JOURNAL OF COMMUNITY EMPOWERMENT FOR HEALTH

JCOEMPH

Vol 3 (3) 2020, 191-194 | Original article
DOI: 10.22146/jcoemph.43942

Combining SRQ20 and PHQ9 for tackling mental problem in community

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SUBMITTED: 04 March 2020 REVISED: 15 December 2020 ACCEPTED: 19 December 2020

KEYWORDS
Screening tools
Mental problem
Depression

ABSTRACT Mental health influences people's productivity from individual-level to enterprise level. This important factor should be assessed and tackled by the primary care unit since healthy community is their ultimate goal. Sixty of two screening tools (self-rating questionnaire [SRQ20] and patient health questionnaire [PHQ9]) were randomly distributed by primary care unit through cadres at Kricak, Tegalrejo District to community which is attending the cadre launching. SRQ20 had an 83,33% response rate, whereas PHQ9 has only 41,7% response rate. By comparative distributive analysis, it was found that one person who fallen into moderately severe symptoms of depression in PHQ9 was had not fallen into the person who has mental problem based on SRQ20, and two persons who fall into the moderate symptom of depression in PHQ9 were had not fallen into person who has mental problem based on SRQ20. There was 20% inconsistency between the two tools of mental health assessment. Using two tools assessing mental health problem is fruitful since it will cover each other. This study proved that there could be divergent result from both questionnaires. A decision before continuity management care of depression should be taken carefully. There should be another step taken by primary care unit before they undergo management care for depression.

1. Introduction

People with a mental health problem will influence their productivity, at individual based and enterprise level. A large cross-sectional study from working people in Australia showed that people with health conditions co-morbid with psychological distress would have lower productivity from absenteeism and presenteeism perspectives.[1] As a consequence, productivity at the enterprise level will be endangered since so many workers lost their productivity. Moreover, World Health Organization (WHO) already stated that depression and anxiety have a significant economic impact.[2] The estimated cost to global economy is 1 trillion USD per year in lost productivity. World Economy Forum and Harvard School of Public Health also stated that the cumulative global impact of mental disorder in order of lost economic output would amount to 16,3 trillion USD in 2011 to 2030.[2,3] These estimates illustrate the urgency that is needed to tackle mental illness.

Mental disease is a primary non-communicable disease as an iceberg phenomenon. Mental disease is closely related to socioeconomics status (SES).[4,5] Several studies with determination of socioeconomic inequalities by SES analysis show that low socioeconomic status disadvantages children and adolescents from two-three times fold of mental health problems associated with ages.[6-15] Anxiety, depression, antisocial disorder, and attention deficit disorder were dominant observed mental disorder which closely related with socioeconomic status.[16,17,18] Specifically, an observational study of depression over lifetime mentioned that depression incidence would be in line with educational background and aging

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which are explained through stress paradigm and the life course perspectives.[7,12] Although stress comes up daily, and a better-educated person reported fewer physical symptoms and less psychological distress than a lower educated person.[19] In addition, culture and individuals' comparison with their cultural lifestyle expectations, i.e., cultural consonance, also influences people to get stressed.[8]

In 2016, Indonesia's SES condition was declining. It could be predicted that there will be so many mental health problems in the community. The primary care unit must assess and tackle those problems since they should maintain their community healthy to support government programs. Two famous tools, self-reporting questionnaire (SRQ20) and a patient health questionnaire (PHQ9), were used in order to screen out people with mental health problems in Kricak, Tegalrejo District, which has the highest incidence of mental health problem according to district public health unit.

The SRQ20 consists of 20 self-administered questions assessing mental problems in adulthood, namely depression, anxiety-related disorder, somatoform disorder, and neurotics disorder.[20] It is a validated questionnaire with high internal consistency with area under curve 0,854 - 0,958, sensitivity 78,5%, and specificity 81,5%.[19,21] The PHQ9 is an established questionnaire from the previously validated questionnaire PHQ8, which has only eight questions.[22] The development of PHQ9 questionnaire was aimed to screen depression as one of highest mental health problem. Using ≥9 as a cut of point, PHQ9 has sensitivity 88% and specificity 88%. It defines depression as mental problem into mild (≤5), moderate (≤10), moderately severe (≤15), and severe depression (≥20). Both tools had convergent validity in assessing depression.[22,23] Nevertheless, both tools had different start point and aim. This study aims to understand the effectiveness of the combination of using both tools in order to help primary health care unit to tackle mental problem.

2. Method

This study was quantitative in design using secondary data from Tegalrejo Primary Health Care that used validated SRQ20 and PHQ9 questionnaires as their tools to screen out mental problems within the community. Sixty questionnaires of SRQ20 and PHQ9 were randomly distributed to people who joined a cadre launching held in a mosque in Kricak, Tegalrejo District, Yogyakarta City. A distributive comparative exploratory analysis was conducted on the filled and returned questionnaire.

3. Result

The subject has characteristics, as shown in Table 1. Fifty questionnaires of SRQ20 from 60 distributed questionnaires had returned. A mental problem is defined by using 6 as a cut off point from the SRQ20 result. As a consequence, seven persons (14%) fell under suspicion of having mental problems. By using 5, 10, 15, 20 cuts of point in defining 25 returned questionnaire, we found that there was 20 person (80%) had mild depression symptoms, 4 people (16%) had a moderate symptom of depression, and 1 person (4%) had a moderately severe symptom of depression. Interestingly, 1 person who fallen into moderately severe symptoms of depression was had not fallen into the person who has mental problem based on SRQ20, and two persons who fall into the moderate symptom of depression were had not fallen into the person who has mental problem based on SRQ20.

4. Discussion

Indonesia's population is number four globally, with around 298 million people stretched from west to east of Indonesia and has a density of around 152 people in kilometers. Kricak is part of Tegalrejo District, which has a density of 11,651 peoples in kilometer square. Among all subjects in this study, 28% were not working, 70% married, 62% graduated from senior high school, and 12% needed medical attention for chronic non-communicable diseases. It could be predicted that people in Kricak have low socioeconomic status, bringing more significant inequalities among the community. In turn, stress or psychological problem has a high incidence in Kricak district.[6-15]

With an 83,33% response rate, SRQ20 showed that seven from 50 (14%) subjects were concluded to have mental problems. Compare to SRQ20, PHQ9

Table 1. Subject characteristic

Characteristic category	n (%)
Mean age, year ± SD	36,33 ± 14,2
Age, n (%)	
>35 years old	29 (58)
20-35 years old	4 (8)
<20 years old	11 (22)
Missing data	6 (12)
Gender, n(%)	
Male	15 (30)
Female	35 (70)
Working status, n(%)	
Working*	36 (72)
Not working	14 (28)
Marital status, n (%)	
Not married yet	14 (28)
Married	34 (68)
Widow	2 (4)
Education, n (%)	
Elementary/ junior high school	16 (32)
Senior high school	31 (62)
Diploma	3 (6)
Disease history, n (%)	
Hypertension	2 (4)
Diabetes	2 (4)
Heart disease	0 (0)
Stroke	1 (2)
Asthma	1 (2)

*employed or self-employed

had a low response rate, which could be caused by the incomprehension of questionnaire handling. The PHQ9 questionnaire showed that 80% of the returned questionnaire had mild symptoms of depression, 16% from the returned questionnaire had moderate symptoms of depression, and 4% from the returned questionnaire had moderately severe symptoms of depression. This finding could mean a more significant incidence of depression within the community. Interestingly, there was an inconsistency between the two screening tools. Although it had a small number, three depressed peoples could not receive proper care continuity from depression if the primary care unit only used SRQ20 as their only screening tool.

Both questionnaires assessed depression, but this study found a divergent result from both questionnaires. As also reported by Hanlon and colleagues, SRQ20 does not cover depression symptoms, i.e., irritability.[23] It is just merely because PHQ9 assesses depression according to DSM (Diagnostic and Statistical Manual of Mental Disorders) IV criteria while SRQ20 is broader than others. Consequently, SRQ20 does not assess mood disorder of depression in detail, such as irritability, anhedonia, and depressed mood. Therefore, double tools for primary health care screening in assessing depression in the community will benefit the community.

5. Conclusion

Using both questionnaires will give primary health care advantages in assessing depression as a harmful mental problem. Although a divergent result could be the outcome, primary health care should decide who needs continuity of care for depression. The best attempt is to provide mental disease experts who will decide each screening case from both questionnaires, although it might not be feasible for all primary health care settings. Therefore, there should be another strategy or steps to make the community's best decision by primary health care before continuity care of depression management is established.

Conflict of interests

There is no conflict of interest.

References

1. Holden L, Scuffham PA, Hilton MF, Ware RS, Vecchio N, Whiteford HA. Health-related productivity losses increase when the health condition is comorbid with psychological distress: finding from large cross-sectional sample of working Australia. BMC Public Health. 2011;11:417-431.
2. Bloom DE, Cafiero ET, Jane-Llopis E, Abraham-Gessel S, Bloom LR, Fathima S, et al. The global economic burden of non-communicable disease. 2011. Geneva: World Economic Forum. Available from: http://www3.weforum.org/docs/WEF_Harvard_HE_GlobalEconomicBurdenNonCommunicableDiseases_2011.pdf
3. Kelland, K., Mental Health Crisis could cost the world $ 16 trillion by 2030 (https://www.reuters.com). Health Care & Pharma, (updated October

10, 2018 cited 2020, December 14), available from: https://www.reuters.com/article/us-health-mental-global-idUSKCN1MJ2QN

4. Reiss F. Socioeconomic inequalities and mental health problems in children and adolescents: A systematic review. Soc Sci Med. 2013;90:24-31.
5. Evans GW, Kantrowitz E, Socioeconomics status and health: The potential role of environmental risk exposure. Annu rev public health. 2002;23:303-331.
6. Cutler DM, Lleras-Muney A, Vogl T. Socioeconomics status and health: dimension and mechanism. NBER Working paper series. 2008. JEL No II. [Internet]. Available from: https://www.nber.org/system/files/working_papers/w14333/w14333.pdf
7. Miech RA, Terrie E, Moffitt AC, Wright BRE, Silva PA. Low socioeconomic status and mental disorders: A longitudinal study of selection and causation during young adulthood. Am J Sociol. 1999;104(4):1096-1131.
8. Dressler WW, Balieiro MC, Dos Santos JE. Culture, socioeconomic status and physical, and mental health in Brazil. Med Anthropol. 1998;12(4):424-446.
9. Turner RJ, Avison WR. Status variation in stress exposure: Implication for the implementation of research on race, socioeconomic status, and gender. J Health Soc Behav. 2003;44(4):488-503.
10. Mosakowski KN. Dissecting the influence of race ethnicity and socialeconomics status on mental health in young adulthood. Res ageing. 2008;30(6):649-671.
11. Mclaughlin KA, Costello J, Leblanc W, Sampson NA, Kessler RC. Socioeconomics status and adolescent mental disorder. Am J Public health. 2012;102(9):1742-1750.
12. Miech RA, Shanahan MJ. Socioeconomic status and depression over the life course. J Health Soc Behav. 2000;41:162-176.
13. Lewis G, Bebbington P, Brugha T, Farrell M, Gill B, Jenkis R, et al. Socioeconomics status, standard of living, and neurotics disorder. The Lancet. 1998;605-609.
14. Pearlin LI, Schieman S, Fazio EM, Meersman SC. Stress, health, and the life course: some conceptual perspectives. J Health Soc Behav. 2005;46:205-219.
15. Grazywicks JG, Almeida DM, Neuvart SD, Ettner S. Socioeconomic status and health: A micro-level analysis of exposure and vulnerability to daily stressors. J Health Soc Behav. 2004;45:1–16.
16. Dressler WW, Balieiro MC, Dos Santos JE. Culture, socioeconomic status, and physical and mental health in brazil. Med Anthropol Q. 1998;12(4):424-44.
17. Dohrenwend BP. Socioeconomic status (SES) and psychiatric disorder. *Soc Psychiatry* Psychiatr Epidemiol. 1990;25:41-47.
18. Muntaner C, Eaton WW, Miech R, O'Campo P. Socioeconomics position and mental disorder. Epidemiology review, 2004, 26, pp. 53 - 62
19. Beusenberg M, Orley JA. User Guide to The Self Reporting Questionnaire (SRQ), WHO,1994.
20. Barreto do Carmo MB, dos Santos LM, Feitosa CA, Fiaccone RL, Silva NB, Santos DN, et.al. Screening for common mental disorder using the SRQ-20 in Brazil: what are the alternative strategies for analysis? Rev Bras Psiquiatr. 2018;40(2):115–122.
21. Netsereab TB, Kifle MM, Tesfagiorgis RB, Habteab SG, Weldeabzgi YK, Tesfamariam OZ. Validation of the WHO self-reporting questionnaire-20 (SRQ-20) item in primary health care settings in Eritrea. Int. J. Ment. Health Syst. 2018;12:61.
22. Kroenke K, Spitzer RL, Williams JBW. The PHQ-9: Validity of a brief depression severity measure. J Gen Intern Med. 2001;16:606-613.
23. Hanlon C, Medhin G, Selamu M, Breuer E, Worku B, Hailemariam M, et al. Validity of brief screening questionnaires to detect depression in primary care in Ethiopia. J Affect Disord. 2015;186:32-9.