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Utilization of professional mental health services according to recognition rate of mental health centers

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ABSTRACT

Background: Despite the positive effect of community-based mental health centers, the utilization of professional mental health services appears to be low. Therefore, we analyzed the relationship between regional recognition of mental health centers and utilization of professional mental health services.
Methods: We used data from the Community Health Survey (2014) and e-provincial indicators. Only those living in Seoul, who responded that they were either feeling a lot of stress or depression, were included in the study. Multiple logistic regression analysis using generalized estimating equations was performed to examine both individual- and regional-level variables associated with utilization of professional mental health services.
Results: Among the 7338 participants who reported depression or stress, 646 (8.8%) had consulted a mental health professional for their symptoms. A higher recognition rate of mental health centers was associated with more utilization of professional mental health services (odds ratio [OR]=1.05, 95% confidence interval [CI] =1.03–1.07).
Conclusions: Accessibility to professional mental health services could be improved depending on the general population's recognition and attitudes toward mental health centers. Therefore, health policy-makers need to plan appropriate strategies for changing the perception of mental health services and informing the public about both the benefits and functions of mental health centers.

1. Introduction

Concern over mental health is increasing globally (Prince et al., 2007). Mental health is defined as “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” (Herrman et al., 2005). According to the World Health Organization (WHO), psychiatric disorders account for 31% of disability due to any illness, and unipolar depressive disorder is expected to be the greatest burden of disease by 2030 (Mathers and Loncar, 2005).

Mental health has emerged as a serious social problem particularly in South Korea. The South Korean Ministry of Health and Welfare reported that the lifetime prevalence of psychiatric disorders was 27.6% in 2011, and the prevalence of mood disorders has gradually increased from 4.6% in 2001 to 7.5% in 2011 (Ministry of Health and Welfare, 2011). Furthermore, over the past two decades, South Korea experienced an unprecedented increase in suicide, often linked to depression; this rate hike peaked around 2011 before starting to come down. Nonetheless, South Korea has ranked first for suicide mortality among Organization for Economic Cooperation and Development (OECD) countries since 2003 (Jang et al., 2014; Han et al., 2016a). At 28.5 per 100,000 in 2013, South Korea's suicide mortality rate was nearly 2.4 times higher than the overall average rate of OECD countries (12.0 per 100,000) (OECD, 2015).

Accordingly, early detection of psychosocial problems as well as the provision of effective support and treatment in high-risk groups have become critical factors for preventing deterioration in both mental health and mental health promotion (Bird et al., 2010; Jorm, 2012). Under government policy, various active interventions by mental health professionals for individuals, families, schools, the workplace, and the community have been undertaken (Ministry of Health and

Abbreviations: OECD, Organization for Economic Cooperation and Development; KCDC, Korea Centers for Disease Control and Prevention; GEE, generalized estimating equations; NHI, National Health Insurance

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Welfare, 2014). In 2016, South Korea has four specific goals for operation of mental health programs: (1) elimination of prejudice and composition of friendly environment against mental illness; (2) prevention and awareness promotion of mental illness; (3) improving the level of treatment for severe mental illness and constructing rehabilitation systems; and (4) establishing early intervention system for suicide prevention. Community-based mental health centers perform an important role in carrying out mental health programs for achieving the listed goals.

The mental health center is now a pivotal institution that promotes mental health for residents through public services. Based on the Mental Health Act enacted in 1995, mental health centers were established for management of the mentally ill, but their roles have expanded in the late 2000s to perform mental health promotion programs for local residents (Seoul Mental Health Center, 2013). The centers provide various programs including individual case management, counseling, symptom management training, and crisis intervention for all people facing mental health issues in the community (Kim et al., 2013). If necessary, the centers can also be connected to social welfare centers, other community programs, and psychiatric treatments. A total of 208 mental health centers, with an average of 1–2 centers per jurisdiction, are operated with government funding, and can be used free of charge (Ministry of Health and Welfare, 2014).

However, although the Korean government has supported promotion of mental health and increased its investment in mental health centers, the utilization of professional mental health services, including mental health center services, still appears to be low; in addition, the total prevalence of psychiatric disorders and the total medical costs related to psychiatric disorders have both increased (Korea Insurance Research Institute, 2015). According to National Mental Health Statistics, approximately 12% of individuals who experienced depression and 2.7% of those assumed with high suicide risks were provided mental health services through mental health centers (The National Mental Health Commission, 2015). In addition, a previous study reported that only 7% of adults in the community consulted mental health professionals due to mental health issues (Ministry of Health and Welfare, 2011). As a result, a study on factors related to the utilization of professional mental health services was needed. Also, there was a question as to whether the low utilization of centers was due to people not being aware of mental health centers. This study aimed to analyze the relationship between regional recognition of mental health centers and utilization of professional mental health services. We hypothesized that higher recognition of mental health centers may lead to an improvement in the high-risk group's accessibility to mental health centers, and thus more high-risk residents would utilize professional mental health services.

2. Methods

2.1. Study population

We used data from the Community Health Survey (2014) administered by the Korea Centers for Disease Control and Prevention (KCDC). The Community Heath Survey included nationally representative samples of Koreans aged 19 years or older. The survey was conducted by trained interviewers during one-on-one visits, and included questions relating to health behavior, health care utilization, and socioeconomic status, among others. This study included 23,029 adults living in Seoul who responded to the survey. We decided to only include Seoul residents in the study, since they were the sole group of people who were asked about the recognition of mental health centers. They received the following two questions: ‘How do you feel stress in daily life?’ and ‘Were you feeling depression or hopelessness for more than 2 weeks during the last year, such that it was difficult for you to perform your usual activities?’ Only those who responded that they felt a lot of stress or depression were considered to have potential symptoms of mental health problems, and were included in the current study. The final sample size was 7338. Regional characteristics were determined from the e-provincial indicators published by Seoul Mental Health Statistics, which contained the regional demographic structures for the 25 basic administrative districts of Seoul. The Community Health Survey was approved by the KCDC Institutional Review Board, and all participants provided written informed consent (2014-08EXP-09-4C-A).

2.2. Measures

The outcome variable was utilization of professional mental health services. Participants with a lot of stress or depression were asked ‘Have you ever consulted mental health professionals for that symptom?’ to which they could answer ‘yes’ or ‘no’. Professional mental health services included all professional services that are offered through a hospital, clinic, or mental health center. We determined utilization of professional mental health services according to their response.

The independent variable of interest in relation to utilization of professional mental health services was the regional recognition rate for mental health centers. All participants living in Seoul, regardless of their mental states related to stress or depression, responded that they either did or did not know that there were mental health centers in the region where they lived. The KCDC released the recognition rate for mental health centers by each region, not by individual.

In order to analyze the relationship between recognition of mental health centers and utilization of professional mental health services, we used individual- and regional-level variables. Individual variables included age, sex, marital status, type of insurance coverage, household income, education, job status, smoking, alcohol use, regular physical activity, sleep duration, mental health problems, and chronic diseases. Some previous studies presented that socioeconomic factors and health-related factors were associated with either mental health or mental health service use (Folsom et al., 2005; Dhingra et al., 2010; Kim et al., 2015). Household income levels were divided into four groups; respondents selected one of eight options for household income, which we then combined into four groups. Low income was defined as less than 1 million won, middle-low income as less than 3 million won, middle-high income as less than 5 million won, and high income as more than 5 million won. The presence of chronic diseases was defined as having been diagnosed and treated by a physician for hypertension, diabetes mellitus, dyslipidemia, stroke, myocardial infarction, or rheumatoid arthritis.

Regional variables represented the levels of 25 administrative districts of Seoul. They included means and standard deviation of the recognition rate of mental health centers, number of mental disabilities, number of mental healthcare organizations, ratio of mental health professionals in mental hospitals to the number of people in the community, number of psychiatric beds, population size, and suicide rate for each administrative district. Regional variables included mental health supply resources and index levels related to mental health that may affect mental health service use (Han et al., 2016b). The number of mental disabilities was defined as residents registered with mental disabilities in each region. The population size was defined as the total number of residents in each region.

2.3. Statistical analysis

We determined the distribution of each categorical variable by examining frequencies and percentages, and we performed χ^2 tests to investigate any associations with utilization of professional mental health services. These analyses were performed for both individual-level and regional-level variables, and student's *t*-test was performed for continuous variables. In addition, after identifying no multicollinearity in our model, we performed multiple logistic regression