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THE INFLUENCE OF FAMILY COUNSELING WITH A CONJOINT APPROACH ON THE ROLE OF THE FAMILY IN THE MANAGEMENT OF PEOPLE WITH DIABETES MELLITUS IN THE WORK AREA OF THE BOJONGMANIK INPATIENT HEALTH CENTER

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Abstract

Background: Diabetes is a metabolic disease that arises due to high levels of sugar in the body and its use is not optimal. Diabetes is classified as a dangerous chronic category of disease, especially when it has reached complications. Purpose: To determine the effect of counseling carried out on families using a conjoint approach to the role of families in the management of DM sufferers in the work area of the Bojongmanik Inpatient Health Center. Methods: This study applies a pre-experimental research design. This research design uses one group pretest-posttest, which is a measure of the pretest size given to respondents. The location of the study was conducted at the Bojongmanik Inpatient Health Center, Lebak Regency. The number of samples in this study was 21 respondents. Results: Based on the calculation method carried out with the Wilcoxon sign rank test, the values obtained are: negative ranks mean rank value and the sum of ranks is 0, meaning that there are no samples/respondents who have a post-test value lower than the pre-test value, all samples (21 respondents) have a higher post-test value than the pre-test value. Referring to the calculation results of the Wilcoxon signed ranks test, the Z value obtained is -4.048 with a p-value (Asymp Sig 2-tailed) of 0.000 where the value is less than 0.05. Conclusion: Researchers concluded that there is an influence of family counseling conducted which can be seen from several analysis results. The results of the Wilcoxon test conducted obtained a Z value of -4.048 with a p-value (Asymp Sig 2 tailed) of 0.000 where the value was less than 0.05.

Keywords: Conjoint Approach, Diabetes Mellitus, Family Counseling

Introduction

In this era of globalization, the development of life is increasingly experiencing rapid changes so that lifestyles also change. These changes can be positive or negative. In this day and age, many things that are obtained easily and instantly cause a lack of physical activity. In addition, the increasing number of fast food, high-sugar foods that are widely circulated in the community is increasing the consumption of these foods. If you continue to consume foods high in sugar and lack physical activity, it will cause several diseases, one of which is Diabetes Mellitus (DM).

Diabetes Mellitus itself is classified as one of the Non-Communicable Diseases (NCDs). Non-communicable diseases (NCDs) are diseases that arise not due to infection with microorganisms such as protozoa, viruses, bacteria, or fungi (Ministry of Health RI, 2019). It was noted that based on a doctor's diagnosis, the prevalence of people with diabetes mellitus experienced at the age of > 15 years in Indonesia in 2013 was 1.5%, and the prevalence increased in 2018 to 2% (Riskesdas, 2018). These results indicate that the number of people with diabetes mellitus in Indonesia is increasing from 2013 to 2018.

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Puskesmas Bojongmanik District, Lebak Regency, Banten Province, is one of the Public health centers that provides a Health service to the Community to early detect and monitor the main NCD (non-communicable disease) risk factors which are carried out routinely, integrated, and periodically through POSPINDU PTM, namely the Integrated Service Post for Non-Communicable Diseases which is carried out to each village. In addition, patients with DM are also given a program, namely the Prolanis program which is a chronic disease health service program that requires lifelong treatment.

Apart from the health service program provided to patients with DM, of course, it is important to conduct counseling to the families of patients to help patients in the healing process of DM. The family counseling process for DM patients can use a conjoint approach, which is a family counseling process in the form of therapy together involving both family members who are experiencing problems because family is an important function for communication and health needs (Family Counseling Guidance, 2022: p. 134).

Therefore, it is necessary to research to determine the influence of family counseling using a conjoint approach to the role of the family in managing DM sufferers, thus the researcher wants to research "The Influence of Family Counseling with a Conjoint Approach on the Role of Family in the Management of Diabetes Mellitus Patients in the Working Area of the Bojongmanik Inpatient Health Center".

Method

1.1. Research Design

This study applied a pre-experimental research design. This research design uses one group pretest-posttest, which is a measure of the pretest size given to respondents. Single pretest observations were applied to a group of respondents who were given treatment. Then, researchers will make observations using a single posttest at the same size as before.

1.2. Setting and Samples

The location of study was conducted at the Bojongmanik Inpatient Health Center, Lebak Regency. The number of samples in this study was taken from 10% of the population. The total population, namely people with diabetes mellitus in 2023, at the Bojongmanik inpatient health center is 212 patients. The number of samples was 212 respondents taken using purposive sampling techniques.

1.3. Data Collection

Data collection in this study applies questionnaire (questionnaire) techniques, which are interpreted as data collection techniques by providing a series of written statements or questions for respondents to answer. Questionnaires can include various open-ended or closed questions or statements, which are distributed directly or sent electronically to respondents (Sugiyono: 2016).

1.4. Data Analysis

Data collection is continued with data analysis and statistical testing of data using a computer. The statistical test applied is the Wilcoxon Sign Rank Test to determine the influence between independent variables and dependent variables, namely the influence of family counseling with a conjoint approach to the role of family in the management of DM patients.

The Wilcoxon Sign Rank Test is intended to measure the significance of the difference between 2 groups of data in pairs on ordinal or interval scales but the data is not normally distributed (Triwiyanti, 2019).

Result

1.5. Characteristics of Respondents

Table 3.1 Characteristics of Respondents Based on Status in the Family

No	Status in the family	Respond
1	Head of family/husband	5
2	Wife	3
3	Child	13
Sum		21

Characteristics of respondents based on status in the family. Of the 21 respondents for status in the family who help manage DM sufferers in their family, there are three categories, namely the head of the family/husband, wife, and children. The number of family members who are husbands who help in the management of DM sufferers is 5 people. For those with the status of wives, there are 3 people and those with the status of children are 13 people.

Table 3.2 Characteristics of respondents by age

No	Age	Respond
1	20 – 29 years	2
2	30 – 39 years old	6
3	40 – 49 years old	8
4	>50 years	5
Sum		21

Characteristics of respondents based on age ranged from the age of 20 years to those over 50 years. Respondents aged 20 – 29 years amounted to 2 people, respondents aged 30 – 39 years amounted to 6 people, respondents aged 40 – 49 years amounted to 8 people, and respondents over 50 years old amounted to 5 people.

Table 3.3 Characteristics of respondents by gender

No	Gender	Respond
1	Male	8
2	Female	13
Sum		21

Characteristics of respondents by gender. For respondents who are male, there are 8 people and for respondents who are female, there are 13.

Table 3.4 Characteristics of respondents by marital status

No	Marital Status	Respond
1	Married	2
2	Unmarried	19
Sum		21

Characteristics of respondents based on status in marriage. Of the two categories, namely those with married and unmarried status, it turns out that 2 people have unmarried status and the remaining 19 people have married status.

Table 3.5 Characteristics of respondents by educational status

No	Education Status	Respond
1	SD	5
2	SLTP	9
3	SLTA	2
4	D3	2
5	S1	3
Sum		21

The characteristics of the respondents are based on the level of Education categorized starting from Elementary School graduates, Junior High School graduates, Senior High School graduates, Diploma graduates, and Masters. Of the 21 respondents with elementary school graduate status numbered 5, with Junior High School graduate status numbered 9, with Senior High School graduate status numbered 2 people, with diploma graduate status of 2, and with undergraduate status of 3.

1.6. Pre-Test and Post-Test Results

Tabel 3.6 Pre-Test and Post-Test

Respond	Pre Test	Value	Post Test	Value
1	15	68,18	20	90,91
2	6	27,27	12	54,55
3	5	22,73	10	45,45
4	11	50,00	17	77,27
5	7	31,82	12	54,55
6	6	27,27	13	59,09
7	10	45,45	16	72,73
8	9	40,91	15	68,18
9	13	59,09	21	95,45
10	8	36,36	15	68,18
11	10	45,45	15	68,18
12	4	18,18	9	40,91
13	9	40,91	10	45,45
14	14	63,64	19	86,36
15	5	22,73	11	50,00
16	7	31,82	12	54,55
17	11	50,00	16	72,73
18	8	36,36	15	68,18
19	6	27,27	10	45,45
20	7	31,82	15	68,18
21	8	36,36	18	81,82
Average	8,52	38,74	14,33	65,15

To make it easier, the results of the pre test and post test can be seen in the table below, namely the results of statistical analysis of pre-test and post-test.

Table 3.7 Pre-Test and Post-Test Statistical Analysis Results

Statistics	Statistical Values	
	Pre Test	Post test
Number of Samples	21	21
Top Rated	68,18	95,45
Lowest Value	18,18	40,91
Average	38,74	65,15

If the pre-test and post-test results are grouped into very low, low, medium, high, and very high categories, the frequency and percentage will be obtained. The following is a table of frequency and percentage distribution of results and pre-test post-test:

Table 3.8 Frequency and Percentage Distribution of Pre-Test and Post-Test Results

Interval	Category	Pre Test		Post Test	
		Frequency	Percentage	Frequency	Percentage
0 – 60	Very Low	19	86,36	9	40,91
61 – 70	Low	2	9,09	5	22,73
71 - 80	Keep	0	0	3	13,64
81 – 90	Tall	0	0	3	13,64
91 - 100	Very High	0	0	1	4,55

From the results of the pre-test and post-test, then the Wilcoxon signed rank test was carried out whose results can be seen in the table below:

Tabel 3.9 Hasil Uji Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Postest DM Management - Pretest DM Management	Negative Ranks	0a	.00	.00
	Positive Ranks	21b	11.00	231.00
	Ties	0c		

Table 3.10 Wilcoxon Test Statistical Results

Test Statistics[a]

	Postest DM Management - Pretest DM Management
With	-4.048b
Asymp. Sig. (2-tailed)	.000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Discussion

Based on the data in the analysis table of pre-test and post-test results, the maximum value obtained before counseling or pre-test scores was 38.74 while the lowest value was 18.18 and the average score was 38.74. While the maximum score obtained after counseling was 95.45, the lowest score was 40.91 and the average score obtained was 65.15. From these results, it can be seen that there is a significant increase from before counseling and after counseling. The lowest score before the pre-test was 18.18. This value increased during the post test where the lowest value obtained was 40.91. In addition, the maximum score on the pre-test was 68.18 increased at the time of the post test to 95.45. The average pre-test score before counseling was 38.74, an increase after counseling, namely the average post-test score was 65.15.

In proving the research hypothesis, the Wilcoxon test was used to observe the effect of the treatment given, namely family counseling for DM sufferers. In this study, the Wilcoxon test was used to see and compare the results of the pre-test and post-test. The criteria for changes are if the sig value is ≤ 0.05, while if the sig is ≥ 0.05, it means that there is no change after family counseling.

Referring to the calculation results of the Wilcoxon signed ranks test, the Z value obtained is -4.048 with p-value (Asymp Sig 2-tailed) of 0.000 where the value is less than 0.05. Thus, it was concluded that H0 was rejected and Ha was accepted, which means that the family counseling carried out has an influence on the role of the family in managing DM sufferers at the Bojongmanik inpatient health center.

Implications and Limitations

Researchers realize that this research cannot be said to be perfect, as it is still covered with many shortcomings, weaknesses, and limitations. This becomes a learning experience for researchers and a picture of improvement for future research, which is described as follows:

- The first is the lack of theoretical research that can enrich research references and research results.
- The second is the limitation of manpower, research time, and researcher capabilities.
- Third, there is a low ability to understand respondents to the statements in the questionnaire and also honesty in filling out the questionnaire so there is a possibility of inaccurate results both during the pre-test and the post-test.

This study only assesses the effect of family counseling with a *conjoint* approach to the role of the family in the management of DM sufferers so that further development is needed to examine other influential factors and has not been involved in the study of the role of family in the management of DM sufferers.

Conclusion

Based on research conducted by researchers at the Bojongmanik inpatient health center in December 2023 regarding the effect of family counseling with a conjoint approach on the role of family in the management of DM sufferers conducted on 21 respondents (families of DM sufferers), researchers concluded that there was an influence of family counseling carried out which can be seen from several analysis results. The first is the pre-test results before counseling, the average score of respondents is 38.74 with the lowest score of 18.18 and the highest value of 68.18. Then counseling was carried out and respondents were given questionnaires as post tests and obtained an average increase to 65.15 with the lowest score of 40.91 and the highest value of 95.45. The pre-test and post-test results were then used for the Wilcoxon signed rank test which proved the hypothesis in this study. The results of the Wilcoxon test conducted were obtained a Z value of -4.048 with a p value (Asymp Sig 2 tailed) of 0.000 where the value was less than 0.05. Thus, it can be concluded that H0 is rejected and Ha is accepted, which means that the family counseling carried out has an influence on the role of the family in managing DM sufferers at the Bojongmanik inpatient health center.

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Author's Contributions

Author 1 and Author 2 contribute to the design and execution of research, analysis of results, and manuscript writing.

Conflict of Interest

The results of this study can be used as additional literature for the development of nursing science, and to meet the requirements for obtaining a Bachelor of Nursing degree for Author 1.

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