in educational institutions as teachers.
2. Nurses with a history of working as nurse lecturers for at least ten years.
3. Minimum education history of master's degree in nursing

4. Member of the Indonesian national nurses association.
5. Willing to be a respondent in this study.

When this tool is valid, those experts will not be respondents in further research as a trial. Research Instruments based on Acceptable Content Validity Index values 0.83 (Polit and Beck, 2006). The steps for getting results based on the six steps of content validation are preparing the content validation form, Selecting a panel of experts, Conducting content validation, Reviewing domains and items, Providing a score on each item, and calculating CVI (Yusoff, 2019). The measured data scale in this study is the Ordinal scale requiring a nonparametric statistical test (Creswell, J. W, 2012). The instrument consists of 8 categories; each category measures the role that the nursing professor must perform.

The type and format of this question is a closed statement, where each statement has two answer choices, then the expert corrects and chooses an answer with the answer choices for each question are agree or disagree. The response from all the experts on this instrument is that it is essential to develop this tool as a guide so that a nursing professor does not forget what role he has to play.

This instrument consists of 8 categories. Each category in the instrument has a statement of 5 to 9 statement items.

This expert validity score uses the content validity index benchmark per item of the statement being tested (I-CVI). The I-CVI score is the item-level which is The proportion of content experts giving items a relevance rating of 3 or 4 with the calculation formula $I-CVI = (\text{agreed item})/(\text{number of experts})$. Each statement item valid if the total value of the count is At least six experts and At least 0, 83. Tool development ideally involves item generation, feedback, validation, and initial testing. However, in this study, it is only limited to facial validation.

RESULT

Based on input from experts, this tool will be used in the future only as a guide for a nursing professor in the academic field, not yet playing its role in a clinic. The results of this study are limited to testing the facial validity of the tool, which is expected to guide nursing professors in carrying out their roles in academics. This instrument is not a tool or data for someone who meets the requirements to become a nursing professor, nor does it produce a tool that produces a professorship level.

In this study, researchers have chosen experts to review and criticize the questionnaire about the role of Indonesian nursing professors that should be carried out. The number of experts who have been selected is six people with a master's education

background and nursing specialists who graduated in domestic and foreign educational institutions.

Table 1.
Profile of the experts who participated in the study.

No	Name Initial	Age (Years old)	Degree of graduation	Gender	Position on the Job
1.	Mr. W	41	Master of Nursing and Psychiatric nursing specialist	Male	Quality assurance of the faculty of health
2.	Mrs. M	52	Manter on nursing Science	Female	Coordinator of community service and research
3.	Mrs. L	37	Manter on nursing Science	Female	Coordinator of the academic field of the undergraduate nursing program
4.	Mr. MM	35	Master of Nursing and Community nursing specialist	Male	Quality assurance of undergraduate nursing program
5.	Mrs. V	33	Manter on nursing Science	Female	Quality assurance of the University
6.	Mr. R	35	Master of Nursing and Community nursing specialist	Male	Coordinator of internal and external cooperation of nursing study program

The results show in the table below:

Table 2.

The Relevance Ratings on the Item Scale by Six Experts on The Established And Personal Chairs.

Expert (X)	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Total	Proportion Relevance	Average proportion of item judged as relevance across the six expert
X 1	1	1	1	1	1	1	1	1	8	1	0,92
X 2	1	0	1	1	1	0	1	1	6	0,75	
X 3	1	1	1	1	1	0	1	1	7	0,875	
X 4	0	1	1	1	1	1	1	1	7	0,875	
X 5	1	1	1	1	1	1	1	1	8	1	
X 6	1	1	1	1	1	1	1	1	8	1	
Expert in agreement	5	5	6	6	6	4	6	6			
I-CVI	0,83	0,83	1	1	1	0,7	1	1	0,92		

In the instrument of questions about leadership, after being tested by six experts and the value of the content validity was calculated, the result was 0.92, which means that this instrument is valid. The question about leadership that a nursing professor must apply is in the form of a total of 8 statements. Of 6 experts who were asked to review the instrument, only one considered the question less relevant to the content validity index value of 0.75, while the other five considered this instrument valid.

Table 3.

The Relevance Ratings On The Item Scale By Six Experts On The Academic Standing.

Exper t	Q1	Q2	Q 3	Q 4	Q 5	Tota l	Proportion Relevance	Average proportion of item judged as relevance across the six expert
X 1	1	0	1	1	1	4	0,8	0,93
X 2	1	1	1	1	1	5	1	
X 3	1	0	1	1	1	4	0,8	
X 4	1	1	1	1	1	5	1	
X 5	1	1	1	1	1	5	1	
X 6	1	1	1	1	1	5	1	
Exper t in agreement	6	4	6	6	6			
I-CVI	1	0,66	1	1	1	0,93		

In the instrument on Academic Standing authority, after being tested by six experts and the content validity value was calculated, the result was 0.93, which means that this instrument is valid. The question regarding the Academic Standing authority that the nursing professor must apply is in the form of a statement of 5 statements. Of the six experts who were asked to review the instrument, all considered that it was valid and could be used to measure the role of nurse professors in Indonesia.

Table 4.
The Relevance Ratings On The Item Scale By Six Experts On
The Research and Scholarship.

Expert (X)	Q,1	Q,2	Q,3	Q,4	Q,5	Q,6	Q7	Q8	Q9	Total	Proportion Relevance	Average proportion of item judged as relevance across the six expert
X 1	0	1	1	0	1	0	1	1	1	6	0,67	0,93
X 2	1	1	1	1	1	1	1	1	1	9	1	
X 3	1	1	1	1	1	1	1	1	1	9	1	
X 4	1	1	0	1	1	1	1	1	1	8	0,89	
X 5	1	1	1	1	1	1	1	1	1	9	1	
X 6	1	1	1	1	1	1	1	1	1	9	1	
Expert in agreement	5	6	5	5	6	5	6	6	6			
I-CVI	0,83 3	1	0,83 3	0,83 3	1	0,83 3	1	1	1	0,93		

In the nurse professor role instrument on Research and Scholarships, after being tested by six experts and the value of the content validity was calculated, the result was 0.93, which means that this instrument is valid and can be used as a measuring tool. Questions about Research and Scholarships that a nursing professor must apply in the form of a statement with a total of 9 statements. Of the six experts who were asked to review the instrument, only one expert rated the question as less relevant to the content validity index value of 0.67; however, because five other experts rated it more than 0.83, this instrument was believed to be valid.

Table 5.
The Relevance Ratings On The Item Scale By Six Experts On
The Teaching Role

Expert	q1	q2	q3	q4	q5	q6	q7	Total	Proportion Relevance	Average proportion of item judged as relevance across the six expert
EXPERT 1	1	1	1	1	1	1	1	7	1	
EXPERT 2	1	1	1	1	1	1	1	7	1	
EXPERT 3	1	1	1	1	1	0	1	6	0,86	
EXPERT 4	1	1	0	0	1	1	1	5	0,71	
EXPERT 5	1	1	1	1	1	1	1	7	1	
EXPERT 6	1	1	1	1	1	1	1	7	1	
Expert in agreement	6	6	5	5	6	5	6			0,93
I-CVI	1	1	0,833	0,833	1	0,833	1	0,93		

In the nurse professor role instrument about Teaching Role, after being tested by six experts and the content validity value was calculated, the result was 0.93, which means that this instrument is valid and can be used as a measuring tool. A nursing professor must apply questions about the Teaching Role in the form of a statement with seven statements. Of the six experts who were asked to review the instrument, only one expert judged the question to be less relevant with a content validity index value of 0.71; however, because the other five experts rated it more than 0.83, this instrument was believed to be valid.

Table 6.
The Relevance Ratings On The Item Scale By Six Experts On
The Acquisition of Resources.

Expert	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Total	Proportion Relevance	Average proportion of item judged as relevance across the six expert
EXPERT 1	1	1	1	1	1	1	1	1	8	1	
EXPERT 2	1	1	1	1	1	1	1	1	8	1	
EXPERT 3	1	1	1	1	1	1	1	1	8	1	
EXPERT 4	1	1	1	1	1	0	1	1	7	0,88	
EXPERT 5	1	1	1	1	1	1	1	1	8	1	
EXPERT 6	1	1	1	1	1	1	1	1	8	1	
Expert in agreement	6	6	6	6	6	5	6	6			0,98
I-CVI	1	1	1	1	1	0,833	1	1	0,98		

In the nurse professor role instrument about The Acquisition of Resources, after being tested by six experts and calculating the

content validity value, the result was 0.98, which means that this instrument is valid and can be used as a measuring tool. Questions about The Acquisition of Resources must be applied by a professor of nursing care in the form of statements with a total of 8 statements. Of the six experts who were asked to review the instrument, all experts rated this instrument as valid.

Table 7.
The Relevance Ratings On The Item Scale By Six Experts On The Powers of Communication.

Expert	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Total	Proportion Relevance	Average proportion of item judged as relevance across the six expert
1	1	1	1	1	1	1	1	7	1	0,88
2	1	1	1	1	1	1	1	7	1	
3	1	1	1	1	1	1	1	7	1	
4	0	0	1	0	1	0	0	2	0,29	
5	1	1	1	1	1	1	1	7	1	
6	1	1	1	1	1	1	1	7	1	
Expert in agreement	5	5	6	5	6	5	5			
I-CVI	0,83	0,83	1	0,83	1	0,83	0,8	0,88		

In the nurse professor role instrument about The Powers of Communication, after being tested by six experts and calculating the content validity value, the result was 0.88, which means that this instrument is valid and can be used as a measuring tool. Questions about The Powers of Communication that a nursing professor must apply are statements with a total of 7 statements. Of the six experts who were asked to review the instrument, there was one expert who considered it less relevant.

Table 8.
The Relevance Ratings On The Item Scale By Six Experts On The Services to the Wider University Community.

Expert	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Total	Proportion Relevance	Average proportion of item judged as relevance across the six expert
EXPERT 1	1	1	1	1	1	1	1	7	1	0,98
EXPERT 2	1	1	1	1	1	1	1	7	1	
EXPERT 3	0	1	1	1	1	1	1	6	0,86	
EXPERT 4	1	1	1	1	1	1	1	7	1	
EXPERT 5	1	1	1	1	1	1	1	7	1	
EXPERT 6	1	1	1	1	1	1	1	7	1	

Expert in agreement	5	6	6	6	6	6	6	
I-CVI	0,83	1	1	1	1	1	1	0,98

In the nurse professor role instrument about The Services to the Wider University Community, after being tested by six experts and calculating the content validity value, the result was 0.98, which means that this instrument is valid and can be used as a measuring tool. The question of the Wider University Community that a nursing professor should apply is a statement with a total of 7 statements. Of the six experts who were asked to review the instrument, all rated the instrument developed as valid.

Table 9.
The Relevance Ratings on The Item Scale By Six Experts On The Services to the Services Outside the University.

Expert	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Total	Proportion Relevance	Average proportion of item judged as relevance across the six expert
EXPERT 1	1	1	0	0	0	0	0	2	0,29	0,81
EXPERT 2	1	1	1	1	1	1	1	7	1	
EXPERT 3	1	1	1	0	0	1	1	5	0,71	
EXPERT 4	0	1	1	1	1	1	1	6	0,86	
EXPERT 5	1	1	1	1	1	1	1	7	1	
EXPERT 6	1	1	1	1	1	1	1	7	1	
Expert in agreement	5	6	5	4	4	5	5			
I-CVI	0,83	1	0,83	0,67	0,6	0,8	0,83	0,81		

In the nurse professor role instrument regarding The Services to the Services Outside the University, after being tested by six experts and calculating the value of the content validity, the result was 0.81, which means that this instrument is less valid and cannot be used as a measuring tool because it needs improvement. The question about The Services to the Services Outside the University that a nursing professor should apply is a statement with a total of 7 statements. Of the six experts who were asked to review the instrument, two experts judged that this instrument was not valid and needed to be corrected.

Established and Personal Chairs

In the instrument of questions about leadership, after being

tested by six experts and the value of the content validity was calculated, the result was 0.92, which means that this instrument is valid. The question about leadership that a nursing professor must apply is in the form of a total of 8 statements. Of 6 experts who were asked to review the instrument, only one considered the question less relevant to the content validity index value of 0.75, while the other five considered this instrument valid.

Academic Standing

In the instrument on Academic Standing authority, after being tested by six experts and the content validity value was calculated, the result was 0.93, which means that this instrument is valid. The question regarding the Academic Standing authority that the nursing professor must apply is in the form of 5 statements. Of the six experts who were asked to review the instrument, all considered that it was valid and could be used to measure the role of nurse professors in Indonesia.

Research and Scholarship

In the nurse professor role instrument on Research and Scholarships, after being tested by six experts and the value of the content validity was calculated, the result was 0.93, which means that this instrument is valid and can be used as a measuring tool. Questions about Research and Scholarships that a nursing professor must apply in the form of a statement with a total of 9 statements. Of the six experts who were asked to review the instrument, only one expert rated the question as less relevant to the content validity index value of 0.67; however, because five other experts rated it more than 0.83, this instrument was believed to be valid.

Teaching

In the nurse professor role instrument about Teaching Role, after being tested by six experts and the content validity value was calculated, the result was 0.93, which means that this instrument is valid and can be used as a measuring tool. A nursing professor must apply questions about the Teaching Role in the form of a statement with seven statements. Of the six experts who were asked to review the instrument, only one expert judged the question to be less relevant with a content validity index value of 0.71; however, because the other five experts rated it more than 0.83, this instrument was believed to be valid.

Acquisition of Resources

In the nurse professor role instrument about The Acquisition of Resources, after being tested by six experts and calculating the

content validity value, the result was 0.98, which means that this instrument is valid and can be used as a measuring tool. Questions about The Acquisition of Resources must be applied by a professor of nursing care in the form of statements with a total of 8 statements. Of the six experts who were asked to review the instrument, all experts rated this instrument as valid.

Powers of Communication

In the nurse professor role instrument about The Powers of Communication, after being tested by six experts and calculating the content validity value, the result was 0.88, which means that this instrument is valid and can be used as a measuring tool. Questions about The Powers of Communication that a nursing professor must apply are statements with a total of 7 statements. Of the six experts who were asked to review the instrument, there was one expert who considered it less relevant.

Services to the Wider University Community

In the nurse professor role instrument about The Services to the Wider University Community, after being tested by six experts and calculating the content validity value, the result was 0.98, which means that this instrument is valid and can be used as a measuring tool. The question of the Wider University Community that a nursing professor should apply is a statement with a total of 7 statements. Of the six experts who were asked to review the instrument, all experts rated the instrument developed as valid.

Services outside the University

In the nurse professor role instrument regarding The Services to the Outside the University, after being tested by six experts and calculating the value of the content validity, the result was 0.81, which means that this instrument is less valid and cannot be used as a measuring tool because it needs improvement. The question about The Services to the Services outside the University that a nursing professor should apply is a statement with a total of 7 statements. Of the six experts who were asked to review the instrument, two experts judged that this instrument was not valid and needed to be corrected.

DISCUSSION

The role is a manifestation of behaviour by the individual position (Sveinsdóttir et al., 2006; Veda and Roy, 2020). The Doctor of Nursing Practice (DNP) degree is a relatively new title; therefore, the role of the Doctoral Advanced Practice Nurse has not been clearly defined in many settings. Although in Indonesia, the title of

nursing professor is a functional title given by the government to someone if they have passed the doctoral education level requirements, scientific publication, community service, seminar certificate, and teaching history, so that if someone has reached specific points required by the government through Department of Education and Ministry of Research (DIKTI), then someone will get the title of professor of nursing. Of course, not only titles but their roles must also be measured. For this reason, an instrument is needed to become a reference for measuring the role of nurse professors in Indonesia.

The statement about the leadership role that must be applied by a nursing professor in the form of a statement developed with a total of 8 statements is considered valid by the expert. The development of a nurse professor role instrument in Indonesia has also been adjusted that the role of a professor as an intellectual is a leader and role model (Nuryanti et al., 2017; Sandehang et al., 2019). This instrument is also in line with which states that the view of leadership puts structure in place by way of top-down command and control does not always lead to practical results or change people's behaviour. Leadership components: charismatic and inspirational, intellectually stimulating, and individually caring. The charisma factor is then called the Idealization Effect, separated from the inspirational factor (Inspirational Motivation) (Chebon et al., 2019; K. Kariuki, 2021; Pitts and Zhang, 2020).

The Academic Standing Authority reviews the statement regarding the role of nursing professors in Indonesia; after being tested by six experts and calculating the content validity value, the instrument's results are declared valid. There are five statements developed (Helmstadter, 2008). The development of an instrument for the role of professor of nurses in Indonesia has also been adjusted to the opinion that the legal authority of a professional nurse determines success in providing highly competent nursing services (Hamric et al., 1998). Another view of authority is that groups and individuals must balance authority and collegiality to form the best relationship (Creswell, J. W, 2012).

The research and scholarship reviewed the statement regarding the role of nursing professors in Indonesia; after being tested by six experts and calculating the content validity value, the instrument was declared valid. There are nine statements developed. Based on the ability to do data-based research is needed, open discussions about possible solutions and studies based on standards looking for positive patterns also need to be developed (Sutton and Austin, 2015). This instrument also adopts the role of the Nightingale scientist, who described that a nurse must have an insatiable curiosity, mastery of the research subject,

familiarity with the inquiry method, a good background in research and statistics, and discriminatory and abstract abilities (Creswell, J. W, 2012). On the other hand, a nursing professor should also have the ability to access academic records in the field of research. This is because the integration of facts and knowledge synthesis is obtained from the scope of clinical scholarship (Korniewicz, 2015). Nursing professors apply knowledge to solve problems and develop new ways of imparting knowledge to others. The research that the profession should to exemplary professors (owners of a healthy heart) have spiritual health, Daily Self-Care, adherence to a good lifestyle, recognition in religion, to achieve moral virtue: Wisdom, Chastity, Courage, Justice, Generosity, Dignity of the soul. An essential role as part of the hidden curriculum (Asadzandi, 2017).

The instrument statement regarding the role of nursing professors in Indonesia is seen from the role of teaching; after being tested by six experts and calculating the content validity value, the instrument was declared valid. There are seven statements developed. The development of this research instrument also refers to the opinion that a professional nurse must be involved in a genuine teaching-learning experience in caring relationships while paying attention to people as a whole (Creswell, J. W, 2012). Four relevant themes associated with successful university teaching were identified: Presence, Promotion of Learning, Teachers as Learners, and Enthusiasm (Rossetti and Fox, 2009).

Instrument statements regarding the role of nursing professors in Indonesia are seen from the Acquisition of Resources, both internally and externally, which support scientific activities. After being tested by six experts and the value of the content validity was calculated, the instrument was declared valid. There are eight statements developed. The development of an instrument for the role of professor of nurses in Indonesia has also been adjusted to the opinion that critical thinking gives professional nurses the power to understand things on purpose and choose how to respond best to events (Masters, 2015).

Internal and external resource acquisition that supports scientific activities in this instrument can also be interpreted as a nurse professor's socialization ability, where the socialization in question is guided by the view that professional nursing acquires knowledge, skills, and a sense of identity characterizes the profession. Nursing professors need a broad knowledge base for practice and solid communication, critical reasoning, clinical assessment, and assessment skills. In addition, professional nursing requires developing an appropriate value set and ethical framework for practice (Dinmohammadi et al., 2013; Ghadirian et al.,

2014; Zarshenas et al., 2014).

Instrument statement about the role of nursing professors in Indonesia is seen from the Powers of Communication. After being tested by six experts and the value of the content validity was calculated, the instrument was declared valid. There are seven statements developed. The development of an instrument for the role of professor of nurses in Indonesia has also been adjusted to the opinion that communication skills by conveying the mission with a clear and a convincing sense of purpose and an organizational structure to promote and recognize high performance need to be built (Creswell, J. W, 2012).

Instrument statement about the role of nursing professors in Indonesia is seen from Services to the Wider University Community. After being tested by six experts and the value of the content validity was calculated, the instrument was declared valid. There are seven statements developed. The instrument on Services to the Wider University Community is defined as coaching the Executive of the Broader University Community, which is a leadership development intervention that can guide new nursing professors through role transitions and towards greater leadership awareness. It focuses on helping colleagues exploit their best potential, both in achieving success and in their role responsibilities, and finding their own best ways to achieve goals. The executive coaching process involves a relationship of mutual respect and engagement between the coach and the person to be mentored to generate feedback and support for growth and development (Patricia D'Antonio, 2012)(Black, 2013).

Instrument statement about the role of the nursing profession in Indonesia is seen from Services Outside the University. After it was tested by six experts and the value of the content validity was calculated, the instrument was declared less valid because there were two experts whose calculated value of CVI was below 0.83. There are seven statements developed. The instrument development for the role of professor of nurses in Indonesia has also been adjusted to collaboration between professionals to improve abilities, and a more expansive role is needed by professional nurses.

CONCLUSION

This study concludes that the instrument has been developed from the theory and results of other previous studies. Of the eight instruments to measure the role of nursing professors in Indonesia, one instrument is somewhat relevant so that it cannot be used to measure the role of nursing professors in Indonesia, namely the instrument on Services outside the University. However, on the

other hand, seven other instruments are valid. They can be used to measure the role of nursing professors in Indonesia, namely the role of leadership, authority, research and scholarship, teaching, and Acquisition of Resources both internally and externally, which support scientific activities, power of communication, and Services to the Wider University Community. This research is limited to testing the tool's validity, which can later become a guide for nursing professors to carry out their role in academics. This instrument is not a tool or data for someone who meets the requirements to become a nursing professor, nor does it produce a tool that produces a professorship level, but it is hoped that prospective nursing professors can improve their quality according to the existing and valid indicators in the instrument that has been built.

Statement of Authorship

All authors participated in data collection and analysis, Moreover, the manuscript approved the final version submitted.

Author Disclosure

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REFERENCES

- Asadzandi, M., 2017. Professors, spiritual characteristics for role-modeling education. *Education Strategies in Medical Sciences* 10, 23–35.
- Black, B.P., 2013. *Professional Nursing: Concepts & Challenges*. Elsevier Health Sciences.
- Chebon, S., Aruasa, W., Chirchir, L., 2019. Effect of Inspirational, Motivation, and Idealized Influence on Employee Performance at Moi Teaching and Referral Hospital. *International Journal of Business and Social Science* 10. <https://doi.org/10.30845/ijbss.v10n7p14>
- Creswell, J. W, 2012. *Educational Research: Planning Conducting and Evaluating. Quantitative and Qualitative Research*, 4th ed. Pearson Education Inc, Boston.
- Dinmohammadi, M., Peyrovi, H., Mehrdad, N., 2013. Concept Analysis of Professional Socialization in Nursing. *Nursing Forum* 48, 26–34.
- Fukada, M., 2018. Nursing Competency: Definition, Structure and Development. *Yonago Acta Med* 61, 1–7.

- Ghadirian, F., Salsali, M., Cheraghi, M.A., 2014. Nursing professionalism: An evolutionary concept analysis. *Iran J Nurs Midwifery Res* 19, 1–10.
- Hamric, A.B., Worley, D., Lindebak, S., Jaubert, S., 1998. Outcomes associated with advanced nursing practice prescriptive authority. *J Am Acad Nurse Pract* 10, 113–118.
- Helmstadter, C., 2008. Authority and leadership: the evolution of nursing management in 19th century teaching hospitals. *J Nurs Manag* 16, 4–13.
- JDIH BPK RI, 2013. Permen PAN & RB No. 46 Tahun 2013 tentang Perubahan atas Peraturan Menteri Pendayagunaan Aparatur Negara dan Reformasi Birokrasi Nomor 17 Tahun 2013 tentang Jabatan Fungsional Dosen dan Angka Kreditnya [JDIH BPK RI] [WWW Document]. URL <https://peraturan.bpk.go.id/Home/Details/132809/permen-pan-rb-no-46-tahun-2013> (accessed 6.17.22).
- K. Kariuki, J., 2021. Idealized Influence and Inspirational Motivation in a Microfinance Context: Review of Literature. *International Journal of Organizational Leadership* 10, 120–140. <https://doi.org/10.33844/ijol.2021.60539>
- Karami, A., Farokhzadian, J., Foroughameri, G., 2017. Nurses' Professional Competency and Organizational Commitment: Is it important for human resource management? *PLoS One* 12, e0187863.
- Kavanagh, J.M., Szweda, C., 2017. A Crisis in Competency: The Strategic and Ethical Imperative to Assessing New Graduate Nurses' Clinical Reasoning. *Nurs Educ Perspect* 38, 57–62. <https://doi.org/10.1097/01.NEP.0000000000000112>
- Korniewicz, D.M., 2015. *Nursing Leadership and Management: The Advanced Practice Role*. DEStech Publications, Inc.
- Masters, K., 2015. *Role Development in Professional Nursing Practice*. Jones & Bartlett Publishers.
- Nuryanti, A., Nursalam, N., Triharini, M., 2017. Development of Performance Assessment Instrument, for Nurses Based on Web in Inpatient Unit. *Jurnal Ners* 12, 108–112.
- Parsaeian, M., Mahdavi, M., Saadati, M., Mehdipour, P., Sheidaei, A., Khatibzadeh, S., Farzadfar, F., Shahraz, S., 2021. Introducing an efficient sampling method for national surveys with limited sample sizes: application to a national study to determine quality and cost of healthcare. *BMC Public Health* 21, 1414. <https://doi.org/10.1186/s12889-021-11441-0>
- Patricia D'Antonio, 2012. *Nursing History Review, Volume 21: Official Journal of the American Association for the History of Nursing*. Springer Publishing Company.
- Pitts, B.G., Zhang, J.J., 2020. *Sport Business in the United States*:

- Contemporary Perspectives. Routledge.
- Polit, D.F., Beck, C.T., 2006. The Content Validity Index: are you sure you know what's being reported? Critique and recommendations. *Res Nurs Health* 29, 489–497. <https://doi.org/10.1002/nur.20147>
- Rossetti, J., Fox, P.G., 2009. Factors related to successful teaching by outstanding professors: an interpretive study. *J Nurs Educ* 48, 11–16. <https://doi.org/10.3928/01484834-20090101-09>
- Sandehang, P.M., Hariyati, Rr.T.S., Rachmawati, I.N., 2019. Nurse career mapping: a qualitative case study of a new hospital. *BMC Nurs* 18, 31. <https://doi.org/10.1186/s12912-019-0353-z>
- Sutton, J., Austin, Z., 2015. Qualitative Research: Data Collection, Analysis, and Management. *Can J Hosp Pharm* 68, 226–231.
- Sveinsdóttir, H., Biering, P., Ramel, A., 2006. Occupational stress, job satisfaction, and working environment among Icelandic nurses: a cross-sectional questionnaire survey. *Int J Nurs Stud* 43, 875–889. <https://doi.org/10.1016/j.ijnurstu.2005.11.002>
- Veda, A., Roy, R., 2020. Occupational Stress Among Nurses: A Factorial Study with Special Reference to Indore City. *Journal of Health Management* 22, 67–77. <https://doi.org/10.1177/0972063420908392>
- Yusoff, M., 2019. Content Validity Index Calculation. *Education in Medicine Journal*.
- Zarshenas, L., Sharif, F., Molazem, Z., Khayyer, M., Zare, N., Ebadi, A., 2014. Professional socialization in nursing: A qualitative content analysis. *Iran J Nurs Midwifery Res* 19, 432–438.

**ROLE OF THE HEAD OF FAMILY IN INCREASING CLEAN AND
HEALTHY LIVING BEHAVIOR (PHBS) PRACTICE TO PREVENT
THE SPREAD OF THE COVID-19 VIRUS**

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ABSTRACT

Introduction: Corona Virus Disease (COVID-19) is a disease caused due to viruses. Education about Covid-19 and how to prevent transmission is needed by the community to help accelerate handling. The head of the family plays an important role in helping to discipline family members as the smallest unit of society. The purpose of this study was to determine the role of the head of the family in increasing clean and healthy living behavior (PHBS) practice to prevent the spread of the COVID-19 virus.

Methods: The research method is descriptive survey using a questionnaire. The total sample is 80 heads of households with inclusion criteria head of family who has a family of at least one child or more, minimum age 17 years and maximum 59 years.

Results: The results of the study showed that the highest age of > 35 years was 49 people (61.25%), while the highest education was senior high school with 56 people (70.00%), and 80 people (100.00%) work. The role of the head of the family in increasing knowledge about prevention Covid-19 was 67 people (83.75) with good criteria.

Conclusion: The conclusion is that the role of the head of the family is very important in increase clean and healthy living behavior (PHBS) practice to prevent the spread of the COVID-19 virus. The best education starts with small groups, especially families.

Keyword : role, head of family, PHBS, covid-19.

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- 2) Poltekkes Kemenkes Semarang

Introduction. Corona Virus Disease (COVID-19) is a disease caused due to viruses. This disease is sweeping the world at the end of 2019 then it became pandemic after set by world health organization (WHO) establish Corona Virus Disease (COVID-19) on 11 March 2020. This virus attack has spread with fast almost all over the world incl Indonesia (Syahla, 2021).

Not much different from conditions in other countries, the soaring rate of Covid-19 transmission has also occurred in Indonesia. When traced back, since the first time it was found two cases of Indonesian citizens exposed to Covid 19, as of June 10 2020 the number of sufferers. No less than 42,762 people have been confirmed positive for Covid-19 with details of 16,798 recovered and 2339 died (JNN, n.d.). The trend of increasing Covid-19 infection in Indonesia is not only bad for health problems, but also influential and negative implications for other areas of life, such as the economy, education, religion, and social culture (Santika, 2020).

COVID-19 can be spread from person to person through droplets from the nose or mouth that come out when a person with COVID-19 coughs or exhales. These sparks then fall onto nearby objects and surfaces. People who touch these objects or surfaces and then touch their eyes, nose or mouth, can contract COVID-19. Transmission of COVID-19 can also occur if people inhale droplets that come out of coughs or breaths of people who have COVID-19 (WHO, 2020).

Common signs and symptoms of COVID-19 infection include symptoms of acute respiratory distress such as fever, cough and shortness of breath. The average incubation period is 5-6 days with the longest incubation period being 14 days. In severe cases of COVID-19 it can cause pneumonia, acute respiratory syndrome, kidney failure, and even death. Clinical signs and symptoms reported in the majority of cases were fever, with some cases having difficulty breathing, and X-rays showing extensive pneumonia infiltrates in both lungs (Direktorat Jenderal Pencegahan dan Pengendalian Penyakit, 2020). COVID-19 has been declared a world pandemic by WHO and has been designated by the Government as a non-natural disaster in the form of an outbreak of disease that requires integrated countermeasures including the involvement of all components of society (Direktorat Promosi Kesehatan dan Pemberdayaan Masyarakat, 2020).

The emergence of the Corona Virus Diseases-19 outbreak has prompted the importance of providing education and awareness of the importance of a clean and healthy lifestyle. In addition, the public needs to know with certainty the transmission and ways of preventing Covid-19 so that it does not become an epidemic (Sulaeman, & Supriadi, 2020).

As the smallest unit of society, the family actually has a strategic role in dealing with Covid-19. Family in a situation like this is the first and foremost defense system for the inner country prevent the spread of Covid-19 transmission. This is important considering that every family functions as an introduction to larger society, and a link between individuals and structure larger society (Rustina, 2014). This is where the role of the family is to provide encouragement or motivational support strengthening each other in the face of the unpredictable Covid-19 pandemic when does it end. Family support is the attitude, action, and acceptance of the family. Support can come from other people (parents, children, husband, wife or relatives) who are close, where the form of support can be in the form of information, certain behaviors or material that can be make individuals feel loved, cared for and loved (Mirza, 2017). The role attached to the family is necessary optimized as a preventive strategy in dealing with Covid-19. When every family in Indonesia really plays its role optimally, the Government will undoubtedly work hard in tackling Covid-19 will

not be in vain. Thus, the government's efforts in preventing the transmission of Covid-19 can be started from the smallest unit of society, namely the family (Santika, 2020).

Responding to the current outbreak of COVID-19 caused by the corona virus, the role and function of the family is the main basis for cutting the chain of transmission of the corona virus in society. The head of the family plays an important role in helping to discipline family members as the smallest unit of society so that they care and carry out all efforts to break the chain of spread of COVID-19 (Herlinawati, 2020). Forms of community empowerment in preventing COVID-19 include providing information about COVID-19 (cause, transmission, prevention), providing education about ways to prevent COVID-19 (cough etiquette, wash hands with soap methods, how to use masks), encouraging community participation in maintain personal hygiene, clean the house and the environment, limit physical contact, do not congregate or gather, stay at home.

Methods. The research was conducted in mintomulyo village, juwana district, pati regency, central java. The research method is descriptive survey using a questionnaire. The total sample is 80 heads of households with inclusion criteria head of family who has a family of at least one child or more, minimum age 17 years and maximum 59 years.

The questionnaire is a tool for collecting data regarding an issue that concerns the public interest, the questionnaire is carried out by distributing forms containing a list of questions, submitted in writing to a number of subjects to obtain responses, information and answers. In this study using a questionnaire that contains about age, education, occupation, and the role of the head of the family.

Result and Discussion.

The characteristics of the respondents are shown in table 1 as follows.

Table.1 Frequency distribution of respondent characteristics

Characteristics	n	
Age		
20 year		,75
0-35 year	8	5
>35 year	9	1,25
Education		
Primary school		,75
Junior high school		0
Senior high school	6	0
College	3	6,25
Occupation		
Work	0	00
Not work		

Sources: Primary data (2020)

The results showed that there were 3 people aged <20 years (3.75%), 28 people aged 20-35 years (35%), and 49 people (61.25%) aged > 35 years. This data shows that the age group is still relatively more middle age. This data indicating that it is still very easy to obtain information, is an age with high productivity, age and a good work ethic in providing a livelihood for the family, and is still able to work diligently and provide assistance to families, especially Health education for families during the Covid-19 pandemic (Pranata, dkk, 2021).

The results showed that 3 people (3.75%) had primary school education, 8 people (10%) junior high school education, while 56 people (70%) senior high education and 13 people (16.25%) college. This data shows that the highest average education is senior high school. Each family is headed by a family head responsible for meeting daily needs. Behavior head of the family is an example of behavior that will be followed later or imitated by other family members because the head of the family considered to affect individuals in troubled families and as a determinant of decision making (Andreas, 2014). Based on research conducted by Kurniawati (2017) found that age, knowledge, attitudes, education, ownership of latrines, number of members Family is a factor that influences the behavior of the head of the family in the use of latrines.

The results showed that 80 respondents all work (100%). Each family member has a role in the family, between others: 1) The role of the father is as a husband to the wife and father to the children, act as a breadwinner, educator, protector, and flavor giver secure, as the head of the family, as a member of his social group and members of the local community. 2) The role of the mother as the wife of husband and mother of their children, the role of taking care of the household, as caregivers and educators of their children, protectors and as one a group from its social role and as a member of society from environment, besides that mothers can also act as breadwinners addition to his family. 3) The role of the child is to carry out the role psychosocial according to the level of development both physical, mental, social and spiritual (Riwidikodo, 2008). The role of the head of the family in increasing clean and healthy living behavior (PHBS) practice to prevent the spread of the COVID-19 virus is shown in table 2 as follows.

Table.2 The role of the head of the family in increasing clean and healthy living behavior (PHBS) practice to prevent the spread of the COVID-19 virus

ole	6	
ot enough	.50	
nough	1	3.75
ood	7	3.75

Sources: Primary data (2020)

The results the role of the head of the family showed that 2 people (2.50%) is not

enough, 11 people (13.75) is enough, and 67 people (83.75) is good. Role is a dynamic aspect of position (status). If someone carry out their rights and obligations in accordance with their position or status, then he played his part. Furthermore, as Levinson stated in Soekanto (2010) explained that there are three things covered by the role, among them are: First, norms expressed based on position or one's place in society. Second, important individual behavior as the social structure of society. Third, a concept of what is done by individuals in society as an organization.

The family is a collection of two or more individuals who live together in one house because of marriage ties, blood relations or adoption which then in it that each member has their respective roles. In addition to the role that each family member has, in the family. There are also several separate functions that must be carried out optimally create and develop quality family. The family is often defined as the smallest unit of society consisting of the head of the family and several people gathered in circumstances interdependence. The family exerts influence while at the same time forming the character and personality of its members, especially in child. Not only in influencing and shaping the personality of its members only, but also in preventing the spread of various types of diseases including Covid-19 carried out by implementing and carrying out the roles and functions of the family in an effective manner collective and good (Ashidiqie, 2020).

Several family functions must be fulfilled to achieve the health of all family members from the COVID-19 outbreak, namely the function of affection, socialization function and health care function. Maintenance function Health is a family function providing security and comfort for all family members to be free from a disease. Obedience a person in life comes from obedience in the family, obedience all family members are equal to the obedience of the whole community in a place region (Israfil, 2020).

The important role of the family in the prevention of this corona disease. Of course, it can be done well if the head of the family is able to take a position as a driving force and motivator. Heads of families are people who are emulated and made figures. Therefore, father and or mother must be able to set a good example in disease prevention corona in the family environment (Mardiya, 2020). The head of the family can plays a role in increasing the implementation of clean and healthy living behavior (PHBS) in the household setting including hand washing with soap and running water, consumption of nutrition balance, enough rest, not smoking, physical activity at home, controlling co-morbidities, maintaining physical distance with other people and family members at home, apply cough etiquette, wearing a mask when at home, wearing cutlery and bathing separate from other family members, surface disinfection of household equipment ladder

Conclusion and Suggestions.

The conclusion is that the role of the head of the family is very important in increase clean and healthy living behavior (PHBS) practice to prevent the spread of the COVID-19 virus. The best education starts with small groups, especially families.

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References.

- Ashidiqie, M. L. I. I. (2020). Peran Keluarga Dalam Mencegah Coronavirus Disease 2019. *SALAM: Jurnal Sosial Dan Budaya Syar-I*, 7(8), 911-922.
- Andreas, Horhorruw. 2014. Faktor Faktor Yang Mempengaruhi Perilaku Keluarga Dalam Menggunakan Jamban Di Desa Tawin Kecamatan Teluk Kota Ambon. Tesis. Universitas Diponegoro.
- Direktorat Jenderal Pencegahan dan Pengendalian Penyakit (P2P) Kementerian Kesehatan RI. 2020. Pedoman Pencegahan Dan Pengendalian CoronaVirus Disease (COVID-19)
- Direktorat Promosi Kesehatan dan Pemberdayaan Masyarakat, Direktorat Jenderal Kesehatan Masyarakat, Kementerian Kesehatan RI. 2020. Pedoman Pemberdayaan Masyarakat Dalam Pencegahan COVID-19 Di RT/RW/Desa
- Herlinawati, Martha. 2020. Ini Peran Penting Kepala Keluarga Dalam Mencegah COVID-19. Diakses pada 28 Mei 2020 dari <https://sumbar.antaraneews.com/berita/355341/ini-peran-penting-kepala-keluarga-dalam-cegah-COVID-19>
- Israfil. 2020. Peran Keluarga Dalam Pencegahan Wabah COVID-19. Diakses pada 28 Mei 2020 dari <https://timexkupang.com/2020/04/10/peran-keluarga-dalam-pencegahan-wabah-COVID-19/>
- JNN. (n.d.). Empat Strategi Pemerintah Atasi Covid-19. Retrieved June 13, 2020, from <https://covid19.go.id/p/berita/empat-strategi-pemerintah-atasi-covid-19>
- Kurniawati, L. D., & Windraswara, R. (2017). Faktor-Faktor yang Berpengaruh terhadap Perilaku Kepala Keluarga dalam Pemanfaatan Jamban di Pemukiman Kampung Nelayan Tambaklorok Semarang. *Public Health Perspective Journal*, 2(1).
- Mardiya. 2020. Peran Keluarga Cegah COVID-19. Diakses pada 28 Mei 2020 dari <https://pemberdayaan.kulonprogokab.go.id/detil/1051/peran-keluarga-cegah-COVID-19>
- Mirza, R. (2017). Memaksimalkan Dukungan Keluarga Guna Meningkatkan Kualitas Hidup Pasien Diabetes Millitus. *Jurnal Jumantik*, 2(2), 12–30.
- Pranata, L., Indaryati, S., Rini, M. T., & Hardika, B. D. (2021). peran keluarga sebagai pendidik dalam meningkatkan pengetahuan tentang pencegahan covid 19. *Prosiding Penelitian Pendidikan dan Pengabdian 2021*, 1(1), 1389-1396.
- Riwidikodo, H. 2008. *Statistik Kesehatan*. Yogyakarta. Mitra Cendekia Press. Riyanto, Agus. (2011). *Aplikasi Metodologi Penelitian Kesehatan*. Nuha Medika. Yogyakarta
- Rustina. (2014). Keluarga Dalam Kajian Sosiologi. *Musawa*, 6(2), 287–322.
- Santika, I. G. N. N. (2020). Optimalisasi Peran Keluarga Dalam Menghadapi Persoalan Covid-19: Sebuah Kajian Literatur. *Jurnal Ilmiah Ilmu Sosial*, 6(2), 127-137.
- Soekanto, S. (2010). *Sosiologi suatu Pengantar*. Jakarta: PT. Rajagrafindo Persada.

- Sulaeman, S., & Supriadi, S. (2020). Peningkatan Pengetahuan Masyarakat Desa Jelantik Dalam Menghadapi Pandemi Corona Virus Diseases-19 (Covid-19). *Jurnal Pengabdian UNDIKMA*, 1(1)
- Syahla, N. (2021). Peran Keluarga dalam Pencegahan Penularan Covid-19.
- WHO. 2020. Pertanyaan dan Jawaban Terkait Coronavirus. Diakses pada 28 Mei 2020 dari <https://www.who.int/indonesia/news/novel-coronavirus/qa-for-public>

THE EFFECT OF HYPNOBIRTHING ON THE LEVEL OF ANXIETY OF PRIMIGRAVIDA MATERNITY

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ABSTRACT

Introduction: Pregnancy is a crisis of maturation that can cause anxiety in pregnant women. The anxiety in primigravida mother is greater than multigravida mother due to childbirth is a new thing. The unresolved anxiety during pregnancy may give a bad consequences for both mother and fetus. Hypnobirthing is one of the mind-body interventions to reduce anxiety, fear, panic, and tense during pregnancy and childbirth

Objective: The aim of the study was to find out the effect of hypnobirthing on the level of anxiety of primigravida maternity

Methods: This study used a pre-experimental design with one group pretest-posttest design. The population in this study was primigravida pregnant women who followed hypnobirthing at Tidar Hospital. The sample was 21 pregnant women with incidental sampling as the sampling technique. Data collection was performed before and after doing hypnobirthing by using Analog Anxiety Scale (AAS).

Results: There is hypnobirthing influence on the level of anxiety of primigravida maternity.

Conclusion: Hypnobirthing is effective reducing of anxiety of primigravida maternity at Tidar Hospital.

Suggestions: Hypnobirthing can be applied to reduce the anxiety of primigravida maternity at Tidar Hospital.

Introduction

Sarwoni (2018) said that pregnancy is a period of change and adjustment that can cause anxiety in pregnant women. Anxiety in pregnant women is related to changes in both physical and psychological. Helen (2011) said that the anxiety experienced by primigravida pregnant women is greater than that of multigravida pregnant women, this is because the process of pregnancy and childbirth is a new thing.

Bobak, Lowdermilk, Jensen (2014) said that the level of anxiety is influenced by several things, namely the level of education and social status, physical condition, personality type, environment and living

situation, and age. There is evidence that stress during pregnancy has several effects on the immune system and can ultimately affect fetal growth and development. Pregnant women who experience high levels of anxiety can increase the risk of premature birth and even miscarriage. Other studies have shown that pregnant women with high anxiety during pregnancy will increase the risk of hypertension in pregnancy which can cause strokes, seizures, and even death for the mother and fetus.

Martalisa (2013) said that pregnant women need calm so as not to experience excessive anxiety, so that the pregnancy process runs smoothly, the more calm the mother is in facing childbirth, the more smoothly delivery will be. There are several ways of exercising that pregnant women can do to maintain the health of the body and fetus so that it develops properly and also keeps the mother's emotions stable, such as pregnancy exercise, pregnancy yoga. In addition, there is a natural method that can be done by pregnant women to make the condition of pregnant women more calm and peaceful during pregnancy by instilling positive intentions or suggestions into the subconscious mind so that they can overcome discomfort during pregnancy and pain during childbirth without any side effects. The side effect on the fetus is by using the hypnobirthing relaxation technique. Andriana (2014) said that hypnobirthing is one of the autohypnotic techniques (self hypnosis), which is a natural effort to instill positive intentions or suggestions into the soul and subconscious mind during pregnancy and childbirth preparation.

Based on the results of a preliminary study at Tidar Hospital, there is no hypnobirthing method's that applied before at Tidar Hospital. The authors are interested in examining the effect of hypnobirthing on the anxiety level of primigravida pregnant women in Tidar Hospital.

Methods

This study uses a pre-experimental one group pre-test and post-design method. The population of this study was primigravida pregnant women in Tidar Hospital. Using incidental sampling technique, conducted in September 2022, and obtained 21 respondents. The measuring instrument for hypnobirthing using Standard Operating Procedures (SOP) and measuring anxiety using the Analog Anxiety Scale (AAS) which is a modification of the Hamilton Anxiety Rating Scale (HRS-A) which includes six statements.

Results And Discussion

In a study conducted at the Midwifery Polyclinic of Tidar Hospital, the distribution of respondents based on the characteristics of pregnant women, levels of anxiety before and after hypnobirthing obtained the following results:

Table 1
Frequency distribution of respondents based on the characteristics of pregnant women
September 2022 (n=21)

No	Characteristics of Pregnant Women	Frequency	Percentage (%)
1	Age		
	20-29 years old	15	71,43
	30-39 years old	6	28,57
2	Gestational Age		
	First trimester	0	0
	Second Trimester	0	0
	Third Trimester	21	100
3	Education		
	Base	0	0
	Intermediate	2	9,52
	Advance	19	90,48
4	Work		
	Unemployed	3	14,29
	Civil servant	3	14,29
	Private sector employee	13	61,90
	Self-employed	2	9,52

Source : Processed primary data

Analysis :

Table 1 shows the majority of pregnant women, namely 15 (71.43) with ages between 20-29 years, and all pregnant women, namely 21 (100%) with gestational age in the third trimester, pregnant women with higher education categories at the Academic level and Universities as many as 19 people (90.48%), pregnant women with the type of work as private employees as many as 13 people (61.90%).

Table 2
Frequency Distribution of Respondents Based on Anxiety Levels Before Hypnobirthing
September 2022

No	Anxiety Level	Frequency	Percentage (%)
1	Un-anxiety	0	
2	Mild	9	42,86
3	Moderate	7	33,33
4	Severe	4	19,05
5	Panic	1	4,76
	Total	21	100

Source : Processed primary data

Analysis :

Table 2 shows that of the 21 respondents, most of them, namely 9 respondents (42.86%) experienced mild anxiety and a small proportion, namely 1 respondent (4.76%) experienced panic anxiety.

Table 3
Frequency Distribution of Respondents Based on
Anxiety Levels After Hypnobirthing

September 2022			
No	Anxiety Level	Frequency	Percentage (%)
1	un anxiety	11	52,38
2	Mild	3	14,29
3	Moderate	7	33,33
4	Severe	0	0
5	Panic	0	0
Total		21	100

Source : Processed primary data 2022

Analysis :

Table 3 shows that most of the respondents, namely 11 people (52.38%) did not experience anxiety (anticipation), while a small number of respondents, namely 3 respondents (14.29%) experienced mild anxiety.

Table 4
Differences in Anxiety Before and After Hypnobirthing
September 2022

No	Before <i>Hypnobirthing</i>	After <i>Hypnobirthing</i>	Difference	Rating Without Noticing the Signs	Marked Rating	
					Positive	Negative
1	240	170	70	8,5	+8,5	
2	170	80	90	12,5	+12,5	
3	220	160	60	6,5	+6,5	
4	310	230	80	10,5	+10,5	
5	280	100	180	21	+21	
6	170	80	90	12,5	+12,5	
7	160	110	50	5	+5	
8	190	150	40	3,5	+3,5	
9	180	30	150	19	+19	
10	350	220	130	18	+18	
11	210	200	10	1	+1	
12	200	100	100	14,5	+14,5	
13	270	250	20	2	+2	
14	310	250	60	6,5	+6,5	
15	170	90	80	10,5	+10,5	
16	360	250	110	16,5	+16,5	
17	180	80	100	14,5	+14,5	
18	250	180	70	8,5	+8,5	
19	420	260	160	20	+20	
20	190	80	110	16,5	+16,5	
21	160	120	40	3,5	+3,5	
					$\Sigma=T=0$	
$\bar{x} = 237,7$	$\bar{x} = 150,9$					
Z count = 4,01						
Z tabel = 1,645						

Source : Processed primary data

Analysis :

The table above shows the results of the Wilcoxon signed rank test. The average anxiety before hypnobirthing was 237.7 (moderate anxiety), while anxiety after hypnobirthing was 150.9 (mild anxiety). After testing using the Wilcoxon signed rank test manually, the value for Z count is 4.01 and Z table for an error rate of 5% is 1.645, because Z count > Z table then H_0 is rejected and H_a is accepted, meaning that there is an effect of hypnobirthing on the level of Anxiety of primigravida pregnant women in Tidar Hospital.

Most of the respondents experienced a decrease in anxiety levels, but there were two people who did not experience a decrease in

anxiety, based on the results of the interview, this was because the two people could not concentrate when the hypnobirthing took place. This is also supported by the education level of both of them being secondary so that they are more prone to anxiety than those with higher education. The average level of anxiety before hypnobirthing was moderate anxiety, while the average after hypnobirthing was mild anxiety. Hypnobirthing which is only done once cannot eliminate anxiety completely, so pregnant women still need assistance from both the closest people and from health workers.

The results of this study are supported by research conducted by Martalisa (2013), that there are differences in anxiety levels before and after hypnobirthing from moderate anxiety to mild anxiety. When the mother is pregnant, the mother will experience physiological and psychological changes that can cause feelings of anxiety, fear, and discomfort, by doing hypnobirthing, the mother will become calmer and relaxed so that she can reduce the level of anxiety she experiences.

Hypnobirthing teaches pregnant women to be at one with the natural movements and rhythms of the body during childbirth, to allow the body and mind to work, and to believe that the body is able to function as it should so that the pain will disappear. According to the researcher's assumption, the success of hypnobirthing is influenced by several things, including the trusting relationship between the facilitator and pregnant women, a comfortable and safe environment when doing hypnobirthing and the facilitator's ability to guide hypnobirthing.

CONCLUSION

1. The level of anxiety before hypnobirthing was carried out, as many as 9 people experienced mild anxiety, 7 people with moderate anxiety, 4 people with severe anxiety and 1 person experienced panic.
2. The level of anxiety after hypnobirthing was carried out, namely 11 people were not anxious, 3 people experienced mild anxiety levels, and 7 people had moderate anxiety.
3. After being tested with the wilcoxon signed rank test with a significance level (α) of 0.05, the Z count = 4.01 so that the Z count > Z table means that there is an effect of hypnobirthing on the anxiety level of primigravida pregnant women in Tidar Hospital, September 2022.

SUGGESTION

Health workers are expected to provide more motivation to pregnant women to participate in hypnobirthing in order to reduce the level of anxiety experienced by pregnant women, so that the use of drugs and their side effects can be avoided. Hypnobirthing can be

applied to reduce the anxiety of primigravida maternity at Tidar Hospital.

REFERENCES

1. Prawirohardjo, Sarwono (2018). *Ilmu Kebidanan*. Jakarta: Yayasan Bina Pustaka
2. Baston, Helen. (2011). *Midwifery Essentials Antenatal*. Jakarta: EGC
3. Musbikin, Imam. (2006). *Persiapan Menghadapi Persalinan dari Perencanaan Kehamilan Sampai Mendidik Anak*. Yogyakarta: Mitra Pustaka
4. Stuart, Gail. (2006). *Buku Saku Keperawatan Jiwa*. Jakarta: EGC
5. Bobak, Lowdermilk, Jensen. (2014). *Buku Ajar Keperawatan Maternitas*. Jakarta: EGC
6. Andriana, Evariny. (2014). *Mencerdaskan Anak Sejak Dalam Kandungan*. Jakarta: Bhuana Ilmu Populer
7. Larasati, M. & Kumolohadi, R. (2010). *Kecemasan Menghadapi Masa Persalinan Ditinjau dari Keikutsertaan Ibu Dalam Senam Hamil*. Diakses pada tanggal 15 September 2021 dari <http://psychology.uii.ac.id>. Skripsi tidak diterbitkan.
8. Kuswandi, Lanny. (2014). *Keajaiban Hypno-Birthing*. Jakarta: Pustaka Bunda
9. Martalisa, W. & Budisetyani, W. (2013). Hubungan Intensitas Keikutsertaan Hypnobirthing dengan Tingkat Kecemasan Ibu Hamil. *Jurnal Psikologi vol. 1 no 1: 116-128*.

**APPLICATION OF RESEARCH RESULTS ON ADOLESCENT
REPRODUCTIVE HEALTH EDUCATION AND TEACHING
ABOUT EARLY DETECTION OF BREAST CANCER IN
ADOLESCENTS IN MAN 2 MAGELANG REGENCY**

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ABSTRACT

Introduction: A large number of teenagers is very significant potential in continuing development in Indonesia. As stated in the outlines of Indonesia's development that the development of children and adolescents is carried out through improving nutrition, fostering religious behavior and noble character, growing interest in learning, increasing inventiveness and reasoning power as well as creativity, and growing idealism and patriotism. However, there is an imbalance of development efforts carried out especially for adolescents, eventually causing problems for development itself. Adolescent curiosity about sexuality and sexual urges has caused adolescents to engage in adolescent sexual activity, which ultimately causes problems in adolescents related to sexual activity. Such as cases of sexual violence, unwanted pregnancy (KTD) in adolescents, adolescent abortion, early marriage, and so on

Methods: The implementation of this community service consists of two activities, namely teaching theory about reproductive health and practical/assistance in the early detection of breast cancer, and adolescent health care. With lecture methods, discussions, and practical skill tutorials.

Results: The service team works with students to divide students/target groups of 50 students into 3 groups (20, 15, and 15 students), Determine the day/date of the meeting for each group, and Every day/date of the meeting only brings 1 group, Conducted Pre Test, followed by giving material on reproductive health for young women and practicing how to properly check for breast cancer early, and so on for the next groups., Provide photocopies of materials and share them through student WA groups and install several banners stands about reproductive health and breast examination methods. , as part of the health promotion media., This technique is also used in the implementation of the Post Test. The performance of the Post Test is carried out after 1 month from the implementation of the Pre Test.

Conclusion: This community empowerment activity has been carried out starting from socialization to the MAN 2 Magelang Regency and the students who are the targets. By continuing to apply the Health protocol. After completing this community service activity, data processing from the results of the pre-post test was carried out on 50 students of MAN 2 Magelang Regency and making reports on the final results of community service, as well as making financial report responsibilities by the budget received and arranged according to expenditures on community service activities.

Keyword : Community Dedication; Health Education; Adolescent Reproduction; Early Detection of Breast Cancer.

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Introduction. The beginning of the 21st century is marked by the phenomenon of demographic transition that causes changes in the structure of the population, especially the population structure according to age. If previously the largest population was children, in this transition period the proportion of the population aged teenagers are getting bigger. United Nations Population Agency - United Nations for Population Fund (UNFPA) in the State of World Population 2011, noted that when the world's population was estimated to reach seven billion people last year, almost half of them were teenagers aged 10-24 years. A total of 1.2 billion people in the world or almost 1 in five people in the world are aged 10 -19 years.

In Magelang itself, based on 2014 Magelang City Health Profile data, 1 out of every 4 Indonesians is a young person of 10 - 24 years. According to statistical data, the population in Magelang City in 2018 reached 120,674 people, consisting of 59,654 (49.%) men, and 61,020 (51.1) women. Of these, around 27,091 (23%) were children/teenagers. They are the next generation of the nation and will be parents for the next generation.

The number of teenagers who are not small is very significant potential in continuing development in Indonesia. As stated in the outlines of Indonesia's development that the development of children and adolescents is carried out through improving nutrition, fostering religious life behavior and noble character, growing interest in learning, increasing inventiveness and reasoning, and creativity, and the growth of idealism and patriotism. However, there is an imbalance of development efforts carried out especially for adolescents, eventually causing problems for development itself.

One of the impacts of this development imbalance is the occurrence of fundamental changes regarding premarital sexual attitudes and behavior among adolescents. In Latin America, young people aged 15-24 years have intercourse (sexual relations) on average at the age of 15 for boys and 17 years for men. year for women.

Meanwhile, in Indonesia, one of the first five children born to married women at the age of 20-24 years is the result of sexual relations before marriage. Inaccurate and incorrect information about sexual and reproductive that they receive further complicates the problem of sexual behavior of premarital adolescents.

Adolescence is a transitional period between childhood and adulthood and has not yet reached the stage of mental and social maturity, so they have to face but also the quality of life of the next generation, thus placing this period as a critical period (Rochmawati, 2010). Adolescents are expected to be able to carry out their reproductive functions properly, therefore they must recognize their reproductive organs, the functions that will be carried out in the reproductive process cannot be carried out if the reproductive organs are not maintained from the start.

In this case, adolescent reproductive health efforts that need to be done are providing reproductive health information in various forms as early as possible to all segments of youth, both in urban and rural areas. Providing this information to increase knowledge which in turn can provide choices for adolescents to act responsibly, both to themselves and their families and communities. Another effort is to provide the widest portion and opportunity for moral/religious education to all children/adolescents, by providing comprehensive information regarding reproductive health (Husni, 2015).

In addition, it is also necessary to direct efforts to promote and prevent reproductive health problems in adolescence. Information and counseling, counseling, and clinical services need to be improved to overcome adolescent reproductive health problems. (Harahap, 2013).

A survey conducted by the 2014 Central Java PKBI Pillar Youth Center in Semarang revealed that by asking questions about the process of having a baby, family planning, ways to prevent HIV/AIDS, anemia, ways to care for reproductive organs, and knowledge of reproductive organ functions, it was obtained information that 43.22 had low knowledge, 37.28% had sufficient knowledge while 19.50% had adequate knowledge (Husni, 2015).

Based on the results of Eny Winaryati's research on 217 young women in Magelang City in 2018, regarding knowledge about reproductive health, including knowledge about menstruation, sex, venereal disease, and family planning, it was found that most (99%) were in the moderate and poor category. This lack of knowledge will affect attitudes and behavior, ultimately related to the emergence of problems in adolescents (Eny, 2010).

Adolescents generally face the same problems in understanding sexuality, namely the lack of knowledge about sexuality and reproductive health caused by limited access to information and youth

advocacy, lack of access to youth-friendly services, and the absence of a health curriculum.

reproduction of adolescents in schools, as well as the limited number of institutions in the government that specifically deal with adolescents, and there, is no law that accommodates the rights of adolescents.

Legislation and cultural regulations also make it increasingly difficult for adolescents to openly gain knowledge about sexuality and reproduction. The law still restricts and mentions prohibiting the provision of sexual information and services to unmarried persons. This has limited educational and social space to provide knowledge to adolescents about sexuality. In addition, culture has caused teenagers to be taboo to talk about their sexuality and reproductive health issues. When that happens, finally another path that harms adolescent development is chosen. And what happens is that in the end, many teenagers satisfy their curiosity through various sources of information about sexuality in the mass media and the internet.

Based on the description above, knowledge about adolescent reproductive health needs to be improved so that adolescents have the right attitude and more responsible behavior in their development period. Therefore the DIV Nursing Study Program of Magelang Poltekkes of the Ministry of Health Semarang is interested in carrying out community service activities by providing reproductive health education to adolescents in SMU 5 and MAN Magelang City as the embodiment of one of the Tri Dharma of Higher Education.

Methods. The implementation of this community service consists of two activities, namely teaching theory about reproductive health and practical/assistance in the early detection of breast cancer, and adolescent health care. With lecture methods, discussions, and practical skill tutorials.

Result and Discussion. Before community service activities are carried out, making plans/mapping about activities, this community empowerment is carried out at MAN 2 Magelang Regency with the target of female students and begins with socialization in the school (Principal, Student Section, and school counseling section)

Community service has been carried out at MAN 2 Tegalrejo District, Magelang Regency, the target is 50 female students and with the assistance of some teachers who are present at the time the activity takes place. Every meeting still applies the Health protocol.

In connection with the ongoing government policy of implementing PPKM, the implementation of community service is carried out without violating PPKM and always implementing health

protocols.

1. Servants in collaboration with students divide students/target groups of 50 students into 3 groups (20, 15, and 15 students)
2. Determine the day/date of the meeting for each group
3. Every day/date of the meeting, only 1 group is invited.
4. Conducted Pre Test, (on August 1, 2, and 3, 2021)
5. Followed by providing material on the reproductive health of young women and practicing how to properly check for breast cancer early, and so on for the next groups.
6. Provide photocopies of materials and share them through student WA groups and install several banners stands about reproductive health and breast examination, as part of health promotion media.
7. The technique is also used in the implementation of the Post Test.
8. The Post Test is carried out after 1 month from the Pre Test, which is 12, 13, and 14 September 2021, with the hope that students have studied and understood the material provided

Community service participants were very serious in receiving the material and assistance in the practice of breast examination, with the emergence of several questions from students.

Conclusion and Suggestions. Assessment in this activity is carried out systematically. Before the activity, a pre-test was carried out on the students of MAN 2 Magelang Regency to determine the extent of students' knowledge about reproductive health. Then after the series of activities are completed, the target subjects of this activity are expected to be able to understand, shape attitudes and behaviors as well as appropriate and responsible skills in maintaining their reproductive health, and apply the knowledge gained in everyday life.

The benchmark for the success of this activity is the increasing knowledge of adolescents about reproductive health and the positive response from related parties who expect this activity. The way to find out that there is an increase in knowledge is to carry out a pretest before the community service is carried out and a pros test is carried out after the community service is carried out.

References

- Azwar, S. 2015. *Sikap Manusia Teori dan Pengukurannya*. Yogyakarta : Pustaka Pelajar
- Harahap, Juliandi. 2009. *Introduksi Kesehatan Reproduksi*. [Online]. Tersedia:<http://rusliepidkesrepro.blogspot.com/2009/03/kesehatan-reproduksi-pengantar.html>. [23 Oktober 2010].
- Hurlock, B. Elizabeth. 1980. *Psikologi Perkembangan Suatu*

Pendekatan Sepanjang Rentang Kehidupan (edisi kelima). Jakarta: Erlangga.

Notoadmodjo, S. 2013. *Promosi Kesehatan dan Ilmu Perilaku*. Jakarta : Rineka Cipta

Notoadmodjo, S. 2007. *Promosi Kesehatan dan Ilmu Perilaku*. Jakarta : Rineka Cipta

Widyastuti, Yani, dkk.2009. *Kesehatan Reproduksi*. Yogyakarta:Fitramaya

Effectiveness of Oxytocin and Marmet Massage on Breast Milk Expenditure In Post Section Saecaria Mothers

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ABSTRACT

Introduction: Problems with early breastfeeding can occur in mothers who experience childbirth through Sectio Caesaria. This can have a negative impact on the baby's life. Mothers with Sectio Caesaria will have difficulty initiating early breastfeeding due to rooming-in factors, the condition of the incision in the mother's abdomen, weakness due to the influence of the anesthesia given previously, therefore patients with Sectio Caesaria surgery can only successfully breastfeed after a few hours after giving birth.

Methods: This research is a pre post test design. The sampling technique used is simple random sampling. The number of samples is 30 pregnant women post Sectio Caesarea.

Results: All 30 respondents after oxytocin and marmet massage experienced an increase of breast milk. Expenditure increase in mean by 6,44.

Conclusion: There is an effect of oxytocin and marmet massage on the speed of breast milk expenditure ($p < 0,05$)

Keyword : Oxytocin, marmet, massage, sectio caesarea, breast milk expenditure

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Introduction

Neonates, the period of early life outside the womb up to 28 days is the age group that has the highest risk of health problems. Coverage of the First Neonatal Visit (KN1) is an indicator that reflects health efforts made to reduce the risk of death in the neonatal period, which is 6-48 hours after birth, one of which is exclusive breastfeeding (Ministry of Health, 2018).

The results of Mapping the Infant Mortality Rate per 1,000 live births in Central Java Province in 2017 reached 8.93 per 1000 live births (jatengprov.go.id, 2018), while in the city of Magelang the latest data in 2016 reached 10.66 per 1000 live births (<http://data.magelangkota.go.id/>). In order to reduce child morbidity and mortality, the World Health Organization (WHO) recommends that children should get exclusive breast milk (ASI) at the age of 0-6 months (WHO, 2020). The same is also recommended by the United Nations Children's Fund / UNICEF (UNICEF, 2018). According to the Indonesian

Demographic and Health Survey (IDHS, 2017, p, 201) only half (52%) of children under 6 months are exclusively breastfed. The median duration of exclusive breastfeeding was 3 months.

Problems with early breastfeeding can occur in mothers who experience childbirth through Sectio Caesaria (SC) (Dewey et al, 2003; Rowey-Muray & Fisher, 2002). This can have a negative impact on the baby's life. Mothers with cesarean will have difficulty initiating early breastfeeding due to rooming-in factors, the condition of the incision in the mother's abdomen, weakness due to the influence of the anesthesia given previously, therefore patients with cesarean surgery can only successfully breastfeed after a few hours after giving birth (Roesli, 2008 ; Masadah & Rusmini, 2015).

Mothers undergoing cesarean section under anesthesia may not be able to breastfeed their baby intensely, because the mother has to be moved to the Recovery Room. Although currently the implementation of early breastfeeding initiation (IMD) can also be carried out in the operating room, not all hospitals have the same policy. In addition, the feeling of the mother who is not sure that she can give breast milk to her baby because her condition will cause a decrease in oxytocin so that milk cannot come out immediately after giving birth and finally the mother decides to give formula milk (Masadah & Rusmini, 2015)

The inhibiting factor in breastfeeding is the production of breast milk itself. Insufficient and slow milk production can cause mothers to not give enough milk to their babies. In addition to the hormone prolactin, lactation also depends on the hormone oxytocin, which is released from the posterior pituitary in response to nipple sucking. Oxytocin affects the myoepithelial cells that surround the mammary alveoli so that the alveoli contract and secrete milk that has been secreted by the mammary glands, this oxytocin reflex is influenced by the mother's spirit. If there is a feeling of anxiety, stress and doubt that occurs, then the release of breast milk can be hampered (Kodrat cit Masadah & Rusmini, 2015).

Methods

This research is a pre post test design. The population in this study were patients with cesarean delivery in Harapan Hospital. The sampling technique used is simple random sampling. The number of samples is 30.

Result and Discussion.

Table 1. Pre-test and post-test scores

	N	Minimum	Maximum	Mean	Std. Deviation
pre_test_m	30	2	4	2.63	.669
post_test_m	30	8	10	9.07	.944
Valid N	30				

Table 2. Test Results Wilcoxon test

Pijat Oksitosin dan Marmet	
Z	-4.868 ^a
Asymp. Sig. (2-tailed)	.000

The result showed that from 30 respondents before and after oxytocin and marmet massage experienced an increase in the adequacy and speed of breast milk expenditure. The mean difference before and after oxytocin and marmet massage was 6.44. The results of the Wilcoxon test shown p-value = 0.000. These results indicate that the administration of marmet and oxytocin techniques affect the production of postpartum mother's milk which can be achieved by all respondents. Oxytocin massage is a massage along the spine (vertebrae) to the fifth - sixth costae bone and is an attempt to stimulate the hormones prolactin and oxytocin after childbirth (Biancuzzo, 2003; Yohmi & Roesli, 2009). This massage serves to increase the hormone oxytocin which can calm the mother, so that milk will automatically come out.

The Marmet technique developed massage and stimulation methods to help the milk ejection reflex. The success of this technique is the combination of massage and milk ejection methods that help the milk ejection reflex (milk ejection reflex) so that breastfeeding mothers who previously were only able to express little or no milk get very good results.

Bowles (2011) states that for the production of breast milk and smooth milk expenditure, stimulation of the breast muscles is needed so that the breast glands work more effectively, so that the muscles will contract better and good contractions are needed in the lactation process. Stimulation of the breast muscles can be done by massage or breast massage, one of which is by giving this marmet technique. Based on this study, it was found that all respondents received sufficient milk production. This can be caused by giving stimulation to the breast muscles to work more effectively through the provision of marmet techniques that can stimulate the let-down reflex that triggers the release of breast milk. So by doing the marmet technique on post partum mothers, it can help increase the adequacy of breast milk

production in post partum mothers.

Manipulation massage can accelerate milk production by how to stimulate hormone secretion. Oxytocin massage is the act of doing massage in the area back in the spinal area using both thumbs in a circular motion (movement love). This massage can be done twice a day a day with a duration of 3-5 according to this massage will help overcome problems during breastfeeding namely breast milk that does not come out (Pumama, 2013)

Breastproducing milk begins when the baby starts suckling on the nipple and the result of stimulation physical activity causes impulses in nerve endings that then sent to the hypothalamus in the brain which alternately tells the pituitary gland to brain to produce the hormone oxytocin and prolactin. Prolactin causes milk produced and oxytocin causes muscle fibers to that surrounds the alveolar glands shrivel up like on the uterine muscles. When the muscle fibers around alveolar glands constrict causing milk out which is called flow, this event can be cause sensation in the breast and squirt milk from the nipple. Hormone oxytocin will come out through stimulation to the nipple milk by sucking the baby's mouth or through massage on the spine of the baby's mother, by doing massage on the mother's spine will feel calm, relax, increase the pain threshold and love the baby, so that the hormone oxytocin comes out and breast milk comes out quickly (Astutik, 2015).

Conclusion and Suggestions.

Oxytocin and marmet massage are effective to increase the speed of milk breast milk expenditure. This intervention can be given to post section saecaria pregnant women

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References

Amini, R.A., Rahayu, S., (2019). The Influence Of Galbladder Acupressure Point 21 (Jian Jing) And Stomach 18 (Ru Gen) In Increaseing Breastmilk Production, Proceedings of International Conference on Applied Science and Health, <https://publications.inschool.id/index.php/icash/article/view/402>

CT Beck-MCN The American Journal of Maternal-Child Nursing. [Last accessed on 2014]. Available from: <http://www.journals.lww.com/>

Esfahani, M.S., Berenji-Sooghe, S., Valiani, M., and Ehsanpour, S., Effect of acupressure on milk volume of breastfeeding mothers

referring to selected health care centers in Tehran, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4325417>

Lixin W, Wang H, Han Y, Li C. Clinical Observation on the effects of Electro acupuncture at Shaoze (SI 1) in 46 Cases of Post partum Insufficient Lactation. *J Tradit Chin Med.* 2008;28:168–72.

Nuesch R, Schroeder K, Dieterle T, Martina B, Battegay E. Relation between insufficient response to antihypertensive treatment and poor compliance with treatment: A prospective case-control study. *BMJ.* 2001;323:142–6.

Rahayu, D., Satoso, B., Yunitasari, E., (2015). The Difference In Breastmilk Production Between Acupresure Point For Lactation And Oxytocin Massage, *Jurnal Ners*, <http://dx.doi.org/10.20473/jn.v10i1.1852>

Rian Adi Pamungkas, Kanittha Chamroonsawasdi & Paranee Vatanasomboon (2017). A Systematic Review: Family Support Integrated with Diabetes Self-Management among Uncontrolled Type II Diabetes Mellitus Patients. *Behavioral Science.* 7, 62.

Rohmah, S., (2019). Pengaruh Akupresur (Titik St 17 Dan St 18) Dan Pijat Marmet Terhadap Produksi ASI Ibu Post Sectio Caesarea Di Rumah Sakit Roemani Muhammadiyah Semarang, Undergraduate Thesis, <http://repository.unimus.ac.id/id/eprint/3409>

Santhanakrishnan, Iswarya, Lakshminarayanan, Subitha dan Sekhar Kar, Sitanshu (2014). Factors affecting compliance to management of diabetes in Urban Health Center of a tertiary care teaching hospital of south India. *Journal of Natural Science, Biology and Medicine* 5(2): 365–368.

Susilawati, F., Halim, A., (2018). Pengaruh Pemberian Aroma Terapi Rose dan Akupresur

UNICEF, 2018, *Breastfeeding a Mothers Gift for Every Child.* UNICEF

WHO, 2020, *Exclusive Breastfeeding* https://www.who.int/nutrition/topics/exclusive_breastfeeding/en/

Wulandari, A.S., Hasanah, O., Sabrian, F., (2019). Pengaruh Akupresur Terhadap Produksi Air Susu Ibu (ASI), *Jurnal Ners Indonesia*, <http://dx.doi.org/10.31258/jni.10.1.51-60>

SEFT THERAPY TO REDUCE STRESS LEVELS IN ADOLESCENTS

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ABSTRACT

Introduction: Adolescents are a group of 10-19 years old who experience a transition period between childhood and adulthood. Adolescents experience drastic changes in all aspects of their development, physically, cognitively, personality, emotional and social. Adolescence experiences adjustments in almost all aspects of life, so it can cause of stress for adolescents. Stress is a feeling experienced by an individual when facing a stressful situation. Prolonged stress in adolescents is not only detrimental academically but can also adversely affect the physical and mental health of adolescents. One method to reduce stress levels is with SEFT-therapy.

Methods: This study aims to determine the effect of self therapy on reducing stress levels in adolescents. This study is a quasi-experimental study with a one-group pre-post test design approach. The study was conducted on 288 students of SMAN 2 Magelang City. Stress levels were measured using the perceived stress scale instrument. Data analysis using paired sample t-test.

Results: There was a decrease in stress levels in adolescents after SEFT therapy, from an average of 20.34 to 16.75. The results of statistical analysis using paired sample t test obtained a significance value (p value = 0.000 < 0.05).

Conclusion:

Keyword : stress, adolescents, SEFT

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Introduction. Adolescents are a group of ages between 10 to 19 years who experience a transition period between childhood and adulthood. At this time there were drastic changes in all aspects of its development, both physically, cognitively, personality, emotional and socially (Hastuti, 2019). Adolescence is often interpreted as a time to find identity by trying an appropriate lifestyle, this can be a stressor or a stressor for adolescents (Samsugito, 2019). One of the factors causing the stress level of teenagers today is because they have difficulty when they have to study at home due to the pandemic. Adolescents who are in high school must adjust to the new environment at school and the wider association, thereby increasing stress. Stress is a feeling experienced by an individual when facing a stressful situation. Stress is an adjustment effort where if the individual is not able to overcome it, it can cause physical, behavioral, feeling and mental disorders with various factors such as frustration, conflict, pressure, and crisis (Ananda SSD, 2020). Prolonged stress in adolescents is not only detrimental

academically but can also adversely affect the physical and mental health of adolescents (Suratmini, 2019)

According to Rofacky (2014), to manage stress caused by various stressors, effective therapy is needed. One therapy that can be used by adolescents is Spiritual Emotional Freedom Technique (SEFT). SEFT therapy, including relaxation techniques, is a form of mind-body therapy from complementary and alternative nursing therapies. SEFT is a technique of combining the body's energy system (energy medicine) and spiritual therapy by tapping on certain points on the body. SEFT therapy has been shown to reduce stress levels in adolescents (Rahmawati, 2019).

Based on this information, it is necessary to make real efforts in the form of community service for the application of spiritual emotional freedom technique (SEFT) therapy to adolescents. This action will be effective in reducing stress levels in adolescents. Sulifan, Suroso, & Muhid (2014) state that spiritual emotional freedom technique (SEFT) uses a combination of psychological and spiritual energy systems, so SEFT therapy, apart from being a healing method, can also make a person enter a spiritual space that connecting man with God. With SEFT therapy, adolescent stress will decrease and it is hoped that the quality of life and productivity of adolescents will increase.

Methods. This study is a descriptive study that aims to describe the stress level of adolescents before and after receiving SEFT therapy. The study was carried out at SMAN 2 Magelang City for 288 students. The activity begins by analyzing the situation and solving problems through a study of the characteristics of youth, advocacy, atmosphere building and partnerships. At this stage, the target of the intervention and the intervention method in the form of the preparation of the activity implementation module are also determined. The modules that have been compiled contain instructions or guidelines on how to do spiritual emotional freedom technique (SEFT) therapy.

The initial assessment was carried out to determine the stress level of adolescents by using a standardized perceived stress scale instrument. The next stage is the implementation of the spiritual emotional freedom technique (SEFT) intervention on a predetermined target. The intervention activity begins by explaining the material contained in the module. Furthermore, adolescents are given therapy following the guidelines or modules that have been given. All stages of activities will be monitored and evaluated at the last stage. Each teenager will then be reassessed for their stress level after doing SEFT therapy. So that SEFT therapy can be done alone, each teenager is given a guidebook to use independently.

Result and Discussion. The results of the study showed that SEFT

therapy had a significant effect on reducing stress levels in adolescents. Stress in adolescents can occur as a result of the COVID-19 pandemic. The COVID-19 pandemic around the world has caused all activities normally carried out outside the home to be banned and all people are urged to stay at home. As a result, these unusual conditions force everyone to adapt to new habits. Efforts to adapt can cause stress. One of the affected is teenagers who usually often do activities outside the home such as going to school and playing (Ananda and Apsari, 2020).

The study was conducted on 288 adolescents with male sex as many as 112 (39%) and female adolescents as many as 176 (61%). Adolescents are an age group that is susceptible to stress. In general, the stress experienced by adolescents is related to academic demands where adolescents feel pressured to get high grades and are worried about getting bad grades (Michaela C. Pascoe, 2020).

Stress in adolescents increases during the COVID-19 pandemic. The pandemic condition causes students to be forced to study at home so that the intensity of communication and interaction with peers decreases. This condition causes stress (Nastiti, A.D., 2022). Some of the things that cause teenagers to experience stress during the covid pandemic are, among others, due to sudden changes in the pattern of daily living habits. Reduced social interaction, stay-at-home restrictions, difficulties with schoolwork, substantial changes to daily routines, fear of illness, and boredom can all have dramatic psychological effects on adolescents. The development of life stages and hormonal changes make adolescents very accustomed to peer groups, so it is very difficult for adolescents to isolate themselves at home without interacting with their friends (Zhang, C., 2020).

The impact of stress on adolescents is very diverse, including a decrease in the capacity of academic abilities and mental health problems. Mental health problems can occur in adolescents such as anxiety, depression, sleep disorders and substance abuse. Depression in adolescents causes difficulty in learning concentration and reduces the appearance of learning performance. Drug abuse can also occur as a result of a lack of social support and ineffective individual coping (Michaela C. Pascoe, 2020).

Therapy that can be done to cope with stress in adolescents, among others, by doing SEFT. Table 1 shows the results of measuring stress levels in adolescents before and after SEFT therapy.

Table 1. Adolescent stress levels before and after SEFT therapy

Stress level	Before SEFT		After SEFT	
	Frequency	Percentage (%)	Frequency	Percentage (%)
mild	15	5,2	49	17
moderate	240	83,3	231	80,2
severe	33	11,5	8	2,8
	288	100	288	100

Based on table 1 above, it can be seen that most of the teenagers are in a state of moderate stress. After SEFT therapy, there was a decrease in stress levels. The average value of stress levels before therapy is 20.34 and after therapy is 16.75 or it can be concluded that there is a decrease in stress levels of 3.59. The results of the paired sample t-test showed a p value (p value; 0.000) which means that SEFT significantly reduces stress levels in adolescents.

Stress in adolescents must be overcome to improve learning abilities and increase productivity. One way to deal with stress in adolescents is SEFT therapy. SEFT is a combination of energy, psychic and spiritual therapy. SEFT can increase the ability to think positively and reduce stress levels (Nastiti, 2022).

SEFT therapy includes relaxation techniques which are a form of mind-body therapy from complementary and alternative therapies in nursing. The working principle of SEFT is similar to the working principle of acupuncture and acupressure therapy, namely by providing a stimulus to acupuncture points on the body's surface to cure a disease. The beats are made to stimulate key points along the 12 energy pathways or meridians. Through this meridian system, vital energy can be directed to the organ or part of the body that is experiencing disturbances. On the meridian path there are points that can be stimulated by finger pressure, tapping and blunt tools that do not penetrate the skin and are not painful. Stimulation in the SEFT method uses light tapping (tapping) at a certain point to have an effect at the site of stimulation or at a place far from the site of stimulation through neural, humoral and meridian mechanisms (Zainuddin, 2014).

The mechanism of SEFT in reducing stress is by tapping on meridian points which will increase endorphins which are substances or neurotransmitters that are naturally produced by the body by periaqueductal gray matter. Endorphins that are in the synapse of nerve cells will cause a relaxed condition throughout the body. This relaxed condition will provide a sense of comfort and reduce stress (Chen, F. 2015).

Conclusion. There was a decrease in stress levels in adolescents after SEFT therapy, from an average of 20.34 to 16.75. The results of statistical analysis using paired sample t test obtained a significance value (p value = 0.000 <0.05), so H_0 is rejected and H_a is accepted. This proves that SEFT therapy can reduce stress levels in adolescents.

References

Ade Sriwahyuni, Liza Merianti, & Dona Amelia. (2018). The Influence Of Self Emotion Freedom Technique (Seft) Therapy Toward Smoking

- Behavior Among Adolescent . *The Malaysian Journal of Nursing (MJN)*, 9(3), 28-33
- Ananda SSD. Apsari NC. (2020). Mengatasi Stress Pada Remaja Saat Pandemi Covid-19 dengan Teknik Self-Talk. *Prosiding Penelitian dan Pengabdian Kepada Masyarakat*. Vol 7, No: 2. Hal: 248 – 256. Agustus 2020. e ISSN : 2581-1126
- Chen F, Zhou L, Bai Y, Zhou R and Chen L. (2015). Hypothalamic-pituitary-adrenal axis hyperactivity accounts for anxiety-and depression-like behaviors in rats perinatally exposed to bisphenol A. *Journal of biomedical research*.
- Hastuti RY. Baiti EN. (2019). Hubungan Kecerdasan Emosional Dengan Tingkat Stress Pada Remaja. *Jurnal Kesehatan*, Volume VIII, Nomor 2, Juli 2019, hlm 84-93
- Karmiyati, D., Sari, S.Z. (2017). The Comparison between laughter and SEFT Therapy Effect Towards Stress for The Elderly People. *Proceedings of the 3rd ASEAN Conference on Psychology, Counselling, and Humanities (ACPCH)*
- Kartikaningtyas AA. Ruhaena L. Pratisti WD. (2019). *Efektivitas Seft (Spiritual Emotional Freedom Technique) Untuk Menurunkan Perilaku Agresi Pada Remaja*. Thesis. Institutional Repository Universitas Muhammadiyah Surakarta
- Michaela C. Pascoe, Sarah E. Hetrick & Alexandra G. Parker (2020) The impact of stress on students in secondary school and higher education, *International Journal of Adolescence and Youth*, 25:1, 104-112, DOI: 10.1080/02673843.2019.1596823
- Nastiti, A.D., Kusuma, E.R.A., Puspitasari, H., Handayani, D., (2022). SEFT and Academic Stress on Nursing Students in Online Learning During The Covid-19 Pandemic. *Jurnal Ilmu Keperawatan Jiwa*. Vol. 5 No. 1
- Rahmawati N. Aristina T. (2019). Pengaruh Terapi Spiritual Emosional Freedom Technique (SEFT) Terhadap Stres Mahasiswa di Akademi Keperawatan “YKY” Yogyakarta. *Jurnal Ners LENTERA*. Vol. 7 No. 1. Maret 2019
- Rofacky, Hendri Fajri. (2014). Pengaruh Terapi Spiritual Emotional Freedom Technique (SEFT) Terhadap Tekanan Darah Pada Penderita Hipertensi Di Wilayah Kerja Puskesmas Bergas Kecamatan Bergas Kabupaten Semarang : STIKES Ngudi Waluyo.
- Samsugito I. Putri AN. (2019). GambaranTingkat Stres Sebelum dan Sesudah Terapi Seft pada Remaja di SMAN 14 Samarinda. *Jurnal Kesehatan Pasak Bumi Kalimantan*.Vol.2. No. 2
- Sulifan, Y., Suroso, & Muhid, A. (2014). Efektifitas Terapi SEFT (Spiritual Emotional Freedom Technique) Untuk Mengurangi Perilaku Merokok Remaja Madya. *Jurnal Psikologi Tabularasa*, 9(1), 86–95
- Suratmini Dwi & Afriani Tuti, (2019). Pemanfaatan Deteksi Stres Remaja

- yang Efektif dan Efisien Melalui Aplikasi: Systematic Review. *Jurnal Keperawatan Respati Yogyakarta*. Vol. 6. No. 1. Hal 542-547
- Zainuddin AF. (2014). *Spiritual Emotional Freedom Technique (SEFT): Healing, Happiness, Success, Greatness*. Jakarta: Afzan Publishing
- Zhang, C., Ye, M., Fu, Y., Yang, M., Luo, F., Yuan, J., & Tao, Q. (2020). The Psychological Impact of the COVID-19 Pandemic on Teenagers in China. *The Journal of Adolescent Health*, 67(6), 747-755.

The Relationship Of Stress Level With Changes In Blood Pressure In Student Bachelor Applied In Nursing Magelang

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ABSTRACT

Introduction: Blood pressure can change at any time and can even change drastically. Stress is one of the triggers of changes in blood pressure. Stress can lead to change pressure blood good systole as well as diastole.

Methods: The research design is correlational analytic using a cross sectional approach. This study uses a total sampling technique of 63 respondents. Instruments in research This study uses a DASS 42 questionnaire with 14 stress level items for the stress level variable and *sphygmomanometer* as tool for variable pressure change blood.

Conclusion: the majority of respondents experienced changes in systolic and diastolic blood pressure until the results obtained with p value = 0.001 and 0.002 (p <0.05). Respondents can manage stress with good and could apply pattern behavior healthy one daily.

Keyword : Stress;Change Pressure Blood.

Introduction. Blood pressure is a very important factor in the human body. Blood pressure is the amount of force exerted by the blood on the inside of the arteries when the blood is pumped throughout the body (1) . Blood pressure can also change at any time and even change drastically. These changes in blood pressure include both a decrease and an increase, which are often result in somebody sigh dizzy, sick head, neck feel rigid, and eye dim. Not all blood pressure is within normal limits so blood pressure divided into two types, namely high blood pressure or hypertension and high blood pressure low or hypotension (2) . Hypertension occurs due to two factors, namely internal factors or risk factors that are notcan be changed, including genetics (heredity), age, race, and gender, while the external or modifiable risk factors, including being overweight (obesity), lack of activity physique for exercising, habit smoke, alcohol, consume caffeine, salt intake, consuming saturated fat, education level, work and stress psychosocial (3)

Blood pressure is influenced by several factors, one of which is changes in blood pressure namely stress. If prolonged stress can change normal functions in the body. So that over a long period of time it can cause signs of degenerative disease namely high blood pressure. In high blood pressure changes that occur continuously could cause existence damage on kidney like fail kidney, heart like coronary heart disease and brain that can cause stroke, so it is necessary to there is a proper handling or management of stress in order to prevent a fatal situation consequence from stress (4). Stress is wrong one the originator happening change pressure blood. *World Health Organization* (WHO) states that stress is an epidemic that has spread throughout the world whole world. Stress occur because there is interaction transactional between individuals with environment which each other related and each other influence, which accompanied with process adjustment in inside (5). Stress could caused by environment which considered challenge and threaten or undermine an individual's dynamic balance (6). Thing This causes pressure from the environment that can stimulate the body's reaction and psychic a individual. Miscellaneous stress there is three Among other stress light, stress currently and stress heavy, next stress susceptible occur on ages teenager 15-24 year where teenager on age the occur change psychology which among them instability emotional that includes low coping with stress (7). Irfan basyarul aqsho (2021) explains in his research on "Level Relationships" Stress To Pressure Blood On Age middle In Village Katikan Regency Ngawi" The results showed that the increase in the category of moderate stress was the most experienced by middle age and there is a fairly close and significant relationship between the level of stress on blood pressure in middle age (8). Meanwhile, in Bepri Agnesia's research, Kawi which explain about "Impact Stress To Pressure Blood Student Medical University Tarumanegara Before Exam Skills Clinical Base Block System Musculoskeletal" obtained results that by statistics no there is connection which mean Among stress with pressure blood student medical which undergo exam clinical skills (9).

Preliminary studies that have been conducted on seven undergraduate students of applied nursing Magelang final level where many are under pressure, so it is obtained data that of the five students experienced changes in blood pressure with an average average and two of them do not change with no change in pressure blood. Therefore, researchers are interested in

conducting research with the title relationship level stress to change pressure blood on student semester end in Magelang Nursing. The purpose of this study was to determine the level of stress in students, to determine changes in systolic blood pressure in students, to determine changes in diastolic blood pressure in students and analyze the relationship between Among stress level to change blood pressure on student.

Methods. Type study which will used is study quantitative with connection correlation through approach *cross sectional* ⁽¹⁰⁾ . The place conducted study on Magelang Nursing Study Program student. Operational definitions in this study are stress levels and changes in blood pressure. The stress level variable is a disturbance in thoughts caused by the demands of the surrounding environment and on the variables of change Blood pressure is a change in blood pressure either an increase or a decrease that compared by average pressure blood respondent on 1 month final. Population This research is all 8th semester students, totaling 63 students in the majors Nursing Magelang. Sample on study this use total sampling so that amount respondent as much 63 respondents ⁽¹¹⁾ . Instruments in study this is questionnaire dass 42 with 14 level stress for instrument in study this and *sphygmomanometer* aneroid.

Technique collection data started with permission to party study program Nursing Magelang then researcher meet respondent for explain destination study as well as ensure secrecy to respondent with give *informed consent* . Researcher distributing questionnaires to on April 4, 2022 using a questionnaire stress level DASS(*Depression, Anxiety, and Stress Scales*) 42 with 14 stress level items and continued by measuring blood pressure on the respondents. After that respondents were asked to return the questionnaire on 08 April 2022. The number of questionnaires distributed was 63 questionnaires and the questionnaires returned to researcher amount 63. After all questionnaire return from respondent so researcher continue checking on the results of the questionnaire, after that the results of the questionnaire are coded for easy to enter data. data in score to find out stress level results on each respondent and continued with enter stress level data and results blood pressure measurement that has been coded into computer software and then results the entered into the table which containing about characteristics respondent coverage, gender, changes in systolic blood pressure, changes in diastolic blood pressure and stress levels, the relationship of stress levels with changes in systolic blood pressure and the relationship stress level

with changes in diastolic blood pressure along with the results of statistical tests. Stage The last one is cleaning the data that was given the code and unused data again.

Result and Discussion. Analysis univariate study this explain about level stress and change pressureblood on student in Nursing Magelang.

1. Univariate analysis

a. Table Characteristics Respondent

Table 1. Distribution Frequency Respondent Age, Type Sex, Change systole, Changediaastole, Level Stress.

Characteristics Respondent	Frequency	Percentage(%)
Age		
20 years	2	3.2%
21 years	27	42.9%
22 years	34	54.0%
Total	63	100.0%
Type sex		
Man	11	17.5%
Woman	52	82.5%
Total	63	100.0%
Change systole		
Down	15	23.8%
Permanent	15	23.8%
Go on	33	52.4%

Total	63	100.0%	
Change diastole			
Down	19	30.2%	
Permanent	18	28.6%	
Go on	26	41.3%	
Total	63	100.0%	
Stress Level			
Not Stress	16	25.4%	
Mild Stress	25	39.7%	
Moderate Stress	10	15.9%	
Heavy Stress	9	14.3%	
Stress Very heavy	3	4.8%	
Total	63	100.0%	

Source : Data primary processed, 2022

The frequency distribution of respondents from a sample of 63 respondents can be seen that age respondent which divided in Three groups age with difference 1 year the majority of data obtained at the age of 22 years and in the 20 year group only there is 2 respondents. Whereas frequency type sex on table

4.1 on describe that majority respondent is manifold sex woman with a number of 52 respondents (82.5%) which means more than the number of respondents man of 11 respondents (17.5%).

Frequency change systole divided Becomes 3 category that is down, permanent and increase. As seen in table 1 the frequency of respondents with the majority the most is with the percentage of systole increased by 33 respondents (52.4%) and in systolic decreased and still obtained the same frequency results with a value of 23.8%. It was concluded that the result of the majority systolic change was increasing with the result of 33 respondents (52.4%). The changes in diastole listed in table 1 explain that it is known that there are 3 categories in this diastolic change where each categories have different values so that the highest majority is in diastole with an increase of 26 respondents (41.3%). While on

amount second highest is decreasing as much 19 respondents (30.2%).

The highest level of mild stress in nursing study program students in Magelang with frequency 25 respondents (39.7%) meanwhile there are 2 categories that are not far away amount percentage that is on category no stress and stress currently, however there are also 2 categories with percentages that are very far from the number of respondents who experience mild stress level.

2. Bivariate Analysis

a. Connection Level Stress With Change Pressure Blood systole

Table 2. Statistic test Connection Level Stress With Change Pressure Blood systole

Stress level	Change systole			Total	Spearman Rank	
	Down	Permanent	Go on		α	r
Not Stress	6 37.5%	9 56.3%	1 6.3%	16 100.0%	0.000	0.396
Stress Light	6 24.0%	2 8.0%	17 68.0%	25 100.0%		
Moderate Stress	1 10.0%	1 10.0%	8 80.0%	10 100.0%		
Heavy Stress	2 22.2%	2 22.2%	5 55.6%	9 100.0%		
Very Stress Heavy	0 0.0%	1 33.3%	2 66.7%	3 100.0%		
Total	15 23.8%	15 23.8%	33 52.4%	63 100.0%		

Source : Data Primary processed, 2022

The results in table 2 show the relationship between stress levels and changes in pressure blood, especially in systole, it was found that at mild stress levels, obtained existence increase amount change on systole where the trend is up. The results of statistical

tests listed in table 2 regarding The relationship between stress levels and changes in systolic pressure can be seen that the value of the correlation coefficient is 0.396 with p value = 0.001, so that the p value < 0.05, this means that H_a is meaningful, which means that there is a relationship between stress levels with change pressure blood systole on student Bachelor Applied in Nursing Magelang.

b. Relationship between stress levels and changes in pressure with changes diastolic blood pressure

Table 3. Statistic test Connection Level Stress With Change Pressure Blood diastole Source: Data Primary processed, 2022

Stress Level	Change diastole			Total	Spearman ranks	
	α	β	γ		ρ	c
	Down	Permanent	Go on			
Not Stress	8 50.0%	8 50.0%	0 0.0%	17 100.0%	0.002	0.389
Stress Light	7 28.0%	6 24.0%	12 48.0%	25 100.0%		
Moderate Stress	1 10.0%	1 10.0%	8 80.0%	10 100.0%		
Heavy Stress	2 22.2%	2 22.2%	5 55.6%	9 100.0%		
Very Heavy Stress	1 33.3%	1 33.3%	1 33.3%	2 100.0%		
Stress Light	19 28.6%	18 30.2%	26 41.3%	63 100.0%		
Total	8 50.0%	8 50.0%	0 0.0%	17 100.0%		

Results on table 3 show that connection level systole with change pressure blood diastole obtained results majority experience stress light with enhancement diastole amount 12 respondent with total 26 respondents who experienced an increase in blood pressure, especially diastolic. Results *Spearman Rank* statistical test found that the correlation coefficient = 0.389 and p value = 0.002, so that score $p < 0.05$ which means there is connection.

Thing this states that H_a is meaningful which means that there is a relationship between the level of stress with changes in blood pressure, especially diastolic in undergraduate students Applied in Nursing Magelang

Conclusion and Suggestions

A total of 25 respondents experienced mild stress levels (39.7%) with the majority aged 22 years as many as 34 respondents (54.0%). Based on the results of data analysis pressure change The results showed that those who experienced an increase in systole amounted to 52.4% and those who had experience increase on diastole amount 26 respondent (41.3%). Results test statistics *Spearman Ranks* states that there is a significant relationship with stress levels with change pressure blood with results $p\text{-value} = 0.001 (< 0.05)$, and there is the relationship between stress levels and changes in diastole with $p\text{-value} = 0.002 (< 0.05)$.

It is expected that final semester students can prepare assignments so that they can be better easy and complete the final task faster so it does not cause stress due to postponement of unfinished tasks. For further researchers to be able to do study which same and expected could develop study this. Researcher next could To do with give study about intervention for resolve stress level.

References

1. Alifariki LO. Epidemiology Hypertension: A Overview Based on Research Yogyakarta:Leutics Prio; 2019.
2. Fadlilah S, Rahil NH, Lanni FJJKKH. Analysis Factor Which Influence Pressure Blood and Peripheral Oxygen Saturation (SPO₂). 2020:21-30.

3. Situmorang FDJKJoN. Connection Level Stress With Incident Hypertension OnMember Prolanis in the Work Area Parongpong Health Center. 2020;2(1):11-8.
4. Hendra P, Virginia DM, Setiawan CH, M TAH, Press SDU, Press S. Theory and Cases Management Hypertension Therapy: Sanata Dharma University Press; 2021.
5. Jenita DTD. Psychology Nursing. Yogyakarta: References New Press; 2017.
6. DEWI NPRI, Lestari NKY, Dewi NLPTJBMJ. Stress Level Correlation With Quality Sleep Seniors: Correlation between Stress Levels And Sleep Quality On Elderly 2020;7(1):61-8.
7. Subrata AH, Wulandari DJJS. The Relationship between Stress and Blood Pressure in Sufferers Hypertension Productive age. 2020;1(1).
8. Aqsa IB. The Relationship between Stress Levels and Blood Pressure in Middle Ages in the Village Katikan Ngawi Regency. 2021;9(04).
9. Kawi BA, Dwiana A. Impact stress to pressure blood Student Medical University Tarumanagara before exam Skills Clinical Base Block System Musculoskeletal. Tarumanagara Medical Journal. 2019;1(2):442-8.
10. Dr. Abd. Mukhid MP. Methodology Study Approach QuantitativeJakad Media Publishing; 2021.
11. Sugiyono P. Educational Research Methods (Quantitative, Qualitative, Combination, R&D and Study Education). Educational Research Methods. 2019.
12. Lumbantobing R, Rahtriawati MAP. The Effect of Stress on Increased Pressure Blood on Social Workers at the Social Rehabilitation Center for People with Sensory Disabilities deaf

talk Jasmine Jakarta. 2021.

13. Subrata AH, Wulandari D. Connection Stress with Pressure Blood on Sufferer Hypertension Age Productive. J STETHOSCOPE. 2020;1(1).
14. Subramaniam VJISM. The relationship between stress and highblood pressure in college students. 2015;2(1):4-7.

Mentoring for nurses in the Early Detection of Diabetic Neuropathy at the Magelang City Public Health Center

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ABSTRACT

Introduction: Diabetes Mellitus is an epidemic disease that affects about 8.3 in adults, which is estimated at 382 million people from the total population, and 46% of cases. (Uzoagu. A, 2017). Mentoring for nurses in carrying out early detection of diabetic neuropathy and its prevention in DM patients, can improve the quality of nurse services at the Public Health Centre in providing care patients particularly in detecting early onset of chronic complications of DM especially diabetic neuropathy.

Methods: This community service activities is involving nurses working at Public Health Centre in Magelang City, Indonesia. Education and training on early detection of diabetic neuropathy and electric massage procedures in the prevention of diabetic neuropathy was used to improve the knowledge of the nurses. The activity started by giving pre-test, education about diabetic neuropathy and its prevention, demonstration of early detection of diabetic neuropathy. Each nurse was given mentoring the practice of early detection of neuropathy for 1 month at the North, South, Jurang-ombo, Magelang Tengah Health Centers, then followed by an evaluation in the form of a post-test.

Results: The accompaniment of nurses in early detection showed an increase in knowledge from the less and moderate categories before being given treatment to medium and good categories. There were 12 (70.5%) level of knowledge with moderate criteria, and the level of knowledge in the good category was 5 (29.5%).

Simulating the practice of early detection of diabetic neuropathy, direct assistance on how to detect it to patients, and the practice of electric massage therapy were also performed.

Conclusions: There were benefits for nurses as health workers in charge of the prolanis program to follow training on early detection of neuropathy in order to improve their knowledge and ability to provide services to diabetic neuropathy.

Keyword :

Early detection of Neuropaty Diabetic, Mentoring, Nurses.

Introduction

Neuropathy is one of complications of diabetes mellitus that is often occurred in adulthood. Neuropathy occurs as a result of accumulation of metabolic product that aberrate nervous tissue. This results in an inhibition of the conduction system and demyelination of the nervous system. Peripheral systemic polyneuropathy becomes abnormal which influences patient's extremities. However, it often takes effect generally in lower extremity which could result in problems on movement system and the patient's skin.

Diabetic neuropathy with a prevalence of about 60% is the most common form of neuropathy in developed countries and can affect about half of all DM patients and contributes to substantial morbidity and mortality. Cosequently, it can result in a large economic burden (Haleh, G., 2018). To know more about the existence of diabetic neuropathy, it is necessary to understand about sign and symptom neuropathy by taking history and doing physical examination using monofilament test. Likewise, the need for action prevention patients with *neuropathy diabetic*.

Some measures to take care of DM patients who experience Diabetic Neuropathy include controlling glucose blood level and increasing physical activity, lowering body weight, and controlling diet.

The results of this community activity will be effective in effort accompaniment of nurse in providing care on patients with DM which experience complications especially in early detection and prevention of diabetes neuropathy.

Method

This community service involving nurses at the Magelang City Public Health Center which some activities including giving pre-tests about diabetic neuropathy and its prevention, education about early detection of neuropathy and mentoring nurses on how to detect diabetic neuropathy early, after assisting the detection of neuropathy followed by demonstrating the use of electric massage in patients with diabetic neuropathy.

Results and discussion

Results

Based on the results of pre and post test scores showed an increase in the knowledge level in mean, median, minimum value and maximum value.

Table 1. Frequency Distribution of Knowledge of Early Detection of Diabetic Neuropathy Pre-test

Interval	Frequency	Percentage
Not enough	3	17.6%
Moderate	14	82.4%

The level of knowledge of the respondents before being given treatment for the level of knowledge was 3 (17.6 %), and the level of knowledge was 14 (82.4 %) .

Table 2. Frequency distribution Knowledge of Post-test Diabetic Neuropathy Early Detection

Interval	Frequency	Percentage
Moderate	12	70.5%
Good	5	29.5%

Based on the table, the level of knowledge of the respondents after being mentored by providing education about early detection of neuropathy for a moderate level of knowledge 12 (70.5%), and a good level of knowledge 5 (29.5 %) .

Table 3. Central Tendencies of Pre and Post test

Mean	Median	Minimum	Maximum
Pre 58,18	60.00 _	40	73
Posts 76.06	73.00 _	70	100

Based on the results of the pre and pot test scores, it shows an increase in scores which include: Mean, median, Minimum and Maximum value.

The activity of Nurses Mentoring

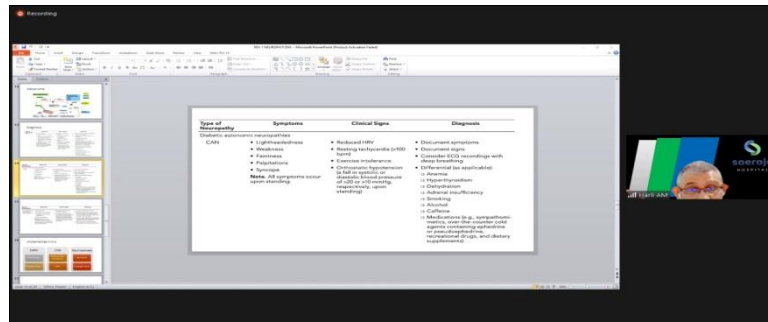


Figure 1. Online Education about Diabetes and Complications



Figure 2. Mentoring activities of early detection Diabetic Neuropaty



Figure 3. Mentoring activity of Electric Massage Therapy

Discussion

Nurses mentoring activities in early detection of neuropathy indicate an increase in knowledge from respondents, this is supported by the existence of learning media facilities, modules, practicals with Standard Operating Procedures, as well as mentoring about early detection practices directly to patients from each training participant. Learning media has a role in increasing one's understanding and cognitive in learning, this is in accordance with the results of research which states that learning media is a means to visualize the learning process which is often also used in teaching, so that learning media greatly affect the results of the learning obtained trying to get to know real life processes, then the teaching needs to be delivered with the right media so that learning objectives can be achieved (Supardi, 2012).

Early detection and timely treatment are very important to prevent the severity of diabetic neuropathy. According to Josie C, 2021, currently there is no simple tool for the early detection of Diabetic Perifer Neuropaty (DPN) in routine clinical practice. More generally, screening for diabetic neuropathy involves taking a history for neuropathic symptoms and examining the feet, as well as with screening tests. Traditional screening tests benefit from being fast and easy; but only assesses function of larger nerves and cannot detect early changes in small nerve fibers. Next, two systematic reviews focused on the use of monofilament assays. (Haleh, 2018).

Early detection to determine the presence of neuropathy in respondents using a assessment instrument which includes a history of neuropathy complaints and a monofilament test, the monofilament test is a tool that can be used to predict the incidence of Diabetic Neuropathy. Monofilament values indicate that higher insensitivity predicts a higher risk of foot ulceration; thus, practitioners need only use one tool to screen for diabetic neuropathy and to assess the risk of diabetic ulcers.

Nurses Mentoring in early detection of Diabetic Neuropathy has a very large role, because nurses who have been treating Diabetic Mellitus patients in the Chronic Disease Management Program do not know much about the symptoms and signs that are often experienced by patients with DM. And do not understand the examination procedure for early detection of Diabetic Neuropathy. With the training of nurses on duty in the Chronic Disease Management Program, it is very helpful to know early complications due to diabetes mellitus and prevent gangrene due to Diabetic Neuropathy. (Sunarmi, 2022).

Knowledge and skills of nurses in conducting early detection by history taking and examination of diabetic neuropathy with monofilament test showed an increase. By providing a manual in which there is an assessment guide on neuropathy complaints and direct mentoring practices regarding the monofilament test procedure to

patients are the main factors for these changes, as research on increasing cadre knowledge about early detection of diabetic foot can be done with training (Parliani: 2020) .

Conclusions and Suggestions

1. Nurses as health professionals in charge of the prolanis program should be trained on early detection of neuropathy in order to improve their abilities in providing care for DM patients, so that patients with diabetes can be monitored early for signs of diabetic neuropathy
2. DM patients who perform routine examinations at Prolanis don't have a monofilament test when visit for checking up.
3. Early Detection skills possessed by all trainees is a simple procedure by taking monofilament test examination and anamnesis guidance regarding complaints of diabetic neuropathy.

Recommendations

1. There is a needs to follow up the results of early detection of neuropathy by implementing of the use of electric massage therapy to neuropathy patients in the prolanis program activity to minimize further complications of neuropathy.
2. It is expected that the public health center can support to facilitate early detection of neuropathy and its prevention as an effort to minimize complications of diabetic ulcers due to diabetic neuropathy.
3. There is a need for follow-up assistance for independent early detection of diabetics themselves by using self-efficacy education and early detection of diabetic neuropathy .

Reference`

1. Agustini, 2019: *The Effect of Foot Massage on Decreasing Peripheral Neuropathy Diabetic Complaints in the Patients with Type 2 Diabetes Mellitus*, Journal of Ners Vol. 14, No. 3, [http://dx.doi.org/10.20473/jn.v14i3\(si\).17152](http://dx.doi.org/10.20473/jn.v14i3(si).17152)
2. Haleh Ghavami, 2018: *Effect of lifestyle interventions on diabetic peripheral neuropathy in patients with type 2 diabetes, result of a randomized clinical trial*, Agri 2018;30(4):165- 170 doi: 10.5505/agri.2018.45477
3. Natalia Chantal Magalhaes da Silva, 2015: *Foot reflexology in Feet Impairment of People with type 2 Diabetes mellitus: Ramdomized trial*. Rev. Latino.Am.Enfermagem 2015, july-aug.

- 23(4) 603-10
4. Sunarmi, et.all: *The Effectiveness of Massage Therapy on Healing of Diabetic Neuropathy in Diabetes Mellitus Patients*, Scientific Foundation SPIROSKI, Skopje, Republic of Macedonia Open Access Macedonian Journal of Medical Sciences. 2022 Feb 28; 10(G):190-194. <https://doi.org/10.3889/oamjms.2022.8564>
 5. Josie Carmichael at.all: *Advances in Screening, Early Diagnosis and Accurate Staging of Diabetic Neuropathy* . *Endocrinol.* 12:671257. doi:10.3389/fendo.2021.671257 . May 2021 | Volume 12 | Article 671257
 6. Parliani : *Assistance in the use of foot wound screening diabetes for health workers and cadres in remote areas* (Journal of Character Education Society) , 2020, Vol. 3, No. 3, October 2020, p. 583-594
 7. Shahram Baraz at.all: *Comparison of the accuracy of monofilament testing at various points of feet in peripheral diabetic neuropathy screening* . *Journal of Diabetes & Metabolic Disorders* 2014, 13:19 <http://www.jdmdonline.com/content/13/1/19>
 8. Supardi: *The Effect of Learning Media and Interest in Learning on Physics Learning Outcomes* , *Scientific Journal of Mathematics and Natural Sciences*, 2012 Institute for Research and Community Services , Vol 2, No 1 , (LPPM) Universitas Indraprasta PGRI
 9. Uzoagu A. onkonkwo, 2017 : *Diabetes and Wound angiogenesis*, *International Journal Mol.Sci*, 18.1419. DOI 10.3390/ijms18071419

**Case Study: Comparison of Hypertension Gymnastics,
Isometric Handgrip Exercise, and Progressive Muscle Exercise
in Changes on Blood Pressure in the Nursing Care of Mr. A's
Family with Hypertension**

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ABSTRACT

Introduction. Hypertension is a condition in which a person's systolic blood pressure is above 140 mmHg and diastolic is above 90 mmHg which results in an increase in morbidity and mortality. Increased blood pressure that lasts for a long time (persistent), can cause damage to the kidneys (kidney failure), heart (coronary heart disease) and brain (causing stroke) if not detected earlier to get adequate treatment.

Methods. Assessment of family nursing care was carried out on Monday, May 9, 2022 at the home of Mr. A's family with hypertension survivors in the working area of Dukun Magelang Health Center. The nursing problems found were ineffective family health management and readiness to increase family coping. The nursing plan for the diagnosis of ineffective family health management was prepared with the aim of increasing the level of knowledge, family health management, and level of compliance. The diagnosis of readiness to improve family coping aims to improve family function and family coping status. Nursing interventions provided for ineffective family health management in the form of health education, promotion of support systems, support for family planning care, coordination of family discussions, support for adherence to treatment programs. Interventions for the diagnosis of improving family coping include family involvement and promotion of coping

Results: The nursing evaluation showed that the diagnosis of readiness to increase family coping was partially resolved and readiness to increase family coping was partially resolved.

Conclusion: The process of family nursing care from assessment to evaluation is carried out.

Keyword : Nursing Care; Schizophrenia; Hallucinations; Talking therapy.

Introduction

A person is diagnosed with hypertension when person's systolic blood pressure at a health facility or clinic is 140 mmHg and diastolic blood pressure of 90 mm Hg after repeated examinations¹. Hypertension is found in all populations with different incidence rates related to genetic, racial, regional, sociocultural, and lifestyle factors and the risk increases with age. The prevalence of hypertension

globally in 2019 was 22% of the world's population². As many as 6-15% of hypertension survivors in Indonesia have not reached health services, especially in rural areas³. The number of hypertension sufferers in 2020 in Magelang Regency was 62 452 people and it was the most common disease suffered by residents of Magelang Regency in 2020⁴. Based on information from the medical records section of the Dukun Magelang Health Center, the number of hypertension survivors who were routinely controlled at the Dukun Health Center from January to December 2021 was as many as 156 people.

Although hypertension can still be prevented, hypertension is a fatal risk factor that can cause cardiovascular disease, most of which end in death⁵. The Family Centered Nursing model states that the family is an open system that interacts with each other, therefore the family nursing provided is focused on improving the health and well-being of all family members through improving the dynamics of internal family relationships, structure, function, and interdependence among family members⁶. One of the goals of the family approach is to increase family access to comprehensive and quality health services.

The non-adequate of family health care functions and basic human needs at the family level with hypertension will cause nursing problems which are referred to as family nursing problems. One practice of the nurse's role in family nursing interventions in this case study is the Family Nursing Care of Mr. A in the Dukun Health Center working area with one of the family members of a hypertension survivor. Nursing problems that arise include ineffective family health management related to complex and/or long therapy programs with health education interventions, promotion of support systems, treatment programs, and family support planning care. The second nursing problem identified was the readiness to increase family coping with nursing interventions to support compliance, family involvement, and promotion of coping.

Methods.

This research is a case study that aims to provide a detailed description of the background, nature, and character of a case, in other words, a case study focuses on a case intensively and in detail⁷. The family as the subject of a case study is analyzed in depth both from factors related to the case itself, risk factors, which influence, events related to the case as well as the actions and reactions of the case to a certain treatment or exposure, even though the research in the case is only in the form of a unit. single family, but analyzed in depth.

The research population was a family with hypertension in the Dukun Health Center Work Area, Magelang. Determination of the research sample using purposive sampling technique on the population that meets the inclusion criteria in this study. The sample in this study is the

family of Mr. A who has three family members with Mr. A as a hypertension survivor.

The whole process of family nursing care uses observation sheets and a list of interview questions according to the family assessment format to collect the necessary data. The family nursing assessment format includes the structure and nature of the family; social, economic, and family cultural factors; home and environmental factors; family medical history; and an assessment of five family tasks. In addition, to prioritize nursing problems identified based on the results of the study, researchers used the Bailon & Maglaya scale.

Data collection was carried out by researchers by conducting home visits to observe the condition of the home environment. Data related to the structure and nature of the family; social, economic, and family cultural factors; family medical history; as well as an assessment of five family tasks obtained by interviewing families. Physical examination activities on all family members were also carried out during the data collection stage.

The family studied is the family of Mr. A as the head of the family who is 49 years old and is a high school graduate. Mr. A is a Muslim and works as a farmer every day. Mr. A's home address is in Sempon Hamlet, Wates Village, Dukun District, Magelang Regency which is the working area of the Dukun Health Center. Mr. A's family has three members. Mr. A as the head of the family has three family members. The following is an overview of the genogram of Mr. A's family:

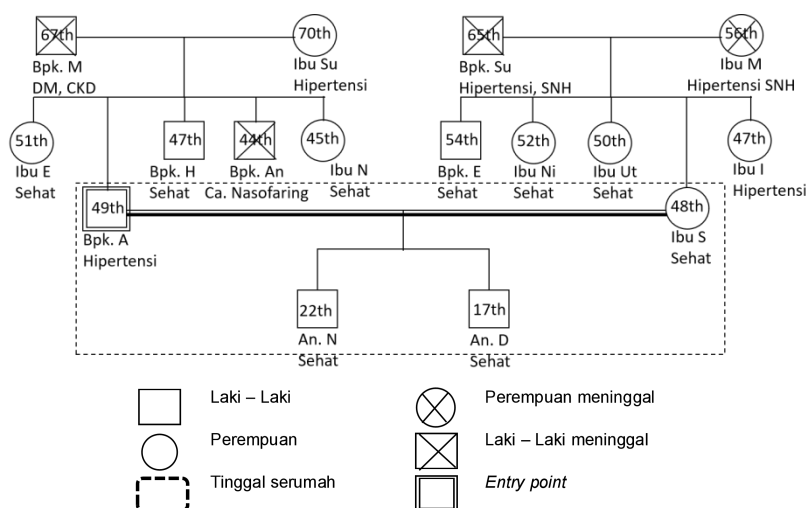


Figure 1. Genogram of Mr. A .'s Family

Mr. A's wife, Mrs. S, who is a Muslim, is currently 48 years old. His educational background is strata two (S-2) and is a civil servant teacher. Mr. A's first son, Anak N, who is a Muslim, is currently 22 years old. His educational background is a bachelor's degree (S-1) and is a private teacher. Mr. A's second son, Anak D, who is a Muslim, is currently 17

years old. His educational background is junior high school and currently a high school student. Mr. A said that he and all his family members lived in one house which was privately owned. The following is an overview of Mr. A's family ecomap:

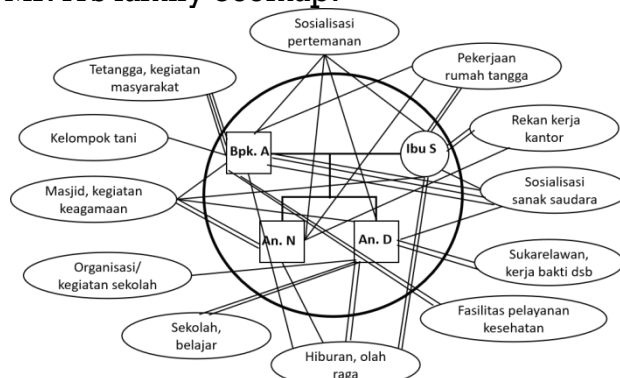


Figure 2. Mr. A.'s family Ecomap

The stage of development of Mr. A's family is included in the "launching center family" because the first child of this family is not married and still lives with his parents even though he is already working. The developmental task of Mr. A's family now continues to play the role of releasing his first child to prepare for his own life and maintaining the intimacy of the husband and wife relationship between Mr. A and Ms. S. In addition, family members can help each other who is sick, such as Child A and Child D who take Mr. A went to the family doctor's clinic when she felt nauseous, vomiting, and dizzy. The tasks at the stage of family development with adult children that have not been carried out by Mr. A's family include accepting the departure of the first child to live independently because, at the age of 22, Child N has not been allowed to marry and live independently with his new family. In addition, the task of expanding the nuclear family into a large family also cannot be carried out because according to Mrs. S, it still needs a lot of financial and emotional preparation for Child N if he is going to get married and form a new family.

Result and Discussion.

The nursing diagnosis that emerged in Mr. A's family was ineffective family health management related to complex and/or prolonged therapy programs. Ineffective family health management is defined as a pattern of handling health problems in the family that is not satisfactory to restore the health condition of family members. Major symptoms and signs that can be identified in the family include difficulty in carrying out the prescribed treatment (PPNI, 2017) which can be seen in the results of the study that Mr. A said he objected to waiting too long in the queue at the hospital so that sometimes control was outside the specified time, Mr. A admits that he often forgets to take

his hypertension medicine because sometimes he is active outside the house and does not bring medicine, and Mrs. S said that he cannot keep reminding Mr. A about the importance of taking hypertension medicine because he has to work from 07.00 to 16.00.

Other major signs, namely symptoms of family members' illness are getting worse (PPNI, 2017) were also found in Mr. A, namely saying that the palm of the hand and the fingertips of the right hand felt numb, Mr. A complained of dizziness and stiffness at the nape of the neck and red eyes and felt spicy when tired from the fields, Mr. A's BMI: 25.17 (overweight), and Mr. A occasionally seems to massage his right palm.

Family activities in overcoming inappropriate health problems (PPNI, 2017) are major symptoms and signs studied in the family, namely Mrs. S said she did not prepare a special low-salt diet menu for Mr. A, Mr. A said smoked an average of five cigarettes a day, and Mr. A said there was no regular exercise agenda so he never did strenuous physical activity, and Mr. A admitted that he often forgot to take his hypertension medicine because sometimes he was doing activities outside the home and he didn't bring medicine. nausea again.

The second nursing diagnosis assigned to Mr. A's family being cared for is the readiness to increase family coping which is a pattern of adaptation of family members in dealing with the situation experienced by the client effectively showing the desire and readiness to improve the health of the family and clients (PPNI, 2017). Family members set a goal to promote a healthy lifestyle identified in Mr. A's family who said they wanted their blood pressure under control. Another major symptom and sign, namely being able to set goals to improve health is a major symptom and sign that can be found in Mr. A's family, namely Mrs. S who said that when Mr. A was still diligent in cycling in the morning there were never any complaints related to his hypertension, and Mr. A said he wanted to join in activities that are followed by fellow patients with hypertension.

The supporting factor in determining nursing diagnoses is the presence of a supervisor who is a community nursing specialist so that he can provide direction and guidance in determining nursing diagnoses according to the data from the assessment results. No inhibiting factors were found during the nursing diagnosis process.

Based on the results of the study, it was obtained that Mr. A said that there was no regular exercise agenda so he never did a strenuous physical activity. Higher physical activity is positively correlated with a lower incidence of hypertension in adult workers in Colombo8. People who are not physically active tend to have a higher heart rate. This causes the heart muscle to work harder with each contraction. The harder the heart muscle works in pumping blood, the greater the blood pressure imposed on the arterial walls so that the peripheral resistance

causes an increase in blood pressure. Lack of physical activity can also increase the risk of being overweight which will cause the risk of hypertension to increase.

Apart from the lack of physical activity, Mr. A said that he smokes an average of five cigarettes a day. There is a relationship between smoking habits and types of cigarettes with the incidence of hypertension⁹. The buildup of harmful substances in the blood such as nicotine in cigarettes can cause various cardiovascular diseases such as hypertension and other complications. Nicotine and tar substances that enter the bloodstream can damage the lining of the artery walls and cause atherosclerosis and hypertension.

Mr. A said that the palm and fingertips of his right hand felt numb. The more and longer smoking history can increase the risk of blood vessel disorders which are characterized by the appearance of tingling or numbness symptoms¹⁰. The longer the smoking history, the more endothelial dysfunction occurs as a result of the amount of nicotine that enters the body. Likewise, the process of atherosclerosis is chronic, so the longer the smoking history, the more occlusions that form in the blood vessels which can increase blood pressure.

Mrs. S said that she did not prepare a special low-salt diet menu for Mr. A. There is a relationship between family support and adherence to a low-salt diet at the Ulaweng Health Center, Bone District¹¹. The length of the treatment process can result in saturated hypertension survivors so that they are at risk of experiencing despair which can result in incomplete treatment and difficulty to cure. Family support regarding hypertension and adherence to a low-salt diet that is needed is related to the compliance of hypertensive patients to implement a balanced diet.

The priority of family nursing problems is determined according to the Bailon and Maglaya scale by assessing the nature of the problem, the possibility that the problem can be changed, the potential for the problem to be prevented, and the prominence of the problem¹². The priority nursing problem in Mr. A's family is that family health management is not effective because of the unhealthy nature of the problem, namely a family with hypertension.

The nursing action plan for the diagnosis of ineffective family health management based on the SLKI (PPNI, 2018) includes the main outcome in the form of family health management and additional outcomes in the form of family resilience, health behavior, family health status, level of compliance, and level of knowledge. Nursing goals agreed upon with Mr. A's family include family health management, level of compliance, and level of knowledge. Outcomes of family resilience nursing are not the goal because Mr. A's family does not experience difficulties or crises that need to improve adaptation and function of the family's

capacity positively.

Given the limited time and resources, it is necessary to arrange nursing goals according to priorities and must be reasonable so that the health behavior outcomes that expect the ability of Mr. A's family to change lifestyle/behavior to improve health status are not used as the goal of nursing care. Mr. A's family can assess and respond to stressors and/or family abilities so that the outcome of the family's health status is not included in the goals of care. The planned nursing plan aims to improve the ability of Mr. A's family in managing and integrating the handling of health problems in daily life to achieve optimal health status after three visits.

The nursing diagnosis of a family coping readiness improvement based on the SLKI (2018) has the main outcome of family coping status and additional outcomes in the form of family function, family resilience, and level of anxiety. After three visits to Mr. A's family, it is expected that the behavior of family members in supporting, giving a sense of comfort, helping, and motivating other sick family members to adapt, manage and overcome health problems will improve. The goals of nursing care agreed with Mr. A's family are family functions and family coping status. Outcomes of family resilience nursing are not the goal of nursing care because Mr. A's family does not experience difficulties or crises that need to improve adaptation and function of family capacity positively. Mr. A's family does not experience emotional conditions and subjective experiences of objects that are not clear and specific because they can recognize the problem of hypertension in family members so that the level of anxiety is not an outcome of nursing care.

The priority nursing diagnosis in Mr. A's family is that the ineffective family health management has been partially resolved. The problem of ineffective family health management nursing which was solved to increase the level of knowledge was achieved by teaching Mr. A's family the importance of administering drugs in an orderly manner and routine control. The results of the nursing evaluation showed that Mr. A could explain the reasons why he should not forget to take his medicine, as well as the reasons for taking medicine on time and regularly. Child N can also explain why Mr. A has to order routine health checks every month at the 'Aisyiyah Muntilan Hospital according to the date that has been instructed by the internal medicine doctor. Self-management education that is adapted to health literacy significantly improves adherence to treatment therapy in hypertensive patients¹³.

The evaluation results showed that Mrs. S was able to explain the importance of setting a low-salt menu for family members with hypertension and she was committed to cooking a low-salt menu and avoiding a special fried food menu for Mr. A. Health education on managing a low-salt diet in Mr. A's family was in accordance with

research that states that knowledge, abilities, and health-related skills related to Na/salt and K intake need to be promoted through educational interventions¹⁴.

The goal of increasing hypertension management knowledge level is also achieved by nursing interventions in the form of teaching hypertension exercises so that families can independently perform hypertension exercises to reduce blood pressure in Mr. A. The results of the nursing evaluation show that Mr. A can imitate the hypertension exercise movements that are taught and Mr. A has a smartphone and can access educational video sources for hypertension exercise independently. The following is a graph of Mr. A's systolic and diastolic blood pressure before and after hypertension exercise:

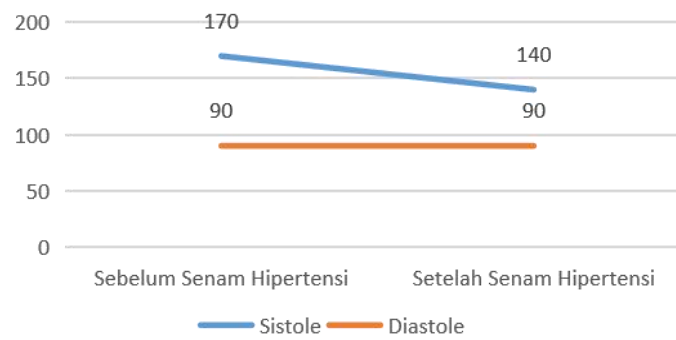


Figure 3. Graph of Mr. A's Blood Pressure Before & After Hypertension Gymnastics

Based on Figure 6, there is a difference in Mr. A's blood pressure before and after hypertension exercise. Mr. A's blood pressure after hypertension exercise dropped to 140/90 mmHg from the previous 170/90 mmHg. Hypertension exercise affects reducing systolic blood pressure¹⁵.

The results of the nursing evaluation showed that Mr. A said that he would routinely independently perform isometric handgrip exercises while watching video tutorials on YouTube as an interlude for hypertension exercise. Mr. A, Son D, Son N, and Mother S were enthusiastic and focused on following the isometric handgrip exercise tutorial. The following is a graph of Mr. A's systolic and diastolic blood pressure before and after the Isometric Handgrip Exercise (IHE):

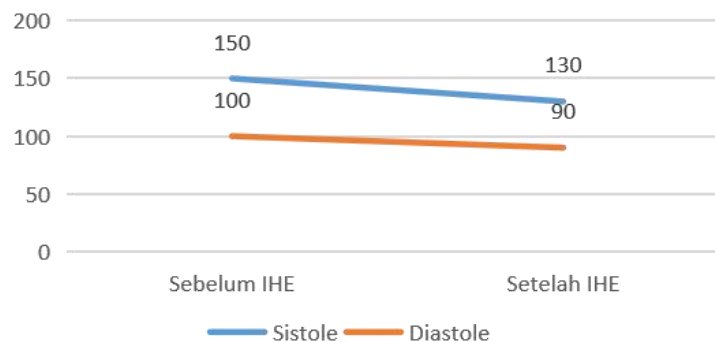


Figure 4. Graph of Mr. A's Blood Pressure Before IHE & After IHE

Based on Figure 4, it is known that there are differences in the results of Mr. A's blood pressure measurements before and after IHE. Mr. A's blood pressure before IHE was 150/100 mmHg changed to 130/90 mmHg after IHE. This is in accordance with the research that says IHE can reduce systolic, diastolic, and MAP (Mean Arterial Pressure) blood pressure in prehypertensive and hypertensive adults¹⁶.

Outcomes of family support nursing in planning care are achieved by nursing interventions in the form of identifying family needs and expectations about health, discussing family health problems, and identifying health problems for each family member. The results of the nursing evaluation showed that Mother A, Child N, and Child D said that they had no health complaints at this time and felt healthy. Mr. A said that since 2016 he has had hypertension and currently his right palm feels numb. For some ongoing and urgent physical complaints or chronic conditions, trained nurses may provide the same quality of care or may even be better than doctors¹⁷.

The results of the nursing evaluation showed that Mrs. S was able to explain how to treat patients with hypertension at home, namely CERDIK Hypertension: health checks, getting rid of cigarette smoke, diligent physical activity, balanced diet, adequate rest, and stress control. Mr. A can mention the treatment program that must be carried out, namely routine blood pressure checks independently at home assisted by other family members, monthly routine health checks at the hospital (complete blood checks, cholesterol checks, EKG examinations), and being obedient to taking routine medications that have been prescribed by doctor. Mr. A's family knows how to treat hypertension patients that the family can do so that their care needs can be met. Health literacy related to hypertension and related factors can meet the health needs of patients and families¹⁸.

Mr. A's family was also taught how to care for sick family members with progressive muscle therapy. The results of the nursing evaluation showed that after progressive muscle exercise, Mr. A said he was more comfortable because the neck and neck were no longer stiff. Here is a

chart of Mr A's blood pressure before and after progressive muscle training:

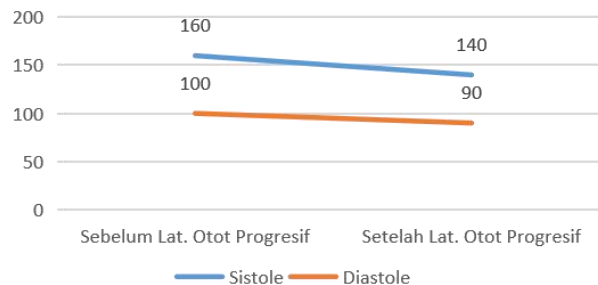


Figure 5. Graph of Mr. A's Blood Pressure Before & After Progressive Muscle Exercise

Based on the graph in Figure 8, it is known that there was a change in Mr. A's blood pressure before and after progressive muscle training. Mr. A's blood pressure before progressive muscle training was 160/100 mmHg changed to 140/90 mmHg after progressive muscle exercise. The more often you do progressive muscle relaxation therapy, the blood pressure in hypertensive patients can be better controlled.

While interacting with the family, the author also encourages family members to take advantage of existing resources in the community. This is important because health interventions must be carried out in a participatory community-based manner, developing new partnerships, and in line with cultural traditions²⁰.

Outcomes of nursing support for treatment program compliance are intervened with nursing actions in the form of involving Mr. A's family to support the treatment program being undertaken. There is a relationship between the role of the family and adherence to medication for hypertension patients²¹. In addition to involving the family, the interventions carried out also included educating what treatment program Mr. A had to undergo. The results of the nursing evaluation showed that Mr. A could mention the treatment program that must be followed, namely routine blood pressure checks independently at home assisted by other family members, health control monthly routine at the hospital (complete blood count, cholesterol check, EKG examination), and adhere to routine medication prescribed by the doctor. Son D said he was willing to help Mr. A routinely check blood pressure independently after every Maghrib prayer using his digital sphygmomanometer. This is in line with research that states that there is a significant relationship between family support and medication adherence in hypertension patients¹¹.

Other nursing interventions also include the advice of Mr. A's family to accompany and care for Mr. A during the treatment program. The results of the nursing evaluation showed that Mrs. S, Child N, and Child

D said they were willing to be actively involved in the care process for Mr. A, especially those that could be done independently by the family at homes such as setting food menus and medication adherence. The higher the family support is given to people with hypertension, the higher the compliance in the treatment process²².

The results of the nursing evaluation showed that Child A was willing to take Mr. A at any time to the family doctor's clinical practice or emergency room if suddenly he had complaints due to hypertension by using a car by taking advantage of the health insurance he had. This is in line with the results of research which states that health workers and patients' families need to monitor hypertension sufferers to better comply with all regulations regarding hypertension therapy²³.

Nursing diagnosis of readiness to improve family coping for the family function is achieved by several nursing interventions. During the intervention, the author always tries to create a therapeutic relationship between Mr. A and his family by applying therapeutic communication. Effective therapeutic communication can increase awareness in patients, especially regarding a low-salt diet for hypertensive patients²⁴.

Outcomes of family coping status that are expected to improve are achieved by nursing interventions in the form of introducing Mr. A's family to people/groups who experience the same experience related to hypertension so that social support will increase. The results of the nursing evaluation showed that Mr. A said he would try to contact the WA number of the nurse holding the PROLANIS (Chronic Disease Management Program) in Dukun Primary Health Center program who had been given to join other hypertension survivors in activities at the primary health care. Mrs. S said she knew the nurse who held the PROLANIS (Chronic Disease Management Program) at the Dukun Primary Health Center because her colleague was doing gymnastics at the Kadipuro gym and would try to ask questions about the PROLANIS (Chronic Disease Management Program) and the possibility for Mr. A to join. There is a significant relationship between social support and self-management behavior of hypertensive patients²⁵.

Conclusion and Suggestions.

The conclusion of family nursing care given to Mr. A's family shows that the problem of family health management: ineffective hypertension is partially resolved as well as the problem of readiness to increase family coping which is partially resolved. Sustainability of the intervention given is very dependent on family commitment and the recommended follow-up plan is to motivate Mr. A to participate in Prolanis activities at the Dukun Health Center and encourage Mr. A's family to make more use of the community around the house such as the healthy heart gymnastics community and PROLANIS.

References.

1. WHO. Global Status Report on Noncommunicable Diseases 2019. Geneva;2020
2. Lukito, AA., Harmeiwati, E., Hustrini, NM. 2019. Konsensus Penatalaksanaan Hipertensi 2019. . Jakarta: Indonesian Society Of Hypertension; 2019
3. Dinkes Kabupaten Magelang. 2019. Profil Kesehatan Dinas Kesehatan Kabupaten Magelang Tahun 2018.
4. Friedman, M. 2010. Buku Ajar Keperawatan keluarga : Riset, Teori, dan Praktek. Edisi ke-5. Jakarta: EGC
5. Alpsoy Ş. Exercise and Hypertension. *Adv Exp Med Biol.* 2020;1228:153-167. doi:10.1007/978-981-15-1792-1_10
6. Al-Makki A, DiPette D, Whelton PK, et al. Hypertension Pharmacological Treatment in Adults: A World Health Organization Guideline Executive Summary. *Hypertension.* 2022;79(1):293-301. doi:10.1161/HYPERTENSIONAHA.121.18192
7. Nursalam. 2016. Metodologi Penelitian Ilmu Keperawatan Pendekatan Praktis Edisi.4. Jakarta : Salemba Medika.
8. Gamage AU, Seneviratne RA. Physical inactivity, and its association with hypertension among employees in the district of Colombo. *BMC Public Health.* 2021;21(1):2186. Published 2021 Nov 29. doi:10.1186/s12889-021-12013-y
9. Erman, Imelda ; Damani, Hanna DL.; Sya'diyah. (2021). Hubungan Merokok dengan Kejadian Hipertensi di Puskesmas Kampus Palembang. *Jurnal Keperawatan Merdeka (JKM), Volume 1 Nomor 1, Mei* 2021. <https://jurnal.poltekkespalembang.ac.id/index.php/jkm/article/view/983/410>
10. Yesisca; Nataprawira, Sari M D. (2021). Gambaran Kebiasaan Merokok dengan Gejala Kesemutan di Jari-Jari Ekstremitas pada Masyarakat Jabodetabek. *Tarumanagara Medical Journal Vol. 3, No. 2,* 414-423. <https://journal.ugm.ac.id/jkkk/article/download/49826/32665a1.un tar.ac.id/index.php/tmj/article/download/11761/7367>
11. Irawati. (2020). Hubungan Dukungan Keluarga Terhadap Kepatuhan

- Diit Rendah Garam Pada Penderita Hipertensi di Puskesmas Ulaweng. *Jurnal Ilmiah Kesehatan Diagnosis* Volume 15 Nomor 1. <http://jurnal.stikesnh.ac.id/index.php/jikd/article/download/131/126/464>
12. Bailon, S.G & Maglaya, A (1989). *Perawatan Kesehatan Keluarga : Suatu Pendekatan (Terjemah)*. Jakarta: Pusdiknakes
 13. Delavar F, Pashaeypoor S, Negarandeh R. The effects of self-management education tailored to health literacy on medication adherence and blood pressure control among elderly people with primary hypertension: A randomized controlled trial. *Patient Educ Couns.* 2020;103(2):336-342. doi:10.1016/j.pec.2019.08.028
 14. Luta X, Hayoz S, Gréa Krause C, et al. The relationship of health/food literacy and salt awareness to daily sodium and potassium intake among a workplace population in Switzerland. *Nutr Metab Cardiovasc Dis.* 2018;28(3):270-277. doi:10.1016/j.numecd.2017.10.028
 15. Basuki, Samudra Prihatin Hendra; Barnawi, Sarwito Rahmad. (2021) Pengaruh Senam Hipertensi terhadap Tekanan Darah pada Komunitas Lansia Desa Petir Kecamatan Kalibagor, Banyumas. *Sainteks*, [S.l.], v. 18, n. 1, p. 87 - 93, June 2021. ISSN 2686-0546. Available at: <<http://jurnalnasional.ump.ac.id/index.php/SAINTEKS/article/view/10319>>
 16. Loaiza-Betancur AF, Chulvi-Medrano I. Is Low-Intensity Isometric Handgrip Exercise an Efficient Alternative in Lifestyle Blood Pressure Management? A Systematic Review. *Sports Health.* 2020;12(5):470-477. doi:10.1177/1941738120943882
 17. Laurant M, van der Biezen M, Wijers N, Watananirun K, Kontopantelis E, van Vught AJ. Nurses as substitutes for doctors in primary care. *Cochrane Database Syst Rev.* 2018;7(7):CD001271. Published 2018 Jul 16. doi:10.1002/14651858.CD001271.pub3
 18. Lima JP, Abreu DPG, Bandeira EO, Brum AN, Garlet BB, Martins NFF. Functional health literacy in older adults with hypertension in the Family Health Strategy. *Rev Bras Enferm.* 2020;73 Suppl 3:e20190848. doi:10.1590/0034-7167-2019-0848
 19. Waryantini & Amelia, Reza (2021). The Effect Of Progressive Muscle Relaxation On Blood Pressure In Hypertension, *Healthy Journal.* Vol. IX No. 1 , March 2021

20. Blue Bird Jernigan V, D'Amico EJ, Duran B, Buchwald D. Multilevel and Community-Level Interventions with Native Americans: Challenges and Opportunities. *Prev Sci.* 2020;21(Suppl 1):65-73. doi:10.1007/s11121-018-0916-3
21. Muthmainah., Kunoli, Firdaus J., Nurjanah. (2019). Hubungan Peran Keluarga dan Peran Tenaga Kesehatan dalam Kepatuhan Pengobatan Penderita Hipertensi di Wilayah Kerja Puskesmas Sangurara Kota Palu . *Jurnal Kolaboratif Sains Vol.2 No.1.* <https://doi.org/10.31934/jks.v2i1.784>
22. Pamungkas, Riyanto Agung., Rohimah, Siti., Zen, Dini Nurbaeti. (2020) Hubungan Dukungan Keluarga Dengan Kepatuhan Berobat pada Penderita Hipertensi di Wilayah Kerja Puskesmas Ciamis Tahun 2019. *Jurnal Keperawatan Galuh. Vol.2 No.1*
23. Emiliana, Niti., Fauziah, Munaya., Hasanah, Irna., Fadlilah, Dina Rahma. (2021). Analisis Kepatuhan Kontrol Berobat Pasien Hipertensi Rawat Jalan pada Pengunjung Puskesmas Pisangan Tahun 2019. *Jurnal Kajian dan Pengembangan Kesehatan Masyarakat. Vol.1 No.2 . 119-132*
24. Marwah. (2018). Hubungan Komunikasi Terapeutik dengan Kesadaran Diet Rendah Garam pada Pasien Hipertensi di Poli Umum Puskesmas Umbulsari: *Jurnal STIKES Soebandi.* <http://jurnal.stikesdrsoebandi.ac.id/index.php/jkes/article/view/41/28>
25. Khomsatun, Umi., Sari, Ike W W. (2021). The Correlation Between Social Support and Self-Management Behavior among Patients with Hypertension in Puskesmas Pandak I Bantul Yogyakarta. *Jurnal Keperawatan Klinis dan Komunitas Vol 5*

**Improving the Quality of Life and Self-Efficacy of ODGJ and
Mental Disorder Risk Groups in Desa Siaga Sehat Jiwa (DSSJ)
Kalegen Bandongan Magelang Through the Application of
Cognitive Therapy and Body Endurance Support**

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ABSTRACT

Introduction. Schizophrenia is a mental disorder that generally attacks the productive age and is the main cause of disability. The problems experienced by ODGJ schizophrenia when living life in society are very diverse, one of which is the existence of self-stigma that arises due to the negative effects of other people's judgments on patients, resulting in a decrease in self-efficacy which has an impact on decreasing quality of life, work ability, social function, price. self and hope. . In addition, there are also many community members who experience psychosocial problems and are classified as a risk group for mental disorders. For this reason, a CBT approach is needed to improve self-efficacy and quality of life

Methods. This activity is intended to improve the quality of life and self-efficacy of community groups who experience mental disorders and are at risk of mental disorders. The methods and strategies used are through therapy activities, mentoring with lectures, questions and answers, discussions, demonstrations and field visits. Changes in self-efficacy and quality of life before and after the activity were measured using the General Self Efficacy Scale and WHOQOL-BREF instruments.

Results. Cognitive therapy mentoring meetings were conducted 2 times with a gap of 2 weeks. the results show that there is a difference in self-efficacy before the average is 29.9 to 39.7 and for the quality of life from an average of 54.6 to 64.95.

Conclusion. CBT is proven to be able to improve the quality of life and self-efficacy of ODGJ and the community at risk of mental disorders, so it needs to be implemented to improve the mental health of the community.

Keyword : cbt; odgj; kualitas hidup; efikasi diri

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Introduction. According to Davison (2017) schizophrenia is a mental disorder that affects more people than other mental disorders, generally attacks the productive age and is the main cause of disability in the 15-44

year age group. The symptoms of schizophrenia cause severe impairment in the individual's ability to think and solve problems, disrupt affective life and social relation skills. Schizophrenia is a collection of symptoms or syndromes that can cause very serious psychiatric problems. The problems experienced by ODGJ schizophrenia when living life in society are very diverse, one of which is the existence of self-stigma that arises due to the negative effects of other people's judgments on patients, resulting in a decrease in self-efficacy which has an impact on decreasing work ability, social function, self-esteem, and self-esteem. hope. All of these things describe the quality of life of ODGJ Schizophrenia which is closely related to the disability they experience in the form of cognitive and perceptual changes in living life. ODGJ often experience failure in carrying out social functions, face problems related to interpersonal skills, have poor social skills, and experience cognitive function deficits, so that eventually they experience social isolation and cause their quality of life to be poor. ODGJ need psychosocial support in addition to the help of mental health professionals. For this reason, cognitive behavioral therapy or CBT is one approach that can be applied to patients because this therapy is a therapy based on a combination of several interventions designed to change the way of thinking and understanding situations and behaviors so as to reduce the frequency of negative reactions and disturbing emotions (Epigee, 2009). Ida, Tuti & Yati (2022) in a systematic review study stated that CBT is useful in overcoming various problems, one of which is self-efficacy. Cognitive behavior therapy (CBT) is a non-pharmacological intervention in dealing with maladaptive thinking and behavior (Dobkin et al, 2019). Cognitive behavior therapy uses an approach by changing maladaptive ways of thinking into adaptive ones so that changing thoughts can bring about changes in feelings and behavior (Situmorang, 2018).

Methods. The methods and strategies used are therapy activities, mentoring, lectures, questions and answers, discussions, demonstrations, and field visits. Measurements of the quality of life and self-efficacy of the participants were carried out using the General Self Efficacy Scale and WHOQOL-BREF instruments, before and after the activity. then the data were analyzed by comparing the mean of self-efficacy and quality of life between before and after the activity. the number of participants is 40 people. The activity was carried out in groups of 2 meetings with an interval of two weeks.

Result and Discussion. The implementation of service is carried out in a planned, gradual and continuous manner. The initial stage is to coordinate between the service team with cadres and community leaders regarding the technical activity plan. The counseling and mentoring activities through the offline mechanism were carried out in 2 stages to 40 participants. Phase 1 (on 21 July 2022 and 4 August 2022). The technical face-to-face assistance includes the following:

1. Mapping participant groups

- a. Determination of participant groups
A group of 40 people consists of ODGJ (who are already cooperative) and people at risk of mental disorders (having a history of chronic disease).
 - b. Group mentoring time sharing
A group of 40 people participated in the first therapy assistance on July 21, 2022
The same group of 40 people participated in the second mentoring on August 4, 2022
2. Carry out therapeutic assistance activities
- a. The meeting was held at the Kalegen village hall with a health protocol
 - b. Participants filled out the self-efficacy and quality of life scale questionnaire at the first meeting before starting therapy assistance (as a pre-test).
 - c. Participants filled out the self-efficacy and quality of life scale questionnaire at the second meeting (2 weeks interval) after the second mentoring activity ended (as post-test data).
- The results of the activity 100% of participants attended the activity for 2 stages. Measurement of the questionnaire showed a change or increase in the scale of self-efficacy and quality of life. The increase is evidenced by the change in the value of the pre-test (before training) an average of 29.9 to an average of 39.7 (post-test) for the self-efficacy scale. For the quality of life scale, the average pre-test result increased from 54.6 to 64.95 post-test.

Table. 1. The average score of the self-efficacy and quality of life scale before and after mentoring

No	Scale	Pre-test (f)	Post-test (f)
1	Self Efficacy	29,9	39,7
2	Quality of Life	54,6	64,95

There was a quantitative change in the self-efficacy scale in 40 participants between before and after cognitive therapy assistance. Before mentoring there were 13 participants who still had a low self-efficacy scale, but after mentoring there was an increase of 100% of participants having high category self-efficacy. The mean score of the self-efficacy scale (table 1) before mentoring was 29.9, increasing to 39.7 after mentoring therapy. For the quality of life scale there is a quantitative change in the quality of life scale in 40 participants between before and after cognitive therapy assistance. Before mentoring there were still 7 participants who had a low

quality of life scale, but after mentoring there was an increase in the quality of life scale to moderate, good and very good. The mean score of the quality of life scale (table 1) before mentoring was 54.6 and increased to 64.95 after mentoring therapy.

These results indicate that CBT is one of the right approaches to help people belonging to risk groups and also ODGJ who have been cooperative in undergoing rehabilitation in the community. The CBT intervention given to the respondent is a simple action refers to a simple step in create gratitude with proposed cognitive approach by Miller (in Utami et al, 2020), namely a) identify thoughts that wrong; b) formulate and support grateful thoughts; c) change the mind that wrong to thoughts of gratitude; and d) apply gratitude in inner and outer actions. Sessions that given include psychoeducation CBT, cognitive restructuring, modeling,

counting blessings, relaxation and prayers, given in two times meeting. Finding This is in line with McCullough's research, Tsang, and Emmons (2004) that one of the positive emotions that arises because of gratitude is a better mood. Emmons and McCullough (in Nanda et al, 2020) also reveal that there is a feeling gratitude can bring up positive emotions and reduce negative emotions.

The results of this activity are still very simple, because the behavioral changes that occur are not controlled by confounding factors. This activity is only a form of application of research results that have previously existed, with the aim of helping the community improve their health status.

Conclusion and Suggestions. CBT is one of the right approaches to help people belonging to risk groups and also ODGJ who have been cooperative in undergoing rehabilitation in the community. The CBT intervention given to respondents in this community service activity is a simple action that refers to simple steps in creating gratitude with a cognitive approach. the results showed a change in the average increase in the self-efficacy scale and the quality of life of the participants after participating in the activity. It is suggested that activities can be implemented and developed on a wider scale of respondents with various cases of both physical and mental health problems.

References

- Davidson, J.R., Dawson, S., & Krsmanovic, A. (2017). *Effectiveness of group Cognitive Behavioral Therapy for Insomnia (CBT-I) in a primary care setting*. Behavioral Sleep Medicine, 00:1-13, doi: 10.1080/15402002.2017.1318753.
- Ida Ayu Made Ari Santi Tisnasari , Tuti Nuraini , Yati Afiyanti, (2022). *Penerapan Cognitive Behaviour Therapy Pada Pasien Kanker*, Journal of Telenursing (JOTING) Volume 4, Nomor 1, Juni 2022 e-ISSN: 2684-8988 p-ISSN: 2684-8996 DOI : <https://doi.org/10.31539/joting.v4i1.3429>
- Dobkin, R. D., Mann, S. L., Interian, A., Gara, M. A., & Menza, M. (2019).

- Cognitive behaviour therapy improves diverse profiles of depressive symptoms in Parkinson's disease.* International journal of geriatric psychiatry, 34(5), 722-729. <https://onlinelibrary.wiley.com/doi/abs/10.1002/gps.5077>
- Situmorang, D. D. (2018). *Academic Anxiety sebagai Distorsi Kognitif terhadap Skripsi: Penerapan Konseling Cognitive Behavior Therapy dengan Musik.* Journal of Innovative Counseling: Theory, Practice, and Research, 2(02), 100- 114.
- Nanda Putri Adhiningtyas , Muhana Sofiati Utami. (2020) *Gratitude Cognitive Behavior Therapy untuk Meningkatkan Kualitas Hidup pada Perempuan dengan HIV/AIDS.* Gadjah Mada Journal Of Professional Psychology Issn 2407-7801 (Online) Volume 6, No. 1, 2020: 92-106 <https://jurnal.ugm.ac.id/gamajpp> DOI: 10.22146/gamajpp.54234.
- Muhana Sofiati Utami, Mar'atush Shalihah, Nanda Putri Adhiningtyas, Siti Rahmah, Winda Kartika Ningrum. (2020), *Gratitude Cognitive Behavior Therapy (G-CBT).* Jurnal Psikologi ISSN 0215-8884 (Print), Volume 47, Nomor 2, 2020: 137– 150 ISSN 2460-867X (Online), DOI: 10.22146/jpsi.43730 <https://jurnal.ugm.ac.id/jpsi> .
- Ira Aini Dania. (2019) *Cognitive Behaviour Therapy Pada Skizofrenia,* Jurnal Penelitian Keperawatan Medik, Vol. 2 No. 1 Edition: May – October 2019.
- Erga Patragave Ratih & Muhana Sofiati Utami. (2018), *Terapi Kognitif Perilaku efektif dalam meningkatkan efikasi diri.* Gadjah Mada Journal Of Professional Psychology Volume 4, No. 2, 2018: 185-194 ISSN: 2407-7801.
- Taylor, D.J. & Pruiksma, K.E. (2014), *Cognitive behavioural therapy for insomnia (CBT-I) in psychiatric populations: a systematic review.* Internasional Review of Psychiatry, April 2014; 26 (2): 205-213, doi: 10.3109/09540261.2014.902808.
- Emmons, R. A., & Mccullough, M. E. (2004). *The psychology of gratitude.* United States: Oxford University Press.
- Emmons, R. A., & Mccullough, M. E. (2003). *Counting blessings versus burdens : An experimental investigation of gratitude and subjective well-being in daily life.* Journal of Personality and Social Psychology, 84(2), 377–389. doi: 10.1037/0022-3514.84.2.377

Nursing Care for Schizophrenic Patients with Sensory Perception of Auditory Hallucination

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ABSTRACT

Introduction. *Humans will not be separated from all kinds of problems, one of is mental health problems. Mental health problems that often arise are schizophrenia and hallucinations. One of the treatment therapies is enhanced by talking therapy.*

Methods. *This case report was to describe nursing care to schizophrenic patients with auditory hallucination. It was conducted at RSJ Prof. Dr. Soerojo Magelang in May 2022. Patient assessment and evaluation using mental assessment format and PSYRATS. Two patient is treated with talking therapy.*

Results: *There was an improvement in the patient's condition and decrease in PSYRATS score*

Conclusion: *Talking therapy is useful for patient with hallucinations in schizophrenia.*

Keyword : *Nursing Care; Schizophrenia; Hallucinations; Talking therapy.*

Introduction

Over the years, humans have been inseparable from many kinds of problems in every sphere of life. For those who are incapable of facing the stressor or the pressure in life, their mental health will be disrupted (Febrianto, Liviana, & Indrayati, 2019).

Based on factual data, people with mental disorders range from various ages. The results of the 2018 RISKESDAS (Basic Health Research) showed that mental disorders could start to occur at the age of teenagers (ages 15-24), and the prevalence rate is 6,2%. The prevalence rate of people with mental disorders increases as they age, with the highest rate of 8,9% in people aged over 75, 8,0% in people aged 65-74, and 6,5% in people aged 55-64. The most common mental health disorder is schizophrenia. Schizophrenia is one of the mental disorder types that affects 24 million people worldwide and is characterized by distortions in reasoning, perception, emotion, language, self-esteem, and behavior (Riset Kesehatan Dasar, 2019). Of several provinces in Indonesia, the Central Java province has become the biggest five provinces with the most schizophrenia patients (Riset Kesehatan Dasar, 2019). From the data obtained from the Medical Records of Prof. Dr. Soerojo Psychiatric Hospital in Magelang, in 2021, 1700 patients were diagnosed with schizophrenia and had to be hospitalized. The nursing diagnosis that often arises is hallucinations with a total of 4769 patients.

Patients with the impaired sensory perception of auditory hallucinations will feel anxious and chatty and hear voices or whispers that will perceive or

comment on the environment without real objects or real stimuli (Apriliani & Widiani, 2020). One of the methods to control hallucinations is talking therapy. Having a conversation will distract the patient's hallucinations, as the patient's focus will shift to the conversations being carried out (Andri et al., 2019).

The results of the study showed that talking therapy have an impact on the symptoms of auditory hallucinations because this activity can minimize the patient's interaction with their own world and release thoughts, feelings, or emotions that are influencing the unconscious behavior (Larasaty & Hargiana, 2019). In addition, Sulahyuningsih et al. (2016), on the nurses' experience in providing talking therapy to patients with hallucinations, showed that patients responded well to control their hallucinations. The study also recommended that schizophrenia patients improve their ability to control hallucinations with talking therapy.

Methods.

This case report was to describe nursing care to schizophrenic patients with auditory hallucination. It was conducted at RSJ Prof. Dr. Soerojo Magelang in May 2022. Patient assessment and evaluation using mental assessment format and PSYRATS. Two patient is treated with talking therapy.

Result and Discussion.

Mr. P is 37 years old, male, Muslim, and Javanese; his last education was Vocational High School (SMK), and he worked as a farmer. The patient resides in Magelang Regency, Central Java. Besides, Mr. D is 38 years old, male, Catholic, and Javanese; his last education was junior high school. Mr. P was taken to Prof. Dr. Soerojo Psychiatric Hospital in Magelang by his family because the patient kept hearing voices in the absence of any speaker, talking to himself, and pacing back and forth. Meanwhile, Mr. D was taken to Prof. Dr. Soerojo Psychiatric Hospital in Magelang by his family because the patient kept pacing back and forth, preferred to be alone, confused, daydreaming, talking to himself, and also heard voices in the absence of any speaker. The precipitating factors for hallucinations in Mr. D were because he stopped the medication and often was aloof. The patient was taken to Prof. Dr. Soerojo Psychiatric Hospital in Magelang by his uncle as he often paces back and forth, prefers to be alone, confused, daydreaming, talking to himself, and hearing voices in the absence of any speaker. In the case of Mr. P, the patient experienced hallucinations since he had stopped working and had no activity to do. Meanwhile, Mr. P experienced hallucinations as he stopped the medication and preferred to be alone.

In terms of mental status, hallucinations in Mr. P scored 28 when it was measured using the Psychotic Symptom Rating Scales (PSYRATS) on the hallucination severity, which means that the hallucinations on Mr. P can be considered severe hallucinations. In addition, the perceptual hallucination data were obtained from subjective data in which the patient said that he often heard voices in the absence of any speaker, and the last time he heard the voices was the morning before this study took place (May 10th, 2022, at 05.00 a.m.). The patient said that sometimes the voices were telling him to get drunk, but more often, it was vague because there was more than one person speaking.

According to the patient, the voices lasted three minutes and were frequently heard between 4:00 p.m. and 6:00 p.m., whether in a quiet or crowded place. Moreover, the patient also said that the voices appeared erratic but could be up to five times a day. When the voices appeared, the patient remained silent, sometimes anxious and emotional because the voice bothered him. Meanwhile, the objective data of Mr. P is that he has often seen daydreaming and aloofness. The patient tends to respond to and enjoys the voices that appear with aloofness, pacing back and forth, and daydreaming. The patient focuses less on his surroundings and seems to concentrate by frowning while directing his ear at a certain point.

As for Mr. D, the result of the Psychotic Symptom Rating Scales (PSYRATS) in the hallucination severity scored 26, which can be considered severe hallucinations. Moreover, the perceptual hallucinations data from the subjective data noted that Mr. D said that he often heard voices without any speaker present, and the last time he heard the voices was on May 10th, 2022, at 08.00 am. The voices told him that his strength was gone and that he should return home soon. The patient continuously heard the voices for approximately two minutes, two times a day (erratic), whether in a quiet or crowded place, and it often appeared at night and in the evening. The patient only silenced the voices, but sometimes the patient was anxious because the voices bothered him. In addition, the objective data on Mr. D is that he has often seen daydreaming, alone, and pacing back and forth. The patient interacts less with his environment and tends to respond and enjoy the voices by being alone and daydreaming.

Based on the assessment of Mr. P, it can be noted that his coping mechanism when he has a problem is to tell his mother as the closest person. In comparison, Mr. D tends not to tell others whenever he has a problem, as he always keeps it and resolves it by himself. That being said, the coping mechanism that Mr. D has is withdrawal. Regarding the psychosocial and environmental issues, Mr. P never participated in any community activities in his surrounding environment as he felt ashamed and inferior. While being treated at the psychiatric hospital, none of his family had visited him, and he wanted to go home and work again. Both Mr. P and Mr. D had never participated in the community activities in their neighborhood as they both felt rejected by the neighbors.

Based on the assessment on May 10th, 2022, at 09.00 a.m., data on Mr. P are obtained as follows: subjective data on Mr. P said that he often heard voices, the voices were the chattering of more than one person, and often told him to get drunk, usually appeared in the morning, afternoon, or evening whether the patient in a quiet or crowded place, the voices appeared five times a day and lasted for three minutes continuously. When Mr. P heard the voices, he felt anxious and emotional, but he could only silence them. The objective data is that the patient is often seen smiling alone and looking confused. The patient tends to respond to the voices that appear by being alone and daydreaming. The patient's attention to his surroundings is lacking, and he appears to concentrate while directing his ear to a specific point as if attempting to listen to voices.

Moreover, the assessment of Mr. D is as follows: subjective data on Mr. D said that he often heard voices in the absence of any speaker, the last time he heard

the voice was in the morning, and the voices told him that his strength was lost and he had to return home soon, Mr. D heard the voices continuously for approximately two minutes both in a quiet or crowded place, twice a day (erratic), the voices often appeared at night, Mr. D only silenced the voices, but sometimes the patient felt anxious because the voices bothered him. The objective data on Mr. D is that the patient seems confused, often aloof, comfortable with his hallucinations, and his eyes are often empty.

The researcher began the experiment by establishing a trusting relationship (greeting the patient, introducing the researcher, asking the patient their full name and how they wanted to be addressed, and inquiring about the patient's feelings), explaining the purpose, time contract, meeting point, asking Mr. P and Mr. D to fill out the PSYRATS questionnaire in order to know the score before and after the talking therapy treatment, and observing both verbal and non-verbal behavior related to hallucinations. The patient consented to tell the hallucinations he experienced, and the hallucination still came about. Mr. D said that at that moment, the voices did not appear, but the voices appeared this morning when he was alone. The patient said that he heard the voice of someone who told him that his strength was gone and he had to return home soon, the voices appeared continuously for two minutes, and the patient was disturbed by the voices. The patient's responses were cooperative, verbal incoherent, unsteady eye contact, daydreaming, and aloofness. Moreover, the patient also appeared to be anxious.

The second day of the implementation started by greeting, asking the patient about their feeling today, asking what activities they have done today, and explaining the purpose, time contract, place, and topic that have been agreed upon by guiding and practicing how to control hallucination with talking therapy. Mr. P said that he was not hearing the voices at that moment, last time he heard the voices were yesterday afternoon when he was in his room, and the voices lasted approximately three minutes. The patient was cooperative during the interaction, with unsteady eye contact, often daydreaming and alone, and was also seen to pace back and forth.

The third day of implementation started by greeting, asking the patient about their feeling today, asking what activities they have done today, and explaining the purpose, time contract, place, and topic that have been previously agreed upon by guiding and practicing how to control hallucinations by having a conversation. Mr. P claimed that the duration of the voices had diminished to approximately 2 minutes. The patient was cooperative and made good eye contact during interactions but was frequently daydreaming and alone. Analysis: the patient has not been able to control hallucinations by conversing properly and correctly; the patient prefers silence over initiating conversation with others; however, when invited to converse, he always responds and is cooperative. Mr. D stated that he was not hearing voices at this time; the last time he heard the voices were after lunch, and the duration of the voices had decreased to approximately one minute. During interactions, the patient was cooperative, unsteady eye contact, frequently daydreaming, and alone.

On the fourth day, the researchers began the implementation process with Mr. P and Mr. D by greeting them, asking how they felt today, and practicing how to control hallucinations through conversing. Researchers conducted an

evaluation in which it was determined that Mr. P could control his hallucinations by talking therapy, but only to a limited extent; the patient had the courage to initiate conversations with others. Planning: evaluation and validation of methods for controlling hallucinations through conversing with others. Meanwhile, Mr. D stated that he heard the voices for a few seconds last night. Objective data: The patient is cooperative during interactions, unsteady eye contact, and frequently daydreams but dares to initiate conversations with others.

The implementation of the final day, beginning with greeting the patient and practicing how to control hallucinations through talking therapy, was followed by the administration of the PSYRAT questionnaire to determine the patient's score following the talking therapy. At the time of evaluation, no hallucinations were present, and the frequency and duration of hallucinations decreased. Planning: report the patient's condition to the ward nurse in order to continue the intervention. PSYRATS score 12. In the meantime, Mr. D subjective information is as follows: the patient stated that the last time he heard voices was last night, for only a few seconds. He stated that he was relieved because he was no longer disturbed by voices in the absence of any speaker, and his PSYRATS score was 14.

Following is a discussion of several concepts and a comparison of the findings in Mr. P and Mr. D with the nursing diagnosis—changes in the sensory perception of auditory hallucinations. Nursing care management for Mr. P and Mr. D was done for five days. Researchers conducted a study to collect subjective and objective data from patients through observation, direct interviews, and nursing notes. The mental health assessment format is added to Stuart's (2009) stress adaptation model as a supplement to the assessment of predisposing and precipitating factors, appraisal of stressors, and coping mechanisms. According to Haddock et al. (1999), the Psychotic Symptom Rating Scales (PSYRATS) are used to measure the severity of hallucinations.

The PSYRATS Questionnaire is being used for the first time, as patients at Wisma Puntadewa have never been given this questionnaire during an assessment or evaluation by the inpatient nurse. PSYRATS is used to assist nurses in conducting assessments to determine the severity of hallucinations experienced by patients. The benefit for patients is that they receive nursing care that is more appropriate and proportional to the severity of hallucinations. PSYRATS is a valid and reliable instrument for assessing the severity of hallucinations.

In this study, several differences were found in Mr. P's and Mr. D's coping mechanisms. Mr. P, when he has a problem, wants to speak with the researcher or the nurse on duty. In contrast, Mr. D, when he has a problem, prefers to keep to himself rather than speak with others, does not express his feelings, and frequently exhibits the behavior of being aloof. Predisposing and precipitating factors will affect the individual's coping in thinking, acting, and behaving, and the longer it goes without treatment or intervention, the more stress it will cause (Yosep, 2016).

Based on the data obtained from the study, the researcher diagnosed changes in hallucinations' sensory perception. Moreover, the researcher prioritizes one nursing diagnosis; therefore, in this study, the researcher will

focus on resolving the nursing diagnosis with predetermined interventions, namely talking therapy.

Researchers discovered that Mr. D not only has a diagnosis of auditory hallucinations but also has a second diagnosis, namely social isolation; therefore, the response exhibited by Mr. P differs from that of Mr. D during implementation. Mr. D's responses during talking therapy include avoidance, lack of concentration, answering only when necessary, speaking briefly, speaking slowly, and occasionally daydreaming. Unlike Mr. P, who has better concentration, is cooperative, and enjoys conversing, this individual is less talkative and has poorer concentration. This is consistent with the opinion of Apriliani & Widiani (2020), which states that a person can be said to suffer from social isolation disorders if they withdraw, are uncommunicative, aloof, preoccupied with their thoughts and self, avoid eye contact, have difficulty forming relationships in his environment, and avoid other people. Therefore, Mr. D was having difficulty engaging in conversation. Nonverbal communication is equally as essential as verbal communication. It is estimated that 45% of intentions are conveyed by words and paralinguistic cues, such as tone of voice, and 55% by body cues, so the act of controlling hallucinations with talking therapy influences the outcome.

Researchers discovered barriers to carrying out nursing actions with talking therapy in patients who complained of drowsiness, avoided conversations, and preferred to sleep. According to Novitayani (2016), schizophrenic patients who receive drug therapy have secondary effects such as drowsiness (52.5%), hypersomnia (37.5%), dry mouth (17.5%), dizziness (17.5%), lack of concentration (2.5%), and shortness of breath (5%). To overcome this, the researchers engaged in talking therapy with the patient when he was not sleepy, as well as after the patient slept or bathed, so that the patient appeared more refreshed.

In the most recent review of the interventions provided, the patient stated that he understood how to control hallucinations using talking therapy. Mr. P's observations indicate that after the conversation, the patient reported feeling better and communicating effectively with others. In contrast, Mr. D reported feeling better, was more cooperative, appeared more engaged in-room activities, and began to feel compelled to initiate conversations with other patients.

The score after five days of nursing implementation was calculated based on the findings of the nursing evaluation using the Psychotic Symptom Rating Scales (PSYRATS) questionnaire. The PSYRATS results for Mr. P and Mr. D indicate a reduction in hallucination score, with Mr. P's score falling from 28 to 12 and Mr. D's score falling from 26 to 14. Different results were discovered due to Mr. D's other issues, which make it difficult for him to communicate with others. This is consistent with the findings of Saswati and Sutinah (2018), who found that socially isolated patients fear interpersonal interactions. The frequency, duration, confidence in voice origin, content, intensity, and inability to control voices decreased in both patients. This demonstrates that by implementing nursing actions on how to control hallucinations by talking therapy, the severity of hallucinations decreases from severe to moderate, the patient's attention to reality increases, and the severity of hallucinations

decreases. The statement is consistent with Yosep's (2016) notion that talking therapy is one of the methods that can be used to overcome and control oneself in auditory hallucinations patients in order to reduce the frequency and intensity of hallucinations. According to the findings of Fresa's (2017) study, engaging in a talking therapy can improve the patient's ability to control voices.

The success of this study is not solely attributable to the talking therapy; the patient's participation in other therapies has also contributed. According to Moorhead, Johnson, Maas, and Swanson (2015), the success of treating patients with hallucinations depends on multiple factors, such as refraining from accumulating intentions to combat hallucinations, utilizing effective coping strategies, taking prescribed medication, and engaging in health-promoting activities.

Conclusion and Suggestions.

Talking therapy is useful for patient with hallucinations in schizophrenia. These interventions can be applied by nurses to patients.

References.

- Aldam, S. F. S., & Wardani, I. Y. (2019). Efektifitas penerapan standar asuhan keperawatan jiwa generalis pada pasien skizofrenia dalam menurunkan gejala halusinasi. *Jurnal Keperawatan Jiwa*, 7(2), 165.
- Andalusia, N. Suyanta. Erawati, E. Sugiarto, A. (2017). *Asuhan Keperawatan Pada Pasien Skizofrenia Dengan Fokus Studi Perubahan Persepsi Sensori Halusinasi Pendengaran Studi Kasus Di RSJ Prof. DR. Soerojo Magelang*.
- Andari, S. (2017). Pelayanan Sosial Panti Berbasis Agama dalam Merehabilitasi Penderita Skizofrenia Religious Based Social Services on Rehabilitation of Schizophrenic Patients. *Jurnal PKS*, 16(2), 195–208.
- Andhini, N. F. (2017). Metode Penulisan Prinsip Etik. *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.
- Andri, J., Febriawati, H., Panzilion, P., Sari, S. N., & Utama, D. A. (2019). Implementasi Keperawatan dengan Pengendalian Diri Pasien Halusinasi pada Pasien Skizofrenia. *Jurnal Kesmas Asclepius*, 1(2), 146–155.
- Apriliani, Y., & Widiani, E. (2020). Pemberian Komunikasi Terapeutik Pada Pasien Skizofrenia Dalam Mengontrol Halusinasi Di RS Jiwa Menur Surabaya. *NERS Jurnal Keperawatan*, 16(2), 61.
- Erawati, E., Keliat, B. A., & Daulima, N. H. (2014). The validation of the Indonesian version of psychotic symptoms ratings scale (PSYRATS), the Indonesian version of cognitive bias questionnaire for psychosis (CBQP) and metacognitive ability questionnaire (MAQ). *International Journal of Advanced Nursing Studies*, 3(2), 97.
- Fresa, O., Rochmawati, D. H., & SN, M. S. A. (2017). *Efektifitas Terapi Individu Bercakap-cakap Dalam Meningkatkan Kemampuan Mengontrol Halusinasi Pada Pasien Halusinasi Pendengaran di rsj dr. Amino Gondohutomo Provinsi Jawa Tengah*.

- Hawari, D. (2014). *Skizofrenia Pendekatan Holistik (BP55) Bio Psiko Sosial Spiritual*. Jakarta : Fakultas Kedokteran Univrsitas Indonesia
- Hendarsyah, F. (2016). Diagnosis dan Tatalaksana Skizofrenia Paranoid dengan Gejala-Gejala Positif dan Negatif. *J Medula Unila*, 4(3), 57;60.
- Keliat, B.A dan Pasaribu. (2016). *Prinsip dan Praktik Keperawatan Kesehatan Jiwa Stuart*. Singapura. Elsevier. (Online)
- Moorhead, S., Johnson, M., Maas, M. L., & Swanson, E. (2013). *Nursing Outcomes Classification (NOC) Measurement of Helath Outcomes*. St. Louis: Elseiver.
- Patimah, S. (2021). Aplikasi Terapi Bercakap-Cakap Pada Tn. N dengan Gangguan Persepsi Sensori: Halusinasi Pendengaran di Jampang Kulon. Lentera: *Jurnal Ilmiah Kesehatan dan Keperawatan*, 4(1), 6-10.
- Apriliani, Y., & Widiani, E. (2020). Pemberian Komunikasi Terapeutik Pada Pasien Skizofrenia Dalam Mengontrol Halusinasi Di RS Jiwa Menur Surabaya. *NERS Jurnal Keperawatan*, 16(2), 61. <https://doi.org/10.25077/njk.16.2.61-74.2020>
- Riset Kesehatan Dasar. (2019). Situasi Kesehatan Jiwa DI Indonesia. In *InfoDATIN* (p. 12).
- Yosep. (2016). *Buku Ajar Keperawatan Jiwa Dan Advance Mental Health Nursing*. PT Refika Aditama.
- Riset Kesehatan Dasar. (2019). *Situasi Kesehatan Jiwa DI Indonesia*. In *InfoDATIN* (p. 12). (online)
- Riyanti, f. A. (2018). *Penerapan terapi aktivitas kelompok stimulasi persepsi pada asuhan keperawatan pasien halusinasi pendengaran di RSJ Grhasia* (Doctoral dissertation, poltekkes kemenkes yogyakarta).
- Sabrina, R. (2017). *Konseling Eksitensial untuk Meningkatkan Kebermaknaan Hidup pada Penderita Skizofrenia: Studi Kasus*. In Seminar ASEAN (2nd Psychology & Humanistic) (pp. 19-20).
- Samsara, A. (2020). Mengenal Skizofrenia. *National Institute of Mental Health*, 0-31.
- Sulahyuningsih, E., Pratiwi, A., & Teguh, S. (2016). *Pengalaman Perawat Dalam Mengimplementasikan Strategi Pelaksanaan (Sp) Tindakan Keperawatan Pada Pasien Halusinasi Di Rumah Sakit Jiwa Daerah Surakarta* (Doctoral dissertation, Universitas
- Stuart, G. W. (2013). *Buku Saku Keperawatan Jiwa*, ed 5. Jakarta : EGC.
- Tim Pokja SDKI DPP PPNI. (2016). *Standar Diagnosis Keperawatan Indonesia* (1st ed.). Jakarta: Dewan Pengurus Pusat Persatuan Perawat Nasional Indonesia.
- Tim Pokja SIKI DPP PPNI. (2018). *Standar Intervensi Keperawatan Indonesia* (I). Jakarta.
- Tim Pokja SLKI DPP PPNI. (2018). *Standar Luaran Keperawatan Indonesia: Definisi dan Kriteria Hasil Keperawatan* (1st ed.). Jakarta: Dewan Pengurus Pusat Persatuan Perawat Nasional Indonesia.

NURSING CARE OF INEFFECTIVE CLEAN AIRWAY IN ACUTE BRONCHITIS PATIENT AT HARAPAN HOSPITAL, MAGELANG CITY

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ABSTRACT

Introduction: Acute bronchitis is a lower respiratory tract infection with the main complaint being cough with the accumulation of phlegm. Obstruction of the airway due to phlegm or sputum that cannot be expelled interferes with the ventilation process. Management that can be done is to maintain pulmonary ventilation and ease of sputum production. The purpose of writing this scientific paper is to describe the ineffectiveness of airway clearance in children with acute bronchitis at Harapan Hospital, Magelang City. **Method:** This study uses a descriptive method with a case study approach that uses one client as the research subject. **Results:** The results of this study showed that the problem of ineffective airway clearance was related to airway obstruction (increased production of secretions) characterized by additional breath sounds of crackles. **Conclusion:** After nursing actions for 3x8 hours the problem of ineffective airway clearance was resolved with a nursing evaluation following the expected results including respiratory frequency within normal limits (20-30 x/minute), increased ability to expel secretions, no additional breath sounds, coughing. reduce. **Keywords:** acute bronchitis; ineffective airway clearance; nebulizer

Introduction.

Lower respiratory tract infections are a major problem in the world as the most deadly infectious disease, ranking as the 4th leading cause of death after ischemic heart disease, stroke, and chronic obstructive pulmonary disease (COPD). It was recorded that in 2019, the number of deaths from lower respiratory tract infections reached 2.6 million people (WHO, 2020). Lower respiratory tract infections are the second cause of death in children under the age of 10 years (57.5%) in the world in 2019 with 85% of cases handled in Indonesia (GBD, 2020).

The data from the Central Java Provincial Health Office (2020) recorded as many as 47,634 cases (50.60%) of acute respiratory problems experienced by children. Based on the results of a preliminary study conducted at Harapan Hospital, Magelang City from 2022 to March there were 11 cases of bronchitis in children, meanwhile, in 2021 there were 19 cases of bronchitis in children (Medical Records of Harapan Hospital, Magelang City, 2022). Lower respiratory tract infections involve the respiratory tract below the larynx, including tracheitis, bronchopneumonia, bronchiolitis, and bronchitis (Mirkarimi et al., 2020)

Bronchitis is inflammation or inflammation that occurs in the bronchi,

with 95% of cases caused by viruses, the rest are caused by bacteria or exposure to allergens. History, physical examination, and investigations need to be done to establish the diagnosis of bronchitis. The main complaint of clients with bronchitis is usually a cough for more than 2 weeks accompanied by an accumulation of phlegm. Sputum will be white and watery but over time it will become greenish yellow and thick due to infection, if an X-ray is taken, spots will appear in the respiratory tract (Alifariki, 2019).

Acute bronchitis has signs and symptoms of audible rhonchi on physical examination of the chest, the voice becomes heavier and rougher, wheezing, disappears in 10-14 days, fever, and sputum production. Chronic bronchitis with a cough that gets worse in the morning or in humid conditions and is accompanied by a cold or flu (Jannah, 2020). Bronchitis will get worse due to exposure to irritants, such as cigarette smoke, dirty air, dust, chemical fumes, etc. Attacks of bronchitis due to exposure to infectious and non-infectious agents (especially cigarette smoke) cause an inflammatory response that will cause a phase of dilation, congestion, mucosal edema, and bronchospasm (Utama, 2018).

Airway obstruction due to the accumulation of phlegm or Sputum in the respiratory tract interferes with the ventilation process. Treatments that can be done are actions to maintain pulmonary ventilation and oxygenation, increase comfort in breathing, ease in removing sputum, increase comfort in carrying out physical activities and prevent the risk of other oxygenation problems such as skin and tissue damage (Wayne, 2019). Chest physiotherapy nursing actions are considered effective in removing phlegm or sputum in the respiratory tract to reduce restore respiratory function, remove secretions from the bronchi, and facilitate the airway (Ningrum, H. W., Widayastuti, Y. & Enikmawati, 2019)

The description above regarding the problem of ineffective airway clearance in clients with Acute Bronchitis has a connection to meeting oxygen needs so it is necessary to immediately get good treatment so that it does not get worse and cause complications.

This review made the writer interested in writing a scientific paper with the title Nursing Care Ineffective Airway Clearing in Children with Acute Bronchitis at Harapan Hospital, Magelang City.

Methods.

The design of scientific writing used is a descriptive method with the title "Nursing Care Ineffective Airway Clearing in Acute Bronchitis Patients at Harapan Hospital, Magelang City", namely by explaining and describing real, realistic, and actual phenomena made in a description with a realistic picture. systematic, factual, and accurate regarding the facts, nature, and relationships between the phenomena being

investigated (Rukajat, 2018).

The purpose of this study in general is to describe nursing care for clients with the problem of ineffective airway clearance in pediatric clients with acute bronchitis, specifically with an approach ranging from assessment, formulating a diagnosis, planning nursing actions, carrying out nursing actions, and evaluating nursing actions.

The location of this study was carried out at Harapan Hospital, Magelang City from January to May 2022 with the main study focus being the problem of ineffective airway clearance in children with a nebulizer and/or postural drainage. The steps of collecting data in this case study are interviews and direct observation. Analysis of the resulting data is described in the form of a narrative as a result of nursing care reports.

Result and Discussion.

Researchers will describe the results of a research according to the stages of the nursing process including:

1. Assessment

The assessment in this study was carried out on February 16, 2022, at 13.00 data obtained. The client's mother said her child coughed continuously and could not expel phlegm. On February 15, 2022 at 21.00 the client is brought by the family to the ER with a hot condition accompanied by a dry cough and runny nose. The client's mother said it had been 2 days of fever and cold cough for \pm 7 days. The results of the examination in the ER showed that vital signs were S=40.4°C, RR=25x/minute, N=110x/minute, SpO₂= 95%, auscultation= rhonchi, CRT <2 sec, warm akral, petechiae -/-/-/-. The client's mother says before being taken to the RSH, check into the clinic and then be referred to the RSH ER. The client was transferred to the sandalwood room for further observation after taking blood and x-rays

At the initial stage of the study, the researcher obtained data that the client complained of coughing unable to expel phlegm, coughing is a common complaint in respiratory tract problems that occurs when cells along the respiratory tract are irritated, triggering air in the lungs with high pressure to flow out as a defense reflex to clear secretions that are trapped in the lungs. excessive. Mucus production in large quantities occurs as the body's mechanism to remove foreign irritant substances from the respiratory tract (Widagdo, 2016).

Assessment findings when lung auscultation examination heard additional breath sounds of crackles in both lung fields. Additional breath sounds, rhonchi, are continuous, low pitch sounds, similar to wheezes but larger in the airways in crackles, this indicates an obstruction in the airways due to secretions. Conditions associated with the occurrence of rhonchi are pneumonia, asthma, bronchitis,

and bronchospasm (Marni, 2016).

The client's mother said that previously the client had a high fever and then received outpatient treatment at the Magelang City Hospital. The client's mother said her son had no history of respiratory diseases such as asthma or tuberculosis (pulmonary tuberculosis). The client does not have any food or drug allergies. The client's mother said that the family did not have a hereditary disease, but when the client's older brother had an illness, the client coughed up phlegm to shortness of breath. None of the family members are smokers.

Pregnancy history, when pregnant, the client's mother routinely checked her womb at the clinic, when An. S there are no problems in her pregnancy. The client was born normally or spontaneously with a weight of 3100 grams and a body length of 48 cm. The client was given exclusive breastfeeding for 6 months and then continued with formula milk, the client was cared for by both parents. There are no abnormalities in the child after birth. The client has received complete basic immunization.

History of growth and development, currently the client's weight is 21 kg and height is 110 cm. The client is in school-age development. At this time the client is sitting in grade 2 elementary school, and has been able to read, write, and do simple arithmetic.

Based on the results of the physical examination, the general condition of An. S is limp with Compos mentis level of consciousness. On examination of vital signs during the assessment in the Cendana room, the temperature was 36.5°C, respiratory rate 34 x/minute, pulse 116 x/minute, and SpO₂: 98%. The results of the head-to-toe assessment obtained mesocephalic heads, symmetrical, with no lumps, black hair, and a clean scalp. The eyes are symmetrical, not sunken, the conjunctiva is not anemic, and the sclera is not icteric. Nose no polyps, nothing swelling, no oxygen cannula attached. Dry lips and clean teeth. Symmetrical ear location, no cerumen, no tenderness, no mass. No enlargement of the thyroid gland, no lesions. Skin color is tan, no lesions, skin feels warm, skin turgor returns in 2 seconds.

An examination of vital signs was performed on An. S obtained the results of temperature (S) 36.5°C, respiratory rate (RR) 34 x/minute, pulse (N) 116 x/minute, SpO₂ 98 %. Rees et al., (2020) state that the child's vital signs are within normal values, namely temperature 36.5°C – 37.5°C, pulse when awake for school age (6-12 years) 75-118 x/minute, the respiratory rate of children aged 20-30 x/minute, and SpO₂ > 94% (Sulistyowati, 2018). Increased respiratory rate as compensation to maintain lung ventilation (Yulia & Lestari, 2019).

The physical examination of the chest includes an examination of the lungs and heart. Lung examination, an inspection of right and left symmetrical lung movements, palpation of left and right vocal fremitus, resonant percussion, and auscultation additional crackles were heard. Cardiac examination ictus cordial not visible, palpable on the 4th intercostal midclavicular left, dull percussion, auscultation no additional sounds S1 and S2 are regular.

Abdominal examination, inspection for no lesions, symmetrical abdomen, auscultation of bowel sounds 32 x/minute, no tenderness, and percussion tympani. The client's upper extremity is attached to a frequent infusion pump 42 ml/hour in the left hand while the lower extremity found no edema in both legs. The client's genitalia was not catheterized and there were no abnormalities.

Investigations include a complete blood count and chest X-ray. Complete blood count results show hemoglobin 13.8 g/dl (11.5-15.2), leukocytes $3.46 \times 10^3/\text{mm}^3$ (4.5-13.5), platelets $161 \times 10^3/\text{mm}^3$ (150-450), hematocrit 40.0% (37.0-45.0), erythrocytes $4.47 \times 10^6/\text{mm}^3$ (4.00-5.40), MCV 89.6 m^3 (77 – 91), MCH 30.9 pg (24-30), MCHC 34.4 g/dL (32 – 36), RDW-CV 10.5% (11.0-16.0), RDW-SD 35.3 fL (37.0-49.0), MPV 9.8 m^3 (6.0-11.0), PDW 13.5 dl (11.0-18.0), PCT 0.160/ (0.15-0.50), lymphocytes 21.6% (0.00-100.0), monocytes 4.0 % (0.00-100.0), neutrophils 72.9% (0.00-100.0), eosinophils 0.2% (0.00- 100.0), basophils 1.3% (0.00-100.0).

The results of the chest x-ray examination read that the shape and size were within normal limits, there was an increase in pulmonary broncho vascular markings, the diaphragm and sinuses were within normal limits, and the impression that appeared was bronchitis.

The results of a complete blood count An. S indicates a low leukocyte count of $3.46 \times 10^3/\text{mm}^3$ with a normal value of 4.5-13.5. Leukopenia is a low white blood cell count. Research by Rismala Dewi & Risa Imanillah, (2021) explained that low leukocyte values can be found in cases of infection, use of certain drugs, malignancy, and immune disorders in children, but it is also associated with an increased risk of infection, especially in children with red blood cell disorders. An. S also experienced an increase in MCH levels by 0.9 from the normal value of 24-30. MCH is an index of the average hemoglobin level in red blood cells, usually used to diagnose anemia, if the result is increased it usually occurs in patients with iron deficiency anemia (A. Anggraini, 2018). Result of RDW-CV 10.5% decreased from normal value 11.0-16.0, RDW-SD 35.3 fL also decreased from normal 37.0-49.0. The calculation of RDW (red cell distribution width) is related to iron deficiency. Microorganisms are easier to infect children who have iron

deficiency due to damage to the body's immune mechanism in defense against infection attacks. Iron deficiency can be influenced by diet, economic factors, and the last education level of parents (Rachmayani, 2018).

Pharmacological therapy in respiratory diseases as a treatment and prevention of bronchoconstriction (narrowing of the airways), especially bronchioles due to contraction of the inflammatory reaction. Treatment is focused on widening the airway, relaxing the bronchiolar muscles or reducing inflammation (Tambayong, 2016).

The client received 42 ml/hour frequent infusion therapy, 1 respule ventolin nebulizer therapy (containing 2.5 mg salbutamol) + Sodium chloride/Sodium Chloride (NS) 1 ml / 8 hours (containing 0.9% NaCl), intravenous injection of ampicillin sulbactam 600 mg+drip Ns 100 ml/8 hours used up 60 minutes, oral medicine lasal exp 3x2.5 ml (every 5 ml contains 75 mg glyceryl gualakolate and 2 mg salbutamol), and Proceles 3x2.5 ml (every 5 ml contains 0.25 mg betamethasone and dexchlorpheniramine maleate 2 mg).

2. Nursing Diagnosis

Based on the results of the study conducted on February 16, 2022 at 13.00, subjective data obtained from the client's mother said An. S coughing continuously for \pm 7 days accompanied by a runny nose, An. S added that he could not expel phlegm, while the objective data showed An. S cough, respiratory rate 34 x/minute, SpO2 98%, auscultation heard additional breath sounds crackles.

The results of data analysis obtained nursing problems that arise in the client, namely the ineffectiveness of airway clearance related to airway obstruction (increased production of secretions) characterized by additional breath sounds of crackles.

The diagnosis of ineffective airway clearance related to airway obstruction (increased production of secretions) characterized by additional breath sounds of crackles (Herdman, 2021). The authors chose this diagnosis because the triggers of inflammation in the bronchial wall include infection, allergies, or environmental stimuli that cause the inflammatory response, resulting in edema of the mucous membranes causing a decrease in ciliary function. The decrease in the function of the cilia makes the air not filtered properly so that mucus production occurs as a defense mechanism, because excessive mucus production and cannot be expelled causes a buildup of mucus in the airways resulting in ineffective airway clearance problems. If The problem of ineffective airway clearance is not resolved can lead to bronchospasm, emphysema, and atelectasis (Utama, 2018).

3. Nursing Intervention

Interventions designed to deal with the problem of ineffective

airway clearance related to airway obstruction (increased production of secretions) characterized by additional breath sounds of crackles have goals and outcome criteria. within normal limits (20-30 x/minute), increased ability to expel secretions, no additional breath sounds, and reduced coughing (Johnson, Marion & Sue Moorhed, 2021).

The action plan is adjusted to the Nursing Interventions Classification (NIC), (2021) with airway management sub-chapters (3140), namely: monitoring respiratory status, auscultating breath sounds, positioning the client semi-Fowler to maximize ventilation, teaching chest physiotherapy, teaching effective coughing exercises, collaboration in drug therapy, collaboration in nebulizer therapy (Bulechek, Gloria M. & Howard K. Butcher, 2021).

4. Nursing Implementation

On February 16, 2022 at 14.30 WIB, what was done was to monitor respiratory status and auscultate the client's breath sounds with no visible response to the use of respiratory accessory muscles, the results of vital signs RR: 34 x/minute, S: 36,5°C, N: 116x/minute, SpO2: 98%, auscultation heard additional breath sounds crackles in both lung fields. At 14:45 WIB adjusts the client's position to semi-Fowler's position, and the client's response feels more comfortable and doesn't gasp in breathing. At 14.50 WIB teaches chest physiotherapy with the client's responsibility to be done by his mother, the client's mother follows the direction of chest physiotherapy well. At 15.05 WIB teaches effective coughing exercises with the result that clients practice effective coughing cooperatively but phlegm cannot be expelled.

At 16.00 WIB collaborated to provide intravenous injection therapy of ampicillin sulbactam 600 mg in drip Sodium Chloride/Sodium Chloride (Ns) 100 ml exhausted in 60 minutes with no allergic response to antibiotics. O'clock 16.05 collaborate on the administration of ventolin 1 respule nebulizer inhalation therapy + 1 ml Sodium Chloride / Sodium Chloride (Ns), the client's response said it was easier to breathe. 17.00 WIB collaborated with giving oral drugs, and the client responded that he was willing to take the medicine, the client received 2.5 ml of expectorant and 2.5 ml of proceles.

Nursing action on February 17, 2022 at 07.00 WIB what is done is to collaborate in giving oral drugs, the client responds that he is willing to take medicine, the client gets 2.5 ml of expectorant lasal and 2.5 ml of proceles. O'clock 07.10 WIB monitors the respiratory status and performs an auscultation examination of the client's breath sounds, data obtained from the client's mother said that she still coughs frequently, phlegm cannot come out, and no colds

anymore. Results of vital signs An. S RR : 32 x/minute, S : 36.1°C, N: 129 x/minute, SpO2 : 98%, auscultation heard additional breath sounds of crackles in both lung fields. At 07.55 WIB adjusts the client's position in semi-Fowler's position, the client's response feels more comfortable in a half-sitting position with cancellation behind the back. At 08.00 WIB collaborated with intravenous injection therapy of ampicillin sulbactam 600 mg in drip Sodium Chloride/Sodium Chloride (Ns) 100 ml discharged in 60 minutes with no allergic response to antibiotics. At 08.05 WIB, they collaborated to provide inhalation therapy with 1 respule ventolin nebulizer + 1 ml Sodium Chloride/ Sodium Chloride (Ns) with the client's response said that after being steamed, it was easier to breathe. At 08.25 repeat effective coughing exercises, and sputum can be issued greenish.

Nursing action on February 17, 2022 at 07.00 WIB what is done is to collaborate in giving oral drugs, the client responds that he is willing to take medicine, the client gets 2.5 ml of expectorant lasal and 2.5 ml of proceles. O'clock 07.10 WIB monitors the respiratory status and auscultation checks the client's breath sounds, the data is still coughing often, sometimes not phlegm out. Objective data on vital signs RR : 30 x/minute, S : 36.3°C, N: 110 x/minute, SpO2 : 98%, auscultation did not hear additional breath sounds crackles. At 7.55 WIB, adjust the client's semi-Fowler position, the client's response feels more comfortable. At 08.00 WIB, they collaborated to provide intravenous injection therapy of ampicillin sulbactam 600 mg in drip Sodium Chloride/Sodium Chloride (Ns) 100 ml exhausted in 60 minutes with no allergic response to antibiotics. At 08.00 WIB collaborated with nebulizer inhalation therapy, and the client's response said that he was willing to be steamed again, the client received ventolin therapy 1 respule + 1 ml Sodium Chloride/ Sodium Chloride (Ns). At 08.25 repeat effective coughing exercises, client subjective data said they were willing to practice effective coughing, client objective data practiced well, thick greenish-yellow sputum could be issued.

Solving the problem of ineffective airway clearance in An. S has been implemented to the client according to the intervention. The first action is to monitor respiratory status, the result is a respiratory rate of 34 x/minute which means that there is tachypnea or rapid and shallow breathing, according to Marni's theory, (2016) on physical examination of respiratory disorders, acute respiratory infections will occur tachypnea. The respiratory rate increases to compensate for the obstruction in the airway (Sondakh et al., 2020). Rational breathing status is carried out with respiratory examination measures including breathing patterns, respiratory frequency, and

respiratory sound disturbances to determine changes in ventilation (Yunanda & Adimayanti, 2021).

The second action is to perform auscultation of breath sounds rational. The act of auscultation of breath sounds can determine the comparison of breath sounds during inspiration and expiration to determine whether there is an obstruction in the airway (Yunanda & Adimayanti, 2021). The results of the study found additional breath sounds in both lung fields, by Herdman's theory, (2018) that the problem of ineffective airway clearance has characteristic limitations, one of which is additional breath sounds. The theory based on Jannah, (2020), in clients with acute bronchitis there are additional sounds of crackles and also wheezing (wheezing) while the results of the assessment only sound crackles. Wheezing is a sound that is heard "ngiii .." during inspiration and expiration due to air trapped in a narrow gap such as edema in the bronchi, while low-pitched crackles such as intermittent vibrations due to secretions collected in the trachea or bronchi so that it interferes with the airway through which air passes (Yunanda & Adimayanti, 2021).

The third action changes the client's position into a semi-fowler. The procedure from the semi-Fowler position is to position the chest and head area higher than the hips and legs with a slope of 30-45 degrees by placing a pillow on the client's back (Wati et al., 2018). It is rational to change the semi-Fowler position by minimizing the work of the respiratory muscles, so there is a sense of relief when breathing and ventilation can be maximized so that there will be an increase in oxygen saturation by an increase in perfusion and more effective alveoli performance in the oxygen diffusion process (Yulia & Lestari, 2019).

The fourth act teaches chest physiotherapy. The rationale for chest physiotherapy in children is usually a cough accompanied by the formation of secretions that can rarely produce sputum, so it is necessary to take actions that can stimulate the secretion of secretions (Widagdo, 2016). Chest physiotherapy includes postural drainage, clapping, and vibration. The postural drainage technique used by putting the client to sleep according to the position of the blockage in the lung which aims to allow secretions to flow out of the location of the blocked lung is carried out for \pm 5 minutes. Furthermore, the clapping technique or clapping to knock out the secretions sticking, then a vibration technique or chest compressions with slow vibrations. If there is a coughing stimulus, then an effective cough will occur so that the secretions can be removed (Maghfiroh et al., 2021). In the implementation of the second and third days of chest physiotherapy actions were not

carried out again because the client felt embarrassed and began to be uncooperative, so for the convenience of the client, the authors did not continue the implementation of chest physiotherapy actions.

The fifth act teaches effective coughing exercises. The rationale is that this action is carried out with maximum ventilation and increased respiratory muscles can stimulate the movement of secretions so that they are easily expelled. Coughing is effective for preventing accumulated secretions, mobilizing secretions so that they are easy to expel with minimal energy to prevent respiratory complications such as atelectasis and pneumonia (Wartini et al., 2021).

The sixth action is to collaborate in drug therapy. Drug therapy that the client runs through the oral route and intravenous injection. The client is also receiving frequent infusions of 42 ml/hour which are indicated for the treatment of blood and fluid loss.

Oral drug therapy prescribed is proceles syrup 3 x 2.5 ml. Proceles are used for allergies in the respiratory tract containing betamethasone (corticosteroid group) and dexchlorpheniramine maleate (antihistamines) (Amrin, 2019). Corticosteroids are used to reduce pain due to the inflammatory process while antihistamines can suppress allergic responses in the airways so that they can reduce allergy symptoms in children (Handayani, 2021). The antihistamine effect itself causes drowsiness or sedation and causes dry mouth (E. D. Anggraini et al., 2021).

Another oral drug therapy that is prescribed is a lasal expectorant drug 3 x 2.5 ml as an expectorant that can thin mucus and stimulate mucus secretion from the respiratory tract (Anwari et al., 2019). Lasal expectorant contains glyceryl gualacolate and salbutamol. Glyceryl gualacolate as an expectorant works by stimulating bronchial secretory cells as a productive cough therapy, while salbutamol is a β -adrenergic agonist bronchodilator for smooth muscle relaxation of bronchioles (Tambayong, 2016).

The client received antibiotic injection therapy that was prescribed due to a decrease in the number of leukocytes. Ampicillin + Sulbactam is a type of ampicillin of the penicillin group with a broad mechanism of action and is effective against gram-positive and gram-negative cocci that cause ARI, often prescribed to clients with bronchitis and pneumonia (Gunawan, S., 2016). The client received intravenous injection of ampicillin sulbactam 600 mg in 100 ml NS drip as an antibiotic. Ampicillin sulbactam is an antibiotic that is often used as empiric therapy (administration of antibiotics in a state of infection before bacterial culture or bacterial susceptibility test to antibiotics) in children. Ampicillin preparations were combined with sulbactam in a ratio of 2:1. Ampicillin

sulbactam for IV infusion used contains 1000 mg of ampicillin and 500 grams of sulbactam. Ampicillin which is a semisynthetic aminopenicillin works by inhibiting the synthesis of bacterial cell walls when doubling, while sulbactam itself works by expanding the activity of ampicillin (Karyanti & Faisha, 2022).

The seventh action is to collaborate with nebulizer therapy. This action is carried out rationally and a nebulizer which is an inhalation therapy can change bronchodilator drugs (airway widening) from liquid to aerosol particle form so that it works quickly even with small doses (Wartini et al., 2021). The client received nebulizer therapy with a prescription for ventolin 1 respule + Ns 1 ml / 8 hours which serves to overcome the narrowing of the respiratory tract walls. Ventolin containing 2.5 mg of salbutamol as β -adrenergic agonist bronchodilator. Bronchodilators have three groups: β -adrenergic agonists, anticholinergics, and xanthine derivatives. β -adrenergic receptors on β -adrenergic agonists respond to adrenergic stimulation (sympathetic nerve activity) by relaxing muscles so that ventilation can be maximized. β -adrenergic agonist drugs can be in the form of tablets, syrups, injections, and aerosols with aerosol dosage forms having the advantage of reacting quickly. The duration of action of this agent is 6-8 hours, so 3-4 doses are needed (Tambayong, 2016).

5. Nursing Evaluation

Nursing evaluation on February 16, 2022 at 19.00 WIB, subjective data (S): the client's mother said her child had a cold again, still coughing up phlegm has not come out. Objective data (O) : the client's vital signs showed RR: 32 x/minute, S: 36,5°C, N: 116x/minute, SpO2: 99%, lung auscultation still heard crackles in both lung fields so that the assessment (A)): the problem of ineffective airway clearance has not been resolved. Planning (P): continue the intervention to monitor respiratory status, auscultate breath sounds, position the client in semi-Fowler's position to maximize ventilation, teach effective coughing exercises, collaborate in drug therapy, and collaboration in giving nebulizer therapy.

Nursing evaluation on February 17, 2022 at 14.00 WIB, subjective data (S): the client's mother said her child was still coughing, had coughed in a trained way and phlegm came out yellowish green, no longer runny Objective data (O): Vital signs are obtained RR: 30 x/minute, S: 36.1°C N: 129 x/minute, SpO2: 98%, crackles are heard on auscultation so assessment (A): ineffective cleaning problem airway is partially resolved. Planning (P): continued intervention, namely monitoring respiratory status, auscultation of breath sounds, positioning the client in semi-Fowler's

position to maximize ventilation, teaching effective coughing exercises, collaboration in drug therapy, collaboration in giving nebulizer therapy.

Nursing evaluation on February 18, 2022 at 14.00, subjective data (S): the client's mother said that now the cough is reduced, and phlegm can come out greenish yellow. Objective data (O): results of vital signs RR: 30 x/minute, S: 36.3°C, N: 110 x/minute, SpO₂: 99%, no additional breath sounds are heard so assessment (A): the problem of ineffective airway clearance is resolved, planning (P): stop the intervention, the client is allowed to go home. Discharge planning: avoiding exposure to cigarette smoke, creating a clean environment, consuming warm water to soothe the throat, and if there is a recurrence, immediately check with health services.

Conclusion and Suggestions.

Based on the documentation of nursing care carried out by the author from 16 to 18 February 2022 at An. S with a medical diagnosis of acute bronchitis in the Cendana ward, Harapan Hospital, Magelang City, the following conclusions can be drawn:

1. Assessment

The study was carried out by the author on February 16, 2022, and obtained data on clients aged 8 years with a medical diagnosis of acute bronchitis. The main complaint felt by the client is cough. The client's mother said her son had a dry cough for \pm 7 days accompanied by a cold. The results of vital signs were temperature 36.5°C, respiratory rate 34 x/minute, pulse 116 x/minute, SpO₂: 98%, lung auscultation examination heard crackles in both lung fields.

2. Nursing Diagnosis

Nursing problems that arise in An. S refers to the problem of ineffective airway clearance related to airway obstruction (increased production of secretions) characterized by additional breath sounds and crackles.

3. Nursing Plan

The goals and outcome criteria after nursing actions have been carried out for 3 x 24 hours it is hoped that the problem of ineffective airway clearance can be resolved with the criteria for respiratory frequency results within normal limits (20-30 x / min), increased ability to excrete secretions, no additional breath sounds, reduced coughing.

The interventions that will be carried out are: to monitor respiratory status, auscultate breath sounds, position the client in a semi-Fowler's position to maximize ventilation, teach chest physiotherapy, teach effective coughing exercises, collaborate in drug therapy, and collaborate in nebulizer therapy.

4. Nursing implementation

The implementation of nursing is carried out by the nursing plan set by the author. Nursing actions were carried out for three days. Nebulizer therapy was obtained by the client with a prescription for Ventolin 1 respule + Ns 1 ml / 8 hours. Antibiotics are also given with a prescription of 600 mg/drip NS 100 ml discharged in 60 minutes due to low leukocyte count laboratory results.

5. Evaluation

The evaluation that was obtained after the nursing action was carried out was that the cough was reduced, could expel phlegm with an effective cough technique, phlegm was greenish-yellow, the respiratory frequency was in the normal range of 30x/minute, SpO₂: 99%, no additional breath sounds were heard, resulting in the problem of ineffective airway clearance. breath is resolved, the follow-up plan stops the intervention and it is planned that the client is allowed to go home.

Suggestion

In the preparation of scientific papers, the author has several suggestions, in particular:

1. For Nursing Practitioners

Nursing practitioners who treat pediatric clients with bronchitis acute, in dealing with the problem of ineffective airway clearance should not only provide nebulizer therapy but also be supported with chest physiotherapy and effective coughing exercises so that when you go home from the hospital had no difficulty in expelling phlegm.

2. For Other Institutions and Researchers

It is hoped that this scientific paper can be used as a reference others to be developed in the provision of nursing care in pediatric clients with bronchitis.

3. For Hospitals

It is hoped that the hospital can improve care services nursing in children with bronchitis with therapeutic communication so that children are comfortable and not afraid when therapy is done.

4. For Family

The role of the family, especially parents, is very important in maintaining and accompany the child and monitor the child's condition so that when the child is sick it does not getting worse or recurrence.

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References

- Alifariki, L. O. (2019). Faktor Risiko Kejadian Bronkitis Di Puskesmas Mekar Kota Kendari. *Jurnal Ilmu Kesehatan*, 8(1), 1–9.
- Amrin, S. B. (2019). Pereseapan Obat di Instalasi Farmasi Rumah Sakit Ibu dan Anak Aisyiyah Samarinda. *Sainstech Farma*, 13(1), 33–36.
- Anggraini, A. (2018). *Perbedaan Indeks Eritrosit Menggunakan Antikoagulan K2EDTA dan K3EDTA Metode Automatic*. <http://repository.unimus.ac.id/3042/1/MANUSCRIPT.pdf>
- Anggraini, E. D., Putra, O. N., & Faizah, A. K. (2021). Pereseapan Obat “ Off-label ” Pada Anak Dengan Penyakit Infeksi Saluran Pernapasan Akut. *Jurnal Ilmu Kefarmasian*, 2, 5–12.
- Anwari, F., Olevianingrum, M., & Fatmawati, U. (2019). EFEKTIFITAS KOMBINASI MINT (PAPERMINT OIL) DAN CAIRAN. *Jurnal SainHealth*, 3(1), 40–44.
- Bulechek, Gloria M. & Howard K. Butcher, dkk. (2021). *Nursing Interventions Classification (NIC) Edisi Keenam*. Philadelphia: Elsevier.
- D, R., & Imanillah, R. (2021). Hubungan Antara Nilai Leukosit, Rasio Jumlah Neutrofil-limfosit (NLR), C-Reactive Protein (CRP) dan Prokalsitonin dengan Skor Pediatric Logistic Organ Dysfunction (PELOD-2) sebagai Prediktor Derajat Keparahan Penyakit pada Anak Sakit Kritis. *Journal Of The Indonesian Medical Association*, 71(1), 30–35. <https://doi.org/10.47830/jinma-vol.71.1-2021-343>
- GBD. (2020). *Global burden of 369 diseases and injuries in 204 countries and territories , 1990 – 2019: a systematic analysis for the Global Burden of Disease Study 2019*. 396. [https://doi.org/10.1016/S0140-6736\(20\)30925-9](https://doi.org/10.1016/S0140-6736(20)30925-9)
- Gunawan, S., G. (2016). *Farmakologi dan Terapi*. Jakarta: Badan Penerbit FKUI.
- Herdman, T. H. (2021). *NANDA International Nursing Diagnose : Definitions and Classification 2018-2020*. Jakarta: EGC.
- Jannah, N. (2020). Asuhan Keperawatan Pada Klien Bronkitis Dengan Ketidakefektifan Bersihan Jalan Napas Di Ruang Teratai Di RSUD Bangil Pasuruan. *Karya Tulis Ilmiah*, 3(2017), 54–67. <http://repositorio.unan.edu.ni/2986/1/5624.pdf>
- Johnson, Marion & Sue Moorhed, D. (2021). *Nursing Outcomes Classification (NOC) Edisi Kelima*. Philadelphia: Elsevier.
- Karyanti, M. R., & Faisha, K. (2022). Evaluasi Penggunaan Antibiotik dengan Metode Gyssens pada Penyakit Infeksi dan Pola Sensitivitas Bakteri di Ruang Rawat Inap Anak Rumah Sakit Cipto Mangunkusumo. *Jurnal Sari Pediatri*, 23(6).
- Maghfiroh, M., Dwirahayu, Y., & Mashudi, S. (2021). STUDI LITERATUR :

- ASUHAN KEPERAWATAN PADA PASIEN ANAK DENGAN BRONKITIS DENGAN MASALAH KEPERAWATAN BERSIHAN JALAN NAFAS TIDAK EFEKTIF. *Health Sciences Journal*, 5(1), 35. <https://doi.org/10.24269/hsj.v5i1.667>
- Marni. (2016). *Asuhan Keperawatan Pada Anak dengan Gangguan Pernapasan*. Semarang: Gosyen Publishing.
- Mirkarimi, M., Alisamir, M., Saraf, S., Heidari, S., Barouti, S., & Mohammadi, S. (2020). Clinical and Epidemiological Determinants of Lower Respiratory Tract Infections in Hospitalized Pediatric Patients. *International Journal of Pediatrics (United Kingdom)*, 2020, 7. <https://doi.org/10.1155/2020/8844420>
- Ningrum, H. W., Widyastuti, Y. & Enikmawati, A. (2019). Penerapan Fisioterapi Dada Terhadap Ketidakefektifan Bersihan Jalan Nafas Pada Pasien Bronkitis Usia Pra Sekolah. <http://repository.itspku.ac.id/75/1/2016011898.pdf>
- Rachmayani, A. (2018). Faktor Risiko Anemia pada Anak Sekolah Dasar di Temanggung. *Indonesian Journal of Human Nutrition*, 5(2), 125–130.
- Sondakh, S. A., Onibala, F., & Nurmansyah, M. (2020). Pengaruh Pemberian Nebulisasi Terhadap Frekuensi. *Jurnal Keperawatan (JKp)*, 8, 75–82.
- Tambayong, J. (2016). *Farmakologi Keperawatan Ed 2*. Jakarta: EGC.
- Utama, S. Y. A. (2018). *Buku Ajar Keperawatan Medikal Bedah Sistem Respirasi Edisi 1*. Yogyakarta: Deepublish.
- Wartini, W., Immawati, I., & Dewi, T. K. (2021). Penerapan latihan batuk efektif pada intervensi nebulizer dalam mengatasi ketidakefektifan bersihan jalan napas anak suai prasekolah (3-5 tahun). *Jurnal Cendikia Muda*, 1(4), 7. <https://jurnal.akperdharmawacana.ac.id/index.php/JWC/article/view/241>
- Wati, I. K., Minardo, J., & Musta'in, M. (2018). KETIDAKEFEKTIFAN BERSIHAN JALAN NAFAS PADA TN. M DENGAN BRONKITIS KRONIS DI RS PARU DR. ARIO WIRAWAN SALATIGA TAHUN 2018. *Paper Knowledge . Toward a Media History of Documents*, 1–10. http://repository2.unw.ac.id/1110/1/MANUSKRIP_real_ika_kartika.pdf
- Wayne, G. (2019). *Ineffective Airway Clearance Nursing Care Plan*. Nurselabs. <https://nurseslabs.com/ineffective-airway-clearance/>
- WHO. (2020). *The top 10 causes of death*. WHO Reports. <https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death>
- Widagdo. (2016). *Tatalaksana Masalah Penyakit Anak dengan Batuk/Batuk Darah (I)*. Jakarta: Agung Seto.
- Yulia, A., & Lestari, W. (2019). Pengaruh Nafas Dalam dan Posisi Terhadap Saturasi Oksigen dan Frekuensi Nafas Pada Pasien Asma. 1, 67–75. <https://doi.org/10.33088/jkr.vlil.398>

Yunanda, & Adimayanti. (2021). Pengelolaan Bersihan Jalan Napas Tidak Efektif pada Anak dengan ISPA di Desa Kebondowo Banyubiru. *Journal of Holistics and Health Science*, 3(2), 132-142. <https://doi.org/10.35473/jhhs.v3i2.101>

**THE RELATIONSHIP OF EMOTIONAL INTELLIGENCE
TOWARDS STUDENTS' LEARNING ACHIEVEMENTS IN THE
MAGELANG NURSING PROGRAM DURING THE COVID-19
PANDEMIC**

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ABSTRACT

Introduction: Learning achievement is the result of learning, where the parameters of learning outcomes are obtained from evaluations that have been given by the relevant institutions. In previous studies, student achievement during the pandemic increased. Emotional intelligence is a person's ability to regulate emotions in himself appropriately. According to Goleman as high as possible, IQ accounts for about 20% of the factors that determine success in life, then which 80% is filled by Emotional and Spiritual Intelligence. In previous studies, students' emotions during the pandemic were disturbed. Reviewing previous research with almost the same title, the results of students who have emotional intelligence are that their learning achievements tend to be very satisfying, namely 41 respondents (95.3%) or can be said to be very influential. However, unlike other studies, the sig p-value is $0.860 > \alpha (0.05)$, which means there is no relationship between emotional intelligence and learning achievement. From the observed phenomena and the results of the preliminary Magelang Nursing Study Student study, it showed a relatively high GPA value of 3.32, so researchers were interested in conducting research in that place.

Methods: Correlational non-experimental quantitative research methods, with a Cross-Sectional approach

Results: Good level of emotional intelligence as much as 95.8%, while the level of learning achievement is very good as much as 72%, then based on the results of the Kolmogorov Normality Test normally distributed and then doing the Pearson Product Moment Test, has a p-value = 0.01 or $p < 0.05$.

Conclusion: There is a relationship between emotional intelligence and student achievement in Nursing Study Program in Magelang.

Keyword : Emotional Intelligence; Learning Achievement; Covid-19 Pandemic.

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Introduction.

Learning achievement is the result of learning, where the parameters of learning outcomes are obtained from evaluations that have been given by the relevant institutions. Learning achievement is expressed in the form of symbols, numbers, letters, and sentences that can reflect the results that have been achieved by each student in a certain period, and it can be stated that learning achievement is the result of a learning activity, which is accompanied by changes achieved by students (Rosyid Moh. . Zaiful, 2019).

Learning achievement is a responsibility borne by a student in the learning process, especially during the Covid 19 pandemic like today. Learning online is one of the efforts that must be taken in the learning process, but it does not become a barrier for students to carve good learning achievements. The increase in the category of nursing student learning achievement increases before and after online learning, and in online conditions, it becomes an opportunity for students to develop themselves independently, even in conditions of online learning (Purnawinardi, 2021).

Emotional intelligence is a person's ability to regulate emotions in himself appropriately. Accuracy in regulating emotions is also interconnected, with the intelligence that a person has. Emotional intelligence is a person's ability to manage his or her emotional life with intelligence (to manage our emotional life with intelligence); maintain emotional harmony and its expression (the appropriateness of emotion and its expression) through the skills of self-awareness, self-control, self-motivation, empathy and social skills (Goleman, 2018).

Emotional, intelligent, and spiritual intelligence is the intelligence that everyone has as a tool to proceed in life and achieve a goal, namely success. "At best, IQ accounts for about 20% of the factors that determine success in life, so that 80% is occupied by other forces." Another strength is emotional intelligence or Emotional Quotient (EQ) and spiritual intelligence or Spiritual Quotient (SQ), on the other hand, emotional intelligence is a higher factor than spiritual intelligence (Goleman, 2018).

Emotional intelligence is a high factor in influencing one's life, one of which is in the aspect of education during the pandemic. When this is not paid attention to it can lead to negative. Out of 190 students, 63.6% experienced disturbances in managing their emotional impact from learning during a pandemic which affected student learning

achievement (Uswatun, 2020).

Emotional intelligence is related to learning achievement because in the learning process it is required to regulate emotions. This is in line with the results of research by Herlia and Ratna (2019) with 43 female respondents and the results are female students who have emotional intelligence while their learning achievements tend to be very satisfying, namely 41 respondents (95.3%) or can be said to be very influential. However, it is different from research conducted by Helmi (2020) which states that the sig p-value is $0.860 > \alpha (0.05)$ which means there is no relationship between emotional intelligence and learning achievement.

From the above review, researchers are interested in researching because of differences in research results and interested in researching students of the Magelang nursing study program, due to the observed phenomena and the results of preliminary studies showing a relatively high GPA value of 3.32. On the other hand, the study program further deepens the science of mental nursing which is very closely related to psychology and emotional intelligence, so it is expected to have a different emotional intelligence than students in general, and whether there is a relationship between emotional intelligence and learning achievement.

The purpose of this study was to determine the relationship between emotional intelligence as a factor that affects learning achievement. In particular, this study also aims to determine: Characteristics of respondents according to gender, level of emotional intelligence in respondents, level of learning achievement in respondents, and the relationship between emotional intelligence and learning achievement in 4th-semester students of the Magelang Nursing Study Program.

Methods

The population in this study were students in the 4th semester of the Magelang Nursing Study Program, amounting to 150 students. Sampling in this study is using Total Sampling or the entire population as the object of research.

The type or method used in this study is a correlational non-experimental quantitative research method, where this method is intended to determine the relationship between a variable and another variable. In a Cross-Sectional approach where the two variables are the independent variable and the variable bound that occurs in the object of research is measured at the same time.

Result and Discussion.

This research was conducted at the Health Polytechnic of the Ministry of Health of Semarang, the Magelang Nursing Study Program, which is located at Jalan Perintis Kemerdekaan No.99 Kramat Selatan, North Magelang District, Magelang City, Central Java Province. Magelang Nursing Study Program students consist of DIII and Applied Undergraduate Study Programs.

The research focused on level 2 or semester 4 students, both from the Magelang DIII Nursing Study Program and the Magelang Applied Nursing Undergraduate Study Program, totaling 150 students. Of these, 143 students filled out the questionnaire.

Characteristics of Respondents.

In this study, the respondents were students of the Magelang Nursing Study Program who were male and female and came from the DIII Nursing Program in Magelang and the Bachelor of Applied Nursing in Magelang.

Table 1. Characteristics of Respondents

No	Classification		Frequency (n=143)	%
1	Gender	Man	13	9,1
		Woman	130	90,9
2	Study Program	DIII	95	66,4
		Applied Bachelor	48	33,6

The table shows respondent data by gender and study program, with the results of the majority of respondents being female as many as 130 students or 90.9%, and coming from the Magelang Nursing DIII Study Program with a total of 95 students or 66.4%.

Description of the respondent's learning achievement and emotional intelligence.

In this study there are two variables where the dependent variable is learning achievement and the independent variable is emotional intelligence.

Table 2. Description of the respondent's learning achievement and emotional intelligence.

No	Variable	Mean	Median	Min	Max	n
1	Learning Achievement	3,31	3,32	2,83	3,72	143
2	Emotional Intelligence	169	168	126	207	143

The table shows that the learning achievement variable has an average of 3.31, a median of 3.32, a minimum value of 2.83, and a maximum value of 3.72. While the emotional intelligence variable has an average

of 169, a median of 168, a minimum value of 126, and a maximum value of 207.

Category of learning achievement and emotional intelligence of respondents

In this research, the researcher categorizes learning achievement and emotional intelligence into 4 categories using the Q123 formula, which results in poor, moderate, good, and very good categories.

Table 3. Category of learning achievement and emotional intelligence of respondents

No	Variable	Category	Frequency (n=143)	%
1	Learning Achievement	Good	53	37
		Very Good	90	72
2	Emotional Intelligence	Medium	1	0,6
		Good	137	95,8
		Very Good	5	3,6

The table shows that the learning achievement variable in the less and moderate categories does not exist, there are 53 or 37% high categories and 90 or 73% very good categories. While in the emotional intelligence variable, the category of less does not exist, the medium category is 1 or 0.6%, the good category is as much as 137 or 95.8%, and very good as much as 5 or 3.6%.

Average learning achievement and emotional intelligence by gender

In this study, researchers described the average learning achievement and emotional intelligence of respondents by gender.

Table 4. Average learning achievement and emotional intelligence by gender

No	Variable	Average	
		Man	Woman
1	Learning Achievement	3,16	3,33
2	Emotional Intelligence	177,6	165,9

The table shows that the average learning achievement for males is 3.16 and for females is 3.33. While the average emotional intelligence in men is 177.6 and in women.

Normality test

In this study, data from both the independent and dependent variables

were first tested for normality to determine whether the data were normally distributed or not. The normality test in this study uses the Kolmogorov Smirnov Normality Test because the respondent's data is 143, and the conditions for using the Kolmogorov Smirnov Normality Test are when the data is more than 50.

Table 5. Normality Test

No	Variable	Kolmogorov		
		Statistic	Df	Significance
1	Learning Achievement	0,057	143	0,200
2	Emotional Intelligence	0,105	143	0,200

The table shows that learning achievement has a p-value = 0.200 or $p > 0.05$ which means the data is normally distributed, and emotional intelligence shows p-value = 0.200 or $p > 0.05$ which means the data is normally distributed.

Hypothesis Test

In this research, to determine whether there is a relationship or not, the researchers tested the correlation hypothesis using the Pearson Product Moment Test because the results of the normality test showed that one of the data was normally distributed.

Table 6. Hypothesis Test

No	Variable	Pearson		
		Correlation	Sig.2	n
1	Learning Achievement & Emotional Intelligence	0,584	0,01	143

The table shows the results of the Pearson Product Moment Test, having p-value = 0.01 or $p < 0.05$, which means H_a is accepted or there is a relationship between emotional intelligence and learning achievement.

Characteristics of Respondents by Gender

In this study, respondents were categorized according to 2 characteristics, namely based on the origin of the study program and gender. The results of the distribution of characteristics based on study programs obtained the results of respondents from the Applied Undergraduate Study Program totaling 48 respondents and from the DIII Study Program totaling 95 respondents. Meanwhile, based on gender, there were 13 respondents male and 130 female respondents.

The purpose of being categorized based on the study program, the researcher only wanted to know how the results of the Applied Undergraduate Study Program and DIII, although the researcher was

not interested in further investigating the differences in the results of the two. While the goals are categorized by gender because gender is a factor that influences both learning achievement and emotional intelligence. Emotional intelligence is influenced by several factors such as age, experience, and gender (Goleman, 2018).

Respondent's Level of Emotional Intelligence

This study shows that the emotional intelligence of respondents, in general, is in a good category and some even fall into very good, but there is also 1 which is included in the medium category. Of the 143 respondents, 1 respondent was in the moderate category, 137 were in a good category, and 5 were in the very good category. This means that students have recognized and managed their own emotions, can motivate themselves, recognize the emotions of others (empathy), and are proficient in fostering good relationships with others. Although in the good category in general, students still need to improve their emotional intelligence to become a better category. To avoid negative things that can harm themselves and others, students should understand the importance of emotional intelligence. This intelligence can be seen in several things such as how students can give a good impression about themselves, can express their own emotions well, can control feelings, and can express emotional reactions according to existing conditions so that interactions with other people can be well and effectively established.

Emotional intelligence is influenced by several factors such as family environment, experience, brain, age, and gender (Goleman, 2018). In terms of gender, in general, women have a better emotional level. Women are more sensitive to the surrounding environment and recognize and can manage emotions than men (Meyers-Levy, & Loken, 2015). However, in this study the level of emotional intelligence of men is higher than women, this is influenced by the experience factor because students who have very good intelligence follow the organization, where the organization is a place to get experience outside of lecture learning, and the number of respondents who are very far apart.

Based on the results of research conducted, both male and female adolescents have a good average value of emotional intelligence, namely, 90.27 for male adolescents and an average value of 89.27 for female adolescents (Etika AN & Yunalia EM, 2020). In addition, the results obtained are the emotional intelligence of male and female students majoring in education are in the medium category with an average score of 76.04 and 73.98, respectively (Irmawati, 2016). From the results of research conducted and 2 previous studies, it can be concluded that women do not always have more emotional

intelligence because several other factors affect a person's level of emotional intelligence.

Respondents' Learning Achievement

This study shows that there is no learning achievement in the poor and moderate categories, there are 53 students in the high category or 37%, and in the very good category with 90 students or 73%. Learning achievement which can be said to be generally very good is influenced by several factors, both internal and external factors. Internal factors are factors that come from within a person, and greatly affect a person's learning achievement. Factors that enter into internal factors are biological factors and psychological factors (Darmadi, 2017). Meanwhile, what is meant by external factors are factors that come from outside one's self, but also affect learning achievement including social and non-social environments. The social environment is an environment in which there is social interaction, such as; community, neighbors, even the school environment, classmates, teachers, and educational administrative staff. A more intimate social environment, namely the family which includes parents and siblings, affects the level of learning achievement. Parenting patterns and norms that exist in a family have a good or bad impact on a student's learning achievement. The non-social environment is a supporting factor such as school buildings, houses, learning tools, weather, and time spent studying. This factor is considered to be able to affect the level of learning achievement.

This study shows that female learning achievement is better than males. This is because In general, women have a better level of emotional intelligence so women can be more diligent and motivated to learn (Goleman 2018).

Relationship of Emotional Intelligence to Learning Achievement

The results of the hypothesis test show that H_a or H_1 is accepted, which means there is a relationship between emotional intelligence and learning achievement. Based on the results of the correlation test using the Pearson Correlation Test, the results obtained a p-value <0.05 . These results are obtained because, in reality, emotional intelligence affects students in the learning process, where students can be creative, innovative, honest, able to recognize themselves, and able to establish good relationships with other students. On the other hand, emotional intelligence affects enthusiasm and perseverance in learning which affects learning achievement. One of the intelligence that can be associated with increasing one's learning achievement is emotional intelligence (Goleman, 2018).

This study is in line with research conducted by Herlia and Ratna (2019), which states that there is a relationship between Emotional

Intelligence and Learning Achievement for Semester II Students of the Medan Healthy Midwifery Academy in 2017.

This study is also in line with Nikmatul's research (2017), based on data analysis and calculations, it was found that testing data obtained H_0 was rejected and H_1 was accepted, namely with an r count of 0.92 in the interval 0.80-0.599 so that shows the relationship between emotional intelligence and learning achievement is a strong correlation or relationship.

In addition, this study is also in line with research from Rahayu and Tri (2019), which states that the results of statistical analysis show the p -value is 0.00, because ($p < 0.05$) so H_a is accepted. So it can be concluded that there is a significant relationship between emotional intelligence and student achievement in midwifery levels I and II at Batam University in 2017.

Not only that, research from Dita et al (2021), states that the results of the study prove (1) emotional intelligence significantly affects student academic achievement, (2) spiritual intelligence significantly affects student academic achievement, and (3) there is a significant relationship between emotional intelligence, spiritual, and academic achievement of students. The results of this study have implications for the importance of good emotional and spiritual intelligence values in obtaining good academic achievements.

This result means that the higher the emotional intelligence of students, the better the results of their learning achievements, on the contrary, the lower the emotional intelligence of students, the less the results of their learning achievements. Students who manage their feelings (emotions) well and can relate to others effectively tend to remember information and learn more effectively as well. People with low EQ can have a high IQ, showing behavior that is detrimental to others (Jayati, Mira, 2015).

Emotional intelligence is different from intellectual intelligence, but the two are very closely related and influence each other. People will not be able to use their cognitive abilities, according to their maximum potential without having emotional intelligence. Emotional intelligence that is not good is one of the causes of the low learning achievement of a student, so if students want to get good learning achievements in addition to understanding their intellectual intelligence, they must also increase their emotional intelligence (Rahayu, Tri, 2019).

Students who have good emotional intelligence will be able to motivate themselves when facing a problem that makes them fall. Students who are classified as having high emotional intelligence can make themselves excited when they find many tasks or activities that make them tired. These students do not depend on other students to

regain their enthusiasm, so they can organize themselves to achieve what they want (Goleman, 2018).

In addition, the way students motivate themselves to excel can be a form of emotional intelligence that can affect student learning achievement. The motivation for achievement possessed by students strengthens the role of emotional intelligence on student achievement. Students who have high achievement motivation will improve their learning achievement. The increase in achievement is much higher than individuals who have low achievement motivation in the sense of having poor emotional intelligence.

This research gives the result that respondents who have emotional intelligence will be directly proportional to the learning achievement they get. This means that the better the emotional intelligence possessed by students, the better the level of student achievement will be. This is because emotional intelligence has a relationship with the level of emotion possessed by each individual, when carrying out learning activities each individual will be influenced or supported by his emotional state. If the individual can control his emotions in a positive direction, he can overcome various obstacles to learning activities. So the quality of good learning activities can improve academic achievement. Thus, the emotional intelligence factor measured through self-knowledge, self-control, motivation, empathy, and social skills is a factor that will affect student learning achievement (Dita, 2021).

The results of this study are also supported by previous studies, including Sari RA (2018), Sulastri (2021), and Herlina (2019) which state that emotional intelligence significantly affects academic achievement. Emotional intelligence and academic achievement have a significant relationship with each other. Students who have low levels of emotional intelligence due to low self-motivation, anxiety, and low self-confidence make students have low academic achievement. The results of research on emotional intelligence have implications that can help students to demand themselves in learning to recognize and appreciate the feelings of themselves and others and to respond to them appropriately, effectively applying emotional energy in daily life and work.

Conclusion and Suggestions

Conclusion

Based on the results of the research and from the description of the discussion, it can be concluded that the relationship between emotional intelligence and learning achievement of Magelang Nursing Study Program students is as follows:

- Characteristics of respondents are differentiated based on gender and study program origin, with 13 male respondents and 130 female

respondents. The origin of the study program is from DIII with 95 respondents and 48 respondents from Applied Bachelor.

- The emotional intelligence of the respondents, namely the second-level students of the Magelang Nursing Study Program, had an average score of 169 which was included in the good category.
- The learning achievement of the respondents, namely level 2 students of the Magelang Nursing Study Program, had an average score of 3.31 which was included in the very good category.
- The results of data analysis showed that there was a significant relationship between emotional intelligence and learning achievement, with the results of the Pearson correlation test of $P < 0.01$.

Suggestion

Besides being able to provide conclusions, this research can also provide suggestions for parties who assist in improving human resources. These suggestions include:

- For Educational Institutions: Institutions are expected to assist in the process of optimizing and improving students' emotional intelligence, where emotional intelligence can have a positive impact on the campus, community, and work environment in the future. Therefore, teachers are expected to include elements that can improve emotional intelligence in the learning process.
- For Readers : Students as readers are expected to improve and maintain their emotional intelligence because it can provide positive aspects for students which can improve their learning achievement.
- For Writers : For the author to believe that there are still many errors in both writing and content, the author also suggests expanding the population that is the object of research so that the research is more comprehensive and obtains better results, and represents the population at large.

References

- Purnawinardi I Gede. 2021. *Dampak Pandemi Covid-19 Pada Prestasi Belajar Mahasiswa Keperawatan Terhadap Akademik* : Jurnal Skolastik Keperawatan : 7(1)
- Sulastris T, Suryana Y, dan Hidayat S. 2021. *Pengaruh Kecerdasan Emosional terhadap Prestasi Belajar Matematika Siswa Kelas V Sekolah Dasar Negeri 1 Manonjaya* : Pedagogik Jurnal Ilmiah Pendidikan Guru Sekolah Dasar : 8 (1)
- Sumardha Herlina, Siregar Ratna D. 2019. *Hubungan Kecerdasan Emosional Dengan Prestasi Belajar Mahasiswi Semester II Akademi Kebidanan Sehat Medan Tahun 2017* : Jurnal Maternitas

- Kebidanan : 4(1)
- Uswatun H, dkk. 2020. *Gambaran Psikologis Mahasiswa Dalam Proses Pembelajaran Selama Pandemi Covid-19* : Jurnal Keperawatan Jiwa : 8(3)
- Kurniawan A Helmi. 2020. *Hubungan Kecerdasan Emosional Dengan Prestasi Belajar Pada Mahasiswa Tingkat II Program Studi Sarjana Keperawatan Universitas Bhakti Kencana Bandung* : <http://repository.bku.ac.id>
- Goleman, Daniel. 2018. *Emotional Intelligence, Kecerdasan emosional Mengapa EI Lebih Penting dari IQ*". Terjemahan oleh T Hermaya. Jakarta: Gramedia Pustaka Utama Pendidikan Nasional.
- Sari RA. 2018. *Hubungan Emotional Intelligence dengan Prestasi Belajar pada Siswa SMA Negeri 1 Grabag Kabupaten Magelang* : Tidak dipublikasikan
- Lolang E. 2014. *Hipotesis Nol Dan Hipotesis Alternatif* : Jurnal KIP: 3(3)
- Nurgiyantoro B, Gunawan, Marzuki. 2015. *Statistik Terapan Untuk Penelitian Ilmu Sosial*. Yogyakarta : Gadjah Mada University Press
- Hamdi A Saepul, Baharudin E. 2015. *Metode Penelitian Kuantitatif Aplikasi Dalam Pendidikan*. Yogyakarta : Penerbit Deepublish
- Darmadi, H. 2017. *Pengembangan Model Dan Metode Pembelajaran Dalam Dinamika Belajar Siswa*. Sleman : CV Budi Utama
- Rosyid M Zaiful, dkk. 2019, *Prestasi Belajar*. Malang : Literasi Nusantara
- Bariyyah Khairul, Latifah Leny. 2019. *Kecerdasan Emosi Siswa Ditinjau dari Jenis Kelamin dan Jenjang Kelas* : Jurnal Penelitian Guru Indonesia : 4(2)
- Yunalia Endang Mei , Etika Arif Nurma. 2020. *ANALISA KECERDASAN EMOSIONAL REMAJA TAHAP AKHIR BERDASARKAN JENIS KELAMIN* : Jurnal Keperawatan Jiwa :8(4) 477 - 484
- Irmawati, Tayeb Thamrin, Idris Ridwan. 2016. *HUBUNGAN KECERDASAN EMOSIONAL TERHADAP PRESTASI BELAJAR MAHASISWA DITINJAU DARI JENIS KELAMIN PADA JURUSAN PENDIDIKAN MATEMATIKA UIN ALAUDDIN MAKASSAR* : Jurnal Matematika dan Pembelajaran : 4 (2)
- Jayati, Mira, 2015, *hubungan kecerdasan emosi dengan prestasi belajar mahasiswa semester iii akademi kebidanan universitas prima indonesia medan*.
- Sari Rahayu Chamelia, Sulistyawati Tri Ribut. 2019. *HUBUNGAN KECERDASAN EMOSIONAL DENGAN PRESTASI BELAJAR MAHASISWA D-III KEBIDANAN DI UNIVERSITAS BATAM* : Jurnal Zona Kebidanan : 9(3)
- Marvianto Ramadhan Dwi, Ratnawati Atim, Madani Nurkholis. 2020. *Motivasi Berprestasi sebagai Moderator pada Peranan Kecerdasan Emosi terhadap Prestasi Akademik Mahasiswa* : Jurnal Psikologi : 16 (1)
- Dita Maharani Suwardi, Eeng Ahman, Amir Machmud, Iswanti. 2021.

Hubungan Kecerdasan Emosional dan Spiritual Terhadap Prestasi Akademik Mahasiswa : JURNAL PENDIDIKAN EKONOMI, MANAJEMEN DAN KEUANGAN : 5 (1)

**THE EFFECTIVENESS OF YOGHURT CONSUMPTION ON THE
EVENT OF PATHOLOGICAL FLUOR ALBUS SYMPTOMS IN
NURSING STUDENTS OF MAGELANG POLTEKKES KEMENKES
SEMARANG**

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Abstract

Background: Women of childbearing age have many problems in the vaginal area. The problems that most women experience is fluor albus. When the fluor albus experienced is pathological fluor albus, it will cause several symptoms such as yellowish white, itching, and smelly. Fluor albus can be pathological and even complicated because it occurs too long and is left untreated. If complications occur, it can often lead to problems in the female reproductive organs, including cervical cancer, infertility, and even death. Effort that can be made to reduce the symptoms of pathological fluor albus, one of which is by non pharmacological methods such as consuming yoghurt. **Purposes:** This study aims to determine the effectiveness of yoghurt consumption on the incidence of pathological fluor albus symptoms in nursing students in Magelang Poltekkes Kemenkes Semarang. **Methods:** This study uses a Pre Experimental research design approach which is a study used to determine the causal relationship in manipulating independent variables. **Results:** It was found that 14 respondents (87,5%) experienced a decrease in symptoms of pathological fluor albus and 2 respondents (12,5%) did not experience a decrease in symptoms of pathological fluor albus. Statistical test results p value = 0,000 where p value $< \alpha$ (0,05) then H_a is accepted. **Conclusion:** There is a positive effect of yoghurt consumption on the incidence of pathological fluor albus symptoms in nursing students in Magelang Poltekkes Kemenkes Semarang.

Keywords : Fluor Albus, Pathological, Yoghurt

PRELIMINARY

Reproductive health is a condition in which physical, mental and social well-being is complete, not only free from disease or disability but in all matters relating to the reproductive system and its functions and processes (Ahmad, 2020). According to the World Health Organization (WHO), poor reproductive health problems in women have reached 33% of the total burden of disease worldwide that affects women. This figure is greater than reproductive problems in men of the same age in women which only reached 12.3%.

Women have many problems in the vaginal area. Problems that can appear in the vaginal area include *fluor albus*, syphilis, herpes, psoriasis, and ulcers. Of the several problems in the vaginal area, one and the most experienced by women is *fluor albus* (leucorrhoea). *Fluor albus* is a symptom associated with women's reproductive health problems and is often experienced by most women. After menstrual disorders, *fluor albus* is the most common problem experienced by most women (Jonathan, 2021).

All age groups of women are at risk for *fluor albus*. Women of childbearing age often experience PID (Pelvic Inflammatory Disease) therefore, women of childbearing age have a higher risk of experiencing *fluor albus* than adolescents. In addition, cervical cancer in women is one of the initial symptoms, namely excessive and abnormal *fluor albus* so that it can be fatal or death (Firmanila, 2016). At least three-quarters of women in the world have experienced *fluor albus* (Novianta, 2018). The National Center for Biotechnology Information (2013) estimates that 75% of women in the world at least once in their lifetime have experienced *fluor albus* and those who have experienced *fluor albus* twice or more are estimated to be 45%. Whereas in Indonesia, which is a tropical country and due to humid weather, the development of fungal infections will be easier and faster, so it is estimated that as many as 90% of women in Indonesia have the potential to experience *fluor albus* and this will increase every year.

Fluor albus can be pathological and even complicated because it occurs too long and is left untreated. When the bacteria in the vagina enter the uterine cavity then the fallopian tubes to the ovaries and finally into the pelvic cavity then complications have occurred. If complications occur, it can often lead to problems in the female reproductive organs, including cervical cancer, infertility, and even

death (Sari, 2012). Due to inflammation and infection in the vaginal area, some signs and symptoms such as itching and odor will appear when experiencing *fluor albus*.

Yogurt is a processed product that is safe for consumption by all people, even for people with lactose intolerance. Yogurt is made through a milk fermentation process assisted by the activity of live bacteria, namely *Lactobacillus bulgaricus*, *Streptococcus thermophilus*, and *Lactobacillus casei* (Budirahayu, 2020). The live bacteria found in yogurt function as probiotics that are beneficial for the human body. The good bacteria found in yogurt are believed to be useful in maintaining the pH of the vagina in an acidic condition so that it can reduce the risk of infection. In addition, when the vaginal area is infected, the good bacteria in yogurt can suppress the proliferation of bacteria, fungi, viruses, or germs that cause these infections (Budirahayu, 2020).

Based on the results of the description, it can be concluded that *fluor albus* must be treated if it is abnormal by showing some symptoms. Yogurt consumption can be considered as a non-pharmacological therapy in overcoming the symptoms of pathological *fluor albus*.

METHOD

This study uses a pre-experimental research design with a one-group pre- post test design approach. The research was carried out in the Magelang Nursing Campus, Poltekkes, the Ministry of Health, Semarang, starting from the preparation of the proposal to the preparation of the final report from January to June 2022. The population in this study were all undergraduate students of Applied Nursing Magelang Poltekkes Kemenkes Semarang as many as 123 female students and the number of samples was 16 female students who were experiencing symptoms of pathological *fluor albus*. The independent variable in this study was yogurt consumption, while the dependent variable in this study was the symptom of pathological *fluor albus*. Data processing includes editing, coding, processing, and cleaning with data analysis using the Paired T Test statistical test.

RESULTS

1. Age

Table 4.1
Frequency Distribution of Respondents Age

Age	Frequency	Percentage
< 19 years	5	31 %
19 – 20 years	9	56 %
> 20 years	2	13 %
Total	16	100%

Based on table 4.1 shows that most of the respondents aged 19-20 years as many as 9 people (56%) of the 16 respondents studied.

2. Categories of Pathological *Fluor Albus* Symptoms Pre-Treatment of Yoghurt Consumption

Table 4.2
Frequency Distribution of Pathological *Fluor Albus* Symptoms
Category Pre Treatment of Yogurt Consumption

Category	Frequency	Percentage
Light	15	94 %

Based on table 4.2, it shows that most of the pathological *fluor albus* symptoms experienced by respondents before the yogurt consumption treatment were included in the mild category with a score between 8-13 as many as 15 people (94%) of the 16 respondents studied while for the moderate category with a score of 14 as many as 1 person (6%) of the 16 respondents studied.

3. Categories of Pathological *Fluor Albus* Symptoms Post Yogurt Consumption Treatment

Table 4.3
Frequency Distribution of Pathological *Fluor Albus* Symptoms
Category Post Yogurt Consumption Treatment

Kategori	Frekuensi	Persentase
Light	8	50%
<i>Fluor Albus Physiological</i>	8	50%
Total	16	100%

Based on table 4.3, it shows that most of the symptoms of

pathological *fluor albus* experienced by respondents after the yogurt consumption treatment decreased from where previously there was a moderate category to only mild category respondents with a score of 8- 11 as many as 8 people (50%) of 16 respondents who researched.

4. Long Experienced Symptoms of Pathological Fluor Albus

Table 4.4 Frequency Distribution of Long Experienced Symptoms of Pathological Fluor Albus

Long	Frequency	Percentage
≤ 1 week	14	87,5%
2 – 3 week	2	12,5%
Total	16	100%

Based on table 4.4, it shows that most of the symptoms of pathological *fluor albus* experienced by respondents for 1 week were 14 people (87.5%) of the 16 respondents studied.

5. Comparison of Pathological *Fluor Albus* Symptoms Before and After Consumption of Yoghurt

Table 4.5 Comparison of Pathological Fluor Albus Symptoms Before and After Consumption of Yogurt

Consumption of Yogurt	Mean	Median	Mode	SD	Min –Max
Pre-Test	10.44	10.00	10	1.896	8 –14
Post-Test	8.06	7.50	7	1.340	7 –11

Based on table 4.5 shows that the average score of pathological *fluor albus* symptoms before the yogurt consumption treatment is 10.44 with a median value of 10.00, a mode value of 10, a standard deviation of 1.896, and a minimum score of 8 while a maximum score of 14. The results of the average score indicate that most of the respondents experienced mild symptoms of pathological *fluor albus*. After the yogurt consumption treatment was carried out, the average score of *fluor albus* symptoms was 8.06 with a median value of 7.50, a mode value of 7, a standard deviation of 1.340, and a minimum score of 7 while a maximum score of 11. The results of the minimum score

showed that after the yogurt consumption treatment there were respondents who experienced a decrease in symptoms of pathological *fluor albus* symptoms of physiological *fluor albus*.

6. Analysis of the Effectiveness of Yogurt Consumption on the Occurrence of Pathological *Fluor Albus* Symptoms in Nursing Students in Magelang Poltekkes, Ministry of Health, Semarang

Table 4.6

Results of Paired T-Test Statistical Test of the Effectiveness of Yogurt Consumption on the Occurrence of Pathological *Fluor Albus* Symptoms in Nursing Students in Magelang Poltekkes, Ministry of Health, Semarang

Inspection	Criteria	Frequency	Percentage
Symptoms of Pathological <i>Fluor Albus</i> Post Treatment of Yogurt Consumption	Decrease	14	87,5%
	Permanent	2	12,5%
Total		16	100%
<i>Uji Paired T-Test</i>	0,000		

Based on table 4.6 shows that the results after the treatment of yogurt consumption, most of the respondents experienced a decrease in symptoms of pathological *fluor albus*, namely as many as 14 respondents (87.5%).

It was found that the p value = 0.000 at 5%, thus the p value, it can be concluded that there is an effect of yogurt consumption on the incidence of pathological *fluor albus* symptoms in Nursing students of Magelang Poltekkes Kemenkes Semarang.

DISCUSSION

The Occurrence of Pathological Fluor Albus Symptoms Before Yogurt Was Given to Nursing Students in Magelang Poltekkes, Ministry of Health, Semarang

Based on the data obtained from the results of the study using a questionnaire sheet, it was found that the respondents who were experiencing *fluor albus* were 16 respondents (100%) with an average age of 18-21 years. Symptoms experienced by most of the respondents included a moderate amount of *fluor albus* and sticky fluid on underwear, yellowish white in color, musty smell, thick and attached to underwear, occasional itching and pain in the vaginal area. The severity of the symptoms of pathological *fluor albus* experienced by a person can be influenced by several factors, including frequent scratching of the female organs, imbalance of hormonal conditions, excessive use of feminine hygiene soap, severe mental stress that is being experienced, when menstruation does not change pads immediately, fatigue due to excessive physical activity, wrong direction in washing the female organs, lack of attention to the cleanliness of the female organs, unhealthy lifestyle by consuming foods that contain excess sugar or carbohydrates, and humid conditions due to weather conditions that can affect the development of fungal infections easier and faster (Octaviyati, 2012). According to the Gynecologist and Clinical Associate Professor at NYU Langone's Women's Health Center (2016), vaginal temperature also shifts, such as from hot to humid in cold weather. When the vaginal temperature changes, it is possible that the vaginal pH will change to alkaline. So when the vaginal pH becomes alkaline, the development of infection that occurs will be easier.

Based on the theoretical explanation and the evidence of the data above, the researcher argues that women of childbearing age who experience symptoms of pathological *fluor albus* are one of the factors of personal hygiene and awareness of the lifestyle they are living. In addition, respondents who have good knowledge regarding problems that can arise, then these respondents will try to prevent problems that will arise. Respondents must understand the problems that will arise if not handled properly, one of which is the problem of pathological *fluor albus* symptoms in female respondents of childbearing age which often occurs.

The Occurrence of Pathological *Fluor Albus* Symptoms After Yogurt was Given to Nursing Students in Magelang Poltekkes, Ministry of Health, Semarang

The results of data analysis and interpretation conducted on 16 respondents regarding the incidence of pathological *fluor albus* symptoms after consuming ± 150 ml of yogurt consumption for 7 days, the results showed that as many as 14 (87.5%) respondents experienced a decrease in symptoms of pathological *fluor albus* experienced, where initially there was an odor, appeared itchy, yellowish color became slightly reduced after being given treatment with yogurt consumption, while as many as 2 (12.5%) respondents did not experience a decrease (fixed). This shows that most of the respondents after being given treatment with yogurt consumption experienced a decrease in symptoms of pathological *fluor albus*.

According to Jannah (2014) yogurt contains good bacteria *Lactobacillus bulgaricus* and *Streptococcus thermophilus* in it. The good bacteria in yogurt produce lactic acid to maintain an acidic environment in the vagina. In addition, these good bacteria also produce hydrogen peroxide which serves to inhibit the growth of yeast that causes vaginal infections. So, by consuming yogurt, it is possible to reduce the symptoms of pathological *fluor albus* which is generally caused by an infection in the vaginal area.

According to Setyoningsih Budirahayu (2020) the live bacteria found in yogurt function as probiotics that are beneficial for the human body. The good bacteria found in yogurt are believed to be useful in maintaining the pH of the vagina in an acidic condition so that it can reduce the risk of infection. In addition, when the vaginal area is infected, the good bacteria in yogurt can suppress the proliferation of bacteria, fungi, viruses, or germs that cause the infection.

The theory above is in accordance with the reality in the field that the incidence of pathological *fluor albus* symptoms in female respondents of childbearing age can be overcome by consuming yogurt regularly. Symptoms of pathological *fluor albus* experienced by respondents if left unchecked will be at risk of causing problems in the female reproductive organs. In addition, the symptoms of pathological *fluor albus* experienced can also become more severe and are at risk for cervical cancer. If the symptoms of pathological *fluor albus* experienced by the respondent are left untreated, it will cause

discomfort and will affect the length of the healing process. Based on the results of data regarding the symptoms of pathological *fluor albus* that have been obtained using a questionnaire sheet before being given the treatment of yogurt consumption, there is a theoretical compatibility with the conditions in the field, that the symptoms of pathological *fluor albus* in Nursing students of Magelang Poltekkes, Ministry of Health, Semarang before being given the yogurt consumption treatment are caused by several factors. These factors include not paying attention to a good diet, the habit of using pantyliners and tights, the wrong direction when cleaning the female organs.

This is evidenced by the majority of respondents, namely 14 respondents experienced a decrease in symptoms of pathological *fluor albus* after being given treatment with yogurt consumption. The application of good hygiene behavior can be done by cleaning the outside of the vagina after urinating or defecating using clean water, frequently changing sanitary napkins when menstruating, not using soap or sweeping shower gel on the genitals, using absorbent underwear, sweating, changing underwear at least 2 times a day, and consulting a doctor if you experience abnormal symptoms from the reproductive tract such as vaginal discharge with a greenish yellow color and a burning sensation on the lips of the vagina (Irianto, 2015).

Several things that can affect the incidence of pathological *fluor albus* symptoms in respondents outside the study are where respondents do not perform management interventions to reduce *fluor albus* symptoms on a regular basis. Respondents who experience problems with pathological *fluor albus* symptoms and do not perform management interventions to reduce the symptoms they experience on a regular basis will be at risk of increasing the incidence of pathological *fluor albus* and at risk of complications into cervical cancer.

Based on this description, the researcher argues that consuming yogurt has an effect on the symptoms of pathological *fluor albus*, especially in terms of treating or reducing the symptoms of pathological *fluor albus* experienced. This is because in yogurt there are good bacteria that have the benefit of inhibiting the development of fungi that cause infection in the vaginal area and can maintain the vaginal area in an acidic condition.

Analysis of the Effectiveness of Yogurt Consumption on the Occurrence of Pathological *Fluor Albus* Symptoms in Nursing Students in Magelang Poltekkes Kemenkes Semarang

After the respondents were given treatment with yogurt consumption for \pm 7 days, the results showed that almost all respondents, namely 14 female students (87.5%) experienced a decrease in symptoms of pathological *fluor albus* and respondents who did not experience a decrease in symptoms of pathological *fluor albus* were 2 female students (12.5 %). These data indicate that there is a significant decrease in the symptoms of pathological *fluor albus* experienced by the respondents.

The results of statistical tests using the Mean T-Dependent Two Different Test (paired t-test) showed that the p value = 0.000 with = 0.05. Thus, the p value < , it can be concluded that there is an effect of yogurt consumption on the incidence of pathological *fluor albus* symptoms in Nursing students of Magelang Poltekkes, Ministry of Health, Semarang.

Based on the results of the data above, it can be shown that the consumption of yogurt functions in reducing the symptoms of pathological *fluor albus*.

According to Bahari (2012) the emergence of pathological *fluor albus* symptoms can be caused by several factors, one of which is due to a *Candida albicans* fungal infection. *Candida albicans* is classified as a dimorphic fungus, where the fungus is easy to breed in damp and wet places. Usually, the infection occurs because the water used to wash the female organs has been contaminated with fungi. In addition, it can also be caused by a lack of hygiene care for the female organs so that the *Candida albicans* fungus can grow more quickly. Another factor that can cause pathological *fluor albus* is because it is caused by a lack of hygiene care for the female organs which can make the *Candida albicans* fungus to develop. In connection with this, it is possible that bad things may happen to women of childbearing age.

According to Yohana (2012) *fluor albus* caused by parasites will usually be accompanied by itching in the vaginal area so that it will cause discomfort to sufferers. Another factor that can cause symptoms of pathological *fluor albus* is the use of tight and damp underwear. Meanwhile, external factors that can cause pathological *fluor albus* symptoms are the level of knowledge, environment, and personal hygiene.

The results obtained indicate that the consumption of yogurt has an effect on the incidence of pathological *fluor albus* symptoms in women of childbearing age. Some of the changes experienced include the amount of fluid being less and not sticky on the underwear, the color of the liquid is clear white, there is no odor, the consistency of *fluor albus* becomes watery like cream, there is no itching and pain in the vaginal area. It states that the consumption of yogurt can reduce the symptoms of pathological *fluor albus*.

CONCLUSION

Based on the results of this study, it can be concluded that there is an effect of yogurt consumption on the incidence of pathological *fluor albus* symptoms in Nursing students of Magelang Poltekkes, Ministry of Health, Semarang. Consumption of yogurt can be used as a way of non-pharmacological management in overcoming and reducing the symptoms of pathological *fluor albus*.

BIBLIOGRAPHY

- Ahmad, M. (2020). Textbook of Reproductive Health. Bandung: Indonesian Science Media 1.
- Bahari, H. (2012). An easy way to deal with vaginal discharge. Yogyakarta: The Blue Book.
- Budirahayu, S., Legowo, A. M., Susanti, S. (2020). Characteristics of the Test of Preference, Physical, And Chemical Frozen Yoghurt With The Addition Of Milk Cascara. Journal of Food Technology, 4(1), 55 - 64.
- Firmanila, F., Dewi, Y. I., & Kristen. (2016). The Effect of Using Red Betel Leaf Decoction on Vaginal Discharge in Women of Childbearing Age (WUS) in the Working Area of the Tenayan Raya Inpatient Health Center. Indonesian Journal of Nurses, 6(1), 9 - 18.
- Irianto, K. (2015). Reproductive health theory and practice. Bandung: Alfabeta.
- Jannah, A., M., Nurwantoro, and Y. B. Pramono. (2014). Combination of Milk with Coconut Water in the Process of Making Drink Yoghurt on Dry Matter Content, Viscosity and pH. Journal of Food Technology Applications, 1(3), 69 - 71.
- Jonathan, J., Adiguna, M. S., Suryawati,

- M. (2021). The Effect of Counseling on the Health of Women's Reproductive Organs on Knowledge Levels of Leucorrhoea in Young Women at SMKN 3 Denpasar. Udayana Medical.
- Novianta, E. N. (2018). Activity of Red Ginger Oil (*Zingiber Officinale* Var *Rubrum*) on Inflammatory Pain in Balb-c Mice with CFA (completed Freund's adjuvant) induction. In Monopoly and Unfair Business Competition in the Trade of Bottled Drinking Water Products. 1.
- Octaviyati. (2012). The relationship of knowledge about external genitalia hygiene with the incidence of vaginal discharge in MIPA UNS students. Journal of the Faculty of Medicine, Sebelas Maret University, Surakarta.
- Sari, N. H., Misrawati, Woferst, R. (2012). Effects of Betel Leaf Decoction To Reduce Leucorrhoea In Women. Indonesian Journal of Nurses, 2, 11.
- Yohana, Yovita. (2012). Understanding Diseases And Herbal Therapy Treatment. Jakarta: Garda Media.

THE EFFECT OF HEALTH EDUCATION ON THE LEVEL OF KNOWLEDGE, ATTITUDE AND BEHAVIOR IN COVID-19 PREVENTION IN MA STUDENTS IN MAGELANG DISTRICT

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ABSTRACT

Introduction: Health education is the first level of prevention, even the first and foremost thing. Health education provided to school students will form awareness in preventing COVID-19. One of the factors that can influence prevention is knowledge. Students' knowledge about COVID-19 is still low so it needs attention. Health education about COVID-19 can increase students' knowledge so that they can make efforts to prevent COVID-19 transmission.

Methods: This research design uses a quasi-experimental design with a one group pretest–posttest design. The measuring instrument used is a questionnaire measuring knowledge, attitudes, and behavior about COVID-19. **Results:** There is an influence of health education on the level of knowledge, attitudes, and behavior in the Prevention of Coronavirus Disease 2019 (COVID-19) in MA Students in Magelang Regency as proven by the Wilcoxon statistical test with a p value of 0.000 ($p < 0.05$).

Conclusion: For the nursing profession, which is authorized to provide health education, it will further improve counseling and vary in the delivery of health information so that it can generate student interest in preventive efforts.

Keyword : Health Education; Prevention; Knowledge; COVID-19.

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Introduction. Health education is the first level of prevention and is even the first and foremost thing in the five levels of prevention concept (Induniasih & Ratna, 2019: 17). In addition to Health Education, Clean and Healthy Living Behavior (PHBS) is a behavior that is practiced on the basis of awareness as a result of learning to make a person or family able to help themselves, and play an active role in realizing the highest degree of health. (Aswadi, Syahrir, Delastara, & Surahmawati, 2017: 187). Maintaining personal hygiene is very important, efforts to maintain cleanliness

to always stay healthy are by bathing regularly, always looking neat, taking care of teeth, wearing clean clothes and washing hands using antiseptic soap (Halim & Soedirham, 2018: 209).

Indonesia began to be exposed to the corona virus reaching 172 people by bringing the number of deaths to 55 people on March 17, 2020 (Ministry of Health, 2020). Then it continued on March 31, 2020, increasing to 1,528 people, causing the death of 136 people (Setiati & Azwar, 2020: 85). The COVID-19 pandemic has now entered its second year. In the first quarter of 2021 it was discovered that the variants of the COVID-19 virus had mutated into multiple versions. Alpha, Delta, Gamma variants allow the virus to infect more effectively and efficiently (Assifa, 2021: 174).

COVID-19 is a variant of SARS or commonly called (SARS-Cov-2). Like other SARS variants, namely MERS, COVID-19 also attacks the human respiratory system (Lai, Shih, Ko, Tang, & Hsueh, 2020: 2). This virus is highly contagious. Transmission can be through droplets from an infected person transmitted directly from person to person or through objects that have been touched by these droplets.

Signs and symptoms of COVID-19 infection are cough, fever, fatigue, shortness of breath, and no appetite. This is different from influenza virus infection, the corona virus can multiply rapidly, causing severity, organ failure and even death. This health emergency occurs in patients who have a history of previous or comorbid illnesses (Mona, 2020: 117).

According to WHO, the age limit of 12-24 years is categorized as a teenager. Most of the respondents from the COVID-19 survey in Magelang Regency showed that 82.4 percent never used hand sanitizers, 9.80 percent rarely used them, only 24.76 percent of respondents used or always used hand sanitizers. The habit of washing hands for 20 seconds is only carried out by 33.22 percent of respondents in Magelang Regency.

14.21 percent admitted that they rarely wash their hands for 20 seconds and 52.57 percent never do it (Central Bureau of Statistics Magelang Regency, 2020: 13-14). This shows that there is still a lack of self-awareness in the application of preventing the transmission of COVID-19 with health protocols. School-age children are also in a very sensitive condition to stimuli so that they become easy to be guided, directed, and instilled good

habits, including the habit of clean and healthy living behavior.

Steps to prevent transmission of the corona virus in the community are routinely cleaning hands with soap, using hand sanitizer, avoiding touching the face when hands are dirty, practicing proper coughing and sneezing etiquette, using a mask and maintaining a distance (at least 1 meter) (Jaji, 2020: 139).

From the above review, researchers are interested in researching because of the influence of research results, and interested in examining MA students in Magelang district, especially class X MA students, Yajri Payaman. Due to the observed phenomena and the results of preliminary studies, it shows that not a few students know about the COVID-19 disease in depth and attitudes and behaviors such as wearing masks, keeping a distance, washing hands are still not applied in daily life.

The purpose of this study was to determine the effect of health education on the level of knowledge, attitudes and behavior in the prevention of coronavirus disease 2019 (COVID-19) in MA students in Magelang Regency. In particular, this study also aims to determine the level of students' knowledge in preventing the transmission of COVID-19 before being given health education. Knowing the level of student knowledge in efforts to prevent transmission of COVID-19 after being given health education. Knowing the attitudes and behavior of students in an effort to prevent the transmission of COVID-19 before being given health education. Knowing the attitudes and behavior of students in an effort to prevent the transmission of COVID-19 after being given health education.

Methods. The population in this study were MA Yajri Payaman Magelang students sitting in class X with 161 students. Sampling in this research is using simple random sampling technique.

The type or method used in this study is a non-experimental quantitative research method, with this research design using a quasi-experimental one group pretest- posttest design. The measuring instrument used is a measurement, attitude, and behavior questionnaire about COVID-19.

Result and Discussion. This research was conducted at Madrasah Aliyah Yajri which is located in the Sirojul Mukhlisin 2 Islamic Boarding School complex located at Kalibening street

no.64 Payaman, Secang District, Magelang Regency, Central Java Province. Consisting of science and social studies majors with a total number of 446 students, 299 female and 147 male students. The research focused on students of class X, both science and social studies, totaling 161 students with a sample of 127 students. Of these, 127 students filled out the questionnaire.

The pretest and posttest measurements of knowledge levels were carried out on the same day. Treatment was in the form of giving leaflets and health education about COVID-19.

Table 1. Description of Knowledge Level Before Health Education is Given

Level Criteria Knowledge	Frequency (n=127)	Percentage (%)
Hight	24	18,90
High enough	103	81,90
Low	0	0
Very low	0	0
Total	127	100

In the table showing the data on the level of knowledge before being given health education, the results showed that the number of students who had high knowledge was 24 students (18.89%), quite high as many as 103 students (81.10%), low as many as 0 students (0%), and very low as many as 0 students (0%).

The level of knowledge in the prevention of covid-19 in students of MA Yajri Payaman, Magelang before being given health education. The level of knowledge before being given health education students did not know in depth about COVID-19 related to the symptoms, causes, methods of prevention, and how to overcome them.

Based on the results of a pretest study on MA Yajri Payaman, Magelang students, it showed that the level of knowledge in preventing COVID-19 was 103 people (81.10%) had a fairly high category of knowledge and 24 people (18.89%) had a high category of knowledge. The higher a person's level of knowledge, the higher the individual's ability to evaluate a material or object. This assessment will be the basis for someone to act.

Table 2. Description of Knowledge Levels After Health Education is Given

Level Criteria Knowledge	Frequency(n=127)	Percentage (%)
Hight	122	96,06
High enough	5	3,94
Low	0	0
Very low	0	0
Total	127	100

In the table showing the data on the level of knowledge after being given health education, the results showed that the number of students who had high knowledge was 122 (96.06%), quite high as many as 5 students (3.39%), low as many as 0 students (0%) and very low as many as 0 students (0%).

The level of knowledge in the prevention of covid-19 in students of ma Yajri Payaman, Magelang after being given health education. The posttest was carried out after the respondent had finished working on the pretest questionnaire and had been given health education, this aims to determine whether or not there is an effect of health education on the level of student knowledge. The posttest results in this study showed that the level of knowledge in preventing COVID-19 as many as 5 people (3.39%) had a fairly high category of knowledge and 122 people (96.06%) had a high category of knowledge. After being given health education, students have started to know about COVID-19 related to the symptoms, causes, ways to prevent it, and how to overcome it. An increase in knowledge is caused by the delivery of information with appropriate leaflet media so that knowledge is increased.

Table 3, Distribution of the Average Frequency of Knowledge Level Results Before and After Health Education is given

The average level of knowledge before and after being given health education

Mean	Median	Modus	Minimum	Maksimum	Maksimum
Before	73,15	75	75	66	91
After	87,48	83	83	75	100

The table shows the average score before being given health education was 73.15 with the lowest score being 66 and the highest score being 91, and after being treated the average score

was 87.48 with the lowest score being 75 and the highest score being 100.

The effect of health education on the level of knowledge in the prevention of covid-19 in MA Yajri Payaman, Magelang students. The results of this study indicate that there is an increase in students' knowledge after being given health education. The average score of knowledge before being given health education was 73.15 while after being given health education the average score was 87.48. The results of the Wilcoxon test for the level of knowledge obtained a p value of 0.000 ($p < 0.05$), meaning that health education had a significant influence on the level of knowledge of students.

Table 4. Overview of Attitudes Before Health Education is Given

Attitude Criteria	Frequency(n=127)	Percentage (%)
Good	115	90,55
Pretty good	12	9,45
Not good	0	0
Total	127	100

Pada tabel menunjukkan data sikap sebelum diberikan pendidikan kesehatan didapatkan hasil bahwa jumlah siswa yang memiliki sikap baik sebanyak 115 Siswa (90,55%), cukup baik sebanyak 12 Siswa (9,44%) dan kurang baik sebanyak 0 Siswa (0%).

Attitudes in preventing covid-19 for MA Yajri Payaman, Magelang students before being given health education

Based on the results of a pretest study on MA Yajri Payaman, Magelang students, 12 students (9.44%) had a fairly good attitude category and 115 (90.55%) students had a good attitude category.

Table 5. Overview of Attitudes After Health Education is Given

Attitude Criteria	Frequency(n=127)	Percentage (%)
Good	127	100
Pretty good	0	0
Not good	0	0
Total	127	100

In the table showing the attitude data after being given health

education, it was found that the number of students who had a good attitude were 127 students (100%), 0 students were good enough (0%) and 0 students were not good enough (0%).

Attitudes in preventing covid-19 for MA Yajri Payaman, Magelang students after being given health education

The posttest was carried out after the respondent had finished working on the pretest questionnaire and had been given health education, this aims to determine whether or not there is an effect of health education on student attitudes.

The posttest results in this study showed that 127 people (100%) had a good attitude in preventing COVID-19. The attitude of students who were initially good will get better after receiving health education.

Table 6. Distribution of the Average Frequency of Attitude Results Before and After Health Education was given

Average attitude results before and after being given health education

	Mean	Median	Modes	Minimum	Maximum
Before	81,17	84	84	60	87
After	92,94	83	83	75	100

The table shows that the average score before being given health education was 81.17 with the lowest score being 60 and the highest score being 87, and after being treated the average score was 92.94 with the lowest score being 75 and the highest score getting is 100.

The influence of health education on attitudes in the prevention of covid-19 in MA YajriPayaman students, Magelang

The results of this study indicate that there is an increase in attitudes towards students after being given health education. The average attitude score before being given health education was 81.17 while after being given health education the average score was 92.94. The results of the Wilcoxon attitude test got a p value of 0.000 ($p < 0.05$), which means that health education has a significant influence on student attitudes.

Table 7. Description of Behavior Before Health Education is Given

Behavior Criteria	Frequency(n=127)	Percentage (%)
Good	121	95,27
Pretty good	6	4,73
Not good	0	0
Total	127	100

In the table showing behavioral data before being given health education, it was found that the number of students who behaved well were 121 students (95.27%), quite good as many as 6 students (4.72%) and less well as many as 0 students (0%).

Behavior in the prevention of covid-19 in MA Yajri Payaman, Magelang students before being given health education
Based on the results of a pretest study on MA Yajri Payaman, Magelang students, 6 people (4.72%) had a good enough category of behavior in preventing COVID-19 and 121 people (95.27%) had a good category.

Table 8. Description of Behavior After Health Education is Given

Behavior Criteria	Frequency (n=127)	Percentage (%)
Good	127	100
Pretty good	0	0
Not good	0	0
Total	127	100

In the table showing behavioral data after being given health education, it was found that the number of students who behaved well were 127 students (100%), quite good as many as 0 students (0%) and less well as many as 0 students (0%).

Behavior in preventing covid-19 in students of MA Yajri Payaman, Magelang after being given health education
The posttest was carried out after the respondent had finished working on the pretest questionnaire and had been given health education, this aims to determine whether or not there is an effect of health education on student behavior.

The posttest results in this study showed that the behavior in preventing COVID-19 as many as 127 people (100%) had a good

category.

Behavioristic theory describes behavioral changes that can be observed, measured and assessed concretely. Change occurs through stimuli (stimulants) that cause a reactive relationship (response). The theory of behaviorists is better known as learning theory, because all human behavior is the result of learning. In learning theory, this is often called psychological S-R, meaning that human behavior is controlled by rewards and reinforcement from the environment.

Table 9. Distribution of the Average Frequency of Behavioral Outcomes Before and After Health Education

Average behavioral outcomes before and after being given health education

	Mean	Median	Modes	Minimum	Maximum
Before	89,21	90	90	70	90
After	90,71	90	90	90	100

The table shows that the average score before being given health education was

89.21 with the lowest score being 70 and the highest score being 90, and after being treated the average score was 90.71 with the lowest score being 90 and the highest score being is 100.

The effect of health education on behavior in the prevention of covid-19 in MA Yajri Payaman students, Magelang

The results of this study indicate that there is an increase in student behavior after being given health education. The average score before being given health education was 89.21 while after being given health education the average score was 90.71. The results of the Wilcoxon attitude test obtained a p value of 0.000 ($p < 0.05$), which means that health education has a significant influence on student behavior.

Conclusion and Suggestions. Based on the results of the research and from the description of the discussion, it can be concluded that the influence of health education on the level of knowledge, attitudes, and behavior in preventing COVID-19 in Madrasah Aliyah students in Magelang Regency, as follows: The results show that the level of knowledge in preventing COVID-19 in

Before being given health education, 103 students (81.10%) had

a fairly high category of knowledge and 24 students (18.89%) had a high category of knowledge. The results showed that the level of knowledge in preventing COVID-19 in students after being given health education was 5 students (3.39%) had a fairly high category of knowledge and 122 students (96.06%) had high category knowledge. There is an effect of health education on the level of knowledge in preventing COVID-19 in MA Yajri Payaman, Magelang students, p value is 0.000 ($p < 0.05$). The results showed that attitudes and behavior in preventing COVID-19 in students before being given health education were 12 students (9.44%) had a fairly good attitude category and 115 students (90.55%) had a good attitude category. A total of 6 students (4.72%) have a fairly good behavior category and 121 students (95.27%) have a good behavior category. The results showed that attitudes and behavior in preventing COVID-19 in students after being given health education were 127 students (100%) who had a good attitude category. A total of 127 students (100%) have good behavior category. There is an effect of health education on attitudes in preventing COVID-19 in MA Yajri Payaman students, Magelang p value is 0.000 ($p < 0.05$) and there is an effect of health education on behavior in preventing COVID-19 in MA Yajri Payaman students, Magelang p value is 0.000 ($p < 0.05$).

References

Assifa F. (2021). 4 New Variants of the Covid-19 Virus, Symptoms and How to Prevent It. From <https://www.kompas.com/tren/read/06/26/134827765/4-Variasi-Baru-Virus-Covid-19-Symptoms-Dan-Cara-Preventing?Page=All>.

Aswadi, Syahrir, S., Delastara, V., & Surahmawati. (2017). Clean and Healthy Life Behavior (Phbs) for Rita Elementary School Students in Kota Komba District, East Manggarai Regency, East Nusa Tenggara Province. *Public Health Science Journal*, 9(2), 187–196.

Central Bureau of Statistics Magelang Regency. (2020). Profile of the Magelang Regency Community in the New Normal Era Analysis of the Results of the Socio-Economic Survey on the Impact of Covid-19. Published Online.

Halim Ec, Soedirham O. (2018). Handwashing Behavior Among

Santa Agnes High School Students Surabaya. Indonesia J Public Heal. 13(2):208–219. Doi:10.20473/Ijph.V113i1.2018.208-219

Induniasih, & Ratna, W. (2019) Health Promotion Health Education in Nursing.

Jaji. (2020). The Effect of Health Education with Leaflet Media on Citizens' Knowledge in Preventing the Transmission of Covid 19. Published Online.

Ministry of Health (2020). Added 38, Positive Covid-19 Patients Total 172, From <https://Sehatnegeriku.Kemkes.Go.Id/Baca/Umum/20200317/1333412/Berikut-38-Pasien-Positive-Covid-19-Total-172/>

Lai, C., Shih, T., Ko, W., Tang, H., & Hsueh, P. (2020). Severe Acute Respiratory Syndrome Coronavirus 2 (Sars-Cov-2) And Coronavirus Disease-2019 (Covid-19): The Epidemic And The Challenges. International Journal of Antimicrobial Agents, (January).

Mona N. (2020) Concept of Isolation in Social Networks to Minimize Contagious Effects (Corona Virus Spread Cases in Indonesia). J Sos Hum Applied. 2(2):117–125. Doi:10.7454/Jsht.V2i2.86

Setiati, S., & Azwar, M. K. (2020). Covid-19 And Indonesia. Acta Medica Indonesiana, 52(1), 84–89.

**OVERVIEW OF THE BASIC PERSONALITY, ACADEMIC ADJUSTMENT,
AND MENTAL HEALTH OF THE STUDENTS IN THE MAGELANG
NURSING STUDY PROGRAM OF HEALTH POLYTECHNIC OF THE
MINISTRY OF SEMARANG**

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ABSTRACT

Introduction: The process of online, and offline learning, and a mixture of online and offline learning is a stressor for students. Adaptation to learning is needed so that the learning process can continue to run well. There are several things to note related to mental health. Measurable mental health variables include the basic personality, academic adjustment, and mental health.

Methods: This study used an analytical survey method with research respondents using the consecutive sampling method. It was held in April- October 2022 at Magelang Nursing Study Program Ministry of Health Polytechnic Semarang with a total sample of 222 students. Data analysis using descriptive analytics.

Results: The results showed that the majority of basic personality types of students, when viewed from 1 basic personality type that is dominant is melancholy and when viewed from 2 basic personality types that are dominant are phlegmatic-melancholic. The majority of students have an academic motivation that is more dominant than other academic adjustment components. The majority of students have a higher level of psychological well-being than other mental health components and the majority of college students have a flourishing level of mental health.

Conclusion: it is hoped that the relevant agencies can make policies in academic implementation by considering personality types, academic adjustments, and student mental health to support the academic process better.

Keyword : basic personality; academic adjustment; and mental health.
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Introduction.

The online and offline learning process, as well as a mixture of online and offline learning process are a stressor for students. Adaptation to learning is needed so that the learning process can continue to run well. There are several things to note related to mental health. Measurable mental health variables include basic personality, academic adjustment, and mental health.

According to (Bahraen, 2018) there are 4 basic personality types in humans. The basic personality is the sanguine type that is "Popular" because it is good at persuasiveness and wants to be famous, the choleric type that is "Strong" because it is often dominant and competitive, the melancholy type that is "Perfect" because it is perfectionist and all-orderly, the phlegmatic type that is "Peaceful" because of its loyalty and avoids conflict.

Academic Adjustment is an individual's process of adjusting to face a social, psychological, and academic challenge, after entering higher education (Andersom, Guan, & Koc, 2016). According to Keyes (2002), mental health is a syndrome that contains a collection of subjective well-being (SWB) symptoms.

Keyes (2002) further explained that SWB is an individual's perception and evaluation of his life in aspects of affective level (emotional well-being), psychological functioning and his social functioning (psychological well-being and social well-being).

Based on the background above, it encourages researchers to conduct research on basic personality images, academic adjustments, and mental health of students of the Health Polytechnic of the Ministry of Health Semarang Magelang Nursing Study Program. This study aims to find out the basic personality picture, academic adjustment, and mental health of students of the Health Polytechnic of the Ministry of Health Semarang Magelang Nursing Study Program.

Methods.

This research uses an analytical survey method that uses a quantitative approach. This research was carried out at the Magelang Nursing Study Program, Poltekkes, Ministry of Health, Semarang, in April- October 2022. The population in this study is all active students of the

Semarang Ministry of Health Poltekkes who took lectures in the odd semester of 2022. The minimum sample size required was calculated based on the Slovin formula with a margin of error of 5% so that a minimum sample of 222 students was obtained. The selection of research samples was carried out using consecutive sampling techniques. The variables in this study are basic personality, academic adjustment, and mental health in active students of the Semarang Ministry of Health Poltekkes who take lectures in the odd semester of 2022. Univariate analysis is performed to describe the frequency distribution of each of the variables presented in the tables and figures of the frequency distribution.

Results and Discussion.

Personality is any characteristic and foreseeable pattern of behavior and trait in a person, which is used to react and adjust to stimuli, so that his behavior pattern is a functional unit peculiar to the individual (Wardani, 2017) According to Bahraen (2018) there are 4 basic types of personality in humans namely Sanguinis who is "Popular" because he is persuasive and wants to be famous, Koleris who is "Strong" because he is often dominant and competitive, Melancholy who is "Perfect" because of his perfectionist and all-order, Phlegmatic who is "Peaceful" because of his loyalty and avoidance of conflict.

The results of the study in table 1 showed that the frequency of the basic melancholy personality type was more than the frequency of other basic personality types when viewed from 1 dominant basic personality type, namely 84 students (37.8%) compared to the basic personality type sanguinis only 41 students (18.5%), only choleric 18 students (37.8%) and phlegmatic only 79 students (35.6%). The data also obtained according to research done by Hasmila & Shabir (2016) shows the most peripheral levels are melancholic, followed by phlegmatic, sanguinistic, and finally koleris.

Table 1. Distribution about The Basic Personality Types on 1 Dominant Basic Personality

Basic Personality Types	Frequency	Percentage (%)
Sanguinis	41	18,5
Choleric	18	8,1
Melancholy	84	37,8
Phlegmatis	79	35,6

Table 2. Distribution about The Basic Personality Types on 2 Dominant Basic Personality

Basic Personality Types	Frequency	Percentage (%)
Sanguinis-Choleric	19	8,5
Sanguinis-Phlegmatic	30	13,5
Phlegmatic-Melancholy	85	38,3
Melancholy-Choleric	35	15,8
Phlegmatic-Choleric	13	5,9
Melancholy-Sanguinis	40	18,0

Based on table 2, it can be seen that the frequency of phlegmatic- melancholic basic personality types is more than the frequency of other basic personality types when viewed from the 2 dominant basic personality types, namely 85 college students (38.3%) compared to the sanguinis-choleric basic personality type only 19 students (8.5%), sanguinis-plegmatis only 30 students (13.5%), melancholy-choleric only 35 college students (15.8%), phlegmatic-choleric only 13 students (5.9%) and melancholy-sanguinis only 40 college students (18.0%).

The data also obtained according to research done by Hasmila & Shabir (2016) shows the most peripheral levels are melancholic, followed by plegmatic, sanguinistic, and finally koleris.

Academic adjustment is a process so that the demands and needs of academic life can be met adequately, adequately, and satisfactorily (Schneider, 1964). According to Yuniar (2021), academic adjustment is the ability of students to adjust and respond appropriately to new educational conditions in order to achieve academic goals and meet academic demands.

Table 3. Distribution about The Academic Lifestyle

Category	Frequency	Percentage (%)
Very Low	1	0,5
Low	6	2,7
Enough	138	62,2
High	71	32,0
Very High	6	2,7

The results of the study in table 3 showed that the frequency of academic lifestyle in students was more in the sufficient category

than the frequency of academic lifestyle in other categories, namely 138 students (62.2%) compared to the very low category of 1 student (0.5%), the low category of 6 students (2.7%), the high category of 71 students (32.0%), and the very high category of 6 students (2.7%).

Table 4. Distribution about The Academic Achievement

Category	Frequency	Percentage (%)
Very Low	12	5,4
Low	61	27,5
Enough	104	46,8
High	41	18,5
Very High	4	1,8

The results of the study in table 4 showed that the frequency of academic achievement in students was more in the sufficient category than the frequency of academic achievement in other categories, namely 104 students (46.8%) compared to the very low category of 12 students (5.4%), the low category of 61 students (27.5%), the high category of 41 students (18.5%), and the very high category of 4 students (1.8%).

Table 5. Distribution about The Academic Motivation

Category	Frequency	Percentage (%)
Very Low	0	0,0
Low	5	2,3
Enough	33	14,9
High	70	31,5
Very High	114	51,4

The results of the study in table 5 showed that the frequency of academic motivation in students was more in the very high category than the frequency of academic motivation in other categories, namely 114 students (51.4%) compared to the low category of 5 students (2.3%), the sufficient category of 33 students (14.9%), and the high category of 70 students (31.5%).

Table 6. Distribution about Total Score Academic Adjustment

Category	Frequency	Percentage (%)
Very Low	0	0,0
Low	2	0,9
Enough	78	35,1
High	138	62,2
Very High	4	1,8

The results of the study in table 6 showed that the frequency of total academic adjustment scores in students was more in the high category than the frequency of total academic adjustment scores in other categories, namely 138 students (62.2%) compared to the low category of 2 students (0.9%), the sufficient category of 78 students (35.1%), and the very high category of 4 students (1.8%).

Just as studies already done by Syahid and Yuli (2021) show that the students who responded to their research show an increased level of adjustment at 56% higher than a 44% low and the dominant dimension is a feat.

According to Keyes (2002), individuals can function positively not only in how individuals evaluate themselves in the personal sphere but also in how individuals see themselves in the public sphere and socially. From this thought, Keyes defines mental health as a set of syndromes that combine symptoms of emotional well-being, with symptoms of social well-being and psychological well-being.

The results of the study in table 7 showed that the frequency of emotional well-being in students was more in the high category than the frequency of emotional well-being in the other categories, namely 104 students (46.8%) compared to the very low category of 7 students (3.2%), the low category of 14 students (6.3%), the sufficient category of 50 students (22.5%), and the very high category of 47 students (21.2%).

Table 7. Distribution about The Emotional Wellbeing

Category	Frequency	Percentage (%)
Very Low	7	3,2
Low	14	6,3
Enough	50	22,5
High	104	46,8
Very High	47	21,2

Table 8. Distribution about Social Wellbeing

Category	Frequency	Percentage (%)
Very Low	31	14,0
Low	143	64,4
Enough	48	21,6
High	0	0
Very High	0	0

The results of the study in table 8 showed that the frequency of social welfare in students was more in the low category than the frequency of social welfare in other categories, namely 143 students (64.4%) compared to the very low category of students 31 (14.0%), and the sufficient category of 50 students (22.5%)

Table 9. Distribution about The Psychological Wellbeing

Category	Frequency	Percentage (%)
Very Low	3	1,4
Low	9	4,1
Enough	47	21,2
High	98	44,1
Very High	65	29,3

The results of the study in table 9 showed that the frequency of social welfare in students was more in the high category than the frequency of social welfare in other categories, namely 98 students (44.1%) compared to the very low category of 3 students (1.4%), the low category of 9 students (4.1%), the sufficient category of 47 students (21.2%), and the very high category of 65 students (29.3%).

Table 10. Distribution about Total Score Mental Health

Category	Frequency	Percentage (%)
Very Low	0	0,0
Low	9	4,1
Enough	61	27,5
High	116	52,3
Very High	36	16,2

The results of the study in table 10 showed that the frequency of total mental health scores in students was more in the high category than the frequency of total mental health scores in other categories, namely 116 students (52.3%) compared to the low category of 9 students (4.1%), the sufficient category of 61 students (27.5%), and the very high category of 36 students (16.2%).

These results are also similar to the research that has been carried out by Sriwiyanti et al (2022) regarding the level of mental health in students which is also measured using the MHC-SF research instrument. The results of research by Sriwiyanti et al (2022) showed results that the majority of respondents' mental health 81.7% were in the high category, while the rest were in the medium and low categories.

Table 11. Distribution about The Mental Health Level

The Mental Health Level	Frequency	Percentage (%)
<i>Flourishing</i>	108	48,6
Languishing	9	4,1
Mentally healthy enough	105	47,3

The results of the study in table 11 showed that the frequency of mental health levels in students was more at the rapidly developing/flourishing level than the frequency of mental health levels at other levels, namely 108 students (48.6%) compared to the weak/languishing level of 9 students (4.1%), and the level of mental health 105 students (47.3%).

Conclusion

1. The overview of the basic personality type of students, the majority of students have a basic melancholy personality type, judging from 1 dominant basic personality type, namely 84 students (37.8%) and the

majority have a basic phlegmatic-melancholic personality type in terms of 2 dominant basic personality types, namely 85 students (38.3%).

2. The overview of student academic adjustment is seen from each component, the majority of students have an academic lifestyle in the sufficient category, namely 138 students (62.2%), the majority of students have academic achievement in the sufficient category, namely 104 students (46.8%), the majority of students have academic motivation in the high category, namely 114 students (51.4%). The majority of students have a total academic adjustment score in the high category, which is 138 students (62.2%).
3. The overview of student mental health is seen from each component, the majority of students have emotional well-being in the high category, namely 104 students (46.8%), the majority of students have social welfare in the low category, namely 143 students (64.4%), the majority of students have psychological well-being in the high category, namely 98 students (44.1%). The majority of students have a total mental health score in the high category of 116 students (52.3%) and the majority of students' mental health levels at the rapidly developing/flourishing level are 108 students (48.6%).

Suggestions.

10. Relevant agencies are expected to consider the results of this research in making policies related to the academic process.
11. Further research is expected to conduct research on basic personality images, academic adjustments, and more specific mental health.

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References

Alfikalia. (2020). *Laporan Riset Kesehatan Mental dan*

Academic Adjustment Mahasiswa Universitas Paramadina pada Masa Belajar di Rumah. Technical Report. Program Studi Psikologi Universitas Paramadina. (<http://repository.paramadina.ac.id/id/eprint/62>)

Anderson, J. R., Guan, Y., & Koc, Y. (2016). The academic adjustment scale: Measuring the adjustment of permanent resident or sojourner students. *International Journal of Intercultural Relations*, 54, 68–76. <https://doi.org/https://doi.org/10.1016/j.ijintrel.2016.07.006>

Anganthi, N. R. N. (2020). *Psikologi Kepribadian dalam Perspektif Spiritual Ilahiah : Mengenal Konsep Tauhid Asma Wa Sifat Asmaul Husna* (A. Mujib & M. Anggraini, Eds.; Vols. 978-602-362-325-0). Muhammadiyah University Press.

Aryono, M. M. (2021). STUDI DESKRIPTIF KESEHATAN MENTAL REMAJA.

Jurnal Widya Warta, 2(No.2), 205–216.

<http://portal.widyamandala.ac.id/jurnal/index.php/warta/article/view/1044>

Azizah, N. D. (2021). Hubungan Tipe Kepribadian Hippocrates-Galenus dengan Tingkat Kesabaran Mahasiswa dalam Sistem Kuliah Online. *Jurnal Perspektif*, 5(1), 74-98.

Bahraen, R. (2020). *Psikologi Islam yang Sempurna*. Muslim Afiyah Publishing. Yogyakarta.

Karaś , D., Ciecuch, J., & Keyes, C. L. M. (2014). The Polish adaptation of the Mental Health Continuum-Short Form (MHC-SF). *Personality and Individual Differences*, 69, 104–109. <https://doi.org/https://doi.org/10.1016/j.paid.2014.05.011>

Littauer, F. (1928). *Personality Plus*. Fleming H.Revell. Amerika

Manjoo, F., (2015). "A Murky Road Ahead for Android, Despite Market Dominance". *The New York Times*.

ISSN 0362-4331.

- Nathania, K. , & E. I. P. (2018). Hubungan antara Optimism dan Academic Adjustment Mahasiswa Semester Tiga Fakultas Psikologi di Universitas “X” di Bandung. *Humanitas (Jurnal Psikologi)*, 2 No 1, 49–62. <https://doi.org/10.28932/humanitas.v2i1.1045>
- Open Handset Alliance, (2021). “Android Overview”, <http://www.openhandsetalliance.com/android-overview.html>
- Parkinson, M. (2004). *Memahami Kuesioner Kepribadian : Personality Questionnaire* (L. Nurulia, Ed.). Tiga Serangkai. Solo
- Rahayu, M. N. Mardi. R. A. (2020). PENYESUAIAN MAHASISWA TAHUN PERTAMA DI PERGURUAN TINGGI: STUDI PADA MAHASISWA FAKULTAS PSIKOLOGI UKSW. *Journal of Psychological Science and Profession*, <https://doi.org/10.24198/jpsp.v4i2.26681>.
- Rohmawati, A., Rahmayanti, Y. N., & Wulandari, T. (2021). Pengaruh Proses Belajar Daring terhadap Kesehatan Mental Siswa Kelas VII. *Jurnal Stethoscope*, 2(2).
- Safriani, Y. (2021). *Pengaruh Psychological Capital, Academic Buoyancy dan Academic Major Satisfaction terhadap Academic Adjustment pada siswa SMA di masa Pandemi Covid-19* (Doctoral dissertation, UIN Sunan Ampel Surabaya).
- Salsabila A, A. (2018). *Hubungan Pola Asuh Otoritatif Dengan Academic Adjustment Pada Mahasiswa Tahun Pertama* (Doctoral dissertation, Universitas Brawijaya). <http://repository.ub.ac.id/id/eprint/164935>
- Sriwiyanti, Saefudin, W., Shofia, A., & Mujib. (2022). SOCIAL SUPPORT, SELF-EFFICACY, AND STUDENT’S MENTAL HEALTH IN ONLINE LEARNING DURING PANDEMIC. *Al-Balagh: Jurnal Dakwah Dan Komunikasi*, 7(1), 1–30. <https://doi.org/https://doi.org/10.22515/albalagh.v7i1.4914>

- Stephen, S (2007). "Google's Android parts ways with Java industry group". CNET News
- Syahid, M., & Azmi Rozali, Y. (2021). GAMBARAN PENYESUAIAN AKADEMIK MAHASISWA DALAM MENGHADAPI KELAS ONLINE UNIVERSITAS ESA UNGGUL JAKARTA. *JCA Psikologi*, 2(2), 151–159.
- Utami, T. P. (2017). KESEHATAN MENTAL POSITIF REMAJA PENGONSUMSI MINUMAN BERALKOHOL DILIHAT DARI MENTAL HEALTH CONTINUUM. *Jurnal Riset Mahasiswa Bimbingan DanKonseling*, 3(9), 551-563.
- Wardani, S. (2017). *Perbandingan Hasil Belajar Biologi antara Siswa Kepribadian Sanguinis dan Kepribadian Melankolis pada Kelas X MIA SMA Negeri 9 Makassar* (Doctoral dissertation, Universitas Islam Negeri Alauddin Makassar).

**STUDY OF THE HEALTH PROFESSIONAL CODE OF ETHICS
BETWEEN EXPECTATIONS AND REALITY: CASE REVIEW**

ABSTRACT

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The professional code of ethics is a comprehensive and integrated guideline about attitudes and behaviors that a person should have as health workers . Health workers should study, understand, and apply the ethics, morals, and values of the code of ethics so that in carrying out professionalism it does not cause conflict and cause negligence in carrying out medical actions that can cause legal dilemmas.

The purpose of this study was to determine the code of ethics of the health profession between expectations and reality.

This study used a descriptive research design with an *analytical survey research method*. The sampling technique used a random sampling technique.

Research results show Midwives' knowledge of the code of ethics is above the average 51% and below the average is 49%. There are two ethical cases that occurred, namely the village midwife collecting fees during postpartum and infant visits (KN and KF) and performing infusions in all normal deliveries.

It is recommended for midwives to add information about the code of ethics for midwives.it is associated with ethical cases that

Key word : Midwifery, health, ethics .

A. INTRODUCTION

Code of ethics are norms that must be heeded by every profession in carrying out their professional duties and life in society. Code of ethics is a professional characteristic that is sourced from internal and external values of a discipline and is a comprehensive knowledge of a profession that provides guidance for members in carrying out professional service. (Soepardan, 2007). The professional code of ethics is a comprehensive and integrated guideline regarding the attitudes and behaviors that a health worker should have.

The profession of health workers in its implementation must comply with the code of ethics set by the profession in addition to basing on service standards set by laws and regulations. (Turingsih, 2012) Health workers should study, understand, and apply the ethics, morals, and values of the code of ethics so that in carrying out professionalism it does not cause conflict and cause negligence in carrying out medical actions that can cause legal dilemmas.

With a good understanding of the code of ethics and applying it in everyday life, it is hoped that ethical dilemmas can be minimized and legal dilemmas do not occur. Lack of knowledge of health workers about regulations in the health sector, causing fear of midwives in making decisions and causing negligence in carrying out medical actions causing legal dilemmas. (Amila, 2017) This

study of the code of ethics of the health profession between expectations and reality aims to see further how the formulation of the code of ethics is seen from the form, nature, purpose, and cases that occur in various health workers. The study of the code of ethics for health workers is expected to be able to contribute to the development of health resources and education of health workers under the auspices of the Poltekkes, the Ministry of Health, Semarang in particular and the education of other health workers.

Health workers should study, understand, and apply the ethics, morals, and values of the code of ethics so that in carrying out professionalism it does not cause conflict and cause negligence in carrying out medical actions that can cause legal dilemmas. Lack of knowledge of health workers about regulations in the health sector, causing fear of midwives in making decisions and causing negligence in carrying out medical actions causing legal dilemmas. (Amila, 2017)

This study aims to determine the code of ethics of the health profession between expectations and reality with the specific aim

of identifying midwives' knowledge of the midwife's code of ethics and ethical cases that have occurred in the practice of midwifery services

B. RESEARCH METHODOLOGY

The design used in this study was descriptive research, with an analytical survey. The variables in this study were the knowledge of the midwife about the code of ethics and ethical cases in midwifery. The population in this study were all midwives in the Banyumas district. There are 890 midwives on duty in the Banyumas Health Service Area. The sampling technique used is *random sampling*. The sample taken in this study was 100 midwives to obtain data on the knowledge of midwives regarding the code of ethics of midwives. Data on ethical cases will be collected through interviews with IBI management. The instruments used a questionnaire about the knowledge of midwives on the code of ethics of midwives and a literature study of ethical cases that had occurred in midwife services. The data collected in the form of primary data, which is obtained directly from the respondents in the form of a questionnaire on the knowledge of midwives on the code of ethics of midwives. While secondary data was taken from records of ethical cases that had occurred in midwife services and in-depth interviews with IBI administrators.

C. Research Results and Discussion

of Knowledge of Midwives

The results of research on knowledge of midwives about the code of ethics are presented in the following table:

Table 1 Frequency distribution of knowledge of midwives about the code of ethics

Midwives knowledge of the code of ethics	F	%
Above average	51	51
Below average	49	49
Total	100	100

Source: Primary Data Processed in 2021

Midwives' knowledge of the code of ethics is more than the

average 51% and below the average is 49%. The results of this study indicate that the knowledge of midwives about the code of ethics is above average.

This research is also in line with the research of Sulastri, 2021 which shows that respondents have sufficient knowledge (77.6%) and good attitudes (90.6%) towards ethics and patient rights.

In the midwifery profession, observing legal and ethical issues in professional practice should be emphasized. Legal and ethical advances in midwifery have increased the need for midwives to be aware of patient rights. between the level of knowledge and student attitudes towards ethics and patient rights.

Ethics is needed in social life, in the state to the international level. Ethics is a system that regulates how humans should get along. Ethics in its development greatly affects human life. Ethics gives humans an orientation on how they live their lives through a series of daily actions. That means ethics helps humans to take appropriate attitudes and act in this life.

Ethics ultimately helps us to make decisions about what actions we need to take and what we need to understand together that these ethics can be applied in all aspects or sides of human life. Likewise with the midwifery profession, a guide is needed for members of the profession on how they should carry out their profession, namely provisions on what members of the profession can and cannot do, not only in carrying out their professional duties but also regarding behavior in daily interactions in the community. society, which in this case is the code of ethics of the midwifery profession.

Awareness of professional ethics must also be owned by

midwifery education students. Most of the students have a good attitude, but sufficient knowledge of ethics and patient rights and not a significant relationship. As prospective midwives who will work in the community, they must understand the role of their functions and competencies that must be possessed, be aware of the development of the midwife profession, especially in the development of midwifery education because being a professional midwife must pass through education levels . professional midwife by taking all actions in accordance with midwifery ethics. (Nuryuniarti, R., & Septiani, 2017).

The midwife's knowledge of ethics is also important in the decision-making process. Decision making is a basic and integral part of the practice of a profession and its existence is very important because it will determine the next course of action. In midwifery practice, midwives are often faced with dilemmatic problems, meaning that difficult decisions are made related to ethics which often have legal implications. The legal dilemma faced by midwives is the lack of knowledge of midwives about midwifery regulations, causing fear of midwives in making decisions and this can lead to negligence in providing medical treatment. Meanwhile, the ethical dilemma is that all midwives have difficulty convincing the patient's family to make a referral in the event of an emergency, thus making the midwife act outside her authority. (Amila, 2017)

The accuracy of midwives in making decisions is determined by their educational background, environment, place of work, and facilities owned by their place of service. At present, there are several midwives working at BPS who do not have a ratified Standard Operating Procedure (SOP), sometimes even not having a clear SOP. This is further exacerbated by

accusations by the public today, namely, if the midwife does not handle cases properly, they are considered unskilled, but if there is a fatality due to inappropriate decisions, they will be prosecuted for violating the law.

The midwife is one of the health workers who has an important position. and strategically, especially in reducing the Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR). Midwives provide continuous and comprehensive midwifery services focusing on aspects of prevention, promotion based on standards of midwifery practice that contain the authority and values of a code of practice ethics in accordance with midwifery practice standards.

Decision making is an effort to achieve goals by using a systematic process. Effective problem solving and decision making is predicted that individuals must have critical abilities and develop themselves with guidance and role models in their work environment. A common cause of failure to solve problems is not correctly identifying the problem. Therefore, problem identification is the most important step. The quality of the results depends on the accuracy in identifying the problem. A midwife must have the courage to make decisions and be responsible for the consequences of the risks that arise as a consequence of the decisions that have been taken. Decision making is a systematic approach to the nature of a problem that is focused on solving the problem as soon as possible. In conditions like this, individuals must have the ability to think critically by using valuable education and experience that is quite effective in problem solving. Decision making in problem solving is a fundamental skill for health practitioners, especially in midwifery care, not only influencing the process of managing midwifery care, but is

important for improving the ability to plan for change. Midwives in all clinical positions must have the ability to solve problems and make effective

Decision making is an effort to achieve goals using critical, analytical and systematic thinking processes. A common cause of failed problem solving is the lack of precise identification of the problem. There are several things that need to be considered in decision making that decision making does not occur by chance, decision making is carried out on a certain systematic, the problem must be clearly known, problem solving must be based on facts that have been systematically collected and a good decision is a decision that is chosen from various alternatives. has been carefully analyzed. Decision making can cause various problems, including inaccurate decisions, not implementing decisions, inability to carry out work and the emergence of resistance to the emergence of decisions. Decision making is a systematic approach to the nature of a problem that is focused on solving problems as quickly as possible when individuals must have critical thinking skills in using valuable and effective education and experience in problem solving. A midwife must have the courage to make decisions and take responsibility for the consequences of the risks that arise from the decisions that have been taken. (Mufdlilah, 2014)

Ethical Cases

The results of research on ethical cases that have occurred are village midwives collect fees during postpartum and infant visits (KN). and KF). Midwives also perform infusions in all normal deliveries and collect payments to patients during office hours while carrying out the midwife's main duties and responsibilities.

There are people who ask through the regent's complaint booth

why the village midwife in the morning wears the official uniform but collects payment during patient visits to the field in her village working area. The case occurred around January 2021.

The case was found based on the results of the input to the complaint booth of the Banyumas regent. Only the village midwife was involved. Then the Midwife Committee Team collects data by clarifying it to the person concerned. The midwife admitted that during the visit, the midwife withdrew the village midwife's fees because the midwife gave her vitamin medicine that she bought herself. A briefing was carried out by the ethics committee team by explaining that midwives were asked to distinguish whether to serve during office hours, i.e. 07.15 to 14.15 WIB or PMB had to open a practice after office hours, postpartum medicines purchased by themselves were used when opening PMB.

After holding a meeting and collecting data, the midwife was given a coaching sanction at the Health Office for 3 months, due to violating the code of ethics that was not in accordance with ADART and PMK no 28 of 2019, that the midwife's authority was to provide services to mothers and children and family planning according to arbitrariness. The midwife's mistakes were: violating human rights, taking payments during office hours, giving intravenous infusions for every normal delivery, for personal gain not because of indications

. The ethical case obtained from the research tells about two things, namely village midwives collect payments during postpartum and infant visits (KN and KF) and perform infusion in all normal deliveries.

Looking at the existing cases, it can be said that in carrying out their duties, midwives do not adhere to altruistic principles. *Altruism (sincerity)* is an attitude and behavior that is always required of every midwife in carrying out her professional services. The midwife's

sincerity in providing services can be seen from the feeling of being willing to help others by prioritizing the interests of others (mother and children, family and society) beyond their own interests. This indication of sincerity can be seen from the willingness to sacrifice (take risks), help selflessly, empathize, help without coercion, accept and give criticism (Tanjung, 2015).

The case was found based on the results of the input to the complaint booth of the Banyumas regent. Only the village midwife was involved. Then the Midwife Committee Team collects data by clarifying it to the person concerned. The midwife admitted that during the visit, the midwife withdrew the village midwife's fees because the midwife gave her vitamin medicine that she bought herself. The ethics committee team was briefed by explaining that midwives were asked to distinguish whether to serve during office hours, i.e. 07.15 to 14.15 WIB or PMB had to open a practice after office hours, postpartum medicines purchased by themselves were used when opening PMB.

From the reasons given by the midwife, it seems that the midwife does not apply the sincerity model in midwifery services. The sincerity model stems from problems in childbirth, maternal, child and family health. Midwives make sure there are problems that need help. Based on competence and code of ethics, moral responsibility and professional responsibility emerge. Taking into account the need for supporting resources and the availability of funds, the midwife makes a decision to provide assistance. In that case, the midwife only had the excuse of charging her for giving her the vitamins she bought herself.

In the process of giving help, sincere behavior can be seen from the midwife's smile, willing to sacrifice, selfless, empathetic and do help without coercion. After giving help, the midwife feels the

satisfaction of serving, and in turn the sincerity behavior of the midwife can be felt, experienced and observed by the mother, child, family and community (Tanjung, 2015). In this case, the ethics committee team was briefed by explaining that midwives were asked to distinguish whether to serve during office hours, i.e. 07.15 to 14.15 WIB or PMB had to open a practice after office hours, postpartum medicines purchased by themselves were used when opening PMB.

In carrying out their profession, midwives apply an attitude of professionalism. In this case, the midwife can be said to be unprofessional because she collects fees during office hours. In contrast to research conducted by midwives, professionalism is the basis for the social contract between the midwife profession and the community so that professionalism is a very important professional behavior. Midwives in carrying out their professionalism in independent practice are regulated by laws and regulations. The value of the professionalism of midwives is contained in positive law, namely the code of ethics for the profession of responsibility, collaborating and making appropriate referrals, continuing education, being competent, and providing advocacy. However, there were cases in midwives related to professionalism.

The results of the study are indicators of the professionalism of midwives in Indonesia, namely professional code of ethics, responsibility, collaboration and appropriate referrals, continuing education, competence and advocacy. In the practice of independent midwives, they have implemented professionalism but there are still some cases that occur because there are indicators that cannot be implemented. Professional values in Islam are the practice of behaving and behaving according to the example of the Prophet, namely siddiq, fathonah, amanah and tabligh. The value of professionalism in Islam with the value of positive legal

professionalism has similarities and differences. There is a need for a transcendental-based concept of midwifery professionalism, namely professionalism that is sourced from Islamic values, especially the Koran. Transcendental-based midwives' professionalism includes piety to Allah SWT, working with expertise, working with honesty. (Damayanti, 2021)

Professional ethics of doctors is regulated in the Indonesian Medical Code of Ethics which is intended to maintain a doctor-patient relationship of trust. Adequate knowledge of the code of ethics creates an attitude that is in accordance with the provisions that should be carried out, so that it is expected to be able to reduce the risk of friction that leads to violence. This study aims to determine whether there is a relationship between knowledge of the Indonesian Medical Code of Ethics and the incidence of violence in clinical education. The results of data analysis on 54 research subjects showed a negative relationship between knowledge of the medical code of ethics and the incidence of violence in clinical education vehicles ($r=-0.313$, $p= 0.021$). In simple linear regression analysis, there was an influence between the two variables ($r^2=0.098$, regression coefficient= -0.364 , $p<0$)

Conclusions: There is a statistically significant relationship and influence between knowledge of the medical code of ethics and the incidence of violence in clinical education vehicles with weak strength. and the direction of negative correlation.

The resolution of ethical cases in Banyumas Regency is that after holding a meeting and collecting data the midwife is given a coaching sanction at the Health Office for 3 months, due to violating the code of ethics that is not in accordance with ADART and PMK no 28 of 2019, that the midwife's authority is to provide services to mothers and children and family planning according to

arbitrariness. The midwife's faults are: violating human rights, collecting payments during office hours, giving intravenous infusions at every normal delivery, for personal interests not because of indications.

Settlement of disputes in the health sector, especially disputes between midwives and patients according to Law No 36 of 2014 concerning Health Workers, must be resolved out of court. Settlement out of court is an alternative dispute resolution model that relies on mediation, conciliation and negotiation. Law Number 8 of 1999 concerning Consumer Protection established the Consumer Dispute Settlement Agency (BPSK) and gave the authority to BPSK to resolve any disputes between business actors and consumers outside the court by means of mediation, conciliation and negotiation on the condition that the settlement in out of court does not eliminate the criminal element if during the mediation or negotiation process a criminal act is found.

Dispute resolution through BPSK provides an understanding that health workers, including providers of health facilities legally as business actors and recipients of health services as consumers (subjects of civil law). Meanwhile, health services are the object of civil law. This research is a descriptive type of normative legal research. To analyze the legal provisions for dispute resolution in the health sector, a statute approach is used by synchronizing the health worker law with the consumer protection law and a case approach. Both approaches are based on the theory of legal certainty from Gustav Radbruch, to illustrate that dispute resolution outside the court is a dispute resolution model that is able to provide a sense of justice and legal certainty for the disputing parties ([Af, Aslam 2016](#)).

Efforts to resolve the case are also in accordance with the

results of the study which stated that there was a significant relationship between knowledge about acts of negligence on the part of midwives and the types of settlement efforts to be taken through the Midwifery Code of Ethics Council and Mediation efforts with the same value $p = 0.001 < 0.05$. . while the value of the relationship between knowledge and settlement efforts with civil law is $p = 0.047 < 0.05$, and the criminal path is $p = 0.019 < 0.05$, it can be concluded that there is a significant relationship, the results of the study found that there was a significant relationship between attitudes regarding acts of negligence on the part of midwives with the type of settlement that will be pursued through the Midwife's Code of Ethics Council and Mediation efforts with the same value, namely: $p = 0.001 < 0.05$.

The results of this study indicate that respondents who have a positive attitude about the act of negligence in the midwife's professional duties will take the type of non-litigation settlement effort, the results of the study between attitudes and settlement efforts by civil law are $p = 0.11 > 0.05$, and the criminal route $p = 0.067 > 0.05$, it can be concluded that there is no significant relationship. The level of knowledge about efforts to resolve through non-litigation channels with the less category is 62.5% smaller than the sufficient knowledge category as much as 66.7% in inpatient and outpatient health center midwives at Wonosobo District Health Center in 2012 (Bharyo, 2013)

Conclusion

Knowledge of midwives about the code of ethics, there are more than the average 51% and those below the average are 49%. There are two ethical cases that occurred, namely the village midwife collecting fees during postpartum and infant visits (KN and KF) and performing infusions in all normal deliveries. It is recommended for

midwives to add information about the code of ethics for midwives. For educational institutions to add to the treasury of sources of information related to the code of ethics for health workers and in further research on the application of midwifery ethics it is associated with ethical cases that occur

REFERENCES

- Amila, NUR (2017). *Legal & Ethical Dilemmas of Midwives in Making Medical Decisions to Realize Comprehensive Midwifery Services at {Kec. Lakudo Kab. Middle Button. Postgraduate, Soegijapranata Program, Catholic University, 1–10.*
- Mufdlilah. (2014). Evaluation of Midwifery Practice Decision Making in an Effort to Help Resolve Midwives' Ethical Dilemmas. STIKES 'Aisyiyah Yogyakarta Proceedings of the National Seminar "Inter Professional Learning Towards Quality Health Services" 11 October 2014. *Proceedings of the National Seminar "Inter Professional Learning Towards Quality Health Services" 11 October 2014.*
- Nuryuniarti, R., & Septiani, T. (2017). An Overview of Level II Students' Knowledge of Midwifery Ethics at the University of Muhammadiyah Tasikmalaya's Midwifery Department in 2017. *Bimtas Journal: Umtas Midwifery Journal, 1(2), 14-23., 1(2), 14–23.*
<https://doi.org/10.35568/Bimtas.V1i2.488>
- Soepardan, S. (2007). *Midwifery Ethics and Health Law* (EK Yudha (ed.); 1st ed.). EGC.
- Turingsih, RAAI (2012). Civil responsibilities of midwives in health services. *Pulpit of Law, 24*(Civil, Legal Law Department, Gadjah Faculty, Sosio University, Jalan Number, Justicia Yogyakarta, DI), 187–375