

Prevalence and incidence of memory complaints in workers compared to non-workers aged 55-64 years and the role of job characteristics.

Introduction

Memory complaints are experienced at all ages (Ponds, Commissaris and Jolles, 1997; Ginó et al 2009) and may become more prevalent at higher ages (Bolla et al 1991; Commissaris, Ponds and Jolles, 1998; Ponds, Commissaris and Jolles, 1997). The current policy reforms in many western countries on labour force participation stimulate individuals to continue to work at higher ages. As compared to unemployed age peers, older workers may depend more on their memory because of their employment responsibilities. Little is known about the association between employment and (prevalent and incident) memory complaints. Some studies report on differences in consequences of memory complaints between middle-aged persons still eligible for doing work and older persons. These differences may shed light on the association between employment and memory complaints. Mol and colleagues (2009) show that memory complaints more often lead to lower satisfaction with life in people aged 55 to 69 years compared to 70 to 91 year-olds. Aarts and colleagues (2010) report that individuals aged 55-69 years with multimorbidity are more likely to experience memory complaints compared to persons aged 70 and higher with multimorbidity. It can be argued that persons younger than 70 notice memory complaints sooner because memory complaints are not expected at their relatively young age, but also because some of them are still employed and therefore require a good memory to perform their job (Aarts et al 2010; Mol et al 2009). They may therefore notice their memory problems sooner. In addition to simply having a paid job, certain job characteristics may be associated with memory complaints. Amongst individuals aged 59-64 years with memory complaints, stress and multitasking were most often mentioned as the cause for their memory complaints (Vestergren and Nilsson 2010). Some interviewees specifically mentioned that it was their job that caused the experienced stress and multitasking. Potter and colleagues (2009) found that high perceived stress, not specifically work stress, was associated with having memory complaints in women aged 60 and over. These studies suggest that in addition to or instead of simply having a paid job, the level of employment responsibilities may be associated with memory complaints. A higher intensity of employment responsibilities may increase the degree to which memory is needed. To our knowledge, these were the only studies that focused on some aspect of employment and memory complaints. The aim of the current study is threefold. First, we study the prevalence and incidence of memory

complaints in Dutch persons aged 55 to 64. Second, we examine whether employed respondents are more likely to have memory complaints or to develop memory complaints in three years compared to unemployed respondents. Third, for employed persons at baseline we study whether employment characteristics are associated with having or developing memory complaints.

Methods

Subjects were participants of the Longitudinal Aging Study Amsterdam (LASA), who were aged 55-64 (n=1937), were employed (paid job of ≥ 8 hours per week; n=626) or unemployed at baseline. Job characteristics studied were hours of work per week, job prestige, job class and job demands (high mental demands, low mental demands, mixed demands, low physical demands and high physical demands). Logistic regression analysis was applied. The confounding influence of age, sex, education, the Mini Mental State Examination (MMSE), depressive symptoms (CES-D), mastery, self-efficacy, neuroticism, number of chronic diseases and cardiovascular diseases was examined.

Results

In total, 20.7% reported memory complaints at baseline. Of those without memory complaints at baseline, 14.3% reported memory complaints at three year follow-up. No significant difference was found in the prevalence or incidence of memory complaints in unemployed compared to employed persons. No cross-sectional or longitudinal association was found between employment status and memory complaints. Considering the association between job characteristics and memory complaints, the results showed that employed respondents with a job that had light mental demands were less likely to report memory complaints at baseline compared to employed respondents with a job with high mental demands. Respondents with a higher job class at baseline were more likely to report memory complaints at baseline, adjusted for self-efficacy and MMSE score. Having a job with a higher job class at baseline was associated with reporting more memory complaints at baseline. No other cross-sectional associations were found between job characteristics and memory complaints. Moreover, employment status and job characteristics were not associated with memory complaints after three years in respondents who had no memory complaints at baseline (incident memory complaints).

Discussion

For older individuals still eligible for the workforce, one in five people (i.e. 20.7%) that report to have memory complaints seems quite substantial. Especially since this age group will more often be required to work longer and jobs require increasingly higher levels of productivity and intellectual skills, memory may be a relevant requirement to perform a job sufficiently. Simply having a paid job does not explain the fact that individuals report memory complaints. Our results show that individuals with either a job with high mental demands or high job class were more likely to report memory complaints, independent of possible confounding factors. The association between higher employment responsibilities and memory complaints may seem somewhat counterintuitive. Since individuals who perform jobs with high mental demands or job class have attained a high level of education, higher cognitive performance is expected. An explanation may be that those who perform jobs with high mental demands or high job class may actually have more objective cognitive problems. However, the MMSE score did not show to influence the association between job demands and memory complaints. Although the MMSE score did influence the association between job class and memory complaints, the association remained significant after adjustment for the MMSE score. Researchers have identified that memory complaints may be caused by mental (Jorm et al 2004; Balash et al 2010) and physical health problems (Comijs et al 2002; Aarts et al 2010). This suggests that memory complaints are not necessarily related to objective cognitive performance. Therefore, assuming both high mental demands and high job class come with more responsibilities, individuals who depend on their memory because of their employment responsibilities may simply notice their cognitive problems more compared to those without employment responsibilities (Aarts et al 2010; Mol et al 2009).

Some limitations of this study should be mentioned. First, no information was available on employment responsibilities, so we examined job characteristic of which we assumed that they represent a certain level of employment responsibilities. Second, although we adjusted for various confounding factors, we did not adjust for anxiety which may have influenced our results. In addition, the MMSE is a global screening instrument for cognitive impairment and might not be suitable to examine cognitive performance in persons aged 55-64 years and the influence of additional objective cognitive measures should be measured.

An important strength of the current study is that this is the first study to examine the association between memory complaints and employment in a representative sample of older workers

or persons still eligible for the labour force. We were additionally able to explore various job factors, while adjusting for a wide range of confounders.

Both the prevalence and incidence of memory complaints we found in older adults still eligible for the workforce population seems quite substantial. Memory complaints themselves may be a burden in life, as well as a possible indicator for physical and mental health problems. Such factors may inhibit persons to continue working. Considering the possible policy reforms to stimulate older workers to continue to work, it may be important to pay attention to these memory complaints and look into their background. In addition, job class and job demands may be useful to determine who is at risk for memory complaints.

References

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