ARCHIVIO ISTITUZIONALE
DELLA RICERCA

Alma Mater Studiorum Università di Bologna
Archivio istituzionale della ricerca

Maintaining and engaging older workers at work: the trigger role of personal and psychosocial resources

This is the final peer-reviewed author's accepted manuscript (postprint) of the following publication:

Published Version:
Vignoli, M., Zaniboni, S., Chiesa, R., Alcover, C.-M., Guglielmi, D., Topa, G. (2021). Maintaining and engaging older workers at work: the trigger role of personal and psychosocial resources. THE INTERNATIONAL JOURNAL OF HUMAN RESOURCE MANAGEMENT, 32(8), 1731-1753 [10.1080/09585192.2019.1579252].

Availability:
This version is available at: https://hdl.handle.net/11585/727551 since: 2020-02-17

Published:

DOI: http://doi.org/10.1080/09585192.2019.1579252

Terms of use:

Some rights reserved. The terms and conditions for the reuse of this version of the manuscript are specified in the publishing policy. For all terms of use and more information see the publisher's website.

This item was downloaded from IRIS Università di Bologna (https://cris.unibo.it/).
When citing, please refer to the published version.

(Article begins on next page)

15 September 2026

Maintaining and engaging older workers at work: The trigger role of personal and psychosocial resources

Michela Vignoli
University of Trento
Sara Zaniboni
University of Bologna
Rita Chiesa
University of Bologna
Carlos-Maria Alcover
Universidad Rey Juan Carlos
Dina Guglielmi
University of Bologna
Gabriela Topa
National University of Distance Education

Correspondence concerning this article should be addressed to Michela Vignoli, Department of Psychology and Cognitive Science, University of Trento, University of Trento, Corso Bettini, 31, 38068 Rovereto (TN), Italy; email: michela.vignoli@unitn.it

Word count: 7478

Abstract

Because the working population age is increasing, organizations are struggling to find ways to maintain employees' desire and interest in staying on at work. Accordingly, the aim of this study is to enhance knowledge concerning the role played by personal resources (i.e., work ability) and psychosocial aspects (i.e., older workers stereotypes) in influencing desired retirement age and work engagement in older workers. Data was collected twice, using questionnaires on a sample of 565 older workers working in a public organization in Italy. Specifically, work ability, age stereotypes on older workers stereotypes and desired retirement age were measured at T1, while work engagement was measured at T2 (eight months later). Using the Preacher and Hayes approach, a moderated mediation analysis was performed controlling for age, self-rated health, expected retirement age, tenure and job position. Results showed that older workers with higher levels of work ability and lower perceptions that in their environment there are age stereotypes, desire to work longer, and in turn stay engaged at work.

Keywords: older workers' Work ability, Older workers stereotypes, Desired retirement age, Work engagement, older workers' motivation

Maintaining and engaging older workers at work: the trigger role of personal and social resources.

Introduction

The age of the labour force will radically change over the next decades due to the increase in population aging (Bal et al., 2015) in nearly all countries in the world (Dordoni & Argentero, 2015). Considering the case of Italy, especially the public sector, the Italian Union of Public Workers (ARAN, 2013) reported that in 2009 almost 50% of public workers were over 50 years of age. Accordingly, the State General Accounting Department (2015) reported that following a 6-year increase in the average age of public workers between 2001 and 2014, the expected mean age in 2019 will be around 53 years. This is due to both a longer lifespan and the delayed minimum retirement age, which is forcing older workers to work longer[1] (D'Addio, Keese, & Whitehouse, 2010; Dordoni & Argentero, 2015; Hofäcker, 2015; Szinovacz, Martin, & Davey, 2014; Walker, 2007). In this scenario, it is important to understand how to help older workers maintain their desire to stay on at work and remain engaged (Hertel, Van der Heijden, De Lange, & Deller, 2013; Zaniboni, Fraccaroli, & Sarchielli, 2010). Research has shown that retirement intentions/decisions can be affected by various individual situations (e.g., personal resources, such as self-efficacy; Wöhrmann, Fasbender, & Deller, 2017) and by older workers' identity (Bayl-Smith & Griffin, 2014; Topa & Alcover, 2015; Zaniboni et al., 2010). But also

[1] In Italy, the number of people aged over 65 years has doubled since 1950, is steadily growing, and is expected to reach 33% of the population by 2050 (United-Nations, 2009). From 2007 to 2016 the percentage of workers over 65 has progressively increased from 3.3% to 4.0% of the workforce (OECD, 2018). The participation rate in the labour force of people aged 50-64 is around 59% in 2017, compared to 60.9% of people aged 25-34, and 73.1% of people aged 35-49 (ISTAT, 2017). In addition, in 2015 (when the data were collected), the average retirement age in Italy was 65 (source ISTAT, http://www.istat.it/it/).
The Pension System Reform called "Fornero" refers to art. 24 of Law Decree no. 201 and was published on 6 December 2011. The current Italian pension system includes three pillars. The first pillar is a public, compulsory and unfunded pay-as-you-go system; the second and the third pillar are private, voluntary and funded. In 2014, the age at which employees could draw a seniority pension was 66 for both men and women working in the public sector, if they had paid social security contributions for a minimum of 20 years. Basically, this reform raised the minimum age for workers to retire. Nowadays, workers can choose different moments for retirement, but the earlier they retire (this threshold was raised by the Fornero pension system reform), the less money they receive.

contextual aspects (e.g., psychosocial resources, such as organisational climate for successful aging, social networks and cohesion; Zacher & Yang, 2016; Henkens & Tazelaar, 1997; Kosloski, Ekerdt, & DeViney, 2001; Mein et al., 2000; Oakman & Wells, 2013) could play a role in determining retirement intentions and decisions. Moreover, as suggested by the Conservation of Resources Theory (Hobfoll, 1989; Hobfoll, 2002; Hobfoll, Johnson, Ennis, & Jackson, 2003) and by the Resource-Based Model for Retirement Adjustment (Wang, 2007, Wang, Henkens, & van Solinge, 2011; Wang & Shi, 2014), personal and psychosocial resources can interact to affect retirement and work-related outcomes. However, the few studies have analysed the combined effects of resources on older workers' desire to postpone retirement (e.g., Zaniboni, 2015). For example, Zaniboni (2015) found that personal and social resources interacted in affecting desired retirement age and expected retirement adjustment.

There are no studies on the medium term effect of the desire to postpone retirement based on work-related outcomes, such as work engagement. In particular, monitoring work engagement in the medium term (e.g., approximately over a year), after the decision/desire to prolong working life by postponing retirement, can help in understating how to keep older workers motivated for their late career, with positive outcomes for both workers and the organisation. Moreover, research is needed in the nomological network of the desired retirement age over the expected retirement age, analysing how individual (e.g., work ability) and contextual aspects (e.g., older worker stereotypes) can affect willingness to work longer, and how this decision/desire can have an impact on working life in the middle term (e.g., work engagement) (e.g., Zaniboni, 2015). Thus, the scope of this study is to address a gap in literature by examining how work ability (older workers' personal resources) interacts with negative, age-related older worker stereotypes (lack of psychosocial resources) in affecting the desired retirement age and,

in turn, in continuing engagement at work (i.e., in the middle term). We based our hypotheses on the Conservation of Resources Theory (Hobfoll, 1989; Hobfoll, 2002; Hobfoll, Johnson, Ennis, & Jackson, 2003) and on the Resource-Based Model for Retirement Adjustment (Wang, 2007, Wang, Henkens, & van Soling, 2011; Wang & Shi, 2014).

Literature review

The Conservation of Resources Theory and the Resource-Based Model for Retirement Adjustment.

The Conservation of Resources Theory is a general motivational theory based on the assumption that individuals are motivated to obtain, retain, protect, and foster the things they value (i.e., resources) (Hobfoll, 1989; Hobfoll, 2002). Hobfoll and Wells (1998) noted that resource losses are more likely to occur later in life, and it is more difficult to offset these losses by mobilising other resources. This theory has been widely used in ageing studies to understand the relationship between gain/presence and loss/lack of resources, and work and retirement-related outcomes, such as older workers' job satisfaction and work engagement (i.e., Guglielmi et al., 2016; Sun & Pan, 2008), intention to retire (i.e., Henkens & Leenders, 2010; Zaniboni, 2015), and retirement well-being (i.e., Leung & Earl, 2012; Topa, Jiménez, Valero, & Ovejero, 2017). For example, Leung and Earl (2012) found that retirement resources (i.e., physical, financial, social, emotional, cognitive and motivational) were positively related to both retirement satisfaction and retirement adjustment. Moreover, as suggested by Hobfoll (2002; Hobfoll et al., 2003), personal and social resources can interact to affect work and retirement related outcomes, and more research can help in understanding potential advantages and constraints that occur in this combination. More focused on ageing and retirement, the Resource-Based Model for Retirement Adjustment analyses the different factors (i.e., resources) that can

influence retirement-related outcomes (Wang, 2007; Wang et al., 2011; Wang & Shi, 2014). The model posits that retirement-related outcomes result from the individual's access to resources, such as financial, health, social, emotional, motivational and cognitive. In particular, Wang and colleagues (Wang et al., 2011; Wang & Shi, 2014) suggested that changes in resources (e.g., gain/presence and loss/lack of resources) can affect well-being during retirement. Therefore, people can experience fewer (higher) difficulties in retirement when they have more (fewer) resources to fulfil their needs. Moreover, Wang and colleagues (Wang et al., 2011; Wang & Shi, 2014) highlighted the importance of analysing the combined effects of different kinds of resources (e.g., personal and psychosocial). This combination has been empirically examined in previous studies (e.g., Zaniboni, 2015). For example, Zaniboni (2015), using both the Conservation of Resource Theory and the Resource-Based Model for Retirement Adjustment, found that perceived age discrimination (a form of lack of social resources) interacted with older workers' personal resources in affecting two retirement-related outcomes (i.e., desired retirement age and expected adjustment). In particular, results showed that older workers' personal resources were more positively related to desired retirement age and to expected retirement adjustment in older employees perceiving low age discrimination than in those perceiving high age discrimination.

According to the Conservation of Resources Theory and the Resource-Based Model for Retirement Adjustment, older workers may still count on personal resources, such as work ability, but at the same time, they could find a drop in psychosocial resources, such as high levels of age stereotypes in the workplace. The interaction of these personal and social resources can affect work and retirement outcomes, such as desired retirement age and work engagement of older workers.

Work Ability, as a personal resource.

Personal resources are positive self-evaluations and they may refer to the abilities of individuals to successfully control and impact their environment (Hobfoll et al., 2003). Among various personal resources, work ability is considered important in studying the work and retirement-related aspect for older workers (Shultz &Wang, 2011). Work ability refers to employees' ability to carry out their work, that is, by possessing the occupational competence, the health required for the job, and the occupational qualities needed to manage the job's tasks (Tengland, 2011). Work ability is the result of the worker's perception of work demands and the ability to cope with them (Koolhaas, van der Klink, de Boer, Groothoff, & Brouwer, 2014). It refers to the "functional capacity to meet requirements of the job" (Airila et al., 2014, p. 88). Previous studies found that work ability was associated with disability leave (von Bonsdorff et al., 2011; McGonagle, Fisher, Barnes-Farrell, & Grosh, 2015), absence from work (McGonagle et al., 2015; Ahlstrom, Grimby-Ekman, Hagberg, & Dellve, 2010), retirement (Sell et al., 2009; McGonagle et al., 2015), and work engagement (Airila et al., 2014). Furthermore, as reported by Koolhaas and colleagues (2014), low levels of work ability have been found to be associated with low levels of performance, productivity loss, long-term absenteeism and early exit from work (Ahlstrom et al. 2010; Ilmarinen, Tuomi, & Klockars, 1997; Koolhaas, Van der Klink, de Boer, Groothoff, & Brouwer, 2012; Robroek, Van Lenthe, Van Empelen, & Burdorf, 2009; Salonen, Arola, Nygård, Huhtala, & Koivisto, 2003; Schultz, Chen, & Edington, 2009; Sell et al., 2009). Perceived work ability, defined as the worker's self-perception of his/her ability to perform his/her job, is a relevant construct in order to understand the psychological processes related to workforce withdrawal (McGonagle et al., 2015). Hence, it can be an important aspect that affects older workers' desire to work longer and their work engagement. For example,

McGonagle and colleagues (2015) suggested that workers might decide to remain at work due to their perception of high levels of work ability. Moreover, in a longitudinal study Airilia and colleagues (2014) found that work ability is a resource that can positively influence work engagement in the long term. Similarly, in a sample of managers Feldt, Hyvönen, Mäkikangas, Kinnunen, and Kokko (2009) found that work ability was positively related to job involvement and organisational commitment.

Older worker stereotypes as a lack of social resources.

Psychosocial resources are often explored as the gain/presence or the loss/lack of social support in the workplace (e.g., Hobfoll, 2002). In ageing research, age stereotypes and discrimination are considered particular forms of loss/lack of social support at work (e.g., Greenberg, Schimel, & Martens, 2002). Age stereotypes differ from age discrimination because the former are defined as the mental representations people have of different social groups, while the latter concerns the behaviour people enact toward members of different social groups (Whitley & Kite, 2006). Workplace age stereotypes refer to beliefs and expectations towards workers based on their age (Hamilton & Sherman, 1994), and to "a simplified, undifferentiated portrayal of an age group that is often erroneous, unrepresentative of reality, and resistant to modification" (Schulz, Noelker, Rockwood, & Sprott, 2006, p. 43). Workplace age stereotypes differ from age diversity climate, which has been defined as the shared perceptions "organisational members have of the fair and non-discriminatory treatment of employees of all age groups with regard to all relevant organisational practices, policies, procedures, and rewards" (Boehm, Kunze, & Bruch, 2014, p.671). In other words, workplace age stereotypes are beliefs regarding the characteristics of people within the same age group, while age diversity climate reflects the perception of organisational behaviour toward different age groups. In addition,

unlike age diversity climate, workplace age stereotypes are usually measured at an individual level (e.g., Bal et al., 2015; Gaillard & Desmette, 2010; Maurer, Barbeite, Weiss, & Lippstreu, 2008), also when they concern the perception of dispositions implemented by organisations for older workers (Chiesa et al., 2016).

Although the perception of older workers varies (Bal, Reiss, Rudolph, & Baltes, 2011; Bertolino, Truxillo, & Fraccaroli, 2012; Hilton & Von Hippel, 1996), they generally tend to be stereotypically viewed more negatively than younger workers, especially in terms of productivity and adaptability (e.g., Taylor, Steinberg, & Walley, 2000; Dordoni & Argentero, 2015; Karpinska, Henkens, & Schippers, 2013; Van Dalen, Henkens, & Schippers, 2009; 2010; Chiu, Chan, Snape, & Redman, 2001). Posthuma & Campion (2009) described different common age stereotypes that refer to older workers, such as: a) poor performance (older workers are considered to have fewer skills and be less motivated and less productive than younger workers); b) resistance to change (older workers are defined as harder to train, less flexible, less adaptable and more resistant to change); c) low ability to learn (older workers are expected to have a lower ability to learn and, therefore, have less potential for career development); d) short tenure (older workers will have shorter job tenure and, therefore, will provide fewer years during which the employer can obtain productive returns from training investments). The potential negative consequences of age stereotypes on older employees' work life are numerous (e.g., Dordoni & Argentero, 2015). In their integrative framework of later adulthood goals, Kanfer, Beier & Ackerman (2013) posited that age stereotypes held by organisations, supervisors, and co-workers are among the work conditions that interact with personal characteristics in affecting motivation at work and motivation to retire. This is consistent with the Conservation of Resources Theory (Hobfoll, 1989; 2002), which assumes that individuals with greater resources are less vulnerable

to resource loss and more capable of orchestrating resource gain, while those lacking resources are more vulnerable to resource loss and less capable of resource gain. People who have more personal resources have a stronger sense of control over their environment and are more motivated to invest resources in order to enrich their resource pool, while those who lack resources are likely to adopt defensive strategies to preserve their resources (Hobfoll et al., 2003).

In accordance with this, we expect a lack of resources, such as organisational support due to the perception of age stereotypes, to either reduce or neutralise the positive effect of work ability on desired retirement age.

This is in line with recent findings (Zaniboni, 2015) according to which the effect of personal resources on retirement-related outcomes is lower in cases of higher levels of perceived age discrimination. It is plausible to expect a similar effect of age stereotypes in either reducing or neutralising the positive effect of work ability on desired retirement age.

Aim and research hypotheses.

The aim of this study is to address the issue of how to enhance older workers' desire to stay on at work and their middle term work engagement by analysing the combined effect of work ability (personal resources) and negative age stereotypes about older workers (lack of psychosocial resources). Based on the Conservation of Resources Theory (Hobfoll, 1989; Hobfoll, 2002; Hobfoll et al., 2003) and on the Resource-Based Dynamic Model for Retirement Adjustment (Wang, 2007; Wang et al., 2011; Wang & Shi, 2014), older workers' working ability is expected to be more positively related to desired retirement age and, in turn, to work engagement in the middle term when the level of stereotypes against older workers in the workplace is perceived as low. Thus, an older worker who still has the ability to carry out his/her

work will desire to work longer if he/she perceives low levels of stereotypes against older workers at work and, consequently, he/she will stay engaged at work in the middle term (Figure 1).

Hypothesis 1: Older worker stereotypes moderate the relationship between work ability and desired retirement age; hence, work ability is more positively related to desired retirement age for workers perceiving lower levels of older worker stereotypes, compared to their colleagues perceiving higher levels of older worker stereotypes.

Hypothesis 2: The indirect effect of work ability on work engagement through desired retirement age depends on older worker stereotypes. Indeed, for older workers perceiving lower levels of older worker stereotypes, work ability will have a larger positive impact on desired retirement age that, in turn, will increase their work-engagement (moderated-mediation model).

Method

Procedure and Participants

Data for this study were collected twice (with a time lag of 8 months) by means of self-reported online surveys between September 2014 and May 2015. The questionnaires included a statement regarding personal data processing, in accordance with the Italian Privacy Law (Law Decree DL-196/2003). At Time 1 participants provided information on different aspects such as: socio-demographic characteristics, work ability, older worker stereotypes, desired retirement age, and on control variables, such as job involvement and expected retirement age. At Time 2 (8 months later) participants provided information on work engagement. The time lag was chosen considering that one of the study's aims was to observe work engagement of older workers in the middle term. All the 1584 workers aged over 50 years employed in the organisation were invited to participate in the study via e-mail, which also provided information on the aim of the project.

The respondents remained anonymous to their employer, and each participant was assigned an anonymous code in order to merge the two questionnaires to the same person. 972 workers completed the first survey (response rate = 61.36%), while 949 workers completed the second survey (response rate =59.91%). In order to monitor potential differences between the two samples of participants, we conducted a comparison of the two samples. Results showed no significant differences, despite the mean age in the second data collection (respectively 56.16 in T2 and 55.79 in T1). This is not surprising due to the postponement of job retirement and the fact that people aged during the study. Therefore, age was included as a control variable in our analyses. The study was conducted in a public organisation using white collar workers who had no contact with either clients or patients.

The number of participants who responded to both surveys was 621. Due to missing data on the variables used for this study, the final sample comprised 563 employees, of which 62.5% were female. The average age was 55.37 years (*SD* = 3.4; range: 50-64). In addition, 9.1% had completed high school, 45.1% had some college education, and 37.3% had a bachelor or master degree. We chose the threshold of 50, even if there is little consensus on the chronological age (or ages) at which a person is defined as "older worker", consistently with previous studies on older workers and retirement-related outcomes (e.g., McCarthy, Heraty, Cross, & Cleveland, 2014; Frins, van Ruysseveldt, van Dam, & van den Bossche, 2016).

Measures

Work ability. This concept was measured with a one-item scale developed by McGonagle and colleagues (2015). The single item on work ability was defined as a reliable indicator to capture the status and progress of work ability (Koolhaas et al., 2014). The item was "How many points would you give your current ability to work?" The response scale ranged from 0 (*cannot*

currently work at all) to 10 (*work ability at its lifetime best*). The single-item question on work ability has often replaced the Work Ability Index (Tuomi, Ilmarinen, Jahkola, Katajarinne, & Tulkki, 1998) in clinical and occupational practice, showing similar results (Ahlstrom et al., 2010; De Croon, Sluiter, Kuijer, & Frings-Dresen, 2005; Sluiter and Frings-Dresen, 2008; Koolhaas et al., 2014).

Older worker stereotypes. This dimension was measured with the four-item adaptability dimension taken from the Italian version (Chiesa et al., 2016) of stereotypes in the older workers' scale developed by Henkens (2005). This scale aimed to measure stereotypes as the perception of an organisation's negative vs. positive beliefs on 50 and over year old workers. (Chiesa et al., 2016). The items were introduced by the sentence "In my department there is the belief that", followed by, "older workers are less able to adapt to technological change than younger workers"; "Older workers are less interested in technological change than younger workers"; "Older workers are less interested in participating in training programmes than younger workers" and "Older workers are less capable of coping with stress than younger workers". Items were scored on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree).* Coefficient alpha was .78 in this study.

Desired retirement age. Desired retirement age was measured by asking participants to say the age when they desired to retire, regardless of the date from when they actually could retire. The item used was, "If you could choose, at what age would you retire?".

Work engagement. This study used the short version of the Utrecht Work Engagement Scale (Schaufeli, Salanova, González-Romá, & Bakker, 2002; Schaufeli, Bakker, & Salanova, 2006; Italian version validated by Balducci, Fraccaroli, & Schaufeli, 2010), consisting of nine items. A sample item is, "At my work, I feel bursting with energy". The items were scored on a

7-point scale ranging from ‘0’ (never) to ‘6’ (always). The global score was used in the analysis. Coefficient alpha was .90 in this study.

Control variables. The participants’ age, health, tenure, position level, expected retirement age and job involvement were used as control variables. *Age* of the workers was included in the analysis as a control variable because many studies showed that this variable is important in retirement studies and is linked to work engagement (e.g., Bal & De Lange, 2015). *Self-rated health* of the participant has been included as it has been shown to be an important resource that influences retirement age (Wang & Shultz, 2010), and was measured on a scale ranging from ‘1’ (very poor health) to ‘5’ (very good health). *Job tenure* was also used as a control as Ng and Feldman (2010) considered this variable in their meta-analysis of the effects of age on job attitudes. *Position level* was included as a control variable because few studies have found that levels of work engagement are higher among supervisors, compared to line staff (e.g., L. Lu, A. C. C. Lu, Gursoy, & Neale, 2016). Position level was measured as a continuous variable because it referred to 5 different hierarchical levels, thus a higher level corresponded to higher responsibilities and salary. Furthermore, as the decision to retire from work could also depend on the *expected retirement age* (Potočnik, Tordera, & Peiró, 2010), we included this variable as a control. Lastly, we included *job involvement* as it plays a crucial role in the preference to retire or keep on working (Buyens, Van Dijk, Dewilde, & De Vos, 2009). Job involvement was measured with two items of the Job Involvement Questionnaire developed by Lodahl and Kejner (1965) ranging from ‘1’ (strongly disagree) to ‘4’ (strongly agree). The two items used were, “The most important things that happen to me involve my work” and “The major satisfaction in my life comes from my job”. Coefficient alpha was .72 in this study.

Data analyses

PROCESS macro (Hayes, 2012), specifically model 7, was used to test our moderated-mediation model (Preacher, Rucker, & Hayes, 2007), where the interaction between work ability (independent variable) and older worker stereotypes (moderator) is related to desired retirement (mediator) which is, in turn, related to work engagement (outcome). We specified 10,000 bootstrap samples to obtain robust estimates of standard errors and confidence intervals, and we mean-centred independent and moderator variables. In addition, we included age, organisational tenure, position level, self-rated health, expected retirement age and job involvement as control variables.

Results

Mean values, standard deviations, inter-correlations, and alpha reliabilities of the variables are presented in Table 1. All correlation results concerning the independent variable, the moderator, the mediator and the dependent variable were in the expected direction, and all the values showed a significant association. Specifically, results showed that work ability was positively related to desired retirement age (r = .17, p = .00) and work engagement (r = .25, p = .00), and negatively related to older worker stereotypes (r = -.25, p = .00). Furthermore, desired retirement age was positively associated with work engagement (r = .20, p = .00), while older worker stereotypes were negatively related to both desired retirement age (r = -.10, p = .02) and work engagement (r = -.18, p = .00).

Table 2 reports the results of the moderated-mediation model that was tested. The mediator variable model (desired retirement age) shows that work ability (B = .23, p = .03) had a significant and positive effect on desired retirement. Furthermore, the interaction between work ability and older worker stereotypes (B = -.20, p = .03) was significant and negatively affected desired retirement age. According to our Hypothesis 1, older worker stereotypes moderated the

relationship between work ability and desired retirement age with a subsequent higher positive relationship between work ability and desired retirement age for workers perceiving lower levels of older worker stereotypes. Thus, Hypothesis 1 was confirmed. The dependent variable model (work engagement) shows that desired retirement age positively affected work engagement (B = .05, p = .00). According to Hypothesis 2, the indirect effect of work ability on work engagement through desired retirement age depended on levels of older worker stereotypes. Specifically, work ability had a stronger relationship with desired retirement in workers perceiving lower levels of older worker stereotypes, and this, in turn, increased the levels of work engagement. The lower part of Table 2 reports critical values of the conditional indirect effects. Results indicated that the indirect effect of work ability on work engagement through desired retirement age was significant at low and middle levels of older worker stereotypes. In particular, the effect is slightly stronger for workers perceiving lower levels (.02, CI = [.01, .05]) and middle levels of older worker stereotypes (.01, CI = [.00, .03]), compared to their colleagues who perceived higher levels of older worker stereotypes (.01, CI = [-.01, .01]). Thus, our Hypothesis 2 was confirmed. Figure 2 provides a more detailed plot of the interaction effect between work ability and older worker stereotypes on desired retirement age, showing that workers perceiving lower levels of older worker stereotypes presented a stronger positive relationship between work ability and desired retirement age than workers reporting higher levels of older worker stereotypes.[2]

Discussion

The main aim of this study was to increase knowledge on how personal and psychosocial resources could interact in determining the desired retirement age and work engagement of older workers in the middle term. Specifically, we used a combination of two main theories to develop

[2] As suggested by a reviewer, we performed the analyses using expected retirement age as a mediator and desired retirement age as a control variable. The results showed that the moderated-mediation hypothesis was not confirmed, and no interaction effect was found between work ability and older worker stereotypes on expected retirement age.

and test our hypotheses. The Conservation of Resources theory, developed by Hobfoll (1989), is a theory that makes use of more extensive resources to study the resource effects on a large variety of outcomes, including work and retirement-related outcomes. The Resource-Based Model for Retirement Adjustment, developed by Wang and colleagues (2011), is built on the resources framework (i.e., Conservation of Resources Theory) with particular focus on retirement-related outcomes (i.e., adjustment). As hypothesised, our results showed that work ability increases the desired retirement age of older workers especially when they perceive low or medium levels of age stereotypes and, in turn, increased work engagement eight months later. This study showed that older worker stereotypes moderated the relationship between work ability and desired retirement age; therefore, work ability was more positively related to desired retirement age for workers perceiving low levels of older worker stereotypes, compared to their colleagues who perceived higher levels of older worker stereotypes. Moreover, the indirect effect of work ability on work engagement through desired retirement age depended on the levels of perception of older worker stereotypes; hence, work ability further increased the desired retirement age of older workers and, subsequently, increased their middle term work engagement.

Furthermore, findings from this study showed that both work ability and older worker stereotypes were related to work engagement. This is consistent with the existing literature, which reports that both contextual (e.g., older worker stereotypes) and individual resources (e.g., work ability) are antecedents of work engagement (Bakker, Demerouti, & Sanz-Vergel, 2014).

According to Schaufeli and Taris (2014), there are more than forty resources that could enhance work engagement of workers. Despite this, only one study has investigated work ability as an antecedent of work engagement (Airilia et al., 2014). Thus our study enhances knowledge

on the relationship between these two constructs by also exploring the role played by desired retirement age. Results of this study also showed that in the model proposed, older worker stereotypes are not directly related to desired retirement age but they interact with work ability in affecting desired retirement age. This enhances the importance of considering the joint effect of work ability and older worker stereotypes in understanding the relationship with desired retirement age in an older working population. This result addresses the call of McGonagle and colleagues (2015), which posited that work ability is an important topic that needs additional research. In this direction, our study highlighted the importance of working ability especially in older workers as this construct is important when analysing the radical changes in how retirement is enacted and carried out nowadays (Shultz & Wang, 2011).

Considering the effects of expected retirement age, results showed that it was, at the same time, positively related to desired retirement age and negatively related to work engagement. This result could be explained by the fact that expected and desired retirement age are different constructs. In fact, if a worker desires to retire at an older age, he/she will report higher levels of work engagement. Conversely, the expected retirement age refers to the age they could retire, which could differ from the desired retirement age. In this case, a higher expected retirement age would correspond to lower levels of work engagement, if older workers need to stay on at work by law because they have not reached the minimum retirement age. Overall, these results highlight the importance of measuring work engagement in the long term.

Moreover, this study underscored knowledge concerning issues related to desired retirement age particularly in the public sector. Indeed, according to a large study conducted in a subsample of 18 European Countries by Lamprianou (2012), employees working for state-owned organisations desired to retire almost three years earlier, compared to private company

employees. Furthermore, this study enriched the literature on the antecedents and outcomes of the desired retirement age. In fact, previous literature indicates that workplace determinants (in this study measured as negative age stereotypes about older workers) can influence this variable (Hofäcker, 2015).

Practical Implications

Our findings have implications for organisations. Firstly, the results of this study help organisations in determining which factors could be focused on when older workers need to be motivated to be healthy and productive. Indeed, our study results suggest that organisations should focus on enhancing work ability, which is a potential target for organisational and individual interventions (McGonagle et al., 2015). Secondly, in order to enhance motivation in older workers, organisations should intervene in the stereotypes concerning older workers through, for example, dedicated campaigns and by reviewing the existing norms (both implicit and explicit). In fact, our results suggest that investing only personal resources (such as work ability) would be pointless, if negative stereotypes are not addressed too. Investing in reducing ageing stereotypes, such as, for example, by introducing new opportunities for intergenerational contact could reduce prejudice (Abrams, Eller, & Bryant, 2006) and also older worker stereotypes. Thirdly, our results support the need for public organisations to build and enhance an organisational climate for successful ageing (Zacher & Yang, 2016), as this climate is positively associated with focus on career opportunities, job satisfaction, organisational commitment and motivation to continue working past the official retirement age. If the goal is to keep older workers as long as possible in the workforce by decreasing the tendency for (voluntary or involuntary) early retirement (Alcover, Crego, Guglielmi, & Chiesa, 2012), an

organisational climate for successful ageing can motivate workers so that, at least, they do not consider anticipating the time of retirement.

Furthermore, the results of this study also suggest important considerations that could be useful to inform policy-makers regarding the development of pension system reforms. In fact, our results suggest that age itself (e.g., postponing the legal retirement age) is not the only variable that should be taken into account to keep older workers at work, engaged and productive. Heavy investments dedicated to enhancing the work ability of older workers and information campaigns aimed at building awareness of the negative effects of stereotypes in the workplace could be even more important in achieving the goal of keeping older workers engaged at work.

Limitations and Future Research

Despite the important contribution made by this study, we must acknowledge several limitations. Firstly, we tested moderated mediation but we were able to collect data only twice, while three measurements would have been more appropriate. Our antecedent and mediator were measured at the same time, thus they could be partially affected by common method variance. Despite this, according to Podsakoff, MacKenzie, Lee and Podsakoff (2003), procedural strategies were implemented trying to control common method variance; specifically, the respondents' anonymity was protected with respect to their employer, respondents were advised that there were no right or wrong answers, and they were asked to answer questions as honestly as possible. Furthermore, we tested for a moderated relationship, which should reduce the threat of respondents "guessing" patterns. Accordingly, future studies should investigate these relationships by measuring desired retirement age with a dedicated data collection process. Secondly, our study considered only older worker stereotypes as moderator of the relationship

between work ability and desired retirement age. Future studies should also investigate whether other types of stereotypes, such as poor performance stereotype, lower ability to learn stereotype, or shorter tenure stereotype (Posthuma & Campion, 2009), are able to moderate the same relationship. Considering the moderation effect, results showed relatively small effect sizes for the interaction (i.e., 1% variance). However, it is hard to detect interactions using moderated regression, particularly in non-experimental settings, such as field studies (Aguinis, 1995; Jaccard, Turrisi, & Wan, 1990). Furthermore, as mentioned by McClelland and Judd (1993), field study interactions typically account for an approx. 1%–3% variance.

Moreover, as literature has extensively investigated the antecedents of work ability, future studies should consider which kind of work ability antecedents are able to trigger work ability and, in turn, work engagement of older workers. Furthermore, our study was conducted only on a national sample of the same public organisation. Thus, future studies should also test the same relationship in other public sectors and in the private sector in order to increase the external validity of the study. Despite many control variables being included in the investigated model, no variables concerning finances of the respondents were investigated. Hence, future studies should include this as a control variable. Lastly, we used the single item measure of work ability, which is also self-reported. Despite establishing that this measure can be used as a reliable indicator to assess the status and progress of work ability (e.g., Ahlstrom et al. 2010), future studies might use a more extended measure of this construct by also including an objective assessment (e.g., Tuomi et al., 1997).

Conclusion

This study makes an important contribution by addressing a gap in the literature about how two different kinds of psychosocial and personal resources (older worker stereotypes and

work ability) interact in affecting desired retirement age and, in turn, work engagement in the middle term. Specifically, we found that work ability increases desired retirement age of older workers perceiving lower levels of older worker stereotypes, which, in turn, increases their engagement at work. These findings have important implications for both practice and research, and we encourage future research exploring which factors could enhance the postponement of retirement and work engagement in older workers, in order to keep them longer at work, healthy and productive.

References

Abrams, D., Eller, A., & Bryant, J. (2006). An age apart: The effects of intergenerational contact and stereotype threat on performance and intergroup bias. *Psychology and Aging, 21*, 691-702.

Aguinis, H. (1995). Statistical power problems with moderated multiple regression in management research. *Journal of Management, 21*, 1141-1158.

Ahlstrom, L., Grimby-Ekman, A., Hagberg, M., & Dellve, L. (2010). The work ability index and single-item question: associations with sick leave, symptoms, and health–a prospective study of women on long-term sick leave. *Scandinavian journal of work, environment & health, 36*, 404-412.

Airila, A., Hakanen, J. J., Schaufeli, W. B., Luukkonen, R., Punakallio, A., & Lusa, S. (2014). Are job and personal resources associated with work ability 10 years later? The mediating role of work engagement. *Work & Stress, 28*, 87-105.

Alcover, C. M., Crego, A., Guglielmi, D., & Chiesa, R. (2012). Comparison between the Spanish and Italian early work retirement models. A cluster analysis approach. *Personnel Review, 41*, 380-403.

ARAN (2013). Anzianità ed età del personale pubblico. Roma. Retrived from https://www.aranagenzia.it/attachments/article/5928/3_Anzianità%20ed%20età%20del%20personale%20pubblico.pdf

Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD–R approach. Annual Reviews of *Organizational Psychology and Organizational Behavior, 1*, 389-411.

Bal, P. M., & De Lange, A. H. (2015). From flexibility human resource management to employee engagement and perceived job performance across the lifespan: A multisample study. *Journal of Occupational and Organizational Psychology, 88,* 126–154.

Bal, P. M., de Lange, A. H., Van der Heijden, B. I., Zacher, H., Oderkerk, F. A., & Otten, S. (2015). Young at heart, old at work? Relations between age, (meta-) stereotypes, self-categorization, and retirement attitudes. *Journal of Vocational Behavior, 91,* 35-45.

Bal, A. C., Reiss, A. E. B., Rudolph, C. W., & Baltes, B. B. (2011). Examining positive and negative perceptions of older workers: a meta-analysis. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 66,* 687–698.

Balducci, C., Fraccaroli, F., & Schaufeli, W. B. (2010). Psychometric properties of the Italian version of the Utrecht Work Engagement Scale (UWES-9): A cross-cultural analysis, *European Journal of Psychological Assessment, 26,* 143-149.

Bayl-Smith, P. H., & Griffin, B. (2014). Age discrimination in the workplace: Identifying as a late-career worker and its relationship with engagement and intended retirement age. *Journal of Applied Social Psychology, 44,* 588-599.

Bertolino, M., Truxillo, D. M., & Fraccaroli, F. (2013). Age effects on perceived personality and job performance. *Journal of Managerial Psychology, 28,* 867–885.

Boehm, S. A., Kunze, F., & Bruch, H. (2014). Spotlight on age-diversity climate: The impact of age-inclusive HR practices on firm-level outcomes. *Personnel Psychology, 67,* 667-704.

Buyens, D., Van Dijk, H., Dewilde, T., & De Vos, A. (2009). The aging workforce: Perceptions of career ending. *Journal of Managerial Psychology, 24,* 102-117.

Chiesa, R., Toderi, S., Dordoni, P., Henkens, K., Fiabane, E. M., Setti, I. (2016). Older workers: stereotypes and occupational self-efficacy. *Journal of Managerial Psychology, 31,* 1152-1166.

Chiu, W. C. K., Chan, A. W., Snape, E., & Redman, T. (2001). Age stereotypes and discriminatory attitudes towards older workers: An East-West comparison. *Human relations, 54*, 629-661.

D'Addio, A. C., Keese, M., & Whitehouse, E. (2010). Population ageing and labour markets. *Oxford review of economic policy, 26*, 613-635.

De Croon, E., Sluiter, J., Kuijer, P. P., & Frings-Dresen, M. (2005). The effect of office concepts on worker health and performance: a systematic review of the literature. *Ergonomics, 48*, 119-134.

Dordoni, P., & Argentero, P. (2015). When Age stereotypes are employment barriers: a conceptual analysis and a literature review on older workers stereotypes. *Ageing International, 40*, 393-412.

Feldt, T., Hyvönen, K., Mäkikangas, A., Kinnunen, U., & Kokko, K. (2009). Development trajectories of Finnish managers' work ability over a 10-year follow-up period. *Scandinavian Journal of Work, Environment & Health, 35*, 37–47.

Frins, W., van Ruysseveldt, J., van Dam, K., & van den Bossche, S. N. J. (2016). Older employees' desired retirement age: A JD-R perspective. *Journal of Managerial Psychology, 31*, 34-49.

Gaillard, M-. & Desmette, D. (2010). (In)validating Stereotypes about older workers influences their intentions to retire early and to learn and develop. *Basic and Applied Social Psychology, 32*, 86-98.

Guglielmi, D., Avanzi, L., Chiesa, R., Mariani, M. G., Bruni, I., & Depolo, M. (2016). Positive aging in demanding workplaces: The gain cycle between job satisfaction and work engagement. *Frontiers in Psychology, 7*, 1224.

Greenberg, J., Schimel, J., & Martens, A. (2002). Ageism: Denying the face of the future. In T. D. Nelson (Ed.), *Ageism: Stereotyping and prejudice against older persons* (pp. 27–48). Cambridge, MA: MIT Press.

Hamilton, D. L., & Sherman, S. J. (1994). Stereotypes. ln R. S. Wyer Jr., & TK Srull (Eds.), *Handbook of social cognition* (pp. 1-68), Hillsdale, NJ: Erlbaum.

Hayes, A. F. (2012). *PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling*. Retrieved from http://www.afhayes.com/public/process2012.pdf.

Henkens, K. (2005). Stereotyping older workers and retirement: the managers' point of view. *Canadian Journal of Aging Revue Canedienne du Vieillisement, 24*, 353-366.

Henkens, K. & Leenders, M. (2010). Burnout and older workers' intentions to retire. *International Journal of Manpower, 31*, 306-321.

Henkens, K., & Tazelaar, F. (1997). Explaining retirement decisions of civil servants in the Netherlands: Intentions, behaviour and the discrepancy between the two. *Research on Aging, 19*, 139–173.

Hertel, G., Van der Heijden, B. I. J. M., de Lange, A. H., & Deller, J. (2013). Facilitating age diversity in organizations–part I: challenging popular misbeliefs. *Journal of Managerial Psychology, 28*, 729-740.

Hilton, J. L. & W. Von Hippel (1996). Stereotypes. *Annual Review of Psychology, 47*, 237– 271.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American psychologist, 44*, 513-524.

Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of general psychology, 6*, 307-324.

Hobfoll, S. E., Johnson, R. J., Ennis, N., & Jackson, A. P. (2003). Resource loss, resource gain, and emotional outcomes among inner city women. *Journal of personality and social psychology, 84*, 632-643.

Hobfoll, S. E., & Wells, J. D. (1998). Conservation of resources, stress, and aging: Why do some slide and some spring? In J. Lomranz (Ed.), *Handbook of aging and mental health: An integrative approach* (pp. 121–134). New York, NY: Plenum Press.

Hofäcker, D. (2015). In line or at odds with active ageing policies? Exploring patterns of retirement preferences in Europe. *Ageing and Society, 35*, 1529-1556.

Ilmarinen, J., Tuomi, K., & Klockars, M. (1997). Changes in the work ability of active employees over an 11-year period. *Scandinavian Journal of Work, Environment and Health, 23*, 49-57. Retrieved from http://www.jstor.org/stable/40966691

Jaccard, J., Turrisi, R., & Wan, C. K. (1990). *Interaction effects in multiple regression*. Newbury Park, CA: Sage.

Kanfer, R., Beier, M. E., & Ackerman, P. L. (2013). Goals and motivation related to work in later adulthood: An organizing framework. *European Journal of Work and Organizational Psychology, 22*, 253-264.

Karpinska, K., Henkens, K., & Schippers, J. (2013). Hiring retirees: impact of age norms and stereotypes. *Journal of Managerial Psychology, 28*, 886-906.

Koolhaas, W., Van Der Klink, J. J., de Boer, M. R., Groothoff, J. W., & Brouwer, S. (2014). Chronic health conditions and work ability in the ageing workforce: the impact of work conditions, psychosocial factors and perceived health. *International archives of occupational and environmental health, 87*, 433-443.

Koolhaas, W., Van Der Klink, J. J., Groothoff, J. W., & Brouwer, S. (2012). Towards a sustainable healthy working life: Associations between chronological age, functional age and work outcomes. *European Journal of Public Health, 22,* 424-429.

Kosloski, K., Ekerdt, D., & DeViney, S. (2001). The role of job-related rewards in retirement planning. *Journal of Gerontology, Series B: Psychological Sciences and Social Sciences, 56,* 160–169.

Lamprianou, I. (2012). Determinants of Early Retirement in the European Union. *Journal of Transnational Management, 17,* 137-154.

Leung, C. S. Y., & Earl, J. K. (2012). Retirement resources inventory: Construction, factor structure and psychometric proper- ties. *Journal of Vocational Behavior, 81*, 171–182.

Lodahl, T., & Kejner, M. (1965). The definition and measurement of job involvement. *Journal of Applied Psychology, 49,* 24-33.

Lu, L., Lu, A. C. C., Gursoy, D., & Neale, N.R. (2016). Work engagement, job satisfaction, and turnover intentions: A comparison between supervisors and line-level employees. *International Journal of Contemporary Hospitality Management, 28,* pp.737-761.

Maurer, T. J., Barbeite, F. G., Weiss, E. M. & Lippstreu, M. (2008). New measures of stereotypical beliefs about older workers' ability and desire for development: Exploration among employees age 40 and over. *Journal of Managerial Psychology, 23*, 395-418.

McCarthy, J., Heraty, N., Cross, C., & Cleveland, J. N. (2014). Who is considered an 'older worker'? Extending our conceptualisation of 'older' from an organisational decision maker perspective. *Human Resource Management Journal, 24*, 374-393.

McClelland, G. H., & Judd, C. M. (1993). Statistical difficulties of detecting interactions and moderator effects. *Psychological bulletin, 114*, 376-390.

McGonagle, A. K., Fisher, G. G., Barnes-Farrell, J. L., & Grosch, J. W. (2015). Individual and work factors related to perceived work ability and labor force outcomes. *Journal of Applied Psychology, 100*, 376-398.

Mein, G., Martikainen, P., Stansfield, S., Brunner, E., Furhrer, R., and Marmot, M. (2000). Predictors of early retirement in British civil servants. *Age Ageing, 29*, 529–536.

Ng, T. W. H., & Feldman, D. C. (2015). The moderating effects of age in the relationships of job autonomy to work outcomes. *Work, Aging and Retirement, 1*, 64-78.

Oakman, J. & Wells, Y. (2013). Retirement intentions: what is the role of push factors in predicting retirement intentions?. *Ageing and Society, 33*, 988-1008.

OECD (2018). *OECD Labour Force Statistics 2017*. Paris: OECD Publishing.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879-903.

Posthuma, R. A. & Campion, M. A. (2009). Age stereotypes in the workplace: Common stereotypes, moderators, and future research directions. *Journal of Management, 35*, 158–188.

Potočnik, K., Tordera, N., & Peiró J. M. (2010). The influence of the early retirement process on satisfaction with early retirement and psychological well-being. *International Journal of Aging and Human Development, 70*, 251-273.

Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research, 42*, 185-227.

Robroek, S. J., Van Lenthe, F. J., Van Empelen, P., & Burdorf, A. (2009). Determinants of participation in worksite health promotion programmes: a systematic review. *International Journal of Behavioral Nutrition and Physical Activity, 6*, 6-26.

Salonen, P., Arola, H., Nygård, C. H., Huhtala, H., & Koivisto, A. M. (2003). Factors associated with premature departure from working life among ageing food industry employees. *Occupational medicine, 53*, 65-68.

Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire a cross-national study. *Educational and psychological Measurement*, *66*, 701-716.

Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness studies, 3*, 71-92.

Schaufeli, W. B., & Taris, T. W. (2014). A critical review of the Job Demands-Resources model: implications for improving work and health. In G. F. Baur, & O. Hämming (Eds.), *Bridging Occupational, Organizational and Public Health: A transdisciplinary approach* (43-67). Dordrecht: Springer.

Schultz, A. B., Chen, C. Y., & Edington, D. W. (2009). The cost and impact of health conditions on presenteeism to employers. *Pharmacoeconomics, 27,* 365-378.

Schulz, R., Noelker, L. S., Rockwood, K., & Sprott, R. L. (2006). *The Encyclopedia of Aging* (4th ed). New York, NY: Springer Publishing.

Shultz, K. S., & Wang, M. (2011). Psychological perspectives on the changing nature of retirement. *American Psychologist, 66,* 170.

Sell, L., Bultmann, U., Rugulies, R., Villadsen, E., Faber A., & Soogard, K. (2009). Predicting long-term sickness absence and early retirement pension from self-reported work ability. *International archives of occupational and environmental health, 82,* 1133-1138.

Sluiter, J. K., & Frings-Dresen, M. H. (2008). Quality of life and illness perception in working and sick-listed chronic RSI patients. *International archives of occupational and environmental health, 81,* 495-501.

Sun, L., & Pan, W. (2008). HR practices perceptions, emotional exhaustion, and work outcomes: A conservation-of-resources theory in the Chinese context. Human Resource Development Quarterly, 19, 55-74.

Szinovacz, M. E., Martin, L., & Davey, A. (2014). Recession and expected retirement age: Another look at the evidence. *The Gerontologist, 54,* 245-257.

State General Accounting Department http://www.corriere.it/economia/16_gennaio_15/niente-turnover-2016-l-eta-media-dipendenti-pubblici-oltre-50-anni-7beba7f2-bb92-11e5-b830-d9b0b8f21c0e.shtml

Taylor, P., Steinberg, M., & Walley, L. (2000). Mature age employment: Recent developments in public policy in Australia. *Australasian Journal on Ageing, 19,* 125-129.

Tengland, P. A. (2011). The concept of work ability. *Journal of Occupational Rehabilitation, 21*, 275–285.

Topa, G., & Alcover, C. M. (2015). Psychosocial factors in retirement intentions and adjustment: A multi-sample study. *Career Development International, 20*, 384-408.

Topa, G., Jiménez, I., Valero, E. Ovejero, A. (2017). Resource Loss and Gain, Life Satisfaction, and Health Among Retirees in Spain, *Journal of Aging and Health, 29*, 415-436.

Tuomi, K., Ilmarinen, J., Jahkola, A., Katajarinne, L., & Tulkki, A. (1998). *Work Ability Index (2nd rev. ed.).* Helsinki, Finland: Finnish Institute of Occupational Health.

Van Dalen, H.P., Henkens, K. & Schippers, J. (2009). Dealing with older workers in Europe: a comparative survey of employers' attitudes and actions. *Journal of European Social Policy, 19*, 47-60.

Van Dalen, H.P., Henkens, K. & Schippers, J. (2010). Productivity of older workers: perceptions of employers and employees, *Population and Development Review, 36*, 309-330.

von Bonsdorff, M. B., Seitsamo, J., Ilmarinen, J., Nygård, C. H., von Bonsdorff, M. E., & Rantanen, T. (2011). Work ability in midlife as a predictor of mortality and disability in later life: a 28-year prospective follow-up study. *Canadian medical association journal, 183*, E235-E242.

Walker, D. M. (2007). Older workers: Some best practices and strategies for engaging and retaining older workers (GAO-07-433T). Washington, DC: U.S. Government Accountability Office. Retrieved from http://www.gao.gov/new.items/d07433t.pdf

Wang, M. (2007). Profiling retirees in the retirement transition and adjustment process: Examining the longitudinal change patterns of retirees' psychological well-being. *Journal of Applied Psychology, 92*, 455-474.

Wang, M., Henkens, K., & van Solinge, H. (2011). Retirement adjustment: A review of theoretical and empirical advancements. *American Psychologist, 66*, 204-213.

Wang, M., & Shi, J. (2014). Psychological research on retirement. *Annual review of psychology, 65*, 209-233.

Wang, M., & Shultz, K. S. (2010). Employee retirement: A review and recommendations for future investigation. *Journal of Management, 36*, 172-206.

Whitley, B., Jr., & Kite, M. E. (2006). *The psychology of prejudice and discrimination*. Belmont: Thomson Wadsworth.

Wöhrmann, A. M., Fasbender, U., & Deller, J. (2017). Does more respect from leaders postpone the desire to retire? understanding the mechanisms of retirement decision-making. *Frontiers in Psychology, 8*, 1400.

Zacher, H. & Yang, Y. (2016). Organizational Climate for Successful Aging. *Frontiers in Psychology, 7*, 1007.

Zaniboni, S. (2015). The Interaction Between Older Workers' Personal Resources and Perceived Age Discrimination Affects the Desired Retirement Age and the Expected Adjustment. *Work, Aging and Retirement, 1*, 266-273.

Zaniboni, S., Fraccaroli, F., & Sarchielli, G. (2010). Zaniboni, S., Sarchielli, G., & Fraccaroli, F. (2010). How are psychosocial factors related to retirement intentions? *International Journal of Manpower, 31*, 271–285.

Table 1.

Means, Standard Deviations, and Intercorrelations among Study Variables

		M	*SD*	1	2	3	4	5	6	7	8	9	10
1.	Age	55.37	3.43	-									
2.	Tenure	22.90	9.39	.27**	-								
3.	Position level	2.86	1.10	.19**	.01	-							
4.	Self-rated health	3.79	.94	-.05	-.06	.15**	-						
5.	Expected retirement age	64.40	3.02	-.06	-.26**	.19**	.07	-					
6.	Job involvement	2.13	.89	.05	-.07	.27**	.07	.15**	(.72)				
7.	Work ability	7.63	1.82	-.15**	-.13**	.11*	.39**	.10*	.18**	-			
8.	Older workers stereotypes	2.93	1.00	.07	.11**	.06	-.16**	-.07	-.09*	-.25**	(.78)		
9.	Desired retirement age	60.36	4.72	.11**	-.14**	.17**	.15**	.45**	.23**	.17**	-.10*	-	
10.	Work engagement	4.43	1.34	-.00	-.01	.15**	.17**	-.03	.22**	.25**	-.18**	.20**	(.90)

Note: $N = 563$. Cronbach's alpha in brackets on the diagonal.

* $p < .05$; ** $p < .01$

Table 2.

Results of the moderated-mediation model

	Model of desired retirement age (M)		Model of work engagement (Y)	
Variable	*Coefficient*	*SE*	*Coefficient*	*SE*
Age	.22**	.05	-.01	.02
Tenure	-.03	.02	.00	.01
Position level	.07	.17	.11*	.05
Self-rated health	.42*	.20	.09	.06
Expected retirement age	.63**	.06	-.07**	.02
Job involvement	.69**	.20	.22**	.06
Work ability (X)	.23*	.11	.13**	.03
Older workers stereotypes (W)	-.12	.18		
Work ability x Older workers stereotypes	-.20*	.09		
Desired retirement age (M)			.05**	.01
Model of M Summary	$R^2 = .28^{**}$			
Model of Y Summary			$R^2 = .14^{**}$	

Conditional indirect effect of work ability (X) on work engagement (Y) through desired retirement age (M) at values of older workers stereotypes (W)

Older workers stereotypes	*Effect*	*Boot SE*	*Boot 95% CI*
Low levels	.02	.01	.01 - .05

Middle levels	.01	.01	.00 - .03
High levels	.01	.01	-.01 - .01

Note: $N = 563$.

* $p < .05$; ** $p < .01$

Figure 1. Moderated-mediation model

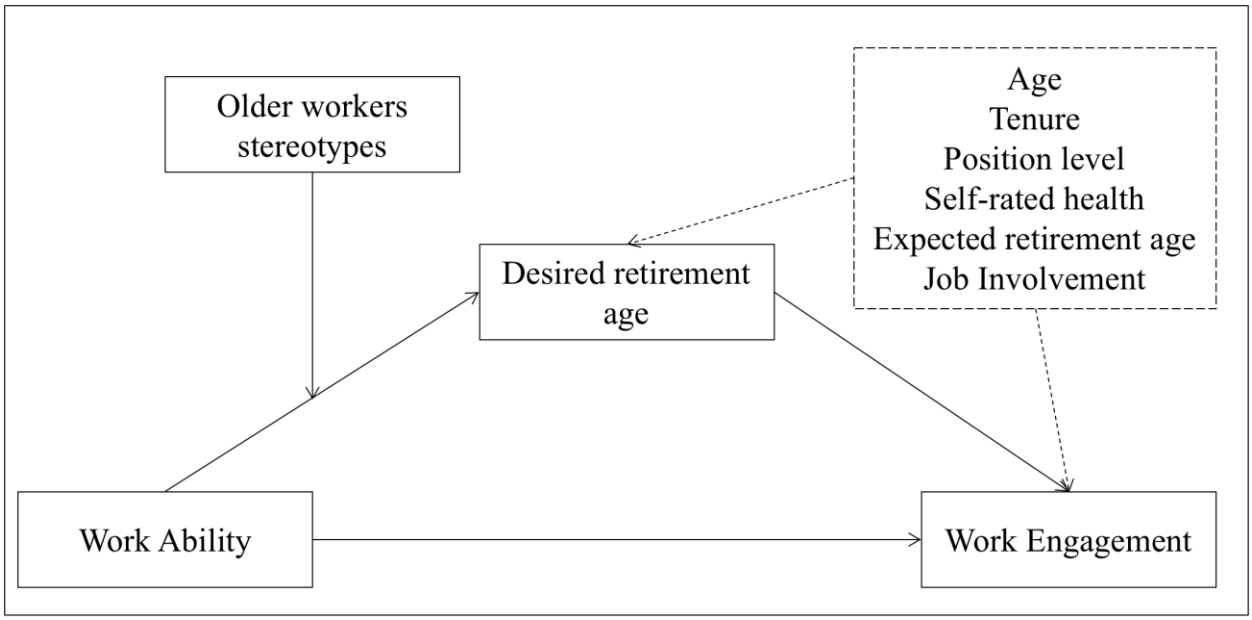
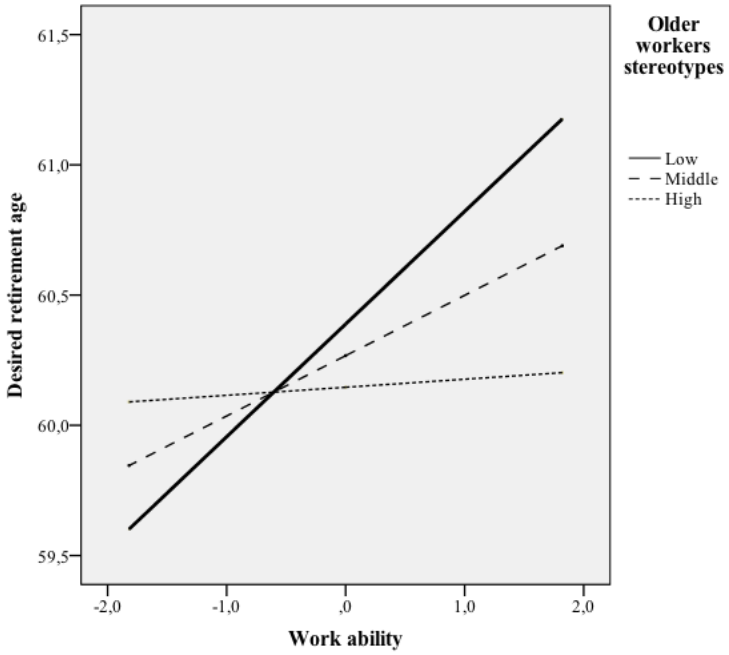
Figure 2. Work ability and older workers stereotypes interact to affect desired retirement age.