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RESEARCH ARTICLE

Health Promotion and Community Cadres' Knowledge about the Medicine (DAGUSIBU) in the Community District of Yogyakarta, Indonesia

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Abstract

DAGUSIBU is an acronym of to get, to use, to keep and to throw the medicine away appropriately in Indonesia. The Indonesia Pharmacist Association already launched this acronym to support the appropriate use of medicine. However, some efforts are needed to be conducted to understand about the dissemination of DAGUSIBU in community. This study is aimed to define the effectiveness of the health promotion in the increase of knowledge of the community cadres in one of community district in Yogyakarta, Indonesia. This study used quasi experimental, one group pre-posttest design. The respondents were all community cadres in Muja Muju, Yogyakarta Indonesia. The health promotion with DAGUSIBU topic by the pharmacist was conducted as the health promotion media. The questionnaire was given to the respondents before and after the health promotion. We recruited 39 community cadres from Muja Muju Yogyakarta. Most of the respondents are female (94.9%), with the average of age is 54.5 years old. The community cadres' knowledge increased significantly from 38.4 to 80.1 ($p<0.001$). Respondents' characteristics, such as age, sex and education did not predict the increase of community cadres' knowledge about DAGUSIBU. The health promotion of DAGUSIBU conducted by pharmacist can improve the community cadres' knowledge. This model can be used to disseminate DAGUSIBU effectively in community level.

Keywords: *DAGUSIBU, Community, Cadres, Health promotion, Knowledge.*

Introduction

Currently, health promotion is a part of community pharmacy practice [1]. Many services can be provided by pharmacist for the community, such as smoking cessation, weight management and drug abused [2].DAGUSIBU war firstly launched in Indonesia on 2014, in the event of National Health Day. This program is one of the Indonesian Pharmacist Association' (Ikatan Apoteker Indonesia: IAI) programs which has an objective to promote the rational use of drugs, especially in the community level.

Some activities which were conducted spread in Indonesia was destined to disseminate DAGUSIBU [3,4]. However, until now, there is no study which defines the effectiveness of the dissemination program which promoting the DAGUSIBU. The previous study conducted in Sao Paulo city, stated that pharmacist had significant roles in promoting the rational use of drug, including managerial and clinical pharmacy services aspects. In the clinical pharmacy service aspect, the pharmacist emphasized on the group of health education. This activity could reduce the problems related to the medicine [5]. Another previous study in Qatar stated the health promotion conducted by pharmacists could increase the attitude score and decrease the barrier score of community and the pharmacist. This study concluded that the health promotion was effective in improve the community behavior in hypertension and dyslipidemia management [6].

An interesting program conducted by pharmacist also can increase the better outcome of treatment, like health coaching of chronically ill. In the health coaching, pharmacist should not only understand about the medications, but also about the lifestyle and abilities of the patients [7].

This study is aimed to define the effectiveness of the health promotion in the increase of knowledge of the community cadres in one of community district in Yogyakarta, Indonesia

Methods

This study used quasi experimental, one group pre-posttest design. The respondents were all community cadres in Muja Muju Yogyakarta Indonesia. The health promotion with DAGUSIBU topic conducted by the pharmacist was conducted as the health promotion media. The questionnaire was given to the respondents before and after the health promotion. The characteristics data, sex, such as age, occupation and education were collected to be analyzed as the predictive factors of the increasing of community cadres' knowledge about DAGUSIBU.

Results

We recruited 39 community cadres in Muja Muju, Yogyakarta, Indonesia. In general, the health promotion method conducted by the pharmacist can increase the community cadres' knowledge about DAGUSIBU. Most of the respondents are female (94.9%), with the average of age is 54.5 years old. Most of the respondents' age is between 35-55 years old (59%) and only 28.2 % respondents had higher education. Around 82% respondents is housewife. Tables 1 list the respondents' characteristics in Muja Muju Yogyakarta.

Table 1: The respondents' characteristics (N= 39)

Characteristics	N	%
Sex		
Male	2	5.1
Female	37	94.9
Age (yo)		
Average: 54.5 yo		
35-55	23	59
56-75	16	41
Education		
Up to Senior High School	28	71.8
Higher Education	11	28.2
Work		
Housewife	32	82.1
Work	7	17.9

Table 2 shows the score of community cadre's knowledge, before and after the health promotion. The score of knowledge increased significantly from 38.3 to 80.1 ($p<0.001$). Before the health promotion, most of the respondents' knowledge was under the average scores. However, after the health promotion, with the high average knowledge score, around 51.3% respondents had a good knowledge.

Table 2: The knowledge difference before and after the health promotion

Respondents' knowledge	N	%	P value
Before health promotion			
Average: 38.4			
Under the average	21	53.8	
Above the average	18	46.2	
After health promotion			<0.001*
Average: 80.1			
Under the average	19	48.7	
Above the average	20	51.3	

*: significant difference

Table 3 shows the results of predictive factors analysis, whereas no respondents' characteristics may predict the respondents' knowledge. However, we can see that the male respondents, younger age and education up to senior high school had potency of higher score of knowledge.

Table 3: The factors predicted the respondents' knowledge after health promotion

Factors	Knowledge is under the average (≤80.1) n	Knowledge is above the average (>80) n	P value (RR; 95%CI)
Sex			
Male	1	1	0.744
Female	18	19	(0.95; 0.05-13.91)
Age (yo)			
35-55	11	12	0.576

56-75	8	8	(1.09; 0.30-3.91)
Education			
Up to senior high school	14	14	0.540
Higher education	5	6	(0.83: 0.21-3.37)

Discussions

Our study finds that the health promotion of DAGUSIBU conducted by pharmacist can improve the community cadres' knowledge. The community cadres are kinds of the legal effort of the Indonesian government who prevent and promote the diseases as the area aspects. In common, the community cadres can be community health workers. The cadres were chosen from the community, with particular requirements and workshops. Thus, the house wives were utilized as the cadres, because they have more free time than the workers [8].

Before the health promotion, most of the respondents' knowledge was under the average scores. After the health promotion, with the high average knowledge score, most of the respondents had a good knowledge. The community cadres trained routinely by the governments to increase their capacity in serving the community [9].

Regarding this procedures, DAGUSIBU can be disseminate to them to increase their quality of service, especially related to the medicines. The previous study conducted in Missouri, showed that the coaching and monitoring services conducted by pharmacist can improve the cardiovascular risk factors and could be increase the people quality of life [10].

Unfortunately, in this study, we did not assess the impact of health promotion given by community cadres in community level. We suggested for the future studies, to assess the community knowledge about DAGUSIBU after the intervention from the community cadres. Another previous study conducted in Chicago, stated that there were no significant differences of glycaemic controls between two groups which were supported by pharmacists alone and by pharmacist-health workers.

It can be concluded that the roles of the health workers were not significant influencing the patients' behavior [11]. This phenomenon also could be seen from a previous study conducted in Florida. The intervention from the community health workers did not improve the level of LDLC of type 2 diabetic mellitus patients after one-year intervention [12]. The way of the community health workers did the intervention should be evaluated? From our current study, we hope that the cadres can improve the community knowledge about DAGUSIBU after the cadres disseminate the topic to community.

The previous study conducted in Northwest Ethiopia, mentioned that pharmacists were interesting to be involved in the health promotion program. Around 47% pharmacists were ever been involved in the health promotion programs. This study showed that the differences of sex, education and ownership of the pharmacy can influence the type of health promotion [1]. Our study had limitation, since the limited number of subject's number; the results cannot be generated into bigger number of population.

Furthermore, we did not collect the data from the community perspectives. This can be suggestion for the future studies. However, the activity of the community cadres in Muja Muju area is good, based on the sub district office's report. Thus, we considered this are to be chosen in this study.

Conclusion

The health promotion of DAGUSIBU conducted by pharmacist can improve the community cadres' knowledge. This model can be used to disseminate DAGUSIBU effectively in community level.

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