Article

Work status, retirement, and depression in older adults: An analysis of six countries based on the Study on Global Ageing and Adult Health (SAGE)

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ABSTRACT

The aim of the present study was to analyse the association between the occurrence of a major depressive episode among older adults and work status in low- and medium-income countries. A cross-sectional study was conducted with people 60 years of age and older from the six countries (Mexico, India, China, Russian Federation, Ghana and South Africa) included in the Study on Global Ageing and Adult Health (SAGE) and who participated in its first wave (2009–2010). The occurrence of a major depressive episode (MDE) over the previous 12 months was determined based on an adaptation of the ICD-10 diagnostic criteria. The association between current work status and the presence of an MDE was estimated using binary logistic regression models with country-level fixed effects, and interaction terms between the country and work status. Results showed the odds of presenting an MDE were lower for older adults who were retired with a pension than for those who were currently working, although this protective association was observed only for men in China (OR = 0.23; CI 95%:0.08–0.70) and Ghana (OR = 0.25; CI 95%:0.07–0.95) and for women in India (OR = 0.05; CI 95%:0.01–0.51) and South Africa (OR = 0.19; CI 95%:0.04–0.97). For women, being a homemaker also showed a protective association in South Africa (OR = 0.09; CI95%:0.01–0.66) and Mexico (OR = 0.32; CI95%:0.14–0.76). In the case of being retired without a pension, no significant association was found in any country. The previous indicates that retirement with pension has a protective association with MDE only for men in China and Ghana and women in India and South Africa. The heterogeneity of this association reflects cultural and socioeconomic differences between the analysed countries.

Introduction

Depressive disorders are the most prevalent mental illness among older adults (Meeks, Vahia, Lavretsky, Kulkarni, & Jeste, 2011) and represented the eighth cause of years lived with disability (YLD) for this age group worldwide in 2013 (Global Burden of Disease Study 2013 Collaborators, 2015). The estimated prevalence of depressive disorders varies widely by country (Meeks et al., 2011), but in a recent meta-analysis its global prevalence was estimated in 7.2% (CI 95%: 4.4–10.6%) for major depressive disorders, and 17.1% (CI 95%: 9.7–26.1%) for all depressive disorders, including those subsyndromal (Djernes, 2006). Furthermore, an incidence of 0.12 to 14.1 cases per 100 person-years has been estimated for this age group (Büchtemann,

Luppa, Bramesfeld, & Riedel-Heller, 2012).

Depression in older adults is a group of disorders that involves multiple individual and contextual determinant factors that are closely interrelated (Cole & Dendukuri, 2003; Fernández-Niño, Manrique-Espinoza, Bojorquez-Chapela, & Salinas-Rodríguez, 2014; Kim, 2008; Rodda, Walker, & Carter, 2011). The individual-level factors include genetic determinants; multimorbidity; disability; personality traits, such as neuroticism; psychological distress; and low educational level. On the other hand, the contextual-level factors include inadequate social support; decrease of social networks, and neighbourhood socio-economic deprivation (Cole & Dendukuri, 2003; Fisher & Baum, 2010; Fiske, Wetherell, & Gatz, 2009; Jang et al., 2009; Kim & Moen, 2001b; Lorant et al., 2003; Rodda et al., 2011).

Recently, work status has been also identified as an important factor associated with depression among older adults (Rodda et al., 2011). However, this is an complex epidemiological association that depends on the particular social context. Despite the fact that the etiological pathways through which work status could affect the mental health of older adults have not been entirely clarified, income has been proposed as a mediator in this relationship (Jang et al., 2009). The financial stress from losing or resigning a job is one of the most common stressful events for older adults, especially when there is no social support to compensate for this financial change (Lue, Chen, & Wu, 2010; Mendes de Leon, Rapp, & Kasl, 1994; Roy & Chaudhuri, 2008).

However, financial stress is not the only explanation for the relationship between work status and depression in older adults. In fact, other explanatory pathways have been suggested for the effect of retirement, or the job loss (compared to remain working), on the health of older adults, such as: changes in social networks, social isolation, decreased self-esteem, and a poor perception of usefulness and empowerment (Abe, Fujise, Fukunaga, Nakagawa, & Ikeda, 2012; Paul & Moser, 2009; Shi et al., 2014). According to Jahoda's proposal, the poor perception of usefulness, along with time structuring and fostering activity, can be regarded as latent consequences of loss of work, which links work status and individual's well-being (Jahoda, 1981).

Despite the beneficial effects of working, it is also worth noting that job characteristics play an important role when deciding whether to remain in the workforce or to retire, since they relate to financial, physical and psychological well-being (Wang & Shi, 2014). Thus, retirement might be relatively more beneficial for mental health in the context of a stressful job with high workloads or demands (physical or psychological) (Westerlund et al., 2009). Similarly, jobs with organizational and work policies that offer valuable benefits, such as pension and health insurance, might also encourage retirement, which can have a positive impact on mental health if retirement is perceived as voluntary or statutory (van der Heide, van Rijn, Robroek, Burdorf, & Proper, 2013).

In addition, the studies of the relationship between work status and depression needs to be done from a gender perspective in older adults. This not only because the frequency of depression is higher in women (American Psychiatric Association, 2014; Fiske et al., 2009), but also because employment is a "qualitatively different experience" for both sexes (Kim & Moen, 2001a). The work history might be different between men and women, since women usually have a lower participation in the work force, tend to have a more interrupted work history, and are more prone to having worse job conditions compared to men (Cho, Margolis, Newhouse, & Robalino, 2012; Instituto Nacional de las Mujeres, 2007; Kim & Moen, 2001a). This way, employment represents a more central role for men while women have to cope simultaneously with work and family responsibilities (Kim & Moen, 2001a).

Most of the research conducted on the relationship between work status and depression in older adults comes from high-income countries (Abe et al., 2012; Jang et al., 2009; Lue et al., 2010; Mendes de Leon et al., 1994; Paul and Moser, 2009; van der Heide et al., 2013; Westerlund et al., 2010). Work conditions, however, are different from those countries compared to low-and-middle income countries, where labour market face major challenges, such as a low female participation in the workforce (Cho et al., 2012). Additionally, there is an increasing job informality, which is related to poverty and expose workers to abuse, exploitation and income fluctuations, since they are not protected by work regulations; moreover, informal jobs are not covered by social security systems, which grant the access to pensions (Cho et al., 2012). This way, the results obtained in previous research in high-income countries might not be completely applicable in the context of low-and-middle income countries.

Based on the above, it is reasonable to postulate that the relationship between work status psychological well-being in older adults varies according to the particular socioeconomic and cultural contexts of each society. For that matter, a previous study described that this particular association is more evident in places with economic underdevelopment and weak protection systems against unemployment (Paul & Moser, 2009). In addition, differences in the cultural valuation of older adults, especially in terms of working at older ages, have also to be considered. The study of this relationship in different settings might therefore help to understand possible contextual heterogeneity.

The main objective of the present study was to explore the individual and social variability in the association between work status and depression in older adults, based on information from six countries having different socioeconomic and cultural conditions: China, Ghana, India, Mexico, Russia, and South Africa.

Materials and methods

Design

A secondary analysis was performed of a cross-sectional study known as the SAGE study (the World Health Organization [WHO] Study on Global Ageing and Adult Health). Analysed data was from the first wave of the study, conducted between 2007 and 2009 in China, Ghana, India, Mexico, Russia, and South Africa (Kowal et al., 2012).

Overall Characteristics of the Original Design of SAGE and Representativeness: SAGE was designed as a multi-national survey of medium- and low-income countries. It consists of two overall components: 1) a longitudinal cohort study and 2) a sequential panel study corresponding to different time periods in each country. It is nationally representative of the population of adults 50 years of age and older in each participating country. More information about the design of SAGE is available in previous publications (Kowal et al., 2012).

Sample, sampling procedure, and data collection

The study sample in each country was selected using a probabilistic, multi-stage sampling method, with response rates of 93% for China; 83% for Russia; 68% for India; 81% for Ghana, 53% for Mexico; and 74% for South Africa (Kowal et al., 2012). The SAGE study was carried out with in-person interviews at the household and individual levels using questionnaires and tests that were standardized for all of the countries and previously submitted to pilot tests (Kowal et al., 2012). For the analysis of the present study, only adults 60 years and older from the six countries and who participated in wave 1 were included.

Operationalization of variables

Outcome variable: The variable "depression" was defined as the presence of a "major depressive episode (MDE) over the previous 12 months." This was based on an adaptation of diagnostic criteria for "major depressive episode" from the ICD-10 classification of mental and behavioural disorders (World Health Organization, 1992). This adaptation has been previously used with both SAGE and the World Mental Health Survey (WHO WMH-CIDI) (Arokiasamy et al., 2015). A total of 18 items were included which asked about the presence of each depressive symptom over the previous 12 months, with dichotomous responses (present versus absent). In order to define the presence of the outcome, the algorithm proposed by Arokiasamy, P. et al. was used to generate two sets of variables: set A and set B (Arokiasamy et al., 2015). Set A contained 6 items grouped into 3 domains: 1) depressive affect, with a minimum duration of two weeks and an intensity at which symptoms are present nearly every day, most of the day; 2) anhedonia (loss of interest or pleasure in activities), including decreased libido; and 3) tiredness or loss of energy. Set B contained 12 items which were grouped into 7 domains (with 1 or 2 items each) corresponding to symptoms that were secondary to the episode: 1) negative thoughts of hopelessness, low self-esteem, or unworthiness; 2) psychomotor anxiety/agitation; 3) suicidal ideas or attempts; 4) slow thinking process or loss of concentration; 5) physical slowness; 6) changes in sleep