

Effectiveness of Health Education using Flipchart Media on Health Cadres Knowledge About Climacterium in Susukan Village, Banjarnegara

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ABSTRACT

Background: The climacterium is a transitional phase from the reproductive to the senium. During this period, women will experience several physical and psychological symptoms, so they need adequate knowledge. Forms of health services to the community can be conducted through the education of cadres through health education with various methods, one of which is by using flipchart media. Method: This research is a quantitative research with one group pretest and posttest. The sample was 32 health cadres in Susukan Village. The instrument is the pretest posttest questionnaire. Results: The results of the analysis obtained a Z value of -4.967 and a p value of 0.000, which means there is a difference in the knowledge of health cadres about the climacteric. A N-Gain Score of 76.67 means that health education using flipchart media is effective for the knowledge of health cadres about the climacteric. Conclusion: Health education using flipchart media is effective for health cadres knowledge about the climacterium in Susukan Village, Banjarnegara.

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1. INTRODUCTION

Throughout the stages of life, humans undergo growth and development. Human growth is characterized by changes in weight and height, while human development is marked by changes in maturity, such as emotions, physical maturity, thought processes, and bodily functions. Individual development differs between females and males.

In normal females, there are six reproductive development phases, namely the pre-pubertal phase, pubertal phase, reproductive phase, climacteric phase, menopause, and senile phase. The period leading up to the end of the reproductive years is known as perimenopause[1].

The climacteric period is a transitional period from the reproductive phase to the elderly phase. The first phase of the climacteric experienced by women is the pre-menopausal phase. During the climacteric period, women may experience various complaints, including physical and psychological symptoms. [2].

Some of the common physical complaints experienced by women during the climacteric period include irregular menstruation, hot flashes (a sudden feeling of heat from the chest upward followed by excessive sweating, lasting for several seconds to an hour), and other physical symptoms such as palpitations, dizziness, migraines, loss of libido, difficulty sleeping (insomnia), high blood pressure, back pain, osteoporosis, reduced blood circulation, and weight gain due to adiposity (accumulation of fat) [3]

Psychological complaints experienced during this period include anxiety, irritability, difficulty concentrating, feelings of inadequacy, loneliness, impatience, fatigue, stress, and depression. These symptoms can worsen if not promptly addressed. [3].

Excessive anxiety can affect the changes during the climacteric phase. Therefore, women need good information and knowledge about the changes that occur during this period. The majority of women in the climacteric phase are not aware that the changes they experience are a normal process before menopause. They may feel anxious and confused about the complaints they are experiencing and actively seek help to identify them. Therefore, it is important for women to prepare themselves for the climacteric phase with sufficient knowledge. [4].

One of the factors that can influence the level of readiness to face the climacteric phase is knowledge. When someone has low knowledge, their level of readiness is also low. Women will be better prepared physically, psychologically, and spiritually with good knowledge before the climacteric phase.

One way to provide healthcare services to the community is by educating and training community health workers. Health cadres play a significant role in improving public health, physical health, and mental health. Therefore, the empowerment of health cadres is expected to reach all segments of the population, especially women in the climacteric phase.

According to data obtained in 2022, in Susukan Village, Susukan District, Banjarnegara Regency, the total female population is 2,169 individuals, and the number of women entering the climacteric phase, aged 45–52 years, is 617. The total number of health cadres in Susukan Village is 32.

Based on the preliminary study and interviews with 10 health cadres in Susukan Village, Susukan District, Banjarnegara in 2022, it was found that most of the health cadres have little understanding or are not aware of what menopause is, including the necessary examinations during this phase and the associated symptoms, such as changes in menstrual patterns, insomnia, and back pain. They perceive these symptoms as signs of illness that make them worried. Only two of them were able to answer some questions correctly, while the other eight appeared confused when asked about menopause. According to the health cadres, the term 'menopause' still sounds foreign to them, and they have never received health education on this topic.

Knowledge about menopause can be improved through various methods and media, one of which is health education using flipchart media. Health education using flipchart media presents concise and practical learning messages, making it easier for respondents to understand the presented material.

Based on the researcher's background, there is an interest in conducting a study with the title 'The Effectiveness of Health Education Using Flipchart Media on the Knowledge Level of Health Cadres About Climacterium in Susukan Village, Banjarnegara.

2. RESEARCH METHOD

This research utilizes a quantitative method with a one-group pretest and posttest design approach. The study was conducted at the researcher's home in Susukan Village, Banjarnegara, and took place from September to May 2023. This research has obtained permission from the research code of ethics with Registration Number KEPK/UMP/52/IV/2023. The population in this study consists of all health cadres in Susukan Village, Banjarnegara, totaling 32 individuals with inclusion criteria: 1) Respondents are health cadres registered in the village Susukan, Banjarnegara; 2) Respondents have never received health education regarding the climacterium; 3) Respondents are willing to participate in the research; and Exclusion Criteria: 1) Respondents are sick. This research uses pre-test and post-test questionnaire instruments. The questionnaire used has passed validity and reliability tests and was declared valid with a Cronbach's alpha value of 0.767, so it can be concluded that this research instrument has a good level of reliability. In this study, the intervention was carried out for 1 x 1 hour and was for a pre-test and health education. The following day, a post-test was carried out.

The sampling technique used is total sampling. total sampling technique is a sampling method where the entire population is used as a sample. Reasons for sampling using total sampling because the sample size was >100, namely 32 health cadres. Data analysis employs the Wilcoxon test to determine the effect of health education on the knowledge of health cadres. The Gain Score is used to assess the effectiveness of the flipchart media on the health cadres' knowledge about Climacterium.

3. RESULT AND DISCUSSIONS

Here are the results of the research on the effectiveness of health education using flipchart media on the knowledge level of health cadres about menopause in Susukan Village, Banjarnegara. The study utilized a questionnaire with a total of 32 respondents.

3.1. Univariat

Table 1. Characteristics of the respondents

Karakteristik Responden	Frekuensi
Age (Based on the Depkes RI, 2009)	
26-35 Years (Early Adulthood)	10
36-45 Years (Late Adulthood)	15
46-55 Years (Early Elderly)	6
56-65 Years (Late Elderly)	1
Total	32
Education:	
Elementary School	2
Junior High School/Equivalent	11
Senior High School/Vocational School/Equivalent	18
Bachelor's Degree (S1)	1
Total	32
Employment:	
IRT	32
Total	32
Menstrual Status:	
Menstruasi	28
Menopause	4
Total	32

Based on Table 1, the research results show that the majority of health cadres in Susukan Village are in the age range of 36–45 years. The age range of 36–45 years falls into the category of late adulthood, according to the age classification by the Ministry of Health of the Republic of Indonesia (Depkes RI, 2009). This is consistent with a study conducted by Sari (2017), which stated that the characteristics of respondents among the 80 cadres involved in the study showed that the highest percentage (38%) were in the age range of 36–45 years. Research conducted by [6] also indicates that the late adulthood age group is more trusted by the community due to their experience and maturity. However, as age increases, it signifies a decrease in productivity, leading to a decline in physical skills such as speed, flexibility, strength, and coordination.

The majority of health cadres in Susukan Village have completed their education up to the high school level (SMA/SMK/equivalent). This finding is consistent with research conducted by Maisyaroh and Panggabean (2020), which showed that out of 39 cadres, 13 had an elementary school education, 16 had a junior high school education, and 22 had a high school education. The results of this study are in line with research conducted by , which also indicated that the majority of health cadres had a high school or equivalent education, with 12 respondents falling into this category. From these findings, it can be inferred that all cadres with education at or above the secondary school level can be assumed to have no issues related to reading and writing.

All of the Health Cadres in Susukan Village work as housewives. This result aligns with the research conducted by Dinarsi and Rhomadona (2022) in Surabaya, where the majority of cadres were housewives, numbering 27 individuals. This result is also in line with the research conducted by Indonesia expects cadres to have spare time so as not to disrupt the operation of Posyandu.

The majority of health cadres in Susukan Village are still menstruating. This finding is consistent with research conducted by Amanda (2020) [7], which states that 46 health cadres are still menstruating. This indicates that, on average, health cadres fall into the category of healthy reproductive age. At this age, it is considered safe for reproduction, and women can have safe and healthy pregnancies with proper care and reproductive organ safety. A mother should be in good health and strength to be able to give birth to quality generations in the future. This supports the research conducted by Elsas (2019), which suggests that having sufficient reproductive knowledge can serve as supplementary knowledge for women to maintain their health and continue their reproductive cycles without worry. This includes knowledge of basic physiology and the correct way to care for female organs. A healthy reproductive system will reduce morbidity and mortality rates for women of reproductive age in the future.

Table 2. Pretest frequency distribution

Parameter	Mean±SD	Min-Max
Climacterium: <i>Pretest</i>	64,68±6,831	55-80

Based on Table 2 and the research results conducted, it is depicted that before health education was provided, health cadres had knowledge about menopause with an average score of 64.68, a median score of 65, a standard deviation of 6.831, a minimum score of 55, and a maximum score of 80. This finding aligns with research conducted by Zakiyah dan Febriani [8], which indicates that before health education was provided, the knowledge of cadres had an average score of 63.23, a standard deviation of 9.51, a minimum score of 45, and a maximum score of 75.

The results of this research are consistent with a study conducted by Twisriandayani and Wulandari [9], which showed that the average knowledge score of health cadres before receiving health education was 62.14. This could be attributed to a lack of prior awareness about menopause and limited access to information sources.

Table 3. Posttest frequency distribution

Parameter	Mean±SD	Min-Max
Climacterium: <i>Posttest</i>	91,87±4,163	85-100

Based on Table 3 and the research results, it is evident that after receiving health education, health cadres have knowledge about climacterium with an average score of 91.87, a median score of 90, a standard deviation of 4.163, a minimum score of 85, and a maximum score of 100. This finding is consistent with research conducted by Zakiyah and Febriati [8], which states that the majority of health cadres had an average knowledge score of 92.05, a standard deviation of 2.53, a minimum score of 90, and a maximum score of 95 after receiving health education. This is attributed to active discussions among the group of health cadre mothers during the health education process. These results support the research conducted by [10], which suggests that education and information are the most impactful factors on cognitive abilities.

3.2. Bivariat

Table 4. Normality Test

Variabel	G. P value	df	P Value	Keterangan
Climacterium knowledge pretest	0,916	32	0,016	Not normality distributed
Climacterium knowledge posttest	0,866	32	0,001	Not normality distributed

Based on Table 4., it is known that with a total of 32 health cadres, the Shapiro-Wilk normality test is used because $n \leq 50$. The Shapiro-Wilk test resulted in p-values of 0.016 for the pretest knowledge of Climacterium and 0.001 for the posttest. The p-values for both pretest and posttest knowledge are < 0.05 , indicating that the data is not normally distributed. Since the data is not normally distributed, the Wilcoxon test will be performed because the data is paired.

Tabel 5. Wilcoxon Test Result

Intervention	Variabel	N	Nilai Z	P Value	
Knowledge	<i>Pretest</i>	Climacterium	32	-4,967	0,000
	<i>Posttest</i>		32		

Based on Table 5, it is known that the knowledge of health cadres about climacterium before and after the intervention has a Z-score of -4.967, with a p-value of 0.000 for all indicators. The average values of the pretest and posttest knowledge scores of health cadres showed an improvement. This indicates that there is an influence of health education using flipcharts on the knowledge of health cadres about Climacterium. With a Z-

score of -4.967 and a p-value of 0.000, since the p-value is less than 0.05, it can be interpreted that there is a significant impact of health education using flipcharts on the knowledge of health cadres about climacterium.

This research is in line with the study conducted by Rangkuti (2021) [11], which explains that the Wilcoxon test analysis for the influence of health education on women's knowledge about climacterium resulted in a p-value of $0.000 < \alpha 0.050$, meaning that the null hypothesis (H_0) was rejected. The significant improvement in health cadre knowledge in this research is attributed to health education using flipcharts, making it easier for the respondents to understand.

Tabel. 6 N-Gain Score

Respondents	N-Gain Score
Average	76,4683
Minimal N- gain (%)	50
Maksimal N-gain (%)	100

Based on Table. 6, it is evident that the gain score explains the difference between values before and after receiving treatment regarding knowledge about climacterium. In the table above, the majority falls into the category of a high difference, with a minimum value of 50, a maximum value of 100, and an average of 76.4683.

The instrument has been deemed reliable because a percentage value of 80% was obtained, which means that the flipchart media is suitable for use. The research results conducted by the researcher obtained a gain score with an average value of 76.4683, which can be interpreted as health education about climacterium using flipchart media being effective in increasing the knowledge of health cadres in Susukan Village. In this research, Bloom's taxonomy revision was applied at the knowledge level up to level two. The second level of this taxonomy is understanding. Respondents were tested for their ability to interpret the meaning of information received and convey information in different forms.

4. CONCLUSION AND RECOMMENDATION

Based on the statistical analysis using SPSS, it can be concluded that health education using flipchart media is effective in improving the knowledge of health cadres about climacterium. Flipchart media can be used to increase knowledge because it is able to convey information briefly and easily understood, is interesting and present images so that respondents become more focused.

It is recommended that health cadres in Susukan Village seek more information through mass media and electronic media, exchange health information with others, and participate in health education activities conducted by healthcare personnel at the community health center. This way, health cadres can become knowledgeable about climacterium, its signs and symptoms, and the changes that occur during climacterium. As a result, when they enter the menopausal stage, health cadres will not feel anxious, be prepared to face climacterium, and can share their knowledge with the women in Susukan Village. And it is hoped that future researchers will be able to develop knowledge about the climacterium.

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