

IMPROVING SELF-EMPOWERMENT AND QUALITY OF LIFE FOR TYPE 2 DIABETES MELLITUS PATIENTS WITH DIABETES EMPOWERMENT EDUCATION BASED ON A HEALTH PROGRAM MODEL AT PONDOK GEDE HOSPITAL IN 2023

Siti Arfah Zuhriah¹, Achmad Fauzi²

Sekolah Tinggi Ilmu Kesehatan Abdi Nusantara, Jakarta, Indonesia

Email: fauzi.umay@gmail.com

Abstract

Diabetes Mellitus is a combination of insulin resistance and abnormalities in insulin production in pancreatic beta cells. The aim of this research is to analyze the effect of health promotion-based diabetes empowerment education on increasing empowerment and quality of life for diabetes sufferers. This research is a quantitative study using an experimental study, namely assessing changes in self-empowerment and quality of life in type 2 Diabetes Mellitus sufferers with a health promotion education approach using a quasi-experiment design, namely comparing 2 groups, between the control group and the treatment group with a sample of 20 people are divided into a treatment group and a control group. The results of the Wilcoxon signed rank test statistical test in the treatment group with a significance of $p < 0.05$ obtained a value of $p = 0.005$, so these results indicate that in the treatment group there was a significant increase in self-empowerment between before and after the education/health promotion approach was carried out, while the statistical test results The Wilcoxon signed rank test in the control group obtained a value of $p = 0.916$, so these results indicate that in the control group there were no significant changes in self-empowerment and quality of life before and after treatment.

Keywords: Diabetes Mellitus Type 2, Diabetes Empowerment, Quality of Life, Health Promotion

Introduction

Diabetes Mellitus (DM) or what is known in the community as diabetes occurs due to an increase in blood glucose levels due to a progressive decrease in insulin secretion (Soegondo, 2013). Type 2 diabetes mellitus is a combination of insulin resistance and abnormalities in insulin production in pancreatic beta cells. As time goes by, pancreatic beta cell dysfunction will get worse and result in absolute insulin deficiency (Peter C. Kurniali, 2013). Management of Type 2 DM consists of five pillars, namely education, meal planning, physical exercise, oral hypoglycemic drugs and blood glucose monitoring. Patients suffering from DM have a big responsibility to regulate their behavior to always control their blood sugar. The ability of individuals to have control over their own lives and make choices regarding health is called self-empowerment. Self-empowerment in diabetes patients is also called psychological empowerment where individual capacity is realized to build trust, increase self-esteem and develop coping mechanisms to improve personal skills.

Prevention of complications is much better than cure and the aim of this research is to apply a health promotion model to identify the effect of diabetes empowerment education on self-empowerment and quality of life in type 2 DM patients. DM empowerment education provides information on how to manage DM independently. Therefore, researchers want to examine the effect of Health promotion-based diabetes empowerment education on self-empowerment (self-empowerment and quality of life in

type 2 DM patients) and quality of life (Quality of life improvement) in Type 2 DM sufferers at Pondok Gede Regional Hospital, Bekasi City.

Metode

This research is a quantitative study using an experimental study, namely assessing changes in self-empowerment and quality of life in type 2 diabetes mellitus (DM) sufferers using a health promotion education approach using a quasi-experiment design, namely comparing 2 groups, between the control group and the treatment group with the selection of these two groups did not use random techniques (Nursalam, 2008). Before the treatment was carried out, the researcher carried out the first observation (pretest) to determine the extent of self-empowerment and quality of life in DM sufferers, both the control group and the treatment group. After implementing health promotion education in the treatment group, the researcher carried out a final observation (post test) in the control group and treatment group so that it was possible for the researcher to know and analyze whether there was an effect by improving self-empowerment and quality of life in type 2 DM sufferers in both groups. the. A sample is a part taken from the entire object being studied and is considered to represent the entire population (Notoadmojo, 2005). The sample used in this research was 20 people who were divided into a treatment group and a control group so that there were 10 respondents in each group.

Results

Univariate Analysis

Distribution of respondents based on education, length of time suffering from DM, diet, type of exercise, source of information in the treatment group and control group of type 2 DM sufferers at Pondok Gede Hospital, Bekasi City, 2023

| Characteristics | Treatment | | Control | |
|--|-------------------|----|--------------------|----|
| | Group Σ | % | group1 Σ | % |
| Education | | | | |
| elementary school | 0 | 0 | 3 | 30 |
| JUNIOR HIGH SCHOOL | 6 | 60 | 2 | 20 |
| SENIOR HIGH SCHOOL | 2 | 20 | 4 | 40 |
| University | 2 | 20 | 1 | 10 |
| Suffering from DM for a long time | | | | |
| < 2 years | 5 | 50 | 3 | 30 |
| 2-4 years old | 4 | 40 | 3 | 30 |
| > 4 years | 1 | 10 | 4 | 40 |
| Diet | | | | |
| 1 – 2 times a week | 4 | 40 | 0 | 0 |
| 3 – 4 times a week | 1 | 10 | 0 | 0 |
| Every day | 0 | 0 | 2 | 20 |
| Never | 5 | 50 | 8 | 80 |
| Type of sport | | | | |
| Walk | 3 | 30 | 4 | 40 |
| Active work | 1 | 10 | 0 | 0 |
| Exercise | 1 | 10 | 0 | 0 |
| Other | 0 | 0 | 1 | 10 |

| | | | | |
|--------------|---|----|---|----|
| Never | 5 | 50 | 5 | 50 |
| <hr/> | | | | |
| Resources | | | | |
| Never | 2 | 20 | 1 | 10 |
| Doctor/nurse | 8 | 80 | 7 | 70 |
| Book | 0 | 0 | 1 | 10 |
| Other | 0 | 0 | 1 | 10 |

Information : Σ : Amount

Bivariate Analysis

Level of self-empowerment and quality of life in type 2 DM patients with type 2 DM after receiving educational treatment/health promotion. The research results obtained data after receiving health promotion education treatment in the treatment group and control group as follows:

Data on the level of self-empowerment and quality of life of type 2 DM sufferers before and after receiving educational treatment/health promotion in the treatment group and control group.

| Characteristics | Treatment group | | | | Control group | | | |
|-----------------|-----------------|----|----------|----|---------------|----|----------|----|
| | Before | | After | | Before | | After | |
| | Σ | % | Σ | % | Σ | % | Σ | % |
| Low | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| Currently | 1 | 1 | 5 | 5 | 9 | 9 | 9 | 9 |
| Tall | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 |
| Σ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 0 | 00 | 0 | 00 | 0 | 00 | 0 | 00 |

Information: Σ = amount

The table above shows that after the education/health promotion was carried out, the majority of the treatment group experienced an increase in self-empowerment and quality of life, namely 5 people (50%) in the self-empowerment and quality of life categories were high and the rest were moderate, while in the control group some The majority had moderate self-empowerment, namely 9 people (90%). Results of statistical analysis of self-empowerment and quality of life of type 2 DM sufferers before and after receiving treatment at Pondok Gede Regional Hospital.

| Group | n | <i>Self-empowerment and quality of life Value</i> | | P |
|-----------|----|---|-------|-------|
| | | Before | After | |
| Treatment | 10 | 2,54 | 2,91 | 0,005 |
| Control | 10 | 2,64 | 2,55 | 0,916 |

Information: n = amount

p = probability value

The results of the Wilcoxon signed rank test statistical test in the treatment group with a significance of $p < 0.05$ obtained a value of $p = 0.005$, so these results indicate that in the treatment group there was a significant increase in self-empowerment between before and after the education/health promotion approach was carried out, while the test results The Wilcoxon signed rank test statistic in the control group obtained a value of $p = 0.916$, so these results indicate that in the control group there were no significant changes in self-empowerment and quality of life before and after treatment.

Discussion

The results of research conducted at Pondokgede Regional Hospital, Bekasi City, showed that self-empowerment and quality of life in type 2 DM patients before education/health promotion was carried out in the overall treatment group had moderate levels of self-empowerment and quality of life. On average, type 2 DM sufferers who were respondents in this study had received information from various parties, 8 respondents had received information from doctors/nurses, and 2 respondents had never received information about DM and its treatment. However, there are still 5 DM sufferers who have not been able to implement a meal plan according to the amount that each sufferer needs, have not been able to implement the 3J (amount, schedule, type) so that some type 2 DM sufferers have not been able to change their DM treatment into a plan that can held. Some respondents (5 people) from DM sufferers do sports such as walking, gymnastics and doing active work 1-2 times a week for approximately 30 minutes, but some respondents do not do regular exercise. The level of self-empowerment and quality of life of 9 respondents in the control group had a moderate level of self-empowerment and quality of life. Type 2 DM sufferers in the control group, most of the respondents in the control group had received information about DM, 7 respondents had received information from doctors/nurses, 1 respondent had received information from books, 1 respondent had received information from alternatives and 1 respondent had not received information about DM as well as maintenance. Similar to the treatment group, in the control group there were 8 DM sufferers who had not adopted a diet according to their needs and some respondents (5 people) had not exercised, so that some DM sufferers did not have the perception to set goals and achieve them by overcoming existing obstacles.

The results of research on self-empowerment and quality of life in type 2 DM patients with health promotion-based DM empowerment education/education in the treatment group between the pre-test and post-test showed significant results, in the first stage DM sufferers underwent a pre-test and then continued with the education/health promotion stage. It was concluded that self-empowerment in the treatment group experienced a better increase compared to the control group.

Conclusion

There were differences in self-empowerment and quality of life in type 2 DM patients before and after treatment between the two groups, namely there was an increase in self-empowerment and quality of life after health promotion-based diabetes empowerment education was carried out in the treatment group compared to the control group.

References

- [1] Pondok Gede Hospital 2023, Patient Visit Data, Pondok Gede Hospital, Bekasi.
- [2] Ruslan 2006, Public Relations and Communication Research Methods, Raja Grafindo Persada, Jakarta.
- [3] Smeltzer 2001, Textbook of Medical Surgical Nursing Volume 2, edition 8, EGC, Jakarta
- [4] Soegondo, Soewondo, Subekti, (ed.) 2009, Integrated Diabetes Mellitus Management Guide to Diabetes Mellitus Management for Doctors and Educators, FKUI Publishing House, Jakarta.
- [5] Development of Self Empowerment Model and Quality of Life Improvement for Patients with Diabetes Mellitus Type 2, accessed 13 November 2023 at 09.20 WIB, <https://www.neliti.com/id/publications/231960/pengembangan-model-peningkatan-pemberdayaan-self-and-quality-of-life-of-diabetic-patients>
- [6] NS. Angger Anugrah HS 2020, diabetes and its complications, Guepedia Publishers, Jakarta.
- [7] Rosliana Dewi, Evidence-based practice in diabetes mellitus 2023, Deepublish digital publisher, Yogyakarta.
- [8] WHOQOL-BREF, accessed 30 November 2023 at 12.20 WIB, <http://repository.unissula.ac.id/17481/5/Lampiran.pdf>
- [9] The effectiveness of diabetes education in increasing compliance with dietary regulations in type 2 DM, accessed 20 October 2023 at 19.00 WIB, <https://journal.umy.ac.id/index.php/mm/article/viewFile/2492/2556>
- [10] The influence of health promotion using flip sheet media on the knowledge and attitudes of sufferers regarding the implementation of DM, accessed November 30 2023 at 19.40 WIB, <https://repository.poltekkesbengkulu.ac.id/835/1/SKRIPSI%20HANDAYANI%20KEMALA%20SARI.pdf>.
- [11] Quality of life of type 2 diabetes mellitus patients, accessed 15 November 2023 at 14.05 WIB, http://repository.unissula.ac.id/23821/1/33101700053_fullpdf.pdf
- [12] Hotma Rumahorbo 2021, empowerment in building a lifestyle and controlling prediabetes blood glucose levels, Amerta media publisher, Banyumas.
- [13] Mansjoer, Triyanti, Savitri, Wardhani, Setiowulan (ed), 2001, Capita Seleкта Medicine Ed. Third, Media Aeculapius, Jakarta.
- [14] Notoadmojo 2005, Health Research Methodology revised edition, Rineka Cipta, Jakarta.
- [15] Patient empowerment and self-management in type 2 DM patients literature review, accessed 20 December 2023 at 10.23 WIB, <https://akper-sandikarsa.e-journal.id/JIKSH/article/download/181/156/>
- [16] Nursalam 2009, Concept and Application of Nursing Research Methodology, Salemba Medika, Jakarta.
- [17] Sulistiyani, Ambar Teguh 2004, Partnership and Empowerment Modules, Gava Media, Yogyakarta.
- [18] Tjokroprawiro 2007, Healthy and Happy Living with Diabetes Mellitus, Jakarta: PT. Gramedia Pustaka Utama