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Family Empowerment Psychoeducation on Family Support Caring of Children Diarrhea

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Abstract

BACKGROUND: Families with family members experiencing illness are traumatic experiences. Family empowerment through psychoeducation is one of the interventions to caring for families with children under 5 who experience diarrhea. This intervention can provide educational information to families regarding problems caring for children under 5 with diarrhea, management of diarrhea under 5 years of age, and family support in caring for children under 5 with diarrhea. The preliminary study showed that nurses and health workers did not provide psychoeducation to families.

AIM: This study aims to know the effect of the family empowerment psychoeducation on family support in caring for children diarrhea at the primary health center.

METHODOLOGY: This study is a quasi-experiment research with pre- and post-test control group design. The sampling technique used purposive sampling. The data were analyzed using pair t-test, Wilcoxon independent t-test, and Mann–Whitney with a significant level of $p < 0.05$.

RESULTS: Before being given family empowerment through psychoeducation, family support was mainly in the good category as many as 34 respondents (73.9%), and after the intervention, the good category increased to 95.7%. In the intervention group, there is different family support in caring for children under 5 with diarrhea pre-test and post-test after being given family empowerment through psychoeducation with p (sig) < 0.05. There are no differences in family support between the intervention and control groups after family empowerment psychoeducation.

CONCLUSION: There is an effect of the family empowerment psychoeducation on family support in caring for childhood diarrhea in primary health centers in the intervention group.

Introduction

Diarrhea has always been one of the Yogyakarta's top 10 diseases. This evidence showed the high number of diarrhea patients seen at the district/city health center each year. However, knowing the original number of people suffering from diarrhea is difficult because many patients are not recorded because they do not visit health-care facilities. Yogyakarta has a high number of children under 5 who have diarrhea. Meanwhile, the number of reported diarrhea cases has fluctuated. According to the data from health centers in Yogyakarta's Special Region, 33,033 children under 5 were diagnosed with diarrhea in 2016. In 2017, there were 28,318 cases, and in 2018/2019, it increased to 40,150 cases [1].

The family plays a critical role in determining appropriate actions to overcome family members' health problems [2], [3]. Not all families deal with family members who are suffering from illness. Some families demonstrate an inability to assist clients in managing and mastering adaptive tasks related to health issues. This inability is due to several interconnected factors, including long-term illness that depletes the family's supportive ability, a lack of information, a lack of understanding of the family, and incorrect information about health problems faced by the family [4]. Some interventions include providing emotional support, increasing family involvement, increasing family normalization, and empowerment.

Family empowerment interventions emphasize a philosophical attitude toward the concept of working with families. Families with illness family members go through a traumatic experience, so the approach is to refine nursing interventions with family abilities and cognitive, affective and acting naturally, and the family's strengths. Empowerment interventions carried out on families are by being good listeners, loving, non-judgmental, collaborators, motivating the emergence of family strength, family participation, and involvement in the process of change and healing disease [5].

Family empowerment through psychoeducation for families diarrhea in children is one of the interventions to families in caring for children under five with diarrhea, management of diarrhea, family support, and community resources [6].

The case of children under 5 with diarrhea is the number one cause of death in children under 5 (25.2%). Based on the DIY Health Office report, the highest diarrhea case was in Kulon Progo Regency, with 25,491 cases. Based on the data, the highest incidence of diarrhea in children in five urban and rural districts in Yogyakarta was in Sentolo, Kulonprogo (242 cases), Sewon, Bantul (638 cases), Tegalrejo, Yogyakarta City (908 cases), Gamping II, Sleman (908 cases), and Patuk, Gunung Kidul (761 cases). Meanwhile, the incidence of children under 5 with diarrhea in Jawa Tengah is Colomadu, Karanganyar, which is as much as 22% [1].

Based on this, it is necessary to develop family empowerment through psychoeducation on family support in treating children under 5 with diarrhea at the primary health center [5]. The results of the previous research showed that the empowerment model involving the nuclear family (father and mother), using media modules, videos, and game tools, was proven to increase family knowledge and skills [5]. The preliminary study found that nurses and health workers did not provide psychoeducation to families; the nurses and health workers only explained the diarrhea condition in children.

According to the above description, research on "Family Empowerment Psychoeducation on Family Support Caring of Children Diarrhea in primary health center" is required.

Methods

This research was a quasi-experimental study with a pre-test-post-test with a control group design. The research design describes as follows (Figure 1):

The research sites were five primary health center in DIY (primary health center Sewon II, Bantul, primary health center Gamping II, Sleman, primary health center Tegalrejo, Yogyakarta, primary health center Sentolo, Kulon Progo, primary health center Patuk, Gunung Kidul) and one primary health center Colomadu II, Karanganyar, Jawa Tengah. The study was carried out from June to August 2020 (intervention duration was 3 months).

The independent variable was family empowerment through psychoeducation, and the dependent variable was family support in treating children under 5 with diarrhea. The population were parents with children under 5 with diarrhea in area of five primary health centers in Yogyakarta (Sewon II, Bantul, Gamping II, Sleman, Tegalrejo, Yogyakarta City, Sentolo, Kulon Progo, and Patuk, Gunung Kidul) and one Colomadu II, Karanganyar, Jawa Tengah, a total of 148 parents with children under 5 with diarrhea. The sample in this study was parents with children under 5 with diarrhea taken by purposive sampling technique.

Pre-test	Intervention	Post Test
O_1	X_1	O_1
O_3	X_2	O_4

Figure 1: Research design.
Description: O_1: Family support in treating children under 5 with diarrhea before family empowerment through psychoeducation in the treatment group, O2: Family support in treating children under 5 with diarrhea after family empowerment through psychoeducation in the treatment group, O_3: Family support in treating children under 5 with diarrhea before in the control group, O_4: Family support in treating children under 5 with diarrhea after being in the control group X_1: Giving family empowerment through psychoeducation for 30 min duration, X_2: Giving family empowerment leaflet

The results were analyzed descriptively and analytically with the SPSS for Windows 16.0. The bivariate test started with a normality test using Shapiro–Wilk in the treatment and control groups between pre-test and post-test. The analysis results show that the data distribution is not normal, so the analysis used is non-parametric, namely, the Wilcoxon test and Mann–Whitney U-test with a significant level of $p < 0.05$.

Results

Table 1 shows the respondents distributed equally across all primary health centers used for research, both in the intervention and control groups. Table 2 shows the characteristics of respondents in the experimental and control groups. The analysis shows that the majority of the mothers who participate in research activities are between the ages of 20 and 30 years old. The number of children is two that the respondent is the first child; the child is a boy aged 1–3 years old.

Table 1: Frequency distribution of respondents based on research location (n = 46)

Research location	Number of respondents			
	Experiment		Control	
	f	%	f	%
Sewon II	8	17.39	8	17.39
Gamping II	8	17.39	8	17.39
Tegalrejo	7	15.22	8	17.39
Sentolo	8	17.39	7	15.22
Patuk	7	15.22	8	17.39
Colomadu II	8	17.39	7	15.22

Table 2: Characteristics of based on parent's age, gender of parents, number of children, child order, gender of children, and child age (n = 46)

Characteristics of respondents	Number of respondents			
	Experiment		Control	
	f	%	f	%
Parent's age				
20–30 years	24	52.2	18	39.1
>30–40 years	17	37.0	17	37.0
>40 years	5	10.9	11	23.9
Gender of parents				
Male	3	6.5	5	10.9
Female	43	93.5	41	89.1
Number of children				
One	14	30.4	13	28.3
Two	21	45.7	16	34.8
Three	10	21.7	12	26.1
Four	0	0	1	2.2
Five	0	0	1	2.2
Six	1	2.2	3	6.5
Child order				
1	22	47.8	18	39.1
2	18	39.1	18	39.1
3	5	10.9	6	13.0
4	0	0	1	2.2
5	1	2.2	3	6.6
Child gender				
Boys	25	54.3	32	69.6
Girls	21	45.7	14	30.4
Child age				
1–12 months	15	32.6	17	37.0
>1–3 years	20	43.5	15	32.6
>3–5 years	11	23.9	14	30.4

Tables 3 and 4 show that most respondents are in a good category regarding family support in both the intervention and control groups.

Table 5 shows that family support in treating children under 5 with diarrhea at the primary health center pre-test in the experimental and control groups and post-test in the experimental group had a not normal distribution of p (sig.) < 0.05. Meanwhile, the post-test in the control group was normally distributed with p (sig.) > 0.05, so the non-parametric test used the Wilcoxon test.

Table 6 shows that family support after being given family empowerment through psychoeducation showed p (sig.) = 0.001, meaning that there is a difference between family support in treating children under 5 with diarrhea in the experimental and controls groups.

Table 3: Family support pre-test and post-test in the experimental group before and after being given family empowerment (n = 46)

Family support	Experiment			
	Pre-test		Post-test	
	f	%	f	%
Less	1	2,2	1	2,2
Enough	11	23,9	0	0
Good	34	73,9	45	97,8

Table 7 shows no difference in family support in treating diarrheal children in the experimental and control groups before and after being given family empowerment through psychoeducation in five primary health centers Yogyakarta and Colomadu, Karanganyar, Jawa Tengah.

Table 4: Family support pre-test and post-test in the control group before and after being given family empowerment (n = 46)

Family support	Control			
	Pre-test		Post-test	
	f	%	f	%
Less	0	0	0	0
Enough	20	43,5	2	4,3
Good	26	56,5	44	95,7

Discussion

The results showed that family empowerment psychoeducation could increase family support in caring for children under 5 with diarrhea at the primary health center in the experimental group. Before being given family empowerment through psychoeducation, family support was mainly in the good category as many as 34 respondents (73.9%), and after the intervention, the good category increased to 95.7%. In the intervention group, there is different family support in caring for children under 5 with diarrhea pre-test and post-test after being given family empowerment through psychoeducation with a value of p (sig.) < 0.05.

Table 5: Test the normality of the experimental group and the control group

Variable	Group	p	Information
Family support	Pre		
	Experiment	0.001	Not normal
	Control	0.003	Not normal
	Post		
	Experiment	0.000	Not normal
	Control	0.070	Normal

Family empowerment interventions emphasize a philosophical attitude toward the concept of working with families. Family empowerment through psychoeducation for families diarrhea in children is one of the interventions by providing information related to family problems in caring for children under 5 with diarrhea, management of diarrhea, family support, and community resources in care toddlers with diarrhea [7].

Table 6: The results of the Wilcoxon test data analysis of differences in family support in treating pre-test and post-test diarrhea in the experimental and control groups before and after being given family empowerment through psychoeducation (n = 46)

Variable	Group	p (sig)
Family support	Experiment	
	Pre-test	0.001
	Post-test	
	Control	
	Pre-test	0.001
	Post-test	

Diarrhea is one of the world's health problems, the second leading cause of death for children under 5. Infectious diseases, such as diarrhea, are one of the root causes of malnutrition in developing countries [8], [9]. Diarrhea is an endemic disease in Indonesia and is also a potential disease of extraordinary events that often accompany death.

Table 7: The results of the Mann–Whitney U-test data analysis test and the independent simple t-test are the differences in family support in treating children under 5 with diarrhea pre-test and post-test (n = 46)

Variable	Group	p (sig.)
Family support	Pre-test	
	Experiment	0.096
	Control	
	Post-test	
	Experiment	0.383
	Control	

Diarrhea is one of the infectious diseases in toddlers [10]. Diarrhea is more dominant in toddlers because the immune systems are still weak. Toddlers are very susceptible to diarrhea; besides, in toddlers, children experience an oral phase that makes toddlers tend to take any object and put it in their mouth, making it easier for germs to enter the mouth inside the body. Toddlers with diarrhea showed symptoms such as frequent bowel movements with the consistency of a liquid or watery stools; dehydration (decreased skin turgor, sunken crown and eyes, and dry mucous membranes); fever; vomiting; anorexia; weakness; paleness; changes in vital signs (rapid pulse and breathing); and decreased or absent urine output [10].

Family psychoeducation is a therapy used to provide information on the ability of families experiencing distress and provide education to them to improve their ability to understand problems in family relationships. Family empowerment through psychoeducation is an effective intervention in caring for family members with diarrhea because it gives information about the management of diarrhea. Family psychoeducation therapy significantly improves cognitive and psychomotor abilities. Family psychoeducation therapy can improve cognitive skills because this treatment contains elements to increase family knowledge about the disease, teach techniques that can help families know the symptoms of the disease, and increase family support for family members themselves [2], [3], [6].

The previous research showed that families who receive psychoeducation therapy could increase their abilities to caring children with diarrhea significantly. Psychoeducation is a therapy given to provide information to families experiencing distress and education.

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Psychoeducation is a therapy given to provide information to families experiencing distress and education, to improve skills, to understand the consequences of disorders that can cause problems in the family [2].

Mothers who have toddlers have less knowledge regarding the management of diarrhea in toddlers. In contrast, most mothers of toddlers still respond negatively in the initial treatment when their child has watery bowel movements than usual. The handling of diarrhea is enough with electrolyte water. In addition, most mothers still have inappropriate practices related to traditional medicine and giving sweet tea to toddlers with diarrhea. The majority of mothers under 5 have less knowledge about preventing and managing diarrhea in toddlers. Most mothers still have negative attitudes in handling diarrhea related to follow-up or initial treatment when their children defecate more watery than usual, and diarrhea treats with electrolytes water [6].

Most mothers under 5 still have inappropriate practices in managing diarrhea, especially in terms of follow-up or initial treatment when defecating is watery than usual, using traditional medicine, giving sweet tea to toddlers during diarrhea, and not giving zinc children under 5. Prevention of diarrhea can be done through breastfeeding, formula milk, and solid food to babies, giving electrolytes or sugar-salt solution to replace lost fluids, providing food as usual and avoiding foods containing fiber, and giving zinc for 10 days in a row. Furthermore, do not give antidiarrheal drugs to children because they can inhibit the germs that will come out.

The previous research stated that knowledge possessed by a person, especially a mother, greatly influences the attitude and family support in caring for children under 5 with diarrhea. The mother's level of knowledge affects the action of handling diarrhea at home. Furthermore, if the mother understands increase, the family's support in caring for children under 5 with diarrhea also increases [11].

The former study found that the lack of family behavior in implementing a Clean Lifestyle and Healthy (PHBS) at home triggers diarrhea [11]. The family's inability to properly treat diarrhea in toddlers at home also causes the toddler's health condition to worsen [11]. Family behavior and support in preventing diarrhea are strongly influenced by the family's intention to learn about diarrhea. The results of this study illustrate that diarrheal disease occurs in toddlers due to family behavior in carrying out PHBS, which is still very lacking. Families with reasonable behavioral beliefs will take good diarrhea prevention measures for toddlers. Families who believe or believe that the prevention of diarrhea in toddlers is essential and has a positive impact will easily display the preventive behavior [12]. The family's intention to prevent diarrhea in children under 5 was influenced by the family's beliefs, which indicate by positive opinions that these preventative measures provide significant benefits for families and children under 5 [13].

The limitation of this study is that researchers did not conduct homogeneity tests on treatment and control groups so that confounding variables could influence the study's outcome. For further research, the results of this study can develop by providing more specific interventions to maternal empowerment because mothers are the primary caregiver for children.

Conclusion

Family support before family empowerment through psychoeducation in treating children under 5 with diarrhea at the primary health center in the experimental and control groups was in the good category. Family support after family empowerment

through psychoeducation in treating children under 5 with diarrhea at the primary health center in the experimental and control groups was in the good category. There is an effect of family empowerment through psychoeducation on family support in treating children under 5 with diarrhea at the primary health center.

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References

1. Dinas K. DIY D Profil Kesehatan Daerah Istimewa Yogyakarta Tahun 2019. 2019.
2. Wiyati R, Wahyuningsih D, Dwi Widayanti E. Pengaruh psikoedukasi keluarga terhadap kemampuan keluarga dalam merawat klien isolasi sosial. J Keperawatan Soedirman. 2010;5(2):105-14.
3. Siswoaribowo A, Sakundarno M, Mu'in M. Effect of family psychoeducation on caregiver support in the treatment of patients with type ii diabetes mellitus. Belitung Nurs J. 2018;4(1):112-9.
4. NANDA. Nursing Diagnoses Definiton and Classification 2018-2020. 11th ed. West Bengal: NANDA; 2018.
5. Dwi Jayanti DM, Lestari NK. Family psychoeducation increases the role of families in caring for people with mental disorders. J Ners Kebidanan Indonesia. 2021;8(4):315.
6. Eka EA, Nurachmah E, Rustiana Y, As'ad S, Nontji W. Effect of family empowerment modified model to a family's ability in controlling life style and physical activity of children with overweight and obesity. Pak J Nutr. 2016;15(8):737-44. https://doi.org/10.3923/pjn.2016.737.744
7. Dusak MR, Sukmayani Y, Hardika SA, Ariastuti LP. Gambaran pengetahuan, sikap, dan praktik ibu balita terhadap penatalaksanaan diare pada anak balita di wilayah kerja Puskesmas Abang 1. Intisari Sains Medis. 2018;9(2):85-94.
8. Huriah T, Nurjannah N. Risk factors of stunting in developing countries: A scoping review. Open Access Maced J Med Sci. 2020;8:155-60. https://doi.org/10.3889/oamjms.2020.4466
9. Huriah T, Handayani P, Sudyasih T, Susyanto BE. The determinant factors of stunting among children in urban slums area, Yogyakarta, Indonesia. Open Access Maced J Med Sci. 2021;9(T4):1-5. https://doi.org/10.3889/oamjms.2021.5593
10. Suriadi RY. In: Haryanto NS, editor. Asuhan Keperawatan Pada Anak. Jakarta, Indonesia: Kementerian Kesehatan Republik Indonesia; 2010.
11. Kosasih C, Sulastri A, Suparto TA, Sumartini S. Gambaran pengetahuan ibu tentang diare pada anak usia balita di kelurahan Padasuka. J Pendidikan Keperawatan Indonesia. 2018;1(2):86.
12. Rospita R, Mulyadi M. Upaya pencegahan diare pada keluarga dengan balita berdasarkan pendekatan planned behavior theory. J Ilmu Keperawatan. 2017;5(1):52-62.
13. Fatkhiyah A. Gambaran Kejadian Diare Pada Balita Di Wilayah Kerja Puskesmas Wedung Ii. Indonesia: Universitas Muhammadiyah Semarang; 2016. p. 47.