

Providing Education For People With Diabetes In The Era Of Covid-19

Fitri Fujiana, Sukarni, Triyana Harlia Putri and Titan Ligita^{a)}

Nursing Department, Faculty of Medical, Universitas Tanjungpura, Pontianak, Indonesia

^{a)}Corresponding Author: titan.ligita@ners.untan.ac.id

Abstract

Indonesia has been grieving since the emergence of COVID-19 which is the biggest outbreak of all time. Confirmed cases of COVID-19 in Indonesia have reached 1.2 million people and about 510 districts and cities were affected, including in West Kalimantan. Patients with diabetes mellitus as one of the comorbid groups who feel the impact of the implementation of activity restrictions. The high incidence of COVID-19 and the enactment of activity restrictions make it difficult for diabetics and worry to access health facilities. This causes diabetics to have limited access to accurate health information related to health care and diabetes wounds suffered. This is experienced by diabetics who usually check their health at one of diabetes and diabetes wound care clinics in Pontianak City. The community service team, majoring in nursing, Faculty of Medicine, Tanjungpura University, provided a solution regarding this phenomenon, by facilitating the provision of health education for diabetics. Health education is provided through three stages, namely, preparation, implementation, and evaluation. Preparation begins with screening potential participants. The education was provided virtually in four sessions of material and question and answer. For evaluation, pre and posttest were carried out. The result of this virtual health education was an increase in participants' knowledge regarding diabetes care and diabetic foot wounds after being given the material. In addition to the materials, participants also receive pocketbooks and educational videos that can be read and used as care guides while at home.

Keywords: COVID-19; Diabetic ulcers; Education; Screening

INTRODUCTION

Indonesia has been grieving since the emergence of COVID-19 which is the biggest outbreak of all time. In more than 200 countries with the number of infected cases as of February 18, 2021, as many as 109 million people have been confirmed (WHO, 2021). Meanwhile, the number of confirmed cases of COVID-19 in Indonesia reached 1.2 million people, cases died 32,936 people, and around 510 districts and cities were affected, including West Kalimantan (Kemenkes, 2021).

The government urges the public to stay at home so that all activities that are often carried out outside the home can be temporarily suspended. Several forms of government policy in reducing the spread of COVID-19 by changing social behavior, such as staying at home, social and physical distancing, always using masks, diligently washing hands, and so on (Kemenkes RI., 2020). According to Lewnard and Lo (2020), social/physical distancing has the potential to slow the rate of infection and reduce the peak of COVID-19.

Patients with diabetes mellitus as one of the comorbid groups who feel the impact of the implementation of activity restrictions. Routine care for DM sufferers has also changed during the pandemic due to the fear of patients being infected when visiting clinics (Tourkmani et al., 2021). Even activity restrictions also affect the eating habits and daily behavior of people with diabetes (Renzo et al., 2020). The study conducted by Grabia et al. (2020) stated that more than 60% of people with DM began to eat more nutritious and regular foods during the COVID-19 pandemic, but it was not necessarily balanced. In addition, Alessi et al. (2020) found evidence that psychological problems were higher in diabetic patients during the COVID-19 pandemic. Increased stress and anxiety, weight gain, lack of exercise, and not controlling blood sugar occur in patients with type 1 and type 2 diabetes, even during locking or restriction of activity (Ruissen et al, 2022). Therefore, people with DM during the pandemic are vulnerable to health problems to threats to their quality of life.

People with DM are not only vulnerable to decreased quality of life but are at risk of being infected with COVID-19. The study conducted by Bhandari et al. (2020) uncontrolled DM patients with COVID-19 require intensive care and have higher mortality and require a long hospital stay compared to controlled diabetes. The study conducted by Guo et al. (2020) also confirmed that DM patients with COVID-19 were at higher risk of developing severe pneumonia.

Nowadays people with DM have started visiting clinics, although activity restrictions are still in place in the era of new habits. PKU Muhammadiyah Kitamura Clinic Pontianak is one of the clinics that handle DM cases with wound complications. Even during the difficult times of the COVID-19 pandemic, patients still visit to get optimal wound care.

METHOD

Health education for DM sufferers is provided virtually through a zoom meeting on August 22, 2021. The webinar consists of four sessions of material and question and answer. The material provided is the basic concepts of DM, nutrition for DM patients, psychosocial problems for DM patients, and foot wound care for DM patients. There were 26 registered participants but only 18 participants managed to enter the virtual room and follow it to completion. This is because some participants experienced network problems. In addition to the material, participants also received pocketbooks and educational videos that had been prepared by the PKM team of the Nursing Department, Faculty of Medicine, Tanjungpura University. Each participant also received a healthy food package worth Rp. 100,000.

The method carried out is in several parts, including (1) Increasing knowledge of DM sufferers in preventing and or treating feet through education about DM and foot care through webinars, (2) Application of knowledge gained through guidelines in the form of pocketbooks distributed to patients/Education participants, (3) Prepare educational media in the form of pocket books related to the care of DM patients at home, (4) Prepare educational media in the form of videos for DM patients to use as a guide for home care. Program evaluation was carried out through pre-test and post-test as well as interviews related to the use of educational media that had been distributed to webinar participants.

RESULTS

The health education webinar for people with diabetes in the context of community service activities (PKM) begins by applying for a permit to a partner institution, namely the Kitamura clinic, Pontianak City, West Kalimantan. The community service team visited the Kitamura clinic and met with the head of the clinic. The team requested permission from the clinic head regarding the involvement of the Kitamura clinic as a PKM partner. During this first visit, the team at the same time identified with the clinic head the problems and interventions needed by DM patients at the Kitamura clinic. Based on the results of the first visit, the team found problems faced by patients at partner institutions during the pandemic. DM sufferers at the Kitamura clinic are worried about visiting or controlling the clinic for fear of contracting the covid 19 virus. Patients will only come when they feel complaints that cannot be tolerated, so most of the patients who come are already at the complication stage.

On the second visit, the team conducted an assessment through interviews with nurses at the Kitamura clinic. Based on the interview, the nurse said that the patients who were treated at the Kitamura clinic did not have sufficient knowledge regarding nutrition in DM conditions and DM wound care. So the patient comes with a wound condition that is not treated. Moreover, during this pandemic, patients limit themselves to lingering in the clinic for fear of contracting covid 19, so the clinic cannot freely provide health education to patients. In addition, the nurse also said, patients, need information handles that can be taken home and learned to carry out treatment at home, it can be in the form of educational media, books, or pocketbooks. This is not yet provided by the Kitamura clinic.

The PKM team again made a third visit to the Kitamura clinic to conduct an assessment of several patients to identify the need for intervention from the patient's perspective. The results of the assessment of the patient obtained information that was almost the same as that conveyed

by the clinical nurse. DM patients at the Kitamura clinic said they needed more complete information related to a good diet and how to treat their diabetes wounds. Patients and families said that they did not have educational media or guidebooks that could be used to treat diabetes, including foot care at home.

Furthermore, the team designed health education activities for DM patients at the Kitamura clinic. This activity is carried out online. Two weeks before the activity was carried out, the PKM team conducted a selection of participants at the Kitamura clinic. This screening aims to identify general patient data such as name, address, telephone number, age, and their possible ability to conduct virtual meetings. The screening process found 26 patients who were willing to be involved and able to participate in online activities. Based on the agreement with the prospective participants, the activities are carried out through a zoom meeting. Two days before the activity took place, the PKM team again ensured the readiness of prospective participants to attend the seminar through a virtual room by delivering a tutorial on using zoom meetings via WhatsApp groups.

This online health education seminar for DM sufferers during the COVID-19 pandemic will be held on August 22, 2021, from 08.00 to 13.00 WIB. The activity began with participant registration at 7.30 WIB. Only 20 participants registered successfully. At 7.45 WIB, the presenter guided the start of the activity, then the PKM team leader delivered a speech. After the speech, the PKM team and participants took a group photo. Furthermore, the committee distributed a link for the pre-test, participants answered 12 questions for the pretest for 20 minutes. Only 18 participants completed the pre-test, because some participants experienced personal and technical barriers, making it difficult to access the form, and failed to join the zoom meeting. After all, participants submitted their pre-test answers, the activity continued with the delivery of material.

The first material is about the topic of the basic concepts of DM. The second material with the topic of nutrition for people with DM. Then participants were given a question and answer session regarding materials one and two for 30 minutes. The next activity is the delivery of material on the topic of psychosocial problems in people with DM. The last material is the treatment of foot wounds of DM patients. After the last material was finished, the question and answer session was opened again for 30 minutes. Then, the post-test link was given through the WhatsApp group. All participants attended the zoom meeting and completed the pre-test and post-test until the end, which was 18 people.

DISCUSSION

The success of the activity is not only measured through pre-test and post-test during the seminar but also based on the results of interviews conducted with participants after one month of attending this online seminar. Interviews were conducted with several randomly selected participants. Interviews were conducted by telephone with four participants. The PKM team asked the representatives of these participants regarding the application of the health education materials that have been given in their daily lives. In addition, the PKM team also asked about the use of educational media in the form of pocketbooks and videos that had been given.

The results of interviews with participants after the seminar showed that participants understood the risk factors that caused uncontrolled blood sugar. Four participants who were interviewed by cell phone said almost the same thing, namely, blood sugar was not controlled when the patient did not maintain a diet, did not exercise regularly, and did not manage stress. They said that since learning this information through the webinar, they have tried to maintain their diet by consuming foods that are low in carbohydrates and sugar and consuming more vegetables. The participants tried to choose non-starchy vegetables for their daily consumption. Representatives of participants said that although they could not fully apply the diabetic plate pattern in their daily meals, they still tried to be selective in choosing food, reducing the consumption of foods that could increase blood sugar levels. Self-managing diabetes by people with diabetes may increase their quality of life (Ariani et al., 2022).

Through interviews, participants' representatives also said that they always try to do light but regular exercise, and live a relaxed life. Participants realized that stress can trigger an increase in blood sugar, so they try to manage stress by not thinking too much about life's problems by praying a lot, remaining grateful for what they have now, worshiping, and often telling stories with their husbands or wives. Furthermore, participants also reported that the condition of the feet was in good health, there were no injuries to the feet. This is because participants apply foot care to the information obtained during the webinar, namely using comfortable and soft footwear according to the size of the foot. In addition, efforts are being made to wash the feet, especially when bathing, to check the feet to see if they are dirty or if there are wounds of unknown cause. Nail trimming is done once a week.

Furthermore, based on the results of the interview, the participant representatives also conveyed that the pocketbook given had been read even though the entire page had not been read. Participants said that with the pocketbook, they could find out which foods are high in sugar, foods to avoid, and foods to eat. In addition, the participants' representatives also said that with a pocketbook, they could see information related to how not to experience or overcome feelings of anxiety, and stress, and ways to avoid injury to the feet. It is suggested to involve family members in the care of a person with diabetes (Pratama et al., 2022)

CONCLUSIONS AND RECOMMENDATIONS

Community service activities have been carried out. This activity went smoothly. The partner agency, the Kitamura clinic, is very supportive of this activity. Online health education during the COVID-19 pandemic is very beneficial for people with DM. In addition to avoiding and minimizing the risk of transmission of the coronavirus, DM patients also get the necessary information related to DM disease treatment during the seminar. At the time of registration, the participants consisted of twenty-six people with DM. However, only eighteen people managed to enter the zoom meeting and take the pre-test and post-test. This was due to personal and network constraints so eight participants could not attend the virtual room. All participants were very enthusiastic about participating in the activity, this could be seen from the number of participants who asked questions to the presenters.

After attending this seminar, participants had additional insight regarding the concept of DM disease, nutrition for DM sufferers, psychosocial problems for DM sufferers, and foot wound care for DM sufferers. This increase in insight can be seen from the increase in the participants' post-test scores compared to the pre-test scores. In addition to increasing insight seen from the pre-and post-test, this activity also helps DM patients to be able to treat their illness at home with the provision of pocketbooks and educational videos that have been provided.

ACKNOWLEDGMENTS

We would like to acknowledge Universitas Tanjungpura that provides funding for this community service project. We also thank all participants involved in this project including staff and nursing students at the School of Nursing, the Faculty of Medicine, Universitas Tanjungpura.

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APPENDIX



Figure 1. Providing Education through the Webinar



Figure 2. One of the Topic of the Webinar