

The Effect of Peer Support Group Education Method With Booklet Toward The Self-Medication Knowledge of Group Pretest-Posttest Design On Family Welfare Movement Practitioners In Bumiayu Village Pati Regency

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ABSTRACT

Edukasi metode *peer support group* merupakan upaya perubahan perilaku kesehatan melalui kelompok sebaya dengan menekankan interaksi dalam kelompok. Edukasi metode *peer support group* khususnya masalah swamedikasi pada penelitian-penelitian sebelumnya terbukti efektif bagi para *peer educator* dalam menyampaikan informasi secara langsung dan tepat. Swamedikasi adalah penggunaan obat-obatan dengan maksud terapi tanpa saran dari profesional atau tanpa resep. Swamedikasi meliputi aturan pakai, jenis obat, cara mendapatkan, menyimpan dan membuang obat. Tingkat pengetahuan masyarakat mengenai swamedikasi berbeda-beda, sehingga perlu dilakukan upaya peningkatan pengetahuan salah satunya metode *peer support group* menggunakan *booklet*. Tujuan penelitian mengetahui pengaruh edukasi metode *peer support group* menggunakan *booklet* terhadap pengetahuan swamedikasi. Responden penelitian merupakan kader PKK Desa Bumiayu Kabupaten Pati. Pengumpulan data dilakukan dengan cara mengumpulkan responden, memberikan *pretest*, penyuluhan swamedikasi, pemberian *booklet*, dan *posttest*. Jenis penelitian *quasi-experimental* dengan rancangan *one group pretest-posttest group design*. Hasil penelitian diperoleh *pretest* aspek kognitif skor rata-rata 13,64, aspek psikomotor 15,72. Hasil *posttest* diperoleh *pretest* aspek kognitif skor rata-rata 15,12, aspek psikomotor 16,56. Uji beda *Paired t Test* aspek kognitif *pretest* dan *posttest* didapatkan $p < 0,05$ sehingga diartikan ada perbedaan bermakna. Uji beda *Wilcoxon* aspek psikomotor *pretest* dan *posttest* didapatkan $p > 0,05$ diartikan tidak ada perbedaan bermakna. Disimpulkan edukasi metode *peer support group* menggunakan *booklet* memberikan pengaruh terhadap pengetahuan swamedikasi pada kader PKK Desa Bumiayu Kabupaten Pati.

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INTRODUCTION

Self-medication refers to administering medication for therapeutic purposes without suggestions from professionals or prescriptions. The medication includes obtaining the medicines without prescriptions, purchasing the medicine with a previous prescription, sharing the medicine with relatives, friends, and neighbors, and administering

the remaining medicines (Harahap, 2017).

Self-medication will remain secure by adhering to the regulation. This medication is effective to relieve complaints, to keep cost-efficient, to keep time efficient, and to facilitate decision-making. However, self-medication without adhering to the regulation is not safe and may lead to disadvantages. The implementation of self-medication safely, rationally,

effectively, and affordably could enrich the community with beneficial knowledge and train the community in self-medication practices. Clear and trusted information is important to determine the types and the amount of the expected medicines (Harahap, 2017).

Information about medication problems may take the form of peer education. This education refers to the processes of communication, information, and education by peer friends for their friends. Peer-group education refers to health behavioral changes with the encouragement of a peer group. Peer-group method emphasizes intra-group interaction so that individuals will find the similarity with others (Rofi'ah, 2017). One of the peer-group methods is - involving the family-welfare movement practitioners with a significant and strong influence to share information for the community. The family-welfare movement practitioners, PKK, have high collective activity percentage (Rodiah, 2016).

The preliminary observation found that the community in Bumiayu village, Pati regency, applied self-medication. This result was also observable in the PKK practitioners. Unfortunately, the repurchasing process of the medicine might not be accurate because the community lacked an understanding of the disease's symptoms. Moreover, the symptoms might be different from the previous ones. From the description, the researchers deemed a study on self-medication toward the family-welfare movement practitioners in Bumiayu village, Pati regency, important.

METHODS

This quasi-experimental research applied a one-group pretest-posttest design. The researchers did not take the control group so the researchers only used a pretest-posttest to examine the benefits of the given intervention, by educating about self-medication in the form of peer-group support. The applied sampling technique was simple-random sampling. This technique provided the same probability for all populations to be the sample without considering the stratum in the population (Sugiyono, 2017). The sample consisted of 25 practitioners of PKK in Bumiayu village, Pati regency. The technical procedure for collecting the pretest-posttest data was

a questionnaire sheet. The questionnaire consisted of 40 items: 20 items for the cognitive aspect and the other 20 items for the psychomotor aspect. Then, the researchers educated the respondents about the implementation of self-medication. The researchers grouped the respondents into five, each group consisting of 5 members.

The researchers modified the applied tool, the questionnaire. The questionnaire consisted of a question list for the respondents to answer by marking the options as instructed in the questionnaire. The question items applied structured questions because the questionnaire had two outputs to achieve: the cognitive aspect and the psychomotor aspect. The cognitive aspect dealt with self-medication knowledge, rationality, and regulation. The second output, the psychomotor aspect, dealt with the practices of obtaining self-medication for the practitioners. Here is the questionnaire division.

- a. The first part dealt with the respondent's demography, starting from the age, education, job, information source, a place to obtain the medicine, and reason for applying for self-medication. The respondents' answers were useful to determine the research respondents' characteristics.
- b. The second part was about the cognitive aspect of the respondents, consisting of self-medication knowledge. The researchers shared the questionnaire before the education (pretest) and after the medication (posttest). The questionnaire consisted of 20 items.
- c. The third part consisted of the psychomotor aspect, such as the attitudes toward self-medication. The researchers shared the questionnaire before the education (pretest) and after the medication (posttest). The questionnaire consisted of 20 items.

For ethical purposes, the researchers provided informed consent for the respondents before the interview process. Before promoting the research, the researchers conducted a trial test on the questionnaire items. In this test, the researchers had to minimally involve 20 individuals. The results were useful to determine the validity and reliability of the instrument.

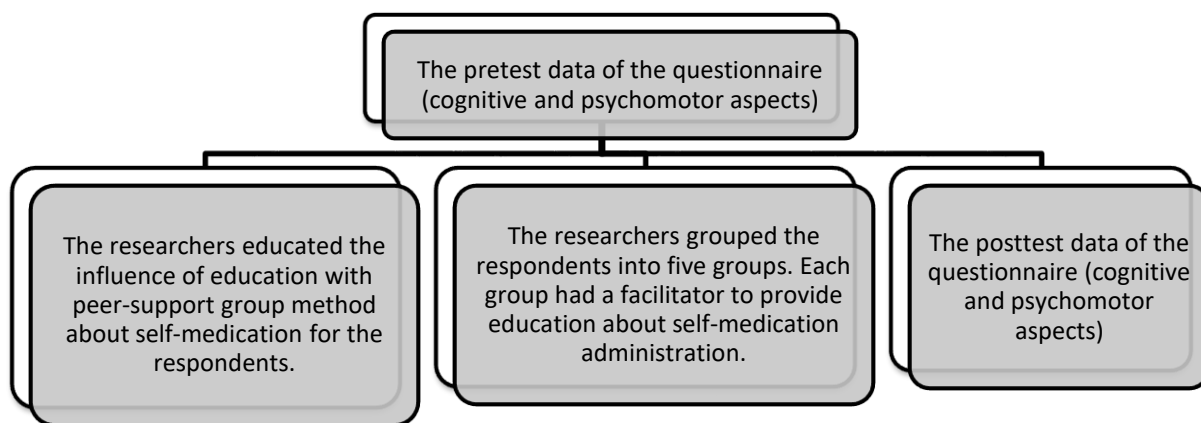


Table 1. The Research Flowchart per Group

	The questionnaire on rational self-medication	Question numbers	Reference
Cognitive 1	Administration procedure	1, 2, 3, 4, 5, 6	Nur Aini, 2018 ; Falak, 2018 ; Soliha, 2018 Erwika, 2021
	Jenis obat	7, 8, 9, 10	
	Methods to obtain the medicine	11, 12, 13, 14, 15	
	Methods to store the medicine	16, 17	
	Methods to dispose of the medicine	18, 19, 20	
Psychomotor	Administration procedure	1, 2, 3, 4, 5, 6	Nur Aini, 2018 ; Falak, 2018 ; Soliha, 2018 Erwika, 2021
	Types of medicine	7, 8, 9, 10	
	Methods to obtain the medicine	11, 12, 13, 14, 15	
	Methods to store the medicine	16, 17	
	Methods to dispose of the medicine	18, 19, 20	

Table 2. The Question Rubrics of The Community Cognitive Aspect

1. Validity Test

The researchers validated the questionnaire items with SPSS software, Statistical Product and Service Solution, version 21. The analyzed data would be useful for the Pearson product-moment correlation test. In this test, the researchers examined each question with a total score of a variable. In this case, the researchers examined each item of X and Y variables in terms of correlation with the total scores of the variables. The accuracy of this test relied on the applied significant criterion: sig (20tailed) lower than 0.025 with each total score of the variables. Question items with sig (2-tailed) higher than 0.025 would be eliminated.

2. The Reliability Test

The researchers examined the reliability test with Cronbach Alpha. The researchers deemed the instruments valid if the Cronbach Alpha value was higher than 0.7. This criterion indicated reliability adequacy. However, if the value was higher than 0.8, the value indicated all items were reliable and the test was consistent internally with strong reliability. The researchers examined the reliability of the question items based on the alpha coefficient from SPSS version 21 for Windows.

Question Items	Values Sig	Remarks	Question Items	Values Sig	Remarks
1	0,000	valid	11	0,003	valid
2	0,000	valid	12	0,000	valid
3	0,000	valid	13	0,020	valid
4	0,000	valid	14	0,026	valid
5	0,000	valid	15	0,009	valid
6	0,000	valid	16	0,000	valid
7	0,000	valid	17	0,000	valid
8	0,000	valid	18	0,000	valid
9	0,000	valid	19	0,000	valid
10	0,000	valid	20	0,000	valid

Table 3. The Validity Test

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.962	.961	20

Table 4. The Reliability Data Results

The data analyses in this research were univariate and bivariate.

1. The Univariate Analysis

The descriptive data consisted of the respondents' knowledge of the pretest and posttest of peer-support education. The researchers presented the frequency distribution data and percentages of each question in tables and graphics. The researchers obtained the percentages for each possible answer from the obtained frequency with the numbers of the sample. Then, the researchers multiplied the results by 100%.

2. The Bivariate Analysis

The researchers applied bivariate analysis to analyze the cognitive variables from the pretest and posttest. The researchers analyzed the differences in cognitive levels on the pretest and posttest with paired t-tests if the data were normal. However, if the data were not normal, the researchers used the Wilcoxon test. The data analysis technique was by using Statistical Program for Special Science, SPSS, version 21.

RESULTS AND DISCUSSION

1. The Characteristics of the Research Sample

Table IV.1 shows 25 respondents. Four respondents are aged between 31 and 40 years old, 16%. Respondents aged between 41 and 50 are 7 respondents, 28%. Then, respondents older than 50 years old are 14 respondents, 56%. The table also shows one respondent did not graduate from Primary School, 4%. Four respondents have a Primary School education background, 16%. Six respondents have a Junior High School education background, 24%. Most respondents graduated from Senior High School or Vocational High School, with 10 respondents (40%). Then, only 3 respondents graduated from a higher education level, 12%. The job or profession of the respondent is dominated by housewives, 68%. Two respondents work at a private institution, 8%. Two respondents are entrepreneurs, 8%. The table does not show respondents working as civil servants, 0%.

The table shows most respondents buy medicine from pharmacies, 18 respondents or 72%. Five respondents buy medicine from local shops, 20%. Two respondents buy medicine from small shops, 8%. The table shows no respondents buying medicine from the mini market. The table shows a respondent receiving information about purchasing medicine from TV, 4%; three respondents from a billboard, 12%; three respondents from brochures, 12%; six respondents from their peers, 25%; and twelve respondents from the previous prescriptions, 48%. The table shows four respondents receiving information about consuming the medicine from TV, 15%; five respondents from the medicine packages or brochures, 20%; two respondents from their friends, 8%; and fourteen respondents from the employees of pharmacies, 56%. The table shows no respondents receive information about consuming the medicine from the brochures.

2. The descriptions of the self-medication before and after the implementation of the peer-support group

The researchers measured the self-medication knowledge of the family-welfare movement practitioners in Bumiayu with a questionnaire consisting of 20 question items for the cognitive aspect and the other 20 question items for the psychomotor aspect. The researchers provided the questionnaire before the practitioners received the pretest.

		The Shapiro-Wilk normality test	The test of difference	Remarks
Cognitive Aspect	<i>Pretest</i>	p=0,119	<i>Paired t Test</i> p =0,009	Significant difference
	<i>Posttest</i>	p=0,057		
Psychomotor aspect	<i>Pretest</i>	p=0,000	<i>Wilcoxon test</i> p=0,706	No significant difference
	<i>Posttest</i>	p=0,220		

Source: The processed primary data, 2022

Table 5. The Test of Pretest-Posttest Differences

This test results, within the cognitive aspect based on the pretest and posttest, obtained a p-value of 0.0009, lower than 0.05. The value indicates a significant difference. The results of the difference test between the pretest and posttest on the psychomotor aspect obtained a p-value of 0.706, higher than 0.05. The value indicates no significant difference.

The researchers applied the education process of self-medication by grouping the respondents into five: A, B, C, D, and E groups. Each group consisted of five respondents and a facilitator. Here are the statistical test results before and after the education for each group.

Group	Cognitive Aspect Mean score ± SD		Psychomotor Aspect Mean score ± SD	
	<i>Pretest</i>	<i>Posttest</i>	<i>Pretest</i>	<i>Posttest</i>
A	13,6±1,14	15,2±0,83	15,8±1,3	16,6±2,07
B	14,6±2,07	15,6±0,89	15,8±0,45	16,0±1,58
C	11,4±3,4	16,8±1,64	11,0±5,14	16,6±1,52
D	14,8±1,64	15,8±1,64	15,6±1,67	16,4±1,14
E	13,8±1,92	15,2±1,78	17,4±2,50	17,2±1,64

Table 6. The Descriptions of the Mean Scores for the Respondent Group

Table 6 shows the mean scores of the cognitive aspect for all groups. The scores indicate an improvement after receiving self-medication education. For the psychomotor aspect, the researchers found only A, B, C, and D groups had the improvements but not the E group.

From the research data, the researchers found higher posttest scores than the pretest scores after receiving the peer-support group method. The cognitive aspect improved from 60% to 92% while the psychomotor aspect improved from 84% to 96%. Therefore, the improvements in the respondents were categorized as excellent. The cognitive aspect before the education, specifically about the regulation of consuming the medicine, obtained incorrect responses from all respondents. The respondents explained that the paracetamol-type medicine was only to relieve the fever. A percentage of 96% of practitioners of the Family-Welfare Movement in Bumiayu understood that paracetamol was a medicine to relieve fever but also to relieve pain. However, the researchers found a respondent that did not understand this matter.

Incorrect understanding of paracetamol was also observable in the Pakualam district community (Yenny, 2020). The results showed most respondents, in terms of cognitive and psychomotor manners, were aware of the medication administration procedure. The medicine should be consumed twice a day. Depkes, the Health Department (2008), explained that correct medicine administration twice a day should have an interval of 12 hours between each administration. For medicine with the administration of three times a day, the interval should be 8 hours from each administration.

The respondents understood the administrations of three-time-a-day medicine administration both cognitively (84% or 21 respondents) and in a psychomotor manner (52% or 13 respondents). The administration regulation for child medicine should be a half or adult dose. The respondents understood the administrations both cognitively (84% or 21 respondents) and in a psychomotor manner (76% or 19 respondents). The results showed that some respondents did not understand the medicine doses for children. For the administration of antibiotic medicine, the respondents understood the administration both cognitively (96% or 24 respondents) and in a psychomotor manner (60% or 15 respondents).

The respondents' understanding of the medicine type recognition was based on the logo on the medicine packages. Before educating the respondents, the respondents only recognized the types of medicines based on the medicine packages with the prescriptions. After receiving the education, the respondents' understanding of the medicine types improved.

The results found the improvement in cognitive and psychomotor aspects of the respondents before and after the education. Before the intervention, the respondents bought the medicines from pharmacies

because they had a background understanding. In this condition, eighteen respondents had excellent cognition (72%) and 17 respondents had excellent psychomotor aspect (68%). After the education, twenty respondents had excellent cognition (80%) and seventeen respondents had excellent psychomotor (68%). The respondents bought the medicines from the pharmacies because they found their diseases were mild. They also thought that the action could save the cost. In this condition, nineteen respondents had excellent cognition (76%) and 17 respondents had excellent psychomotor aspect (48%). After the education, eighteen respondents had excellent cognition (72%) and seventeen respondents had excellent psychomotor (68%). All medicines were purchasable without prescriptions. In this condition, six respondents had excellent cognition (24%) and twenty-two respondents had excellent psychomotor aspect (88%). The respondents could obtain vitamins, medicine for headaches, and pain killers from the mini market or online stores. In this condition, ten respondents had excellent cognition (40%) and 23 respondents had excellent psychomotor aspect (92%). After the education, nineteen respondents had excellent cognition (76%) and all respondents had excellent psychomotor (100%).

From the research results, all respondents were aware that they could not buy some medicines without a prescription. Therefore, purchasing medicines only based on the respondents' understanding should be altered. From the results, many respondents understood that they could not purchase some medicines from shops. The places to buy medicine, especially antibiotics and prescribed medicines, including the obligatory medicines of pharmacy based on the health standard were from the pharmacies, granted medicine

shops, and health facilities with granted permission from local health institutions (BPOM, 2017).

CONCLUSION

From the results and discussion, the researchers concluded that: self-medication education with a peer-support group assisted by a booklet toward the self-medication knowledge of the Family-Welfare Movement practitioners in Bumiayu village, Pati regency. Self-medication knowledge includes the management of administering, getting, storing, and disposing of the medicine.

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