Implementation of CERDIK Model on the Knowledge Level of Adolescents About Hypertension Prevention in pandemic Area of East Telukjambe Center of Public Health (PUSKESMAS) Karawang Regency

Erlena
STIKes Horizon Karawang, Karawang Indonesia
e-mail: erlenstikeskharisma@gmail.com

Abstract

One of the problems that contributed to the largest numbers of mortality and maternal morbidity was anemia during the postpartum period. It is estimated that 50-80% of women suffer from anemia 48 hours after birth. Anemia in women is associated with increased birth Infant Low Birth Weight (LBW), prematurity, maternal and child deaths, and infections. This study aims to identify the relationship between dietary patterns and the incidence of iron deficiency anemia in post Partum mothers at dr. Zainoel Abidin hospital Banda Aceh. This research is a quantitative study with a cross-sectional study design. This research was conducted from June to September 2019 with 102 respondents selected through the non-probability sampling method. Respondents were postpartum mothers who were treated in room 2 (obstetric inpatient room). The study technique was carried out by giving a questionnaire and a hemoglobin check has been carried out using an HB meter. The data obtained were analyzed using the chi-square statistical test with a confidence level of 95%. This study found that the prevalence of anemia was 49,0% of respondents had mild anemia (Hb levels 9-10,9 gr/dl), 10,8% had moderate anemia (Hb levels 7-8,9 gr/dl), and 40,2% not having anemia (Hb levels >11gr / dl). Overall, there is a significant relationship between dietary patterns and the incidence of anemia in postpartum mothers at dr. Zainoel Abidin Banda Aceh (p-value 0,032).

Keywords: Diet Pattern; Iron Deficiency Anemia; Postpartum

Introduction

Hypertension according to the World Health Organization (WHO) is a condition in which blood vessels have persistent systolic blood pressure > 140 mmHg or diastolic blood pressure > 90 mmHg. Blood pressure is the force of the blood against the pressure of the arterial walls when the blood is pumped by the heart throughout the body. The higher the blood pressure, the harder the heart works (WHO, 2019). Data from the World Health Organization (WHO) in 2019 showed that around 1.13 billion people in the world have hypertension, meaning that 1 in 3 people in the world is diagnosed with hypertension.

The number of people with hypertension continues to increase every year, it is estimated that in 2025 there will be 1.5 billion people affected by hypertension, and it is estimated that every year 10,444 million people die from hypertension and its complications. 80 mmHg and if not controlled can cause complications, such as heart disease, blood vessels, kidneys, stroke, and diabetes mellitus. Hypertension does not only occur in adults or the elderly but can also occur in adolescents. Adolescents who have blood pressure more than normal have a greater risk of suffering from coronary heart disease or heart failure than adults (Depkes RI, 2013).

Hypertension is a non-communicable disease characterized by a chronic increase in blood pressure and is a major health problem that must be addressed immediately (riskesdas, 2018). Patients with hypertension according to the results of the 2018 Basic Health Research (Riskesdas) showed that hypertension sufferers nationally reached 25.8% (Riskesdas, 2018). The number of people at risk of developing hypertension in Indonesia is 36.53% according to the results of the Basic Health Research (Riskesdas, 2017).

The results of measuring blood pressure reached as much as 12.98% declared to have hypertension. Hypertension occurs in the age group of 31 to 64 years, and the highest is at the age of 45 to 64 years with a percentage of 55.3% (Riskesdas, 2017). Risk factors such as the proportion of people who eat fewer vegetables and fruit are 95.5%, the proportion of lack of physical activity is 35.5%, the proportion of smoking is 29.3%, the proportion of central obesity is 31% and the proportion of general obesity is 21.8%. (Riskesdas, 2018).

The West Java Provincial Health Office explained that the results of the report in 2019-2020 found 790,382 cases of hypertension (2.46% of the population 18 years), with the number of cases being examined as many as 8,029,245 people. Although the case is low compared to the elderly, this can be a serious health problem because it will lead to dangerous complications if not controlled and early prevention of risk factors that affect the incidence of hypertension in adolescents is not sought.

Based on data from the Karawang Regency Health Office, which has presented the results of reports from each Center of Public Health (PUSKESMAS) in the Karawang Regency area in January - August 2020, especially in the Tanjungpura Health Center work area, of the 963 youth, 268 adolescents experience hypertension and 29.3% of adolescents experience hypertension. hypertension is caused by smoking from an early age. Based on research data at the Telukjambe Timur Health Center, there were 57 teenagers with hypertension in 2020. The preliminary study was conducted on 10 people.

As many as 3 people (30%) know about smart and implement it so that the knowledge about hypertension prevention is good. And as many as 7 people (70%) did not know about smart implementation so they did not implement it in their lives, because it was caused by a lack of knowledge about hypertension prevention. Factors for the occurrence of hypertension in adolescents can be divided into non-modifiable risk factors (such as heredity or genetics, gender, and age) and modifiable risk factors (such as for overweight or obesity, alcohol, smoking, drugs, and other disease factors). Lifestyle also affects the emergence of high blood pressure attacks. Unhealthy habits such as an unbalanced diet with high cholesterol levels, salt, lack of exercise, and portion rest to stress and overweight/obesity can trigger

hypertension. (Yusrizal Indarto & Akhyar 2016).

Adolescence is the age between 10-19 years and the transition from childhood to adulthood, which is marked by physical, emotional, and psychological changes. Adolescence is a period of transition from childhood to adulthood, including all developments experienced in preparation for entering adulthood. Adolescents are will be a period of individual life where there is a psychological exploration to find self-identity. During the transition from childhood to adolescence, individuals begin to develop abstract traits and self-concepts become more distinct.

Counseling is an activity of educating something to individuals or groups, providing knowledge, information, and various abilities to form attitudes and behavior in life that should be. In essence, counseling is a non-formal activity to change society towards a better state as aspire. The Indonesian government in this case has given serious attention to the prevention and control of diseases, one of which is hypertension. The government's hypertension control program includes the Healthy Living Community Movement (GERMAS), PHBS (Clean and Healthy Living Behavior), PTM Posbindu, and CERDIK. The purpose of the health program is to improve health status, increase efforts to improve clean and healthy living behavior, reduce mortality, as well as efforts to monitor and early detection of risk factors for non-communicable diseases in the community. One of them in tackling hypertension is SMART behavior. CERDIK, namely regular health checks, getting rid of cigarette smoke, diligent physical activity, diet, getting enough rest, and managing stress.

Based on the background described above, in this study, the researchers formulated a problem formulation,

namely "The effect of counseling on digital-based smart implementation on the level of knowledge of adolescents about preventing hypertension in the working area of the Telukjambe Timur Public Health Center, Karawang Regency in" 2021. quantitative research with experimental research design, which is a research design that is used to find a cause-and-effect relationship with the involvement of research in manipulating independent variables. This study wanted to determine the effect of counseling on the implementation of smart digital based on the level of knowledge of adolescents about hypertension prevention.

The design of this study used a quasi-experimental one-group pretest-posttest design. Revealing cause and effect by involving a group of subjects who were tested before being given counseling and tested again after being given counseling. This study wanted to determine the effect of counseling on the implementation of smart digital based on the level of knowledge of adolescents about hypertension prevention. This research will be conducted on teenagers with hypertension in Telukjambe Timur, Karawang Regency. Implementation of this research was carried out in July 2021.

The population is the entire object under study. This research was conducted on adolescents in the working area of the Telukjambe Timur Health Center, Karawang Regency in 2021 with a total of 57 people.

This study aims to identify the relationship between dietary patterns and the incidence of iron deficiency anemia in post Partum mothers at dr. Zainoel Abidin hospital Banda Aceh.

Method

This research is a quantitative study with a cross-sectional study design. This research was conducted from June to September 2019 with 102 respondents

selected through the non-probability sampling method. Respondents were postpartum mothers who were treated in room 2 (obstetric inpatient room). The study technique was carried out by giving a questionnaire and a hemoglobin check

has been carried out using an HB meter. The data obtained were analyzed using the chi-square statistical test with a confidence level of 95%.

Results

Table 1 Frequency distribution by age, gender, education, parental occupation, parental education, and parental marital status.

Variable	Category	Frequency (N)	Percentage (%)
Age	14	1	1.8
	16	4	7.0
	17	19	33.3
	18	28	49.1
	19	3	5.3
	20	2	3.5
Total		57	100.0
Gender	Male	9	15.8
	Female	48	84.2
Total		57	100.0
Education	Junior High School (SMP)	2	3.5
	Senior High School (SMA / SMK)	54	94.7
	S1 / Bachelor	1	1.8
Total		57	100.0
Parental Occupation	1. Government Employees	48	7.0
	2. Private employee		14.0
	3. TNI / POLRI	2	3.5
	4. Entrepreneureur	24	42.1
	5. House Wife	19	33.3
Total		57	100.0
Parental Education	1. Elementary School (SD)	7	12.3
	2. Junior High School (SMP)	21	36.8
	3. Senior High School (SMA)	26	45.6
	4. Bachelor	3	5.3
Total		57	100.0
Parental Marital Status	1. Married	50	87.7
	2. Divorced	7	12.3
Total		57	100.0

From the results of the frequency table, the respondents based on age are 18 years old, namely 28 people (49.1%). From the results of the frequency distribution of respondents based on gender, 48 people (84.3%). Based on the table above, shows that the distribution of respondents based on education is SMA/SMK 54 people (94.7%). Based on the table above shows that the distribution

of respondents' parental occupation is mostly housewives 24 (42.1%). Based on the table above, shows that the largest distribution of respondents' parental education is SMA 26 (45.6%). Based on the table above, shows that the distribution of respondents based on the marital status of their parents is mostly married 50 (87.7%).

Bivariate Analysis

Table 2 Average Distribution of Adolescent Knowledge About Hypertension Prevention Before and After Counseling About Smart Implementation.

Variable Knowledge	Average value	Standard Deviation	Standard Error	p-value	Number of samples
Before	3.19	1.608	0.213	0.000	57
After	6.74	0.518	0.069		

Based on The table above shows the results of the analysis of the effect of counseling on digital-based smart implementation on the level of knowledge of adolescents about preventing hypertension in the working area of the Telukjambe Timur Public Health Center, Karawang Regency in 2021, shows that the average value of knowledge before being given counseling is 3.19 with a standard deviation of 1.608. The average value of knowledge after being given counseling is 6.74 with a standard deviation of 0.518.

Based on the statistical calculation of the t-dependent test results obtained p-value < (0.05) so Ho is rejected, then the conclusion is that there is an effect of counseling on digital-based smart implementation on the level of knowledge of adolescents about preventing hypertension in the working area of the Telukjambe Timur Public Health Center, Karawang Regency in 2021.

Discussion

The results showed that the level of knowledge of adolescents about hypertension prevention after being given counseling increased. The statistical analysis test using the t-dependent statistical test obtained results of 0.000 on the average distribution of adolescent knowledge about hypertension prevention before and after being given counseling about smart implementation, and the P-value < (0.05) this means that the working hypothesis in this study is rejected. , then the conclusion is that there is an effect of counseling on digital-based smart implementation on the level of knowledge of adolescents about

preventing hypertension in the working area of the Telukjambe Timur Public Health Center, Karawang Regency in 2021.

Knowledge is the result of "knowing" and this happens after people sense a certain object. The sensing of objects occurs through the five human senses, namely sight, hearing, smell, taste, and touch. At the time of sensing to produce knowledge is strongly influenced by the intensity of attention perception of the object. Most human knowledge is obtained through the eyes and ears.

Knowledge about preventing hypertension in adolescents is influenced by several factors, including the environment where one can learn good and bad things depending on the nature of the group, education is fundamental to developing knowledge, and culture which plays an important role in knowledge (Notoadmojo, 2012).

According to last research hypertension prevention is as follows 1) Regulating the diet so that the body weight remains ideal as well as preventing hypercholesterolemia, diabetes mellitus, and so on, 2) Do not smoke or quit smoking, 3) Changing daily eating habits with low salt consumption, 4) Consumption of recommended foods such as fresh vegetables, fresh fruit, tempeh, tofu, beans, chicken, and eggs and 5) Low cholesterol diet. The food consumed should contain good fats and contain little bad fats such as cholesterol, such as foods containing pure sugar, meat, chicken, egg yolks, and sardines. It is also balanced with regular exercise and healthy living.

The results of the researcher's analysis that most of the respondents were found

to be in the category of sufficient knowledge, and most of the respondents were included in the category of good knowledge with a percentage of 80.7%, and some of the respondents who had less knowledge were included in the category of poor knowledge with a percentage of 19.3%, dominant of the respondents who are included in the category of lack of knowledge are teenagers with low education, lack of information. The level of education can support or influence a person's level of knowledge, and a low level of education always goes hand in hand with limited information and knowledge.

Poor knowledge which basically can lead to a lack of information, especially for adolescents about preventing hypertension, can affect health, especially in hypertension. Notoadmojo (2014) explains that a person's knowledge of health is one of the predisposing factors that influence a person's behavior, sufficient knowledge will change a person's mindset to act well or positively.

Conclusion

Before being given health education, most of the adolescents in the working area of the Telukjambe Timur Health Center, Karawang Regency, knew about preventing hypertension in the category of poor knowledge as many as 9 people (15.8%) After being given health education, most of the adolescents in the working area of the Telukjambe Timur Health Center, Karawang Regency, knew about preventing hypertension in the good knowledge category as many as 55 people (96.6%). Counseling has a significant effect on knowledge about preventing hypertension in adolescents in the working area of the Telukjambe Timur Public Health Center, Karawang Regency, which is indicated by a P-Value of 0.000

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