

Buk Edi (Education Book) Increases Attitude Of Pre-Diabetes Prevention And Its Complications In Bangsal District Of Kediri

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Abstract—Pre-diabetes can be experienced by any- one with several risk factors including age more than/equal to 25 years with an increase in fasting blood sugar by 1-2 mg per year and blood sugar two hours after eating 5.6-13 mg per year. Prevention strategies for both the pro- gression of pre-diabetes and diabetes progres- sion are needed given the very large preva- lence of pre-diabetes in Indonesia. Pre- diabetes can be prevented with proper education. The objective of this research is to determine the influence of Buk Edi (Education Book) on attitudes of pre-diabetes prevention and its complications in Bangsal, District of Kediri. The design used in this study was pre-experimental design with One Group Pretest Posttest Design. The population was all who were at risk of pre-diabetes in Bangsal District of Kediri. The samples were 30 respondents with quota sampling technique. The inde- pendent variable was Buk Edi (Educational Book) while the dependent variable was atti- tude of pre- diabetes prevention in Bangsal Dis- trict of Kediri. The results showed that there was an influence of Buk Edi (Educational Book) on attitude of pre-diabetes prevention and its complication with a value of $p = 0,000$ and a significance level of $\alpha < 0.05$. In conclusion, the Buk Edi (Educational Book) is recommended to improve the attitude of pre-diabetes preven- tion and its complications in Bangsal District of Kediri.

Keyword: *Education Book, Attitude, Pre- diabetes*

1. INTRODUCTION

Diabetes is a complex, chronic disease; it needs long-term care with risk so it needs a blood sugar control strategy¹. According to the International Diabetes Federation (IDF) in 2015, 415 million people with diabetes are pre- dicted worldwide, 193 million people with diabe- tes, around 50%, do not know that they have diabetes and even an estimated 318 million adults have entered the condition of impaired glucose tolerance or pre-diabetes². Pre-diabetes is a subject who has increased plasma glucose levels but the increase still has not reached a minimum value for the diagnosis of diabetes mellitus (DM) criteria³. According to the Ameri- can Diabetes Association, 2016 pre-diabetes is characterized by fasting blood sugar levels of 100-125 mg/dl and blood sugar 2 hours after eating 140-199 mg/dl. The condition of pre- diabetes naturally can develop diabetes but can be prevented⁴. The prevalence of pre-diabetes in Indonesia is estimated to be around 300 million Indonesians in pre-diabetes⁵. Pre-diabetes can be experienced by anyone with a number of risk factors including age more than 25 years with an increase in fasting blood sugar by 1-2 mg per year and blood sugar two hours after eating 5.6- 13 mg per year⁴. The condition of pre-diabetes can increase the risk of atherosclerosis caused by endothelial damage to blood vessels due to increased blood sugar and it can increase the risk of diabetes mellitus, heart disease and other macro-vascular diseases⁶. Pre-diabetes also causes hyperinsulinemia which plays a role in increasing uric acid re-absorption in the proximal tubules of the kidneys, so that hyperuricemia oc- curs leading to the condition of Diabetes. Therefore, prevention efforts must be conducted by examining blood sugar for a maximum of 1 month⁵. Pre-diabetes with early detection does not cause typical symptoms¹. The effort

to improve health behavior is through health promotion activities. By providing health education is one solution to prevent prediabetes (Sedaghat, 2015). The knowledge on health education is expected to increase since knowledge is one component in the formation of attitudes. The component attitude consists of cognitive components, affective components and conative components⁷. The attitude component consists of beliefs or beliefs, ideas and concepts for an object, emotional life or emotional evaluation of an object, and a tendency to act⁸. These three components together can form a complete attitude. Therefore, the researchers are interested in conducting further research on the provision of interventions in the form of books to increase the knowledge of pre-diabetes so that attitudes can be formed and can determine subsequent health behavior.

2. MATERIALS AND METHOD

The design of this research was Pre Experimental Designs with a one group pretest design approach posttest. This research was conducted on April 23 - May 23, 2018. The dependent variable was Buk Edi (Education Book), while the independent variable was the attitude of pre-diabetes prevention and its complications. In this research, the population was people who at risk in the Bangsal District of Kediri. The samples were 30 respondents with quota techniques in which the researchers limited the respondents to 5 people who met the inclusion criteria in each *RW (Rukun Warga)*, The questionnaires were given before and after giving Buk Edi (Educational Book) which was read by respondents for 3-5 day.

3. RESULTS AND DISCUSSION

a. Characteristics of Respondents

Based on the results of the study, it was found that the characteristics of the average respondents aged 55 years with the youngest age was 34 and the oldest age was 75 years. The average weight of the respondents is 63.9 kg with the lowest weight is 49 kg and the highest is 97 kg. The average waist circumference of the respondents was 94.6 cm with the smallest waist circumference 67 cm and the largest waist circumference was 116 cm. The respondents had an average height of 156.9 cm with a minimum height of 145 cm and a maximum height of 168 cm. The characteristics of the respondents were 22 respondents (73.3) that mostly female, 15 respondents (50%) that had the most education history of junior high school, 26 respondents (86.9%) that had no DM offspring from parents, 17 respondents (56.7%) did not work and 14 respondents (46.7%) had normal blood pressure.

b. Specific data

Specific data in this research was the influence of Buk Edi (Education Book) on pre-diabetes prevention and its complications in Bangsal District of Kediri presented in the frequency distribution table.

Table 1.1 Attitude of Pre-diabetes Prevention and its Complications before Giving Buk Edi (Education Book) in Bangsal District of Kediri (n = 30)

Variabel	f	%
Attitude	0	0
Very Good	12	40,0
Good Sufficient	18	60,0
Poor	0	0

Based on table 1.1, it can be seen that the attitude of Pre-diabetes Prevention and its compli- cations in Bangsal District of Kediri, more than half was sufficient as many as 18 people (60.0%). Meanwhile, the attitude of pre-diabetes prevention and its complications was good as many as 12 people (40.0%)

Table 1.2 The Influence of Buk Edi (Education Book) towards the Attitude of Pre-diabetes Prevention and its Complications in Bangsal District of Kediri (n= 30)

Attitude before–after giving Buk Edi (Education Book) in Bangsal District of Kediri (n=30)	
Z	-4.179
Asymp. Sign	0,000
Based on Wilcoxon Sign Rank Test $\alpha < 0.005$	

Based on table 1.2, it can be seen that there is the influence of Buk Edi (Education Book) on the attitude of pre-diebetes prevention and its com- plications with p value 0,000. Based on the signifi- cance p value <0.05 , Buk Edi (Education Book) influences the attitude of pre-diabetes prevention and its complications in Bangsal District of Kediri.

4. DISCUSSION

- 1) Attitude of Pre-diabetes Prevention and its Com- plications before Giving Buk Edi (Education Book) in Bangsal District of Kediri.

Before being given Buk Edi, the attitude of the most respondents was sufficient as many as 18 re- spondents (60.0%). Changes in attitudes occur because of the lack of factors supporting the emergence of motivation in achieving goals. Attitude is a response or reaction that is still closed from the stimulus or object. A person's attitude is influenced by the existence of trust, emotional life, and a tendency to act. Attitudes can be formed after a new stimulus⁷. Stimulus can be in the form of information obtained directly or through the media. Information can be easily accepted if it attracts the interest of readers as well as the media presented. Before giving Buk Edi information, the information received by respondents was very limited, so that the attitude was not well formed. The results of previous studies explained that obedience was influenced by motivation and prior knowledge⁹.

2) The Influence of Buk Edi (Education Book) on Attitude Pre-diabetes Prevention in Bangsal District of Kediri.

The result of the study Sedaghat (2015) shows that the attitude of pre-diabetes prevention and its complications is the best. Attitudes are formed from the information provided. Furthermore, good information encourages a positive response in the form of action⁷. Planting information is expected to shape attitudes that can ultimately affect behavior. Attitude is a reaction or response that is still closed from someone to a stimulus or object.

An attitude will not necessarily be realized in the form of an action. It can be assumed that even though a person's knowledge is good, it is not necessarily an attitude to show positive change because attitudes can be closed behaviors and changes cannot be observed. The realization of an attitude becomes a real action, supporting factors or possible conditions are needed, including facilities⁸. Buk Edi is information that encourages a person to take an attitude in preventing pre-diabetes by compiling interesting media so that they can facilitate the formation of attitudes towards respondent's self-care.

A positive attitude can determine the attitude of respondents towards their health. It can also be assumed that the majority of respondents had entered pre-diabetes, which certainly motivated respondents to prevent further complications. So the respondents quickly took a stand on their health. Attitude is a mental and nerve state of readiness, organized through experience, exerting direct influence on individual responses to all related objects and situations. Attitudes have direction and / or dynamic influence on behavior⁹.

The attitude taken by the respondents has not led to the formation of observable behavior and is still a closed response but it can be a predisposition of action or behavior. Someone tends to determine attitudes and react when there is a stimulus or emotional response that feels disturbing such as pain. Pre-diabetes is characterized by an increase in blood sugar levels higher than normal but this increase does not provide a stimulus that disturbs pain. In conditions of illness, someone will take a faster attitude and show behavior to get the nearest health facility or hospital. Information presented in Buk Edi is well received by the respondents as a positive feeling but is still closed.

5. CONCLUSION

Based on the results of the research conducted with 30 respondents on April 23, 2018-23 May 2018 in Bangsal District of Kediri, it was found that Buk Edi (Education Book) had an influence on changes in the attitude of pre-diabetes prevention and its complications in Bangsal District of Kediri.

6. ACKNOWLEDGEMENT

Attitude is behavior that is still closed to something and is the originator of the formation of behavior. Buk Edi has an impact on the attitude to prevent pre-diabetes and its complications so that it is expected to be a simple role model or guide in preventing pre-diabetes and its complications. Buk Edi (Educational Book) is recommended for people who at risk for pre-diabetes both in adolescents, adults and the elderly to prevent the incidence of Type II Diabetes Mellitus in Bangsal District of Kediri.

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