Effects of voluntary/involuntary retirement on their own and spouses' depressive symptoms

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Abstract

Objectives: The aim of our study was to elucidate the effect of voluntary/involuntary retirement on individuals' and spouses' depressive symptoms using the Korean Longitudinal Study of Aging (KLoSA).

Methods: This study used a sample derived from the first- to fourth-wave cohort datasets of KLoSA, which was conducted in 2006, 2008, 2010, and 2012. After applying inclusion and exclusion criteria, we analyzed a total of 6706 subjects. Information about employment status, the short-form Center for Epidemiological Studies-Depression scale, and covariates (age, property, household income, perceived health status and medical disability) were obtained. Cox proportional hazards models were used to evaluate the effects of voluntary/involuntary retirement on individuals' and spouses' depressive symptoms.

Results: The voluntary/involuntary retirement groups showed significantly more depressive symptoms than the working group in wave 1–4, and the same results were revealed in the spouse's retirement and job loss measures. The hazard ratios of depressive symptoms of the voluntary/involuntary retirement groups were 1.26–1.31 during the 6 year follow-up period. The wives' risk of depressive symptoms was also significantly increased if their husbands voluntarily retired (HR = 1.35, 95% CI = 1.10–1.65).

Conclusion: During the 6 year follow-up study, Voluntary/involuntary retirement increased the risk of depressive symptoms in a Korean elderly population. Furthermore, husbands' voluntary retirement increased wives' risk of depressive symptoms.

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1. Introduction

Previous studies have shown that marriage positively influences both mental and physical health. Moreover, married people tend to have better health, a lower mortality rate, and less depressive symptoms than unmarried people [1–3]. The positive effect of marriage on health can be explained by several mechanisms. First, marriage is cost effective. It allows men and women to divide their duties into having a job and doing housework. Generally, husbands who only work are able to concentrate on self-development and becoming capable

of earning a higher income than unmarried men [4]. In other words, being responsible for a family becomes an important motivation to work. Many studies have proven that a high socioeconomic level is associated with better health [5]. However, recent findings have shown that the increase of employment instability and consequent difficulties in household management, which are caused by the rapidly changing economy and industrial structure, have resulted in an adverse impact on families and various health problems.

In 1997, economic crisis in Southeast Asia hit South Korea. International Monetary Fund (IMF) provided financial support and enforced Korea's government to do economic reconstructuring. The concept of a life-long career has disappeared, and irregular jobs and the unemployment rate have increased, thereby resulting in poorer mental health [6]. Irregular workers have more depressive symptoms, emotional exhaustion, job stress, and psychological health problems [7–9]. Compared to 1997, suicide rates of males in 1998 rose by 45% in Korea [10]. Also they have lower physical health status, such as risk of

disease, higher injury rates, and chronic health issues [11,12]. Especially, women and the older people are more affected by employment issues than young man. Since the 1997 bailout, female workers were easily fired than male in the restructuring of company, and there has been an increase in the proportion of female irregular workers, as well as a difference between male and female wages [13]. This evidence represents an economic polarization and decrease in family income. The decrease in family income causes various family problems like anxiety, depression [14] and negative psychological well-being of family members [15,16].

Depressive symptoms caused by job loss or sudden retirement would certainly affect the spouse [17]. Depressive symptoms were linked with spouses' depressive symptoms for couples in which both partners felt close to each other [18]. It is referred to as depression contagion [19]. Therefore more careful attention is needed for successful management and treatment [20]. Furthermore, in many cases, conflicts begin in the elderly couple who had never spent much time together. There is a difficulty in couple's adjustment to life after retirement from full-time job, long work history [21]. Depressive symptoms are common in Koreans. Studies have shown that approximately 20% to 30% of people older than 65 years have depressive symptoms in South Korea [22], and about 20% of adolescents in South Korea have depressive symptoms [23]. The prevalence of major depressive disorder in South Korea was 3.6% and there was no significant difference among age groups [24]. The prevalence of depression is rising. Socioeconomic costs, which are due to depression, are also increasing; therefore, attention and management are required [25].

Thus, this study aims to longitudinally investigate the depressive symptoms that are caused by voluntary retirement and involuntary job loss in middle-aged people using the Korean Longitudinal Study of Ageing (KLoSA) data. Additionally, differences depending on the type of retirement and mutual influence between spouses will be analyzed.

2. Methods

2.1. Data collection and participants

This study used a sample derived from the first- to fourth-wave datasets of the Korean Longitudinal Study of Aging (KLoSA) conducted by the Korea Labor Institute (Seoul) and Korea Employment Institute Information Service (Seoul) in 2006, 2008, 2010, and 2012. The original KLoSA study population comprised South Korean adults aged 45 years or older who resided in one of 15 large administrative areas. In 2006, 15 major cities and provinces were selected using stratification, and 10,000 households were randomly selected from these populations. Successful interviews were performed in 6171 of the 10,000 selected households. A total of 10,254 subjects were surveyed. These subjects were followed biennially until 2012. The first set of interviews was conducted from August to December 2006, and the second survey in 2008 followed 8688 subjects, who

represented 86.9% of the original panel; the third survey in 2010 included 7920 subjects (77.2% of the original panel); and the fourth survey in 2012 included 7486 subjects (73.0% of the original panel).

The KLoSA is a national public database (http://www.kli.re. kr/klosa/en/about/introduce.jsp) that includes an identification number for each participant; however, the number is not associated with any personal identifying information. The data collection system and database were designed to protect subject confidentiality. Interviewers provided information about the study objective, methods, potential risks and benefits, and mode of compensation, and informed consent was procured from all participants prior to their participation. The subjects also agreed to participate in further scientific research. The participants were interviewed using the Computer-Assisted Personal Interviewing method using Blaise®, a software system developed by Statistics Netherlands that was designed for use in official statistics (http://www.blaise.com/onlinehelp). The interviewers instructed the subjects to read the questions and then input their answers without assistance.

In total, 10,254 individuals participated in the surveys. In our study, we only included participants who were married and lived with their spouse (n = 7970). As we aimed to calculate the effect of participants' and spouses' retirement on depression, subjects whose employment status changed across the follow-up period (n = 1264) were excluded. A total of 6706 participants were eligible for our study. The final sample size for analysis was 5937 (2917 husbands and 3020 wives) after further excluding subjects with depression at wave 1 (n = 769) (Fig. 1).

2.2. Study variables and measurements

Employment status was assessed by questions regarding current/past employment and retirement histories, which were classified into 4 groups: Still working, Voluntary retirement, Involuntary retirement, and Persistent unemployment. The case of retirement was determined by the question at first survey, "During one year prior to the survey, have you experienced the retirement?" We defined the case of involuntary retirement as those individuals who retired before their scheduled or regular retirement age due to business closure, layoff, or family problems during the year prior to survey. Persistent unemployment was defined as subjects who had been unemployed for more than 1 year.

The short-form (10-item) Center for Epidemiological Studies-Depression (CES-D10) scale served as the outcome variable. The CES-D10 is a brief screening instrument that assesses depressive symptoms experienced during the most recent week; the 10 items are divided into two items that are positively phrased (feel pretty good, generally satisfied) and eight items that are negatively phrased (loss of interest, trouble concentrating, feeling depressed, feeling tired or low in energy, feeling afraid, trouble falling asleep, feeling alone, and hard to get going). The responses for each item ranged from 0 to 3: 0 signified very rarely or less than once a day; 1 signified