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The Correlation Between Demographic Data of *Kaders'* to Health Locus of Control Score and the Opinion About Mental Health Services in Indonesia

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Empowering community members to render certain essential health services to the communities where they come from is a concept that has been around for at least 50 years. Indonesia has a community health workers namely Kader; they are already working from 30 years ago. We, therefore, conducted an investigation on the Kaders' perceptions toward patients with mental disorders and to whom do they consult on possible patients with mental illness. This information will be useful to determine future training program for Kaders, and also to discuss the role of Community Health Worker (CHW) in other countries. A cross-sectional survey was conducted for Kader in five districts of Yogyakarta Special Province, Indonesia, on June to September 2013. Among 5,625 Kaders in the provinces, we chose 800 Kader, by stratified random sampling, taking the population size of five provinces. The level of Kaders' knowledge influence to powerful others HLC scores. On the other hand, although Kaders usually consult with health professionals (nurse or psychiatrist, but they still believe by Indonesian. Recommendations for the future, the contents for the training of Kaders need to be added motivation to improve Kaders' motivation.

Keywords: Health Locus of Control, Kader, Mental Health.

1. INTRODUCTION

Indonesia as one of developing country has many health problems, although there are gaps between health services provided and health problems. One of the strategies to solve this problem in many developing countries is involving community health workers (CHW). Using community members to render certain basic health services to the communities where they come from is a concept that has been around for at least 50 years.[1] This was recommended by the World Health Organization as a follow-up to the World health report 2006: working together for health, which by engaging community health workers to join in preventive, curative and rehabilitation intervention.

CHW called *Kader* in Indonesia has been worked for three decades. They are community health volunteers for general health both of urban and rural residents, particularly working in the field of maternal and child health and also for health among the elderly. They are important coworkers of health projects provided by the Primary Health Center (PHC), a branch of local government. PHC is located in every sub-district including near 30,000 residences. In cooperation of *Kaders*, the nurses in PHC contact with community directly and also work for case management.[2]

The history of the formation of *Kaders* of health in Indonesia will be explained briefly in the following paragraphs. To overcome the problems of maternal and child mortality in Indonesia that was established *Posyandu* which abbreviation of Pos Pelayanan Terpadu (Integrated Service Office). Along with the declared *Posyandu* in 1970, then it was formed *Kader* to carry out this role.[3] Because *Kader* is a member of the community who is a volunteer to work in the community, so there are no special recruitment to gain the *Kader*. *Kader* is selected by the community and gain support from village heads and community leaders. In general, there are some requirements being a *Kader* are unable to read, physically fit, have their own income, the local village permanent residence, and active in community activities, known by community and be able to work as volunteer in the community.[4] In performing on their duties, *Kaders* responsible to the PHC. Every PHC contains into several *Posyandu* which is responsible into 100–150 persons. PHC held a mini workshop (namely *Lokakarya Mini* in Indonesian terminology) every month, for evaluating and monitoring the activities that have been performed by *Posyandu*. PHC trains the *Kaders* to improve and review their ability, then do refreshing activity for each month. In order to carry out the duties, the operating costs of all activities by the central government budgeted annually for each PHC.[5]

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Some previous studies have shown successful performances of *Kaders*. Although it has not been implemented in whole province in Indonesia, the government's efforts showed positive results in empowering *Kaders* in the health care system. National survey in 2007 showed that *Posyandu* run by *Kaders* is an important tool for public health. There is an increase in health care coverage, especially for maternal and child health services and improving the nutritional needs also increased.[3] In addition, the role and duties of public health *Kader* in elderly partially has been run, which is like moving society, manage monthly meetings and manage the monthly reporting.[6]

However, the treatment of persons with mental disorders in Indonesia is still far from standard of developed countries. A lot of people with mental illness have no access to mental health service. Primary health services do not give priority to mental health. The skills of primary health clinicians are not quite good and the quality of mental health service in hospital is generally poor, then human rights protections for patients are weak. Conventional treatments, namely giving typical psychotic without other treatment, is dominantly in psychiatry hospitals. Many patients with mental disorders are not supported by adequate facilities and infrastructures. Nowadays, around 2,404 hospitals (public and private hospital) are available in Indonesia. Not all public hospitals in Indonesia serving for inpatient unit services for mental disorders, even some of them have psychiatry unit. Only 27 hospitals have specialty for mental health, which have specialized for mental disorders.

Data from the Basic Health Research (Riskesdas) in 2007 conducted by the Health Ministry shows that more than 1 million people in Indonesia are at high risk of severe mental disorders, received treatment in mental hospitals.[7] According to WHO recommendations in 2005, every country should begin the mental health service by community based. According to the WHO survey, the prevalence rate of schizophrenia tends to be higher in Oceania, the Middle East, and Southeast Asia while Australia, Japan, the United States (US), and Western Europe show low prevalence rates. Those who have mental disorders have some difficulties to deal with their condition. Despite relative geographical proximity, the disability-adjusted life year (DALY) of schizophrenia in Indonesia nearly doubles that of Australia with 321,870.[8] As for depression, there are no exact data on its prevalence rate, although WHO estimates suicide rate in Indonesia is 24 per 10^5 persons.[7] Depression as one of most leading of disabilities is often under-diagnosed and untreated. Stigma in community often prevents case-finding and treatment for these mental disorders.[9]

Since awareness of the importance of mental disorders as a public health issue has greatly increased, and mental health has emerged on the policy agenda in many countries, these countries have developed or revised their policies, programs, and legislation system related to mental health. However, the resources provided for the prevention, treatment, and rehabilitation in mental health has remained short. Almost one third of countries belonging to WHO still do not have special budget for mental health and less of human resources. Indonesia, one of developing countries, also has not put priority to the budget for mental health, whereas mental health is a huge problem in Indonesia.

Toward the above hard situation, some mental health professionals had initiative to develop a project to empower *Kader* in mental health work. The pioneer *Kaders* have been involved in mental health program of nongovernmental organization which worked in Nangroe Aceh Darusalam (NAD), a province located in Sumatra Island, Indonesia, since tsunami disaster after earthquake in 2005.[10] *Kaders* were conducted to help PHC nurses' activities in this program. They have some duties such as finding possible mental disorder cases, grouping them among the community, visiting their home, referring them to PHCs, motivating the community to attend to activities provided by PHC, and documentation and reporting to PHC. Many patients and family suffering tsunami could be helped by *Kaders*. According to the evaluation of NAD, *Kaders* detected 2,602 cases with serious mental disorders (mostly chronic psychosis), and treated them in cooperation with PHC teams. It can be provided a vital link between the patients and PHC doctors.[11] Based on the above experience, *Kaders* in other areas recently have been involved in community mental health program as volunteers to help PHC nurses. Since *Kaders* have quick access to a community, they can play an important role in the community, and support the community.

According to Rotter's social learning theory, a person will engage in goal-direction behavior only if he/she values the particular reinforces available and if he/she believes that his/her action will lead to these reinforces in a particular situation.[12] A person will seek for information around issue that threatening in his/her particular condition and believe that the behavior will be influenced to his/her health.

On the effort of psychology, the psychologists developed a model namely the Health Believe Model in Public Health Service in the US in the 1950s. Thus, they tried to understand why the people often unsuccessful to utilize and get an advantage from health program and services. That was found that how these beliefs operate, as mentioned earlier, can be views in two ways,that is in terms of the perceptions of and the beliefs, about the threat as well as the pros and cons.[13]

Health locus of control (HLC) is a construct that refers to how individuals perceive the sources regulating their health.[12] HLC is one of the most measured parameters of health belief to make planning for health education programs.[14] HLC is measured with HLC scale which construct by Rotter's that people may have either an internal or an external locus of control. In these developing, HLC is constructed into Multidimensional Health Locus of Control (MHLC) as an improvement over the classic conceptualization it measures health beliefs with a tripartite approach by differentiating External HLC into Powerful Others HLC (i.e., physicians) and Chance HLC (such as fate). Considering the beliefs of perceived control over health, people can be divided into two broad categories according to the type of HLC they believe in. In other word, someone will seek information and help related to their health condition is depended on their HLC especially External HLC. Thus, HLC's score also influences to someone's expectation to health services which he/she need. Taking above into consideration, it is important to clarify how the correlation between demographic data of *kaders'* to health locus of control score and *the* opinion about mental health services. This information will be useful to determine future training program for *Kaders*, and also to discuss the role of CHW in other countries.

This study is conducted an analysis of the health locus of control on some of the demographic data is *Kaders* i.e., years of *Kader's* experience, education, their experience in consulting

and training in mental health. In the future, by knowing how the scores of health locus of control of *Kader*, can be used as a reference in providing a training to the *Kader*.

The aims of the study are will be described the the correlation of health locus of control (HLC) and demographic data of *Kaders*. Furthermore, it will examine how *Kaders* opinion about mental health service in Indonesia.

2. EXPERIMENTAL DETAILS

2.1. Participants and Procedure

A cross-sectional survey was conducted for *Kader* in five districts of Yogyakarta Special Province, Indonesia, on June to September 2013. Among 5,625 *Kaders* in the provinces, we chose 800 *Kader*, by stratified random sampling, taking the population size of five provinces into account. However, those in areas which are inaccessible for researchers, those in sub-districts where the local government could not give cooperation and those who could not read and write were excluded.

A self-administrated questionnaire was distributed to the above samples when they got together to PHC meeting. After they completed the questionnaire, they posted it with envelope to a box prepared for this study at PHC. For the respondents living far from PHC, data collector visited the respondents to collect the questionnaire, if they are willing to respond. As a result, 619 samples (77.4%) were collected. The above procedure was approved by the Committee for Research Safe and Ethics of Oita University of Nursing and Health Sciences, Japan, and also permitted by the above local government.

Out of them, 619 (97.6%) responded; 97.6% were female, and 66.4% were 35–54 years old. Javanese ethnic were majority (97.6%), 95.3% were married, and 82.2% had job.

2.2. Questionnaire

The questionnaires that used in this study contain Part A, E and D. Part A is about Demographic Data of the *Kader*. Part E is questionnaire of Multidimensional Health Locus of Control (developed by Ken Wallston, 1997), which contains to 19 statements about view of health condition. The score on each subscale is the sum of the values circled for each item on the subscale (i.e., where 1 = "strongly disagree" and 6 = "strongly agree"). No items need to be reversed before summing. All of the subscales are independent of one another. P Part D is the questionnaire about Mental Health Service, there are any 5 questions which asked to respondents to know how is *Kaders* opinion about budgeting of mental health service, who is responsible to mental health service, and other three questions are about *Kaders* own experience in mental health service.

2.3. Data Analysis

The result of demographic data was namely years of Kader's, education, consultant when they consult the patient and training experience associated to HLC (Internal, Chance and Powerful others). It was examined mean and standard deviation and also F value and P value. Then, it also examined *Kader's* opinion about mental health service in Indonesia, and the detail has been explained in the previous section.

3. RESULTS AND DISCUSSION

According to Table I, it can be seen that globally, the highest score of the three health locus of control above is an internal HLC, and the lowest score is the chance HLC. Correlation between years of *Kaders* experience and Health locus of control which contain to three subscales (internal, chance and powerful others) show that there are any correlation between powerful others HLC and *Kader's* experience by p-value 0.02. It is also described in other demographic data namely education, the correlation between powerful of other HLC is significant by 0.04.

In contrast, the correlation between the score of three dimension of health locus of control and *Kader's* consultation, it shows that chance HLC has a significant correlation by p value 0.00. Evidently, there is any correlation between training experience and internal HLC by 0.05. Based on the results, it can be assumed that the training could make a difference view toward *Kaders*, because a score of Internal HLC in which trained *Kaders* score is lower than non-trained *Kaders*. That is also related to *Kaders* who have higher education levels showed their trust in health professionals compared to the *Kaders* with low education level.

Table II describes about *Kaders'* expectation for mental health service. It can be seen from the table that more than a half of *Kaders* expect the budget for mental health service should be spend more than the current time. More than two-third of *Kaders* also hope that the government should be more responsible toward mental health services.

The level of *Kaders*' knowledge influence to powerful others HLC scores. This is consistent with the statement from Das who explained that the fact or condition of knowing something with familiar gained through experience or association, acquaintance with understanding of a science, art or technique.[15] *Kaders* who

Table I. Correlation between years of *Kaders* experience and Health locus of control.

		Health locus of control					
		Internal		Chance		Powerful others	
Variable	Items	Mean ± SD	P value	Mean ± SD	P value	Mean ± SD	P value
Years of *Kader*'s experiences	Short	27.10 ± 5.64	1.45	21.06 ± 9.12	0.11	25.76 ± 5.88	5.42
	Long	26.49 ± 5.73	(NS)	21.31 ± 7.19	(NS)	26.96 ± 5.94	($P < 0.05$)
Education	Low	27.11 ± 5.66	0.39	21.84 ± 10.62	2.11	27.07 ± 5.44	4.07
	High	26.80 ± 5.65	(NS)	20.75 ± 7.28	(NS)	25.94 ± 6.74	($P < 0.05$)
Training for mental health	Present	26.17 ± 5.410	3.59	20.68 ± 7.286	0.586	26.13 ± 6.245	0.11
	Absent	27.14 ± 5.830	($P < 0.05$)	21.27 ± 9.004	(NS)	26.32 ± 6.532	(NS)
Consultation	Leader	27.29 ± 5.44	1.38	21.25 ± 7.95	6.01	26.03 ± 6.21	0.81
	PHC nurses	27.14 ± 5.91	(NS)	22.23 ± 9.84	($P < 0.001$)	26.70 ± 5.65	(NS)
	Psychiatrists	26.35 ± 5.64		19.30 ± 6.79		26.00 ± 7.65	

Table II. ***Kader's*** **opinion about mental health service in Indonesia.**

Variable	Items	*N*	%
Budget for Mental health services	1. Spend much more	220	35.7
	2. Spend more	159	25.7
	3. Spend the same as now	90	14.5
	4. Spend less	6	1.0
	5. Spend much less	4	0.6
	6. Can't choose	87	14.1
	7. No answer	37	6
Responsibility of mental health services should be on the government	1. Definitely should be	346	56.3
	2. Probably should be	155	25.0
	3. Probably should not be	77	12.3
	4. Definitely should not be	5	0.8
	5. Can't choose	16	2.6
	6. No answer	19	1.6
"I have a relative or family hospitalized."	1. Yes	287	46.4
	2. No	295	47.7
	3. Not sure	20	3.2
(If yes to the above question) relationship with a respondent	1. Family	54	8.7
	2. Close friend	87	14.1
	3. Others	132	21.3
	4. Won't say	18	2.6
	5. Don't know	21	3.4
"I have other person who have to get intervention."	1. Yes	305	49.3%
	2. No	59	9.5%
	3. Don't know	209	33.8%

Notes: $N = 619$, Missing data was excluded.

have high levels of education believe that the health condition is affected by the assistance of other practitioners such as doctors and other healers. This is supported by the results of the association between training experiences with the Internal HLC which explained that the *Kaders* who trained have Internal HLC scores lower than non trained.[16] On the other hand, although *Kaders* usually consult with health professionals (nurse or psychiatrist, but they still believe that their health condition is also influenced by other forces such God or a spirit and also fate. This is due to the Indonesian culture and religious which believed by Indonesian.

Then, Table I describes about *Kaders's* expectation about mental health services is related to the condition when the study was conducted. The Indonesia national government therefore enacted Mental Health Law in August 2014. During doing the activities in mental health, PHC cooperates with academic institution (i.e., school of nursing and medical) particularly in budgeting. Thus, PHC sometimes finds difficulty to sustainable the program. Some *Kaders* complained about the difficulty of funding for transportation.

4. CONCLUSION

Powerful other HLC score influenced by level of knowledge, education level. The Kaders has high expectation related to health service. Recommendations for the future, the contents for training of *Kaders* need to be added motivation to improve *Kaders'* motivation. This is because the motivation of *Kaders* plays an important role in working with governments to carry out mental health services. In addition, there is the budget of the government is expected to provide incentives to the *Kaders* in their role. This is appropriate to the results of research which conducted by Djuheani, which showed that the motivation is been affected by incentive or reward.[17]

References and Notes

1. World Health Organization, Evidence and Information for Policy: Department of Human Resources for Health, Community Health Worker: What do we know about them? Geneva **(2007)**.
2. Department of Health-Social Welfare, Indonesian national mental health policy, Republic of Indonesia, Jakarta **(2001)**.
3. D. N. Iswarawanti, *Jurnal Manajemen Pelayanan Kesehatan* 13, 169 **(2010)**.
4. A. Zulkifli, A. R. Thaha, V. Hadju, and R. Thaha, Effects of learning organization on cadre performance in conducting child growth surveillance in bone district, south sulawesi, *Proceeding of Conference of Asia-Pasific Academic Consortium for Public Health on Kagawa*, Japan, November **(2007)**, p. 220.
5. Departemen Kesehatan Republik Indonesia: Peraturan Menteri Kesehatan RI tentang Petunjuk Teknis Bantuan Operasional Kesehatan, Jakarta **(2014)**.
6. Suwarsono, Analysis on roles and tasks role of health kader in implementation of elderly's integrated service post (Posyandu) in working area of Temanggung district, Central of Java, Master Thesis **(2007)**.
7. Badan Penelitian dan Pengembangan Kesehatan: Departemen Kesehatan RI: Riset kesehatan dasar (Riskesdas), Laporan nasional, Jakarta **(2008)**.
8. World Health Organization, Estimated total DALYs (per 100,000), by cause and WHO member state, Department of measurement and health information, Geneva **(2009)**.
9. Kaligis, Fransiska et al., How depression is treated in Indonesia, *Symposium of Psychiatria et Neurologia Japonica* Japan **(2011)**, p. 106.
10. B. A. Keliat, et al., Keperawatan kesehatan komunitas: CMHN (Basic Course), EGC Press, Jakarta **(2011)**.
11. Prasetiyawan, et al., *Indonesia Int. Rev. Psychiatry.* 18, 559 **(2006)**.
12. K. A. Wallston, *Journal of Research in Personality* 10, 215 **(1976)**.
13. S. Shahed, Health locus of control, health beliefs and health related behaviors: A study of urban females, Doctoral Thesis **(2008)**.
14. A. Kuwahara, Y. Nichino, T. Ohkubo, I. Tsuji, S. Hisamichi, and T. Hosokawa, *Tohoku J. Exp. Med.* 203, 37 **(2004)**.
15. S. Das and H. R. Phookun, *Delhi Psychiatry Journal* 16, 98 **(2013)**.
16. G. Armstrong, M. Kermode, S. Raja, S. Suja, P. Chandra, and A. F. Jorm, *International Journal of Mental Health Systems* 011, 17 **(2011)**.
17. H. Djuheani, S. Gondodiputro, and R. Suparman, *Bandung Medical Journal* 42 **(2010)**.

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