

OPTIMIZING THE ROLE OF THE FAMILY AS A “CARE GIVER” FOR TYPE II DIABETES MELLITUS PATIENTS IN RURAL AREAS OF BANYUMAS REGENCY

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Abstract

According to Maqfiroch's research (2022), the role of families in rural areas still lacks comprehensive support. In particular, appreciation-based support for families of Diabetes Mellitus (DM) patients remains minimal. These findings highlight the need for social engineering interventions to strengthen the family's role in managing DM in rural areas of Banyumas Regency. This community service initiative was implemented in the working area of the Kembaran 1 Health Center. Data from the center also indicated that family involvement in DM management was suboptimal, and there was a shortage of blood glucose testing equipment at the Non-Communicable Disease (PTM) Posbindu. To address this issue, the program focused on optimizing the family's role through cadre training, using a quantitative pre- and post-test evaluation method. The activity involved 32 cadres aged between 30 and 60 years. After the intervention, 29 participants were categorized as having good knowledge, with the average score increasing from 8.91 to 9.47. In conclusion, this intervention effectively enhanced the cadres' knowledge, as demonstrated by the improvement in their average knowledge scores.

Keywords: caregiver, diabetes mellitus type II, family role.

Abstrak

Berdasarkan hasil penelitian Maqfiroch (2022), diketahui bahwa peran keluarga di wilayah pedesaan masih belum mendapatkan dukungan yang menyeluruh. Bentuk dukungan keluarga, khususnya dukungan berupa penghargaan, masih sangat minim pada keluarga penderita Diabetes Melitus (DM). Temuan ini menunjukkan perlunya intervensi dalam bentuk rekayasa sosial untuk memperkuat peran efektif keluarga dalam pengelolaan DM di wilayah pedesaan Kabupaten Banyumas. Kegiatan Pengabdian kepada Masyarakat ini dilaksanakan di wilayah kerja Puskesmas Kembaran 1. Informasi dari pihak Puskesmas Kembaran juga menunjukkan bahwa peran keluarga dalam mengelola DM masih belum optimal, ditambah dengan keterbatasan alat pengukur gula darah bagi penderita DM di Posbindu Penyakit Tidak Menular (PTM). Oleh karena itu, solusi yang tepat adalah dengan mengoptimalkan peran keluarga dalam pengelolaan DM di wilayah kerja Puskesmas tersebut. Metode yang digunakan dalam kegiatan ini adalah pelatihan kader, dengan evaluasi menggunakan pendekatan kuantitatif melalui pre-test dan post-test. Kegiatan ini diikuti oleh 32 kader dengan rentang usia 30–60 tahun. Setelah intervensi dilakukan, dari total 32 peserta, sebanyak 29 kader menunjukkan peningkatan pengetahuan yang baik, dengan nilai rata-rata meningkat dari 8,91 menjadi 9,47. Dapat disimpulkan bahwa intervensi ini memberikan dampak positif terhadap peningkatan pengetahuan kader, sebagaimana terlihat dari kenaikan nilai rata-rata pengetahuan setelah pelatihan.

Keywords: caregiver, diabetes mellitus tipe II, peran keluarga.

INTRODUCTION

Diabetes Mellitus (DM) is a long-term metabolic condition that occurs when the pancreas fails to produce sufficient insulin or when the body is unable to utilize the insulin it produces effectively, leading to elevated levels of glucose in the bloodstream (hyperglycemia). (Pusdatin Kemenkes, 2014). Several government programs in Indonesia, one of which is the priority of the healthy family program for controlling non-communicable diseases, is to reduce the prevalence of DM. (P2PL, 2015). The objective of the Diabetes Mellitus (DM) control program in Indonesia is to manage risk factors in order to decrease the incidence, disability, and mortality associated with DM. The program emphasizes early prevention by focusing on promotive and preventive measures aimed at reducing DM risk factors (Kemenkes, 2017).

According to the latest IDF projection, by 2035 the number of individuals with Diabetes Mellitus (DM) is expected to reach 592 million worldwide. Of the current 382 million cases, an estimated 175 million remain undiagnosed, putting them at risk of developing serious complications unnoticed and without preventive measures (Pusdatin Kemenkes, 2022). Based on Riskesdas (2018), the prevalence of diabetes mellitus diagnosed by doctors among the population of all age groups and ≥ 15 years in Central Java Province is above the national prevalence of DM. Almost all provinces have increased since 2013. Diabetes mellitus is a top priority for controlling NCDs. The proportion of new cases of DM reaches 13.4%. If this disease is not managed properly, it will cause further disease. The

discovery of new cases of DM in Banyumas Regency in 2014, ID DM was 306 cases and ND DM was 1,878 cases. (Central Java Provincial Health Office, 2019). There has been a shift between the proportion of DM sufferers in urban and rural areas. Riskesdas in 2013, the proportion of DM sufferers was higher in urban communities than in rural communities. In rural communities (5.8%) and urban communities (14.7%), but Riskesdas 2018, the proportion of DM shifted. In rural communities it is still higher (7.0%) and in urban areas (6.8%). (Riskesdas, 2018).

Family-based DM management needs to be mobilized to overcome DM problems. The greatest support role for patients is played more by the family. Based on Maqfiroch's research (2022), it was found that the role of families in rural areas does not yet have comprehensive support. Family support in the form of appreciation support is very lacking in families of DM sufferers. (Maqfiroch, 2022).

Findings from Sundari's study (2006) revealed that 58% of families demonstrated a good level of involvement in independently caring for family members with Diabetes Mellitus at home. The family's role encompassed several aspects, including providing education, managing diet, facilitating physical activity, supporting pharmacological treatment, and performing diabetic foot care. Meanwhile, Sari's research (2014) identified family roles in DM management as follows: (1) coordinating dietary regulation, (2) motivating physical exercise, (3) coordinating medication management, (4) motivating blood sugar monitoring, and (5) passively supervising early detection of complications. These

diverse family roles contribute significantly to helping patients maintain stable blood glucose levels. Based on these findings, it can be concluded that the need for intervention in the form of social engineering on the role of effective families in managing Diabetes Mellitus in rural areas of Banyumas Regency. This research-based community service is carried out in villages in the working area of the Kembaran 1 Health Center because Diabetes Mellitus is a major health problem in the operational area of the Health Center, as indicated by previous research findings. The community service activities were carried out within the service area of the Kembaran 1 Health Center, involving family members of Diabetes Mellitus patients as service partners within that coverage area. namely Bantarwuni Village, Karangasari Village, Karangasoka Village, Kembaran Village, Dukuhwaluh Village, Linggasari Village, Purbandana Village, and Tambaksari Village.

METHOD

Community service activities with the theme "The Role of Families in Accompanying Type 2 Diabetes Mellitus Patients" were carried out on Saturday, August 10, 2024 at 08.00-12.00 WIB in the Hall of the Kembaran District Office. There were 32 cadres involved in this activity.

The evaluation of this activity used a qualitative approach, by distributing pretest and posttest sheets to the cadres who were present containing knowledge questions related to the role of cadres in caring for Type II Diabetes Mellitus patients. The collected data were analyzed univariately and bivariately to see the

average value of cadre knowledge before and after the intervention.

RESULTS AND DISCUSSION

Activity Overview

Community service activities with the theme "The Role of Families in Accompanying Type 2 Diabetes Mellitus Patients" were carried out on Saturday, August 10, 2024 at 08.00-12.00 WIB in the Hall of the Kembaran District Office. The series of activities began with the filling of a pre-test by cadres followed by the opening of the event. In this activity, there were 2 main materials presented, namely type 2 diabetes mellitus (Type 2 DM) in general and the role of cadres and the role of families in assisting type 2 DM patients. General material related to type 2 DM was presented by Mrs. Windri Lesmana Rubai, S.Gz., M.P.H. for 30 minutes and continued with material related to the role of cadres and the role of families presented by Mrs. Arrum Firda Ayu Maqfiroch, S.K.M., M.Kes. for 30 minutes. The methods used in delivering the material were lecture and discussion methods. During the activity, community service participants gave positive and active responses. After the delivery of the material, there was an explanation of filling out the checklist sheet to the cadres to assess the role of the family of type 2 DM patients by Mrs. Elviera Gamelia, S.K.M., M.Kes. The activity was continued with door prizes, filling out the post-test, and closing.

Respondent Characteristics		Age
Tabel 1. Respondent Age Characteristics		
Age	Frequency	Presentation
30	1	3,1
34	2	6,3
35	1	3,1
36	1	3,1

Age	Frequency	Presentation
37	1	3,1
38	1	3,1
39	3	9,4
40	2	6,3
41	2	6,3
43	3	9,4
44	1	3,1
45	2	6,3
46	1	3,1
47	2	6,3
48	5	15,6
52	2	6,3
59	1	3,1
60	1	3,1
Total	32	100

Based on the table above, the youngest cadre is 30 years old, 1 person (3.1%) and the oldest cadre is 60 years old, 1 person (3.1%). The most cadres are 48 years old, 5 people (15.6%).

Tabel 2. Results of the Pre-Test and Post-Test Knowledge Evaluation of Cadres

Knowledge	Average value	p-value
Pre Test	8,91	0,002
Post Test	9,47	

Based on table 2, it shows Based on the table above, it shows that there is a difference in knowledge before and after treatment. The Wilcoxon test results showed a p -value < 0.05 , specifically 0.002, indicating a statistically significant difference in knowledge levels before and after the intervention. The percentage increase in knowledge prior to and following the intervention can be determined using the following formula: **(Post test-Pre test)/(Pre test)×100%**

$$= (9,47 - 8,91) / 8,91 \times 100\% \\ = 6,28\%$$

Based on the calculation results, it is known that there was an increase in respondent knowledge after being given intervention. The calculation results show an increase in respondent knowledge of 6.28%.

CONCLUSION

Community service activities on optimizing the role of families as "care givers" for type II diabetes mellitus patients in rural areas of Banyumas Regency went smoothly and received enthusiasm from the cadres who participated in this activity. In the evaluation conducted, it showed that there was a significant difference in knowledge before and after treatment indicated by the results of the Wilcoxon Test obtained a p -value < 0.05 , which is 0.002. In order to achieve optimal results, this increase in knowledge must be accompanied by the implementation of knowledge distribution from cadres to the families of Type II DM patients.

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