



Research Article

PHARMACISTS' KNOWLEDGE, SELF-EFFICACY, AND PROVISION OF HEALTH PROMOTION PRACTICES IN YOGYAKARTA, INDONESIA

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Article Received on: 17/11/18 Approved for publication: 09/01/19

DOI: 10.7897/2230-8407.100112

ABSTRACT

The rising demand in health promotion services has become a good opportunity for pharmacists. In many developing countries, including Indonesia, the role of pharmacists in this field has not been widely known. The objective of this study was to explore the knowledge, self-efficacy, and provision of health promotion, as well as its association in Yogyakarta province, Indonesia. A cross-sectional survey was used. A validated questionnaire consisted of socio-demographic section, 15 items knowledge, 9 items self-efficacy using 4-point *Likert* scale was delivered to the pharmacists who attended a monthly continuous education held by Indonesian Pharmacist Association, on June 2017. Data were analyzed descriptively and bivariate to see the association between variables. Of total 224 respondents (89 % response rate), most of them were aged 23-29 years old (48%), female (90%), working experience 1-5 years (47%), and monthly income of 2-3 million IDR (50.81%). Approximately 77.42% pharmacists presented good knowledge and 71.77% of them presented high self-efficacy in health promotion services. Almost all of the respondents (88%) provided the health promotion, including patient education on drug use, smoking cessation counseling, and disease prevention. There was an association between knowledge, self-efficacy, and health promotion practices ($p < 0.001$). Pharmacists with higher level of knowledge and positive self-efficacy were more likely to provide health promotion services. A vast majority of pharmacists provided health promotion activities. Further studies are urgently needed to address the challenges in providing health promotion services and extend the varieties of the service provided.

Keywords: Health promotion, knowledge, self-efficacy, pharmacists, Indonesia

INTRODUCTION

Health promotion is now becoming key part of pharmaceutical care practice around the world. The rising demand for public health services has created a special opportunity for all health professionals including pharmacists to become more active in health promotion provision. Pharmacists' engagement in health promotion activities has been supported by World Health Organization (WHO)¹. The involvement of pharmacists in this area is also advocated to effectively position the profession in 21st century².

Pharmacists could play a vital role to educate the public as suggested by Anderson 2007. A review on consumers' perceptions regarding pharmacists' role to health promotion highlighted that pharmacists are perceived as main providers of health-related interventions³. Unique chances present pharmacists in this respectful position in the heart of consumers. They could provide reliable and current health information, provide education materials such as leaflets and posters, as well as offer brief advice and patient counseling⁴.

Although there is a possible role for pharmacists to involve in health promotion, currently few improvements in pharmacy practice are being enforced by professional organization^{5, 6}. To date, pharmaceutical care service has focused on medication activities such as prescribing advice and education, rather than on extended health promotion matters such as health screening in the community and behavior modifications^{7, 8}. There were few studies that assessed these potential roles of pharmacists on health promotion in Indonesia⁹⁻¹¹. Therefore, this study was aimed to

describe knowledge, perceived self-efficacy of practicing pharmacists, and provision of health promotion services.

METHODS

This study used a cross-sectional design. The participants were registered pharmacists working in Yogyakarta Province. Pharmacists attended monthly Continuing Professional Development (CPD) held by Indonesian Pharmacists Association were approached to take part in the study. Respondents were selected by using convenience sampling technique. The consent to participate was obtained after the pharmacists were presented with a cover letter explaining the purpose of the study. A total of 124 out of 152 community pharmacists (89% response rate) agreed to participate in the study.

Questionnaire

The data were collected with self-administrated questionnaire consisting of demographic of respondent, knowledge regarding health promotion concept and practice, self-efficacy, barrier perception in health promotion service, and health promotion activities. The questionnaire was developed from the previous research entitled Pharmacists as Care Providers: Personal Attributes of Recent Pharmacy Graduates by Droegge et al in 2005¹² and Indonesian Pharmacists' Knowledge, Perceived Role, and Self-Efficacy Toward Smoking Cessation, A Preliminary Survey for Training Development by Kristina et al in 2014¹³.

The questionnaire comprised three sections. Section 1 included information on socio-demographic and personal characteristics, such as: name, age, sex, last education, capacity, work duration,

work place, and monthly income. Section 2 focused on personal attribute of pharmacists, and section 3 centered on knowledge, role perception, self-efficacy, barrier perception, and health promotion service provision. A combination of *Guttman* scale question, *Likert* scale question and open question was developed for the questionnaire.

Data Analysis

The data were analyzed both descriptive and bivariate. Rate and proportions were used to describe pharmacists' response in this study. Test for normality of the data was *Kolmogorov Smirnov's* prior to classification. The proportions for the categorical variables were calculated by the median of the data. *Chi-square* test was used to analyze the association among the variables of the research, using Statistical Package for Social Sciences (SPSS) version 17.0. A p-value of less than 0.05 was considered as statistically significant.

RESULTS

One hundred and twenty-four respondents with 89 % response rate were involved in this study. The participants came from all five districts (Sleman, Bantul, Gunungkidul, Kulonprogo, Yogyakarta districts) in Yogyakarta province. Table I shows the socio-demography of the respondents. The majority of participants (48%) aged 23-29 years old. Almost 90% of the respondents were female, with working experience 1-5 years (47%). Approximately 50.81% of the respondents had monthly income of IDR 2-3 million.

As presented in Table 2, the mean score of knowledge was 8.77 (SD 3.12). Approximately 77.42% respondents presented good knowledge about health promotion, but still 25% demonstrated poor knowledge. Majority of pharmacists surveyed had the lowest score in program planning and implementation skills 6.19 (3.45) and 2.67 (1.27) consecutively. A pharmacist should have good knowledge, attitudes, and specific skill,¹⁴ that may lead to optimal services for community and patients¹².

The mean score of self-efficacy was 27.35 (3.34), as shown in Table 3. Of total respondents in our study, 71.77% presented high self-efficacy in providing health promotion services. Approximately 28.23% of respondents, nevertheless, demonstrated low self-efficacy. Low self-efficacy and skill may lessen pharmacist's effectiveness in performing health promotion services. Therefore, training is needed to improve pharmacist's self-efficacy and skill¹⁵.

Almost all of the respondents (88%) conducted the health promotion, including patient education on drug use, smoking cessation counseling, and disease prevention (Table 4). The most common topics for health promotion were patient education for medicine usage, including the appropriate use of drugs, GEMA CERMAT (Movement of Smart Communities in Drug Use), and DAGUSIBU (Get, Use, Save, and Dispose Medicine in Appropriate Ways). The pharmacists also provided counseling for smoking cessation and degenerative prevention of degenerative diseases. As much as 12.10% of respondents, on the other hand, did not practice the health promotion program. Most of them were stated not confident, did not have extra time to practice health promotion program, and did not have good facilities.

Table 5 shows that knowledge about health promotion program and self-efficacy in conducting health promotion activities were associated with health promotion provision by practicing pharmacists in Yogyakarta with $p < 0.001$. Respondents with higher level of knowledge and positive self-efficacy were more likely to provide health promotion services.

DISCUSSION

This study was the first attempted to assess pharmacists' knowledge, self-efficacy and to examine the health promotion practice provided in pharmacy setting in Indonesia. Our study highlights that almost all the practicing pharmacists (88%) were provide health promotion services to the group of patients and public. We noted that the role of pharmacists in health promotion is still dominantly focused on medicine issues rather than broader public health issues such as smoking cessation, weight management, and immunization. The pattern of activities provided by our respondents was similar with those in Kuwait, showed that pharmacists were involved in counseling patients related to use of drugs as prescribed, medicine information contents and side effects, but were less involved in counseling on other healthy behaviors⁷.

An initiation in public health activities, especially by community and clinical pharmacists is good opportunity to make more advance programs in Indonesia. A similar high involvement of pharmacists in related health promotion services were reported among community pharmacists in Malaysia, reported that they are also highly contributed in education for chronic diseases such as diabetes and hypertension.¹⁶ In Ethiopia, pharmacists are engaged in health promotion activities, although lack of training has limited their level of involvement and practice variability was noted on level of educational and pharmacy ownership¹⁷.

Thus community pharmacists in developing countries are increasingly involved in health promotion services despite several barriers faced. Practicing pharmacists who participated in this study exhibited a good action regarding taking part in health promotion activities despite their low knowledge and self-efficacy, as shown by the findings that more than 85% of the community pharmacists were involved in health promotion. However, nearly half of pharmacists perceived their confidence in providing health promotion service is on average (self-efficacy score 27.35 SD 3.34) while about third of them reported that they are less confident with their services. This study is similar with recent systematic review regarding pharmacist perceptions and attitudes on public health activities showed that, although most view public-health services as important part among their roles, various cognitive, attitudes and environmental barriers influenced their involvement¹⁸.

The facilitators of greater involvement of pharmacists in public health activities in Indonesia are crucial to be understood. To date, Ministry of Health of Indonesia has been initiating Agent of Change (AoC) training of trainer for pharmacists and expected to increase their enrollment in public health⁹. Agent of Change was designed to integrate community pharmacists along with other health professionals into various public-health programs to optimize general population understanding on health problems and medication use. Pharmacists in Indonesia are increasingly recognized as health expert and easily access by public, therefore, they could offer health related advices more intense and consistently¹¹. Furthermore, drug store are the convenience site for patient education and counseling because pharmacists are always available, have 24 hour services, and are located in rural area as well.

This study, however, has several limitations and requires attention in interpreting the findings. Since the method of data collection was self-administered survey, bias on social desirability might have happened and inflated the expected outcomes. The cross-sectional survey was confined only limited to community pharmacists in Yogyakarta, hence the results could not be generalized to all community pharmacists in Indonesia. In conclusion, a majority of pharmacists in Indonesia are involved in health promotion activities. The study showed that higher level

of knowledge and positive self-efficacy are associated with promotion services and extend the varieties of the service provided. Further studies are urgently needed to address the challenges in providing health

Table 1: Pharmacists' characteristics

Characteristics(n=124)	n (%)
Gender	
Male	16(12.90)
Female	108(87.10)
Age (y)	
23-29	60(48.39)
30-39	52(41.93)
40-49	9(7.26)
50-59	1(0.81)
≥ 60	2(1.61)
Working experience (y)	
<1	29(23.39)
1-5	58(46.77)
5-10	25(20.16)
>10	12(9.68)
Working site	
Primary health care	38(30.60)
Pharmacies	86(69.40)
Status in working site	
Chief Pharmacist	38(30.60)
Companion Pharmacist	47(37.90)
Pharmacy staff	39(31.50)
Education level	
Pharmacist degree	113(91.13)
Master degree	10(8.06)
Doctoral degree	1(0.81)
Monthly income (IDR)	
<2,000,000	15(12.10)
2,000,000-3,000,000	63(50.81)
3,000,000-4,000,000	21(16.93)
4,000,000-5,000,000	15(12.10)
>5,000,000	10(8.06)

Table 2: Pharmacists' knowledge regarding health promotion program

Domain (15 items)	Mean (SD)
Health promotion concept (3 items)	7.25 (3.12)
Community analysis & targeted assessment (2 items)	9.10 (1.23)
Program planning development (3 items)	6.19 (3.45)
Implementation (4 items)	2.67 (1.27)
Evaluation (3 items)	8.09 (2.56)
Total score	8.77 (3.12)

*Range score 0-15

Table 3: Self-efficacy in conducting health promotion program

No	Scale items (9 items)	Mean (SD)
1	Have sufficient therapeutic knowledge of the health promotion program	26.10 (2.06)
2	Have the skills needed to plan the health promotion program	27.28 (1.76)
3	Are able to collect the data for assessing the community problems	26.18 (2.56)
4	Are able to prioritize the community needs and plan the strategies	23.26 (1.38)
5	Are able to choose and use the strategies in health promotion program	26.56 (2.31)
6	Are able to create the appropriate media for the targetting community	26.84 (2.20)
7	Are able to evaluate the program that have been implemented	23.78 (2.63)
8	Are able to documenting and reporting the implemented program	27.23 (2.53)
9	Are able to communicate with stakeholders to discuss the continuity of the program	23.45 (2.04)
	Total score	27.35 (3.34)

*Range score 0-36

Table 4: Health promotion service provided by pharmacists

Health promotion involvement ("yes" response)	N	%
Provided health promotion program	199	88
Patient education on medicine use	120	53
Smoking cessation counseling	67	30
Disease prevention and health screening	60	27
Healthy behavior	58	26
Others (drug misuse, antibiotic use campaign)	37	16

Table 5: Relationship between knowledge, self-efficacy and health promotion service provision

Variables		Health promotion services		P-value
		Yes, N (%)	No, N (%)	
Knowledge				<0.001*
High	96(77.42)	70 (56.45)	26 (20.96)	
Low	28(22.58)	11 (8.87)	17 (13.71)	
Self-efficacy				<0.001*
High	89(71.77)	65 (52.42)	24 (19.35)	
Low	35(28.23)	15 (12.09)	20 (16.13)	

*significant at p<0.05

ACKNOWLEDGEMENTS

Authors would like to thank Indonesian Pharmacists Association (IPA) for providing access in delivering questionnaire. We also thank to all participating pharmacists for their contribution in this survey. Finally, we greatly thank to Faculty of Pharmacy, Universitas Gadjah Mada for the research grant.

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Cite this article as:

Susi Ari Kristina *et al.* Pharmacists' knowledge, self-efficacy, and provision of health promotion practices in Yogyakarta, Indonesia. *Int. Res. J. Pharm.* 2019;10(1):65-68 <http://dx.doi.org/10.7897/2230-8407.100112>

Source of support: Faculty of Pharmacy, Universitas Gadjah Mada, Indonesia, Conflict of interest: None Declared

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