This paper is from the BAM2019 Conference Proceedings

About BAM

The British Academy of Management (BAM) is the leading authority on the academic field of management in the UK, supporting and representing the community of scholars and engaging with international peers.

http://www.bam.ac.uk/
Older healthcare workers’ satisfaction: managing the interaction of age, job security expectations and autonomy

Abstract

Demographic changes involving a worldwide aging population and later retirements produce a gradual aging of the workforce and major concerns about how aging may influence the workplace. This paper provides evidence relating to older workers in healthcare settings in Australia. We show that older workers’ expectations regarding job security and autonomy are vital areas of organisational attention. The paper uses data drawn from a recently conducted representative survey of the Australian workforce, with a subsample of healthcare workers employed for this study. We note that older workers’ job satisfaction is negatively influenced by poor perceptions of job security and autonomy in how their work is carried out. Ensuring that older workers stay in the healthcare workforce is imperative as the workforce ages. This paper shows that managing their job security and offering them work autonomy enhances their job satisfaction.

Keywords: Healthcare management, Human Resource Management (HRM), Employee Relations, Job Satisfaction, Ageing Workforce.
Introduction

The change in workforce configuration is one of the most important challenges facing organizations in developed countries (Kompier, 2006). Populations in most developed countries are aging (OECD, 2006). Workers aged 50 years and over are expected to make up almost one third of the working-age population in developed countries by 2050 (United Nations, 2007). According to 2016 Australian census, one in every six people in Australia is aged 65 and over, and estimates show that by 2030 one in three in Australia will be aged 55 and over (Goonrey & Mandel, 2018). Age diversity management represents a major challenge in human resource management in developed countries (Drabe, Hauff & Richter, 2015). Organizations will be required to hire, motivate and retain older employees (Kunze, Boehm, & Bruch, 2011). Challenges associate with age diversity management include maintaining and enhancing employees’ well-being and job satisfaction under conditions of increase of job demand in a progressively aging working population (Guglielmi, Avanzi, Mariani, Bruni, & Depolo, 2016). More attention should be paid to understanding how to motivate and satisfy older employees (Guglielmi et al., 2016). There is a lack of research on the determinants of job satisfaction in different age groups (Drabe et al., 2015; Kooij et al., 2012; Krumm, Grube, & Hertel, 2012). Previous studies have looked at antecedents of job satisfaction among older employees without comparing the results between older and younger employees (e.g. Eichar, Norland, Michael Brady, & Fortinsky, 1991; Groot & van de Brink, 1999). Therefore, age-specific differences in job satisfaction antecedents were not identified (Drabe et al., 2015).

The determinants of job satisfaction for older employees are different than those for younger employees (Drabe et al., 2015). The difference between the antecedents of job satisfaction of older and younger employees present opportunities to tailor workplace arrangements to better suit the preferences of individual age groups (Kooij, De Lange, Jansen, Kanfer, & Dikkers,
Traditionally, HR policies in organizations have tended to adopt a universal application for all staff. This approach innately assumes that all employees have the same values and preferences in the workplace. However, with mounting research in the area of workforce diversity, there is convincing evidence to suggest that differences in workplace values and preferences exist among employees. Previous research has shown that older employees have different values, goals and needs (Drabe et al., 2015).

In many sectors of the economy there is an increasing need to attract and retain older workers, particularly that older workers report less work stress and less family-work conflict in addition to being more resilient compared to younger workers (Hsu, 2019). Several studies have found a positive relationship between age and job satisfaction (Beng Ang, Tee Goh, & Chye Koh, 1993; Ng and Feldman, 2007). As such, findings from research into differences between groups of employees based on their age could potentially have practical implications for the HR policies of organisations. This is especially relevant in sectors with an older average workforce, such as the healthcare sector.

This study aims to contribute to the growing body of research that examines the drivers of job satisfaction among older employees (e.g. Drabe et al., 2015; Shiu, Hassan & Parry, 2015) by examining the moderating role of age on the relationship between job security and job satisfaction, and by examining the moderating role of age on the relationship between autonomy and job satisfaction among workers in healthcare organizations in Australia. Based on the principles of the Selection Optimization and Compensation (SOC) theory (Baltes, Staudinger, & Lin, 1999) we suggest that age enhances the positive relationship between job security and job satisfaction. As individuals enter later adulthood, SOC theory predicts that motives related to maintenance and regulation of work-related losses will increase. Thus, job security is expected to be a key determinant of job satisfaction among older employees.
We also propose that age enhances the positive relationship between autonomy and job satisfaction based on principles of Life Span Theory of Control and Development (Heckhausen 1995; Heckhausen et al., 2010), which states that older adults have preference for intrinsically rewarding job features such as autonomy (Kooij et al., 2011). Additionally, autonomy bolster self-concept (Joo, Jeung & Yoon, 2010). Protecting self-concept is a key determinant for older workers motivation and satisfaction (Kanfer & Ackerman, 2004). The practical contribution of this approach is to improve the tailoring of HR programs to better meet the needs of all workers in organisations, with a specific intention of retaining and attracting older workers.

The healthcare sector was chosen for this research for a number of reasons. The sector is expanding globally, due in part to the move towards a service-based economy in many developed nations. Relatedly, an ageing population, driven in part by improved healthcare technology and standards, is increasing the demand for health services, especially amongst the elderly. This is leading to a concomitant increase in demand for skilled healthcare workers. In Australia, for example, the Federal Department of Employment (Department of Employment, 2017) has projected growth of more than 250,000 jobs in the five years leading to 2021 in these sectors. Coupled with this net growth in new roles is a significant challenge driven by departures from the workforce by older healthcare workers.

Our results confirm differences between younger and older workers when examining the interaction of age, job security and job autonomy on satisfaction. In addition, we found that workers in the healthcare sectors become less satisfied with their work as they age. Our results suggest the need for ongoing research in this area, specifically exploring the interrelationship between attitudinal factors in order to extend our understanding of what drives satisfaction at the individual level. Additionally, our findings are particularly apposite for the healthcare sector where the workforce has a higher age than is the case for the overall workforce.
Theoretical Framework

Employee Age, Work-based Values and Job Satisfaction

The surety of human life’s finite nature provides ample reason for a change in attitudes towards work and leisure as we age (Hirschi, Herrmann, Nagy & Spurk, 2016). The labour path of most workers proceeds through education, early work years, career stabilisation and progression towards eventual retirement. Even as the notion of a similar job for life has decreased in importance, career progression is still viewed as an important element of work life – even if between sectors of work and specific occupations (da Silva, Trevisan, Veloso & Dutra, 2016; Kuron, Lyons, Schweitzer & Ng, 2015).

Much research suggests that what employees value changes as they age. Stynen, Forrier & Sels (2014), for example, note that older workers are generally less attentive to maximising remuneration than is the case for younger workers. As their self-perceived tenure in the workforce declines, older workers tend to be more stable in their workplace, even when the perceived remunerative benefits of moving employer are noted. Armstrong-Stassen (2008) frames this workforce stability in a somewhat negative light, noting that older workers tend to experience both structural (hierarchical) and content (job content) plateauing. This indicates a strong inertial effect on the upward trajectory of older workers’ careers combined with a narrowing of their horizontal work flexibility. Whether these effects are driven primarily by organisational systems and restrictions, or by a change in the level of ambition of older workers, or by some combination of these and other factors, is moot. Nonetheless, there is strong evidence that the innate relationship between older workers and their work differs considerably from this relationship among younger workers.

Older workers are, however, not a homogeneous group. Among older workers, organisations see a variety of skills and degrees of commitment. Maintaining a flexible and responsive set of
policies relating to older workers will clearly tend to enhance how engaged they are at work and thus the mutual benefits available from their employment (Claes & Heymans, 2008).

While there is a significant amount of research which explores the effect of generational differences on employees’ work values and job satisfaction, the evidence from this research is in often conflicting. Some explanation for these mixed results may include the failure to account for differences in national contexts between studies, the role of ethnicities and gender. Another inconsistency in generational research is the lack of agreement on generational labels and the corresponding years the labels encompass (Smola and Sutton 2002).

In a landmark study in 2010, Jean Twenge and colleagues (Twenge, Campbell, Hoffman & Lance, 2010) investigated 3 representative sample of American high school seniors from 1976, 1991, and 2006 (N = 16,507) representing in turn Baby Boomers, Generation X (GenX), and Generation Me (or Millennials). They found that while some attitudes persisted, others changed. For example, leisure value preference increased among the latter two generations while work centrality preference steadily declined. Other changes were non-monotonic – for example, extrinsic value preference declined from GenX to GenMe, but both values were higher than those reported by Baby Boomers.

Given that the evidence from research on generational differences in work values and satisfaction is often inconclusive, the case for generational differences impacting employees’ preferences and values is not yet convincing (Drabe, Hauff, Richter, 2015). Noting this, we have chosen to adopt age as a continuous variable in our study, rather than rely on generational categories. In making this choice, we note that the idea that employees have different work values and preferences dependent on their age remains a useful idea for HR managers/programs.

*Job Security and Job Satisfaction*
In their review of the ‘generations at work’ literature, Lyons and Kuron (2013) note a preponderance of research that suggests that younger workers are more neurotic and narcissistic than their elders while also exhibiting lower levels of self-assuredness and achievement orientation. Taken together these findings might suggest a lower sense of employer loyalty or obligation among successive generations. Indeed, the wider and more expressive career interests of younger workers would tend to predispose them to a wider array of potential jobs, employers and occupations over their work lives (Lyons, Schweitzer & Ng, 2015). If this is an emerging predisposition among young workers, it is supplemented by the demise of the ‘jobs for life’ model and the rise of what has been termed ‘the precariat’ (Standing, 2016). Where once working for an employer for life was seen as both desirable and a normal state of affairs, younger works are more amenable to flexibility in terms of employers and roles – both by necessity and by disposition.

For older workers, the meaning of work changes as their financial means become more settled and robust. Self-selection may tend to occur as older workers who derive certain innate satisfaction from their work tend to persist longer in the workforce compared to those who dislike their work. The concurrence of older age and active workforce participation tends to be associated with a greater degree of perceived security in the job and a willingness to share skills and knowledge with younger and emerging workers who may hitherto have been seen as ‘competitors’ for status and other benefits (Templer, Armstrong-Stassen & Cattaneo, 2010).

Previous research examining the relationship between age and job security reveal inconsistent findings. Warr (1997; 2001) suggested that age is likely to be positively associated with increased preference for job security. On the other hand Kooij et al.’s (2011) meta-analysis revealed a negative relationship between age and job security. Additionally, Drabe et al. (2015) found that job security is less important for older employees.
Selection, Optimization and Compensation (SOC) theory (Baltes, Staudinger, & Lin, 1999) defined successful development as the conjoint maximization of gains and the minimization of losses. A process of selecting feasible outcomes, optimizing resources and compensating for resource losses achieves maximization (Baltes et al., 1999). Older employees accommodate age-related changes in resource gains and losses by increasing motives related to the regulation and maintenance of work, and decreasing motives related to growth, therefore older workers are likely to show greater interest in security (Baltes et al., 1999; Warr, 1997).

**H1:** Age will moderate perceived job security in a positive (divergent) fashion such that for older workers, higher job security will be a stronger positive predictor of overall job satisfaction than will be the case for younger workers.

*Autonomy and Job Satisfaction*

Enhanced autonomy at work – or greater say in how a job will be undertaken – has generally been seen to have positive motivational impacts (Humphrey, Nahgang and Morgenson, 2007). Autonomy has positive effects on employees’ well-being and motivation, it also has positive impact on job attitudes and job behaviors (Ng and Feldman, 2014). This might tend to be exacerbated in stressful roles, or where employees are particularly susceptible to stress (Wall, Jackson, Mullarkey & Parker, 1996). A number of recent studies have considered how older workers respond to enhanced autonomy and personal agency at work. In their meta-analysis, Ng and Feldman (2014) found that job autonomy predicts both self-efficacy and job performance for older workers more than was the case for younger workers. However, they noted that the predictive relationships of job autonomy to both job satisfaction and to affective commitment tended to weaken as employees became older. While not necessarily conflicting, these resultant variations of understanding emerge from what the authors note is conflicted intellectual terrain.
Supporting this notion that older workers value heightened autonomy, Ng and Feldman (2014) proposed that enhanced task variety and more elaborate social networks at work assist older workers as they manage a wider set of tasks and work relationships. From the organisational point of view, steps can be taken to enhance specific job flexibility to rebalance job roles towards sets of tasks and skills utilisations (in the formation of individual work arrangements, or ‘i-deals’) that are more valued by older workers (Oostrom, Pennings & Bal, 2016). In similar vein, Münderlein, Ybema & Koster (2013) note that older workers are especially receptive to flexibility and accommodations where the physical demands of work and their own physical capabilities are not well matched. Not only are such arrangements attractive to older workers in terms of making jobs more attractive, they are also attractive for the organisation as they allow for the repackaging of specific tasks and skillsets in a flexible and organisationally-relevant manner. Job autonomy is positively related to work ability of older employees (Converso, Sottimano, Guidetti, Loera, Cortini & Viotti, 2018).

According to the Life Span Theory of Control and Development (Heckhausen 1995; Heckhausen et al., 2010) aging brings a shift from the strategies an individual uses to control a situation. Young adults are proposed to rely more on externally oriented primary control strategies that focus on extrinsic outcomes, whereas, older adults are speculated to employee secondary control strategies involving self-directed cognitive processing, which is expected to strengthen the preference for intrinsically rewarding job features such as interest and autonomy (Kooij et al., 2011). Similarly, Kanfer and Ackerman (2004) propose that age-related changes in the utility of performance operate to increase the importance of intrinsic job features.

**H2:** Age will moderate autonomy in a positive (divergent) fashion such that for older workers, higher autonomy will be a stronger positive predictor of overall job satisfaction than will be the case for younger workers.
Methods

Our study uses linear regression to ascertain the impact of the measures noted below on overall job satisfaction of employees in the healthcare context. We extend the simple linear model with the addition of two interaction terms that explore the moderating role of employee age on both (a) satisfaction with job security and (b) satisfaction with autonomy.

Sample

The data for our study is drawn from healthcare organizations subsample of the Australian Workplace Relations Survey (AWRS). The AWRS was conducted during the first half of 2014 on behalf of Australia’s Fair Work Commission. It surveyed a representative sample of both employees and employers in relation to workplace and employment issues.

The data was gathered via a combination of computer-assisted telephone interviewing and surveys, both online and paper-based. Participation in the study was entirely voluntary. In the final analysis, 1,509 enterprises completed all employer components of the questionnaire and 5,038 employees within these enterprises also completed the employee version. In the context of this survey, enterprises included private and public sector organisations and not-for-profits.

We were interested, for this study, in a subsample of the healthcare workforce. We thus narrowed our sample to enterprises and organisations in the healthcare sector. Within this sector, we subsampled employees whose jobs were described as (a) health professionals, (b) legal, social and welfare professionals, (c) health and welfare support workers and (d) carers and aides. After this screening, we identified a subsample of 288 respondents for this study from within the wider 5,038 AWRS respondents.

Key demographic descriptors of our sample are as follows. The mean age of our sample was 42 years, with a standard deviation (SD) of 12.75 years. The minimum age was 19 and the
maximum was 73 years. Only 12.2% of our sample was male. This is in general accordance with the heavily gendered (female dominated) nature of the healthcare and social assistance workforce in Australia and elsewhere.

The mean employer tenure (that is, work with the existing employer) was 5.25 years with a SD of 5.22 years. On average respondents worked 31.72 hours per week (SD of 10.4 hours). In terms of educational qualifications, 13.9% had completed a Masters or higher postgraduate degree, 11.8% had completed a Graduate Diploma and/or Graduate Certificate postgraduate degree, 31.4% a Bachelor (undergraduate) degree, 16.4% an Advanced Diploma or Diploma vocational qualification, 20.6% a Certificate-level vocational qualification and 5.9% had completed secondary school.

We conducted a linear regression for this study, investigating as our dependent variable (DV) the predictors of overall job satisfaction for our healthcare workforce. Our model included employee age, tenure with current employer, gender, highest educational qualification completed and hours worked per week.

**Measures**

Age has been shown to predict employee satisfaction generally (Wisse, van Eijbergen, Rietzschel & Shiebe, 2015) and also in the healthcare workforce (Teclaw, Osatuke, Fishman, Moore & Dyrenforth, 2014). Age is of particular relevance in healthcare in many nations (including Australia) due to the older profile of the workforce in comparison to the wider economy. This measure is a focal one in our study as we look both at the direct effect of age on employee satisfaction and also its interaction effects on two key determinants of job satisfaction.
Tenure with a current employer has been shown in previous studies to be a positive predictor of employee satisfaction (Lee and Way, 2010). The direction of causality may be hard to specify in this case, as satisfied employees are more likely to stay and possibly duration of employment provides employees with more surety of job security, which may enhance satisfaction.

Gender has been shown to have complex and nuanced effects on job satisfaction. For example, males tend to exhibit higher aggression in the workplace and in certain organisational settings that value this trait, males tend to be more satisfied than females (Banerjee & Perrucci, 2010; Malone and Issa, 2012). In the healthcare context, however, males tend to be a minority of the workforce and self-selection by men into this career assumed an attraction to the opportunities and rewards of the sector (Ahmad & Oranye, 2010).

Educational qualifications have a complex effect on satisfaction also. In the context of the Greek retail industry, for example, higher qualified staff tended to have lower satisfaction than those with lower educational qualifications (Giannikis & Mihail, 2011). Where there is a close match between educational qualifications in terms of content and level, however, higher qualifications tend to predict both seniority and satisfaction (Theodossiou & Zangelidis, 2009). This will tend to be the case in the health sector where registration or the right to work is tied to completion of specific higher education or (less commonly) vocational education qualifications.

Hours worked per week are also included in our model. Generally, more hours worked tend to lead to greater work and life stress, thus inhibiting job satisfaction (Netemeyer, Boles & McMurrian, 1996). In the healthcare physician context, very long hours worked often predict burnout (Shanafelt et al., 2012). As such, we would anticipate a significant negative relationship between hours worked and employee satisfaction.
Elements of job satisfaction

Job satisfaction has been shown to be driven by a variety of issues, with different employees placing a higher valuation on extrinsic motivators like pay and work conditions, while others tend to place a higher value on intrinsic motivators like teamwork climate and autonomy.

The AWRS surveyors asked a number of questions in relation to job satisfaction. The responses to these questions were included in the analysis to better gauge how these items motivate healthcare workers. Respondents were asked the overall question “How satisfied are you with the following aspects of your job?” Respondents were also asked to rate the following items on a 7 point Likert scale from 1 (extremely dissatisfied) to 7 (extremely satisfied). The items comprise (a) the flexibility to balance work and non-work commitments, (b) the freedom to decide how to do your own work, (c) your say about what happens in your job, (d) your total pay, (e) your job security, (f) the work itself and (g) the hours you work. Respondents were then asked the omnibus question “thinking of the aspects of job satisfaction you have just rated, overall, how satisfied are you with your job?” Similar measures have been used by Kifle, Kler, and Shankar (2016) and Drabe et al. (2015). Previous studies indicate that the use of a single-item measure of overall job satisfaction is acceptable, especially that the observed correlations between single items and scales averaged is 0.63 (Wanous, Reichers & Hudy, 1997). The questions provide good coverage of a variety of potential drivers of overall job satisfaction relating to autonomy, flexibility, remuneration and work conditions (Anitha, 2014).

Results

Table 1 reports the correlations among variables. Results reveal high correlations among some variables (especially the component variables for job satisfaction and overall job satisfaction). To address this issue, we calculated variance inflation factors (VIF) using SPSS. The VIF
scores ranged from 1.08 to 2.74, with a mean of 1.83. These are comfortably less than the threshold value of 10 suggested by Greene (2003).

While not the basis of our focal hypotheses, the control variables in our regression model exhibited the expected directionality and significances across the sample. We note in Table 2 that satisfaction with freedom to decide on own work, for example, tended to increase overall satisfaction (0.0909, \( p < 0.10 \)). Satisfaction with total pay also predicted enhanced overall job satisfaction (0.1546, \( p < 0.0001 \)) as did satisfaction with the work itself (0.3528, \( p < 0.0001 \)) and satisfaction with hours worked (0.1323, \( p < 0.05 \)). In relation to the remaining control variables in our model, women are generally more satisfied than men (0.3166, \( p < 0.05 \)) and tenure with a specific employer tends to reduce overall job satisfaction (-0.0184, \( p < 0.05 \)).

To test our first hypothesis that suggested that older workers will weigh job security more heavily in their estimation of overall job satisfaction than will younger workers we included an interaction term for age and job security in our model. We noted that this interaction term was indeed positive and significant at the 10% level (\( p = 0.0710 \)) in Table 2.

Figure 1 provides a graphical representation of this effect to aid interpretation. The divergent lines in the figure represent the line estimates for perceived job security at 1 SD above and below the mean, and at the mean level. We note that as the sample ages, the manner in which lower perceived job security negatively impacts on overall job satisfaction increases. H1 is thus supported in our sample at \( p < 0.10 \).
The second hypothesis goes on to suggest that older workers will weigh autonomy in forming their overall view on job satisfaction such that for older workers, higher autonomy will be a stronger positive predictor of overall job satisfaction than will be the case for younger workers.

The form of this hypothesis again suggests a divergence pattern between the higher and lower autonomy groups as the sample ages. We again included an interaction term in our model (Table 2) and note that the interaction term is indeed positive and significant at $p < 0.05$ ($p = 0.0485$).

Again, to aid interpretation we present Figure 2. In this figure, we again note the divergence pattern as the sample ages. Older workers tend to have significantly lower overall satisfaction than younger workers as they perceive a decrease in autonomy.
We go on to investigate the conditional effects of age on overall satisfaction at different values of the two moderators – job security and autonomy. These results are presented in Table 3.

<< Insert Table 3 about Here >>

Here we note that when perceived job security is low, increasing age has a significant negative effect on overall satisfaction even when autonomy is at mean levels. It is only when autonomy increases towards 1 SD above the mean that the conditional effect of age becomes non-significant ($p > 0.10$).

We further go on to note that at mean levels of job security, low (measured by 1 SD below the mean) and mean autonomy provide the context for a negative and significant association between increasing age and decreasing overall job satisfaction. Again, it is only as autonomy increases beyond the mean towards 1 SD above the mean that this relationship between increasing age and decreasing overall satisfaction becomes non-significant ($p > 0.10$).

**Discussion**

Our research has a number of theoretical and practical implications that we seek to explicate here.

**Theoretical Implications**

Job security and autonomy are two crucial dimensions of the quality of work and job satisfaction (Esser, & Olsen, 2011). Our two focal contributions relate to the changing impact of job security and autonomy as employees age as predictors of overall job satisfaction. The
interaction of age and job security suggests that older employees weigh job security more heavily than younger employees, and especially weight low job security highly as a negative driver of overall job satisfaction. This finding is in line with the principles of SOC theory (Baltes et al., 1999) stating that older employees pay greater attention to compensation for age related reduction of resources such as cognitive capacity, physical strength and social support by maintaining the remaining resources they have. That's why older workers show high levels of interest in job security (Warr, 1997). Our finding is in accordance with the explanation of adult development across the life span framework (Kanfer & Ackerman, 2004), which proposes the declining attractiveness of higher levels of effort with age. Age-related decline in fluid cognitive abilities and age related growth in crystalized abilities affect motivation through the amount of effort required to sustain performance and to protect self-concept. Low job security calls for higher effort to maintain the job and to protect self-concept, therefore low job security is more effective in decreasing overall job satisfaction among older employees.

Although our finding is in accordance with SOC theory (Baltes et al., 1999) and adult development across the life span framework (Kanfer & Ackerman, 2004), it is conflicting with recent studies that have found the relationship between job security and job satisfaction to be non-significant or negatively significant among older employees (Drabe et al., 2015; Kooij et al., 2011). Drabe et al. (2015) examined the moderating effect of age on the relationship between work related motives such as job security and job satisfaction in three countries, Germany, Japan, and the USA and found that job security is less important to job satisfaction among older employees. Drabe et al. (2015) explained their finding to be due to the social security systems in the nations examined in their study; hence older workers are less likely to associate job security with job satisfaction because they are facing a reduction in financial resources. We contribute to the literature by examining the moderating effect of age on the relationship between job security and job satisfaction among Australian healthcare workers.
Australian healthcare workers also have a pronounced social security system but our finding reflect that they value job security more as they age. There is a tendency for older workers’ financial situation and life arrangements to settle into more stable and predictable patterns (Krumm, Grube & Hertel, 2013).

Prior research tends to emphasise the importance of organisational embeddedness for older workers compared to younger workers in predicting intention to stay (Templer, Armstrong-Stassen & Cattaneo, 2010). This tends to coincide with a shifting preference from simple remuneration to a greater preference for stability (Claes & Heymans, 2008). Within this notion of ‘job security’, therefore, issues associated with perceived relational stability among employers and employees and certainty in the mind of the older worker may be as important as any rational assessment of the likelihood of some forthcoming involuntary separation (which may be a simple interpretation of this ‘job security’ measure).

Our second major finding relating to the changing importance of autonomy as employees age. Eichar et al. (1991) analysed the influence of autonomy, flexibility, income, pay supplements and skills use on the job satisfaction of 200 individuals aged 50 and older and found that autonomy and flexibility have a significant influence on job satisfaction. This study contributes to the literature by examining the moderating effect of age on the relationship between autonomy and job satisfaction. We tested the relationship among employees of different ages ranging from 19 to 73 years old, and found that the positive relationship between autonomy and job satisfaction is enhanced with age. This finding is in line with the principles of the Life Span Theory of Control (Heckhause & Schulz, 1995), which proposes that age brings shift to how individuals control their situations, the shift in control strategies for other older workers makes them prefer intrinsically rewarding job features such as autonomy and interesting work (Kooij et al., 2011). As workers age the strength of motives related to promoting positive effect and protecting self-concept increase. Most people are sensitive to changes in their abilities with
increasing age and are likely to act in ways that serve to protect their self-concept (Kanfer & Ackerman, 2004). Autonomy strengthens self-concept among employees (Joo, Jeung & Yoon, 2010), therefore as employees age autonomy becomes more essential driver of job satisfaction.

Exploring this complex interrelationship of factors and developing a better understanding of the nature of the relationship of older workers and their work roles and relationships is an important challenge. Our research indicates the presence of a rich potential for further explanation of this set of issues.

Practical Implications

Maintaining an engaged and committed older workforce has many organisational benefits. This is especially the case in healthcare, where an older workforce is coupled with increasing labour demand to present significant staffing challenges for many healthcare organisations. Concerningly, we note in our sample that older workers overall in our sample are generally less satisfied than younger workers (-0.0612, \( p < 0.001 \)). This indicated that, across our sample, as healthcare workers age they generally become less satisfied with their jobs. Previous research indicated opposite results suggesting that age is positively related to job satisfaction (Beng Ang et al., 1993; Ng and Feldman, 2007). Within our sample we found that older workers value job security more heavily than younger workers. This may be a product of their more limited opportunities to seek new work should they lose their job, and also the perceived importance of risk minimisation regarding earnings as they approach retirement.

Older workers also value autonomy more explicitly than younger workers. We note that the downward trend in job satisfaction as workers age is exacerbated when older workers sense or experience lower autonomy at work.
Addressing these two considerations will have important benefits for healthcare organisations. Managers and organizations should understand the importance of adequate HR practices that can successfully handle an age-diverse workforce (Drabe et al., 2015). Age diversity management should also make use of the increased importance of job security and autonomy among older workers to enhance their job satisfaction. Maintaining a more satisfied older cohort of employees will ensure that their experience and skills are available to the organisation while also providing a ready group of mentors for younger workers entering the sector.

Limitations and recommendations for future research

Our study is based on a cross-sectional employee survey dataset and many of the questions used here in relation to job satisfaction are attitudinal in nature. As such there is some potential that this study may be influenced by common-method variance (CMV) (Lindell and Whitney, 2001). This arises when an issue exogeneous to the questions asks exerts an influence on the responses provide to confound the findings of the study.

To address this potential issue, both ex ante (design) and ex post (analytical) strategies were used. First, the design of our study and the hypotheses developed focus on second-order interaction effects rather than solely on linear or direct effects. Chang, Van Witteloostuijn & Eden (2010) notes that these second order interaction or moderation effects are generally less susceptible to CMV than a mode based solely on linear effects.

Second, following Harman (1961) we adopted a single factor test to assess CMV-raled endogeneity. To do this all items were loaded onto a single factor using principal component analysis in SPSS. Harman noted that where more than 50% of the cumulative variance was explained by the single factor, CMV was potentially problematic. In our model we noted a result well under this benchmark of 36.06%.
Our study contributes to the research on diversity management by examining the moderating effect of age on the relationship between job security and job satisfaction, our results indicate that job security is a stronger determinants of job satisfaction as employees age. This finding contradicts with previous studies (e.g. Drabe et al., 2015; Kooij et al., 2011). Future research should further investigate this relationship in different contexts.

We also contribute to the literature by studying the moderating role of age on the relationship between autonomy and job satisfaction. Our finding highlights the importance of job autonomy in increasing job satisfaction among older workers. One explanation to our findings is that older employees prefer intrinsic job motivation, and the other explanation is that older employees protect their self-concept with higher autonomy at work. Future research should investigate the moderating effect of age on other drivers of job satisfaction that reflect protecting self-concept, such as providing mentoring activities and training (Kanfer & Ackerman, 2004).
References


Auerbach, D. I., Buerhaus, P. I., & Staiger, D. O. (2014). Registered nurses are delaying retirement, a shift that has contributed to recent growth in the nurse workforce. *Health Affairs, 33*(8), 1474-1480.


Department of Employment (Australia) (2017)


Krumm, S., Grube, A., & Hertel, G. (2013). No time for compromises: Age as a moderator of


Table 1: Pearson Correlation for All Study Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Age</td>
<td>- .31**</td>
<td>.01</td>
<td>.10</td>
<td>- .15*</td>
<td>- .09</td>
<td>- .05</td>
<td>- .16**</td>
<td>- .07</td>
<td>- .13*</td>
<td>- .02</td>
<td>- .07</td>
<td>- .17**</td>
</tr>
<tr>
<td>2.</td>
<td>Tenure</td>
<td>- .08</td>
<td>.10</td>
<td>- .02</td>
<td>- .01</td>
<td>.01</td>
<td>- .03</td>
<td>- .02</td>
<td>.09</td>
<td>- .04</td>
<td>- .06</td>
<td>- .08</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Gender (M = 1, F = 2)</td>
<td>- .02</td>
<td>- .09</td>
<td>.05</td>
<td>- .02</td>
<td>- .03</td>
<td>- .13*</td>
<td>.01</td>
<td>.08</td>
<td>.09</td>
<td>.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Highest Education</td>
<td>- .07</td>
<td>- .02</td>
<td>.00</td>
<td>- .08</td>
<td>- .08</td>
<td>.06</td>
<td>.04</td>
<td>- .10</td>
<td>- .04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Hours Worked per Week</td>
<td>- .08</td>
<td>.02</td>
<td>.14*</td>
<td>.04</td>
<td>.08</td>
<td>.05</td>
<td>.03</td>
<td>.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Flexibility work/non-work</td>
<td>- .64**</td>
<td>.56**</td>
<td>.41**</td>
<td>.40**</td>
<td>.43**</td>
<td>.64**</td>
<td>.55**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Freedom to decide on own work</td>
<td>- .73**</td>
<td>.38**</td>
<td>.44**</td>
<td>.50**</td>
<td>.50**</td>
<td>.61**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Say about own job</td>
<td>- .51**</td>
<td>.54**</td>
<td>.51**</td>
<td>.51**</td>
<td>.65**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Total pay</td>
<td>- .44**</td>
<td>.37**</td>
<td>.48**</td>
<td>.58**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Job security</td>
<td>- .36**</td>
<td>.38**</td>
<td>.59**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Work itself</td>
<td>- .49**</td>
<td>.67**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Hours worked</td>
<td>- .62**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Overall satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Gender is coded 1 for male and 2 for female. The ‘highest education’ variable is coded 1 for Masters or higher to 6 for secondary school only. Correlation significant at p < 0.05 * and p < 0.01 level ** (2-tailed).
Table 2: Results of Regression Predicting Overall Satisfaction

<table>
<thead>
<tr>
<th></th>
<th>Beta</th>
<th>S.E.</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.0100</td>
<td>0.7774</td>
<td>2.5854</td>
<td>0.0103</td>
<td>0.4790</td>
<td>3.5411</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.0612</td>
<td>0.0153</td>
<td>-4.0028</td>
<td>0.0001</td>
<td>-0.0914</td>
<td>-0.0311</td>
</tr>
<tr>
<td>Tenure</td>
<td>-0.0184</td>
<td>0.0086</td>
<td>-2.1493</td>
<td>0.0326</td>
<td>-0.0353</td>
<td>-0.0015</td>
</tr>
<tr>
<td>Gender</td>
<td>0.3166</td>
<td>0.1293</td>
<td>2.4489</td>
<td>0.0150</td>
<td>0.0620</td>
<td>0.5712</td>
</tr>
<tr>
<td>Highest education</td>
<td>-0.0048</td>
<td>0.0293</td>
<td>-0.1646</td>
<td>0.8694</td>
<td>-0.0625</td>
<td>0.0529</td>
</tr>
<tr>
<td>Hours worked per week</td>
<td>0.0018</td>
<td>0.0042</td>
<td>0.4284</td>
<td>0.6687</td>
<td>-0.0065</td>
<td>0.0101</td>
</tr>
<tr>
<td><strong>Components of Job Satisfaction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexibility work/non-work</td>
<td>0.0182</td>
<td>0.0543</td>
<td>0.3348</td>
<td>0.7380</td>
<td>-0.0887</td>
<td>0.1251</td>
</tr>
<tr>
<td>Freedom to decide on own work</td>
<td>0.0909</td>
<td>0.0535</td>
<td>1.7006</td>
<td>0.0902</td>
<td>-0.0144</td>
<td>0.1962</td>
</tr>
<tr>
<td>Say about own job</td>
<td>-0.1284</td>
<td>0.1289</td>
<td>-0.9960</td>
<td>0.3202</td>
<td>-0.3823</td>
<td>0.1255</td>
</tr>
<tr>
<td>Total pay</td>
<td>0.1546</td>
<td>0.0329</td>
<td>4.7072</td>
<td>&lt; 0.0001</td>
<td>0.0899</td>
<td>0.2193</td>
</tr>
<tr>
<td>Job security</td>
<td>-0.0245</td>
<td>0.1122</td>
<td>-0.2187</td>
<td>0.8270</td>
<td>-0.2455</td>
<td>0.1964</td>
</tr>
<tr>
<td>Work itself</td>
<td>0.3528</td>
<td>0.0446</td>
<td>7.9064</td>
<td>&lt; 0.0001</td>
<td>0.2649</td>
<td>0.4407</td>
</tr>
<tr>
<td>Hours worked</td>
<td>0.1323</td>
<td>0.0407</td>
<td>3.2500</td>
<td>0.0013</td>
<td>0.0521</td>
<td>0.2125</td>
</tr>
<tr>
<td><strong>Interaction Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age * Job security</td>
<td>0.0051</td>
<td>0.0028</td>
<td>1.8133</td>
<td>0.0710</td>
<td>-0.0004</td>
<td>0.0106</td>
</tr>
<tr>
<td>Age * Say about own job</td>
<td>0.0049</td>
<td>0.0025</td>
<td>1.9826</td>
<td>0.0485</td>
<td>0.0010</td>
<td>0.0098</td>
</tr>
</tbody>
</table>

Model summary: $R^2 = 0.734$, $F(14, 255) = 50.1366$, $p < 0.001$. 
Table 3: Conditional Effect of Age on Overall Satisfaction at Values of Moderators

<table>
<thead>
<tr>
<th>Job Say about</th>
<th>Effect</th>
<th>S.E.</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 1 SD</td>
<td>- 1 SD</td>
<td>-0.0229</td>
<td>0.0055</td>
<td>-4.1365</td>
<td>&lt; 0.0001</td>
<td>-0.0338</td>
</tr>
<tr>
<td>- 1 SD</td>
<td>Mean</td>
<td>-0.0157</td>
<td>0.0053</td>
<td>-2.9593</td>
<td>0.0034</td>
<td>-0.0262</td>
</tr>
<tr>
<td>- 1 SD</td>
<td>+ 1 SD</td>
<td>-0.0086</td>
<td>0.0075</td>
<td>-1.1364</td>
<td>0.2569</td>
<td>-0.0234</td>
</tr>
<tr>
<td>Mean</td>
<td>- 1 SD</td>
<td>-0.0152</td>
<td>0.0054</td>
<td>-2.8299</td>
<td>0.0050</td>
<td>-0.0257</td>
</tr>
<tr>
<td>Mean</td>
<td>Mean</td>
<td>-0.0080</td>
<td>0.0035</td>
<td>-2.2907</td>
<td>0.0228</td>
<td>-0.0149</td>
</tr>
<tr>
<td>Mean</td>
<td>+ 1 SD</td>
<td>-0.0009</td>
<td>0.0052</td>
<td>-0.1679</td>
<td>0.8668</td>
<td>-0.0111</td>
</tr>
<tr>
<td>+ 1 SD</td>
<td>- 1 SD</td>
<td>-0.0075</td>
<td>0.0076</td>
<td>-0.9871</td>
<td>0.3245</td>
<td>-0.0223</td>
</tr>
<tr>
<td>+ 1 SD</td>
<td>Mean</td>
<td>-0.0003</td>
<td>0.0051</td>
<td>-0.0604</td>
<td>0.9519</td>
<td>-0.0104</td>
</tr>
<tr>
<td>+ 1 SD</td>
<td>+ 1 SD</td>
<td>0.0068</td>
<td>0.0052</td>
<td>1.3165</td>
<td>0.1892</td>
<td>-0.0034</td>
</tr>
</tbody>
</table>
Figure 1: Interaction of Age with “Your job security”.

Figure 2: Interaction of Age with “Your say about what happens in your job”.
