

Running Head: RETIREMENT PLANNING AND RESOURCES

Promoting planning for retirement is more than just accumulating resources

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Abstract

Two ways proposed by the OECD (2011) to reform pensions included increasing workforce longevity and encouraging independent financial planning. This study explored retirement planning and resource accumulation behavior (physical health, finances, social, cognitive, emotional and motivational) in a group of 311 Australian employees aged 45 and over. Antecedents and consequences of retirement planning and resource accumulation were investigated. Antecedents included demographics, work centrality, mastery and psychological health. Consequences investigated were confidence in retirement preparation, planned age at retirement and intention to participate in bridge employment. Important differences in antecedents and consequences indicate that the constructs of retirement planning and resource accumulation do not operate interchangeably. Policy makers, such as the OECD, Organizations and Governments should consider mastery and resource accumulation as well as planning in promoting better retirement preparation.

Introduction

Since Bismarck first introduced the term "retirement" more than 130 years ago, retirement has been a concern to economists and social policy makers globally. Despite the predictable nature of aging and workforce exit, many people aged 65 and over still exist on incomes at around 82% of the general population. When combined with population ageing there are significant implications not only to this group but to the broader community. When comparing the number of people working to those on pensions, economists note an alarming decline. In 1950 there were 7.2 people working for every 1 person on a pension, by 1980 the ratio had dropped to 5.1 by 2025 it is estimated to be 3 and by 2050 just two people will be working for every person on a pension (OECD, 2011). Our current systems are unlikely to support economies into the future.

Two of three solutions proposed by the OECD (2011) involve policies aimed at the individual level; firstly to encourage people to work for longer and secondly to save for retirement to make up for the reduction in any public benefits. Related implications are firstly, a focus on individual health and well-being to prolong workforce longevity and secondly, encouraging planning behaviour. Two potential mechanisms underlying this behaviour are retirement planning and resource accumulation. Understanding drivers of health, well-being, financial planning behaviours and resource accumulation are essential in developing policies and interventions aimed at bringing about change.

Planning and resource accumulation are assumed to have a symbiotic effect. Planning deals with the systematic behaviour directed towards preparing for retirement while resource accumulation enables the planning to take place. However, the accumulation of resources assumes planning in itself. Wealth does not accumulate on its own. Similarly good health and its maintenance may require systematic effort. For example a person may plan to continue to work part-time during retirement and good health as a resource will enable the plan, but good health might be best promoted through regular doctor visits and monitoring of blood pressure, cholesterol and heart functioning. A person may plan to continue leisure activities such as golf in retirement and wealth as a resource enables the plan. In order to afford golf membership budgeting and a savings plan is required. Although the terms are often used interchangeably, no studies to date have previously compared the antecedents and consequences of each. Understanding who is likely to be planning, and who is not, allows for the development of policies and government interventions targeted for maximal effect. Very little research exists that extoll the virtues of resource accumulation, and those focusing on planning behaviour emphasise pre-retirement behaviour.

CONSEQUENCES OF RESOURCE ACQUISITION

Retirement Adjustment and Well-Being

The resource perspective is a conceptual framework for understanding retirement well-being across time. Resources can be broadly defined as the total capability an individual has to fulfil their needs (Hobfoll, 2002). Wang (2007) suggested that in the retirement adjustment context resources could include physical, cognitive, motivational, financial, social, and emotional resources. Integrated resource models such as the transactional stress model (Lazarus & Folkman, 1984) and the conservation of resources theory (Hobfoll, 1989) view fluctuations in resource levels as a mechanism for explaining changes in well-being. Theories agree that individuals seek to obtain, retain, protect, and build resources. Furthermore, individuals in possession of adequate resources are less likely to be affected by adverse events because accumulated resources provide a buffer against stress (Gorgievski-Duijvesteijn, Bakker, Schaufeli, & van der Heijden, 2005; Wang, Henkens, & van Solinge, 2011).

The resource perspective predicts non-uniform patterns of changes in well-being over time, and provides one explanation as to why individual differences exist in the retirement transition experience. Wang et al. (2011) suggested that levels of retirement adjustment fluctuate according to absolute

levels of individual resources and environmental stressors. Wang was able to demonstrate that the three trajectories for retirement could be explained in terms of differences between the groups in resources relating to work satisfaction, preretirement planning, health declines, and changes in finances. The resource perspective brings flexibility to understanding how individuals adjust to retirement in the context of their individual circumstances.

Wang and Shultz (2010) argue that resources can be both positively and negatively affected by changes at the societal, organisational, job and individual levels. This suggests that levels of resources can be both the result of individual actions, as well as a product of the environment that an individual lives in. Applying a resource perspective to preparation for retirement may lead to better understanding of preparatory behaviours than a planning perspective alone, as it need not be a deliberate process undertaken to achieve goals.

Research efforts were hampered by a lack of measurement tools to define and assess resources. Leung and Earl (2012) designed a 35-item measure but found three factors rather than the six factors previously advocated by Wang (2007). The three resource subscales were: RT1: emotional, cognitive and motivational resources; RT2: social resources and RT3 physical health and financial resources. Retirement resources, as assessed by the RRI, significantly accounted for additional variance in both retirement satisfaction (16%) and retirement adjustment (22%) above and beyond that explained by demographic variables. More importantly, results from cross-lagged panel analysis indicated that retirement resources predicted retirement well-being rather than the reverse.

Although planning and resource accumulation are both behaviours undertaken in preparation for retirement which have been shown to predict retirement adjustment, research to date has not investigated resource accumulation in a preretirement sample. This study makes use of a recently published measure the Retirement Resources Inventory (RRI; Leung & Earl, 2012) to reliably and validly measure resources in an employee sample. The current study aimed to determine whether there is evidence that resource accumulation is a type of retirement preparation independent of retirement planning. Antecedents and consequences of retirement planning and resource accumulation are compared to determine whether the same precursors and outcomes relate to both. As described above, many studies have shown that planning has a positive impact on retirement adjustment (Noone et al., 2009; Reitzes & Mutran, 2004; Wong & Earl, 2009). However, planning has also been shown to impact upon other aspects of the retirement transition, including confidence in ability to make the transition, time to transition, and outcomes regarding potential retirement activities like intention to engage in bridge employment.

CONSEQUENCES OF PLANNING BEHAVIOUR

Retirement Adjustment and Well-Being

Retirement planning can assist with the changes in roles, relationships, routines, and habits, along with concurrent changes in income and health (Lee & Law, 2004). Cross-sectional research using measures of planning encompassing financial, health, leisure, interpersonal, work, and general planning suggests that planning is predictive of later life satisfaction in retirees (Donaldson, Earl, & Muratore, 2010) and that retirement planning has a positive effect on the retirement transition and adjustment (Noone, Stephens, & Alpass, 2009; Sharpley & Layton, 1998; Wong & Earl, 2009).

Recent longitudinal research has confirmed that retirement planning predicts well-being in later life (Noone et al., 2009; Reitzes & Mutran, 2004; Wang, 2007). For example Wang found that retirement planning was predictive of well-being throughout the transition period, and non-planners were more likely to show a decline in well-being immediately before the transition. Meta-analysis reveals a significant positive relationship between planning and retirement satisfaction (Topa, Moriano, Depolo, Alcover, & Morales, 2009). These findings provide evidence that the preretirement preparation phase is critical for a successful transition to retirement.

Research on preparation for retirement has so far focussed on a narrow set of behaviours related to retirement planning. Retirement planning is conceptualised as conscious, goal directed behaviour undertaken in preparation for the changes in retirement due to finances, social relationships and physical health (Noone et al., 2009). Friedman and Scholnick (1997) argued that planning is a process which requires deliberate understanding of the problem space followed by a decision to start preparing and then formulation of a plan to fulfil goals. Planning includes formal preparation in retirement seminars or informal preparation through discussions with partners or friends and reading about retirement (Kim & Moen, 2001b; Noone et al., 2009; Taylor, Carter, Cook, & Weinberg, 1997).

This conceptualisation of preparation is limited because it assumes an informed decision making approach, whereby people decide to start planning and make decisions about the timing and circumstances of their retirement. Theoretical mechanisms which underlie these decisions include the theory of planned behaviour (Ajzen, 1991), role theory (Moen, 1996) and image theory (Feldman,

1994). These theories presume that people are consciously contemplating their retirement, and that preparation for retirement is deliberate. However, other models of behaviour change do not require deliberative planning. For example, the transtheoretical behaviour change model (Prochaska & DiClemente, 1983; Prochaska et al., 1994) includes a pre-contemplation phase, which requires a period prior to conscious planning to contemplate and prepare. Applied to retirement planning, this would suggest pre-planning processes may account for preparatory behaviours in the absence of conscious and deliberate planning.

Confidence in retirement preparation.

Effective retirement planning should improve a sense of preparedness for the changes in finances, social relationships and health that accompany retirement (Taylor & Shore, 1995). Planning is associated with reducing anticipatory anxiety regarding the retirement decision (Glass & Flynn, 2000). Evidence suggests that planners have greater confidence in their ability to adapt to retirement than non-planners (Elder & Rudolph, 1999; Kim, Kwon, & Anderson, 2005; Taylor-Carter et al., 1997). Wang and Shultz (2010) suggest that formal planning focuses people on establishing themselves financially, and informal planning helps set expectations for retirement and both increase confidence. We expected to find that people who have undertaken more planning are more confident about their preparedness. Furthermore, we also anticipated that possession of resources positively predicts confidence in preparation.

Timing of retirement.

Research has shown that people who have prepared for retirement and feel prepared, are more likely to take an earlier retirement than those who have failed to plan (Reitzes, Mutran, & Fernandez, 1998; Taylor & Shore, 1995). The relationship between planning and anticipated age of retirement is thought to be mediated by confidence in preparation, such that those who have planned are more decisive about taking retirement (Dorfman, Kohout, & Heckert, 1985). In the current study, we expected to find that individuals who have engaged in more planning, report closer proximity to retirement than those who have engaged less in planning behaviours. However, as resource theory reports no proposed differences according to age, we expected to find no relationship between total resources and time to retire.

Participation in Bridge Employment.

Bridge employment is defined as an older persons' participation in the workforce as they move toward full retirement (Wang, Zhan, Liu, & Shultz, 2008). This can include full or part time, paid or voluntary work, which can be related to the career of the individual, or in a new industry or occupation. Wang et al. found that thinking about retirement was negatively related to bridge employment. Davis (2003) also found that retirees who had more concrete retirement plans were less likely to participate in bridge employment. Davis suggested this was because individuals who had comprehensively prepared for the financial, social and health changes inherent in the transition to retirement were less likely to feel compelled back into work. Bridge employment affords the opportunity to compensate financially, socially or otherwise for the loss of the worker role. In the current study, we expected to find that bridge employment is negatively related to retirement planning but not related to possession of resources for retirement.

ANTECEDENTS OF PLANNING BEHAVIOUR AND RESOURCE ACQUISITION

Recent research has focused on the determinants of retirement planning. This research has focused on the characteristics that make individuals more likely to plan for their future. It has focused on two main areas, demographic characteristics, including age, gender, income and education, and psychosocial characteristics including health, mastery and centrality of the worker identity.

Demographic predictors

Demographic predictors of planning have been well-researched. In general we know that older individuals, those with higher levels of education (DeVaney & Su, 1997) and income (Bassett, Felming, & Rodrigues, 1998) invest more time and energy into planning for retirement (Glass & Kilpatrick, 1998; Muratore & Earl, 2010; Petkoska & Earl, 2009). Ekerdt, De Viney, and Kosloski (1996) suggest that people with these demographic characteristics are more able to engage in planning because they have greater access to opportunity structures than other cohorts. Health is also a good predictor with poor physical health (Datta Gupta and Larsen, 2010) and good psychological health both significant positive predictors of retirement planning and adjustment (Noone et al. 2009; Donaldson et al. 2010). The relationship between gender and retirement planning however remains problematic (e.g. Petkoska and Earl, 2009; Quick and Moen, 1998).

Collectively these results suggest that demographic and health variables predict retirement planning. In the current study, we expected older, more highly educated people with higher income

and poorer health to be more likely to engage in retirement planning than younger, less educated and less wealthy individuals with good health.

The influence of demographic and health variables on resources is less clear, mainly due to a deficit of existing evidence. Leung and Earl (2012) found no direct effects of age on levels of resources. Age may make indirect contributions to resources, through its effects on other resources (e.g. the effect of age on health), but we would not expect age to make an independent contribution to resource levels. Gender is expected to have differential effects on different types of resources. Females typically earn less over a lifetime than males (ABS, May 2012), so it could be expected that males have higher levels of financial resources than females. However, from Petkoska and Earl (2009), we expected females to have developed more social resources than males. However, the resource perspective does not offer overall predictions regarding gender and total resources and we expected to find that, on balance, males and females have accumulated similar levels of resources. Education, income and health indicate, by definition, high levels of resources, they also increase access to other types of resources, including social and motivational resources. In the current study, we therefore expected that higher education, increased income and good health were positive predictors of overall resource levels but age and gender have no effect on total level of resources.

Psychosocial predictors

Work centrality is the extent to which work is important to an individual, compared to their other life roles and provides an indication of an individual's affective commitment to work. In a longitudinal study Feldt, Hyvönen, Oja-Lipasti, Kinnunen, and Salmela-Aro (2012) found that job involvement prior to retirement negatively predicted the number of retirement goals eleven years later, arguing that goals for retirement are predictive of satisfaction with retirement adjustment. In a meta-analysis, Topa et al. (2009) found that work involvement was negatively related to retirement planning behaviour, signifying that individuals who are more committed to work are less likely to plan for their retirement.

Work centrality is known to be related to self-esteem and goal pursuit (Rich, Lepine, & Crawford, 2010), two key elements of motivational and emotional resources. In employee samples, job involvement is shown to be related to job performance (Diefendorff, Brown, Kamin, & Lord, 2002) which relates to individual outcomes that could influence financial resources (e.g. bonuses or promotion). This suggests that individuals with high work centrality are also likely to have higher resources.

Mastery is the degree to which one feels a general sense of control over what goes on in one's life and captures elements of locus of control and self-efficacy (Skaff, Pearlin, & Mullan, 1996). Skinner (1997) theorised that a sense of control over one's life is a prerequisite for planning, as individuals who have the cognitive ability to plan, will not do so if they feel that the desired outcome is out of their control. An individual's sense of control is considered a major determinant of well-being in older adults and has been shown to improve retirement adjustment (Donaldson et al., 2010; Kim & Moen, 2001a, 2001b). Additionally, the related constructs, locus of control and self-efficacy, have been shown to positively correlate with retirement planning (Noone, Stephens, & Alpass, 2010).

Motivational resources relate to strategies available to individuals in their transition to retirement, and are focused on goal setting, goal adjustment and goal pursuit. Self-efficacy has been shown to predict goal setting and persistence to a goal (Berry & West, 1993) as well as goal achievement (West, Welch, & Thorn, 2001).

Taken together, these results suggest that psychosocial variables influence planning. In the current study we expected to find that people who have high work centrality or low mastery to have engaged in less planning. In contrast, we anticipated finding that individuals with high work centrality or high mastery had more resources than individuals with lower work centrality or mastery.

The Current Study

The resource perspective is an emerging theoretical framework for understanding the individual drivers of retirement adjustment and satisfaction. This research aimed to investigate whether resources offer an useful perspective to understanding retirement preparation in an employee sample beyond that already explained by retirement planning. Furthermore, this study aimed to investigate whether the resource perspective can be differentiated, by antecedents and consequences, from behaviour more traditionally defined as retirement planning. Based on the literature and empirical evidence reviewed the following hypotheses were proposed:

Hypothesis 1: Increased age, higher income, higher education, poorer psychological health, lower work centrality and increased mastery will be positive predictors of retirement planning activities.

Hypothesis 2: Higher income, more education, better psychological health, increased mastery, and increased work centrality will predict retirement resources. Age and gender will not predict resources.

Hypothesis 3a: Planning and resources will be positively correlated

Hypothesis 3b: Planning and resources will both make an independent contribution to predicting confidence in retirement preparation

Hypothesis 3c: Planning will predict proximity to retirement, but resources will not.

Hypothesis 3d: Planning will negatively predict intentions to engage in bridge employment but resources will not

Method

Participants

Participants were recruited through PureProfile.com. PureProfile is an Australian based panel provision and database management company. Participants were invited to take part in the study through PureProfile if they were working and aged 45 years or older. Remuneration was provided in the form of a small cash incentive (approximately \$5). 371 people registered to complete the survey. Of the sample 29 indicated that they were not currently working, or that they were already retired, were younger than forty-five years of age and 24 were deemed to be responding randomly¹ and were removed from all further analyses. The final sample therefore was 311 participants representing 84% of people who registered to complete the survey.

Measures

Demographic information.

Demographic information including age, gender, highest level of education and current income was collected from participants. The demographic profile of the sample broadly matched that of the Australian population (ABS, 2011). There were 153 males in the sample (49.2%) and 155 females (49.8%) with three participants not reporting gender. The mean age of participants was 55.8 ($SD=6.7$ years, range 45-72 years). Income was measured in \$10 000 bands, using midpoint values, the mean income of the sample was \$56,456 ($SD= \$39 460$). The sample was roughly split between those with secondary school education or lower (27.7%) and post-secondary/bachelor degrees (38.6%).

Retirement Planning Questionnaire (RPQ).

The RPQ is a 36-item instrument which measures retirement planning behaviour in four domains: financial/general, health, interpersonal/leisure, and work. The RPQ was developed with an Australian sample and has been shown to have a clean four-factor structure that predicts retirement planning behaviour (Petkoska & Earl, 2009). Consistent with past research, internal reliability was high (Cronbach's $\alpha = .940$).

Retirement Resources Inventory (RRI).

The RRI is a measure developed with Australian retirees to measure resources relevant to retirement well-being (Leung & Earl, 2012). This research adapted some items from the RRI as necessary for application to an employee (i.e., rather than retired) sample. In this study the three subscales showed good internal consistency (Cronbach's α was .89, .88 and .84 for RT1, RT2 and RT3 respectively). Total resources also showed good internal consistency ($\alpha = .90$).

Work Centrality.

Soon and Tin's (1997) four-item measure of work centrality was used. Items include "I enjoy my job more than my leisure time", "I love my job", "I am fully devoted to my job" and "I am very motivated to perform the duties and responsibilities of my job". This scale has been supported with moderate internal consistency (Cronbach's $\alpha = .73$; Soon & Tin, 1997). In the current study, the internal reliability was slightly higher (Cronbach's $\alpha = .89$).

Mastery.

Pearlin and Schooler's (1978) seven-item mastery scale was used. Items include "I have little control over what happens to me", and "I can do just about anything I set my mind to". Internal reliability in the current study (Cronbach's $\alpha = .83$) was comparable to previous studies (e.g. Donaldson et al., 2010; Cronbach's $\alpha = .88$).

Psychological Health.

The General Health Questionnaire (GHQ; Goldberg & Williams, 1988) is a 12 item global measure of psychological well-being. Sample items include "I have recently been able to concentrate on what I'm doing" and "I have recently been losing confidence in myself". Respondents rate the frequency with which they have experienced each item over the past two weeks on a 4-point scale, ranging from (1) not at all to (4) much more than usual. Higher scores on the GHQ indicate better

¹ Respondents were asked to respond to three questions that were embedded in the middle of other items and were designed to capture random responding. Participants who responded incorrectly to at least two of these questions were deemed to be responding randomly.

psychological health. Consistent with past research (e.g. Donaldson et al, 2010; Cronbach's $\alpha = .87$), internal reliability in the current study was high (Cronbach's $\alpha = .83$).

Confidence in preparation.

Confidence in preparation was measured with a single item "How well prepared do you think you will be for your retirement?" measured on a five point scale from (1) not at all prepared, to (5) extremely well prepared. This item has been used by the Healthy Retirement Project to measure confidence in preparation (Wells, deVaus, Kendig, Quine, & Petralia, 2006).

Years to retirement.

Participants were asked to indicate the age at which they intended to retire. Years to retirement was calculated by subtracting current age from the age they indicated they intended to retire.

Planned bridge employment.

Participants were asked if they intend to work after retirement and answered on a binary yes or no scale. For the purposes of this research, participants were told that "work" could include paid or unpaid positions which were either similar or different to their current role.

Results

Predictors of Planning

We expected that older age, higher income, more education, poorer health, lower work centrality and increased mastery would predict more retirement planning. Means, standard deviations and correlations for these variables and retirement planning and retirement resources are shown in table 1.

 Insert Table 1 about here

As shown in table 1, gender, age, education and mastery all have significant small to moderate correlations with retirement planning. When entered into a multiple regression analysis, as shown in table 3, the demographic variables, gender, age, income and education account for approximately 12% of the variance in retirement planning scores. Each of these, excepting income, makes an independent contribution to understanding variance in retirement planning activity. When adding the psychosocial predictors, psychological health, work centrality and mastery to the model, the full set of predictors account for an additional 3% of variance in retirement planning. However, this variance comes from the effect of mastery, as work centrality and psychological health do not account for variance in retirement planning activities, independent of the other variables in the model. Hypothesis 1 is therefore partially supported. Increasing age, education and mastery are all associated with more retirement planning behaviour; however income, psychological health and work centrality were not predictors of planning.

 Insert Table 2 about here

Predictors of Resources

As shown in table 1, the correlation between gender and total resources is significant and positive, such that females have more resources than males. Increased income, psychological health and mastery are also positively correlated with total level of resources. Total resource level is correlated with education, such that the higher the level of education, the more resources available to an individual. Interestingly, age is not correlated with total resources ($r = .04, p > 0.05$).

When entering the predictors into a hierarchical regression, gender, income and education are associated with resources and account for 9% of the variance in resource scores (see table 3 step 1). When introducing the psychosocial predictors in step 2 of the model, work centrality, health and mastery all account for variance above that accounted for by the demographic predictors. Taken together, the six predictors in the model account for 31% of the variance. As predicted in Hypothesis 2, increased income, psychological health, mastery and work centrality are all positively predictive of total resources available to an individual. However, the hypothesis suggested that there would be no effect of gender, and yet we found that gender made a significant contribution, such that females have more resources than males. As expected, age did not predict resource levels independently of the other variables. Thus, Hypothesis 2 is partially supported.

Role of Planning and Resources Predicting Outcomes

The results of the analyses above, suggest that while the dependent variables of planning and resources share some antecedents, others are unique. The fourth hypotheses related to the role that planning and resources would play in predicting confidence in retirement preparation, planned age of retirement and intention to participate in bridge employment. Table 1 has the mean, standard deviation and correlations between planning, resources and the three outcome measures. Looking at

table 1, it is clear that there is significant overlap between the planning and resource scales ($r = .40, p < 0.01$) confirming Hypothesis 3a.

Table 2 shows the results of a multiple regression analysis predicting confidence in planning and years to retirement from the full set of demographic (step 1) and psychosocial predictors (step 2) that were shown above to predict retirement planning and resources. Step three of the model adds resources and the final model (step 4) includes retirement planning. Resources were entered in a separate, earlier model than retirement planning, because resources are theorised to be a result of processes which commence earlier than conscious retirement planning (Wang & Shultz, 2010). The results of the previous analysis support resources as being relatively independent of age, as it was shown that age predicts retirement planning but not resources. However, given the scarcity of research comparing resources and retirement planning it is acknowledged that planning could be entered in the same or earlier model than resources. Conducting this analysis would not change the conclusions presented below.

Looking first at confidence in retirement preparation, most respondents consider that they will be “moderately prepared” for their retirement ($M = 2.92, SD = .98$). Hypothesis 3b suggested that both planning and resources would make significant, independent contributions to predicting confidence in preparation. From table 1, both planning and total resources are significant correlated with confidence in planning ($r = .37, p < 0.01$ and $r = .35, p < .01$ respectively). Demographic variables account for nearly 6% of the variance in level of confidence, although this effect is entirely driven by age, such that older individuals feel more prepared for retirement than younger individuals ($\beta = .21, p < .01$). In step 2, it can be seen that psychological health and mastery both account for variance in confidence above the demographic variables, such that health ($\beta = .95, p < .01$) and mastery ($\beta = .23, p < .01$) predict higher confidence. When resources are entered in the third step, they account for 4% of variance above the predictors already in the model ($\beta = .25, p < .01$). Finally retirement planning was entered and accounts for an additional 4% of variance ($\beta = .24, p < .01$). In the final stage, all predictors are accounting for 28% of variance in confidence, and in the final model, both resources and planning are significant predictors of retirement confidence. This suggests, as predicted in Hypothesis 3b, both retirement planning and resource accumulation independently help an individual feel prepared for retirement.

Considering years to retirement, it was hypothesised that planning would predict proximity to retirement, but resources would not (Hypothesis 3c). Looking at the regression analysis in table 2 step 1, it is clear that time to retirement is negatively predicted by current age ($\beta = -.71, p < .01$). Females are more likely to be planning earlier retirements ($\beta = -.14$), as are individuals with higher incomes ($\beta = -.13, p < .01$). Together, the demographic predictors account for just over 50% of the variance in predicted age of retirement. Psychosocial predictors in step 2 account for a further 1.6% of the variance, which is due to the effect of work centrality ($\beta = .13, p < .01$). This suggests that individuals who have a strong worker identity intend to retire later than those who place less value on their work role, when controlling for demographic effects. Retirement resources, entered in step 3, do not predict time to retirement above the demographic and psychosocial predictors ($\beta = -.06, p > .05$), however entering planning in the final model, accounts for an additional 1.1% of variance. Planning for retirement negatively predicts years to retirement ($\beta = -.12, p < .05$), suggesting that people who have done more conscious and deliberate planning are expecting to retire sooner than those who have not. These results support Hypothesis 3c, that planning for retirement predicts a sooner retirement but resources do not.

Table 1 shows that most respondents (70%) intend to take some form of bridge employment before full retirement. Given the question regarding bridge employment was dichotomous, a logistic regression using intention to take bridge employment as the dependent variable, and the full set of demographic, psychosocial, resources and planning as predictors entered in four steps as described above was conducted. The results of this analysis can be seen in table 3.

 Insert Table 3 about here

Demographic predictors, were entered in step 1 and these predictors did not significantly predict intention to take bridge employment (Model $\chi^2 (4, N = 311) = 8.49, p > .05$; Cox and Snell pseudo $R^2 = .03$; Nagelkerke $R^2 = .04$). The psychosocial predictors entered in step 2, improved the model fit (Model $\chi^2 (7, N = 311) = 20.26, p < .01$; Cox and Snell pseudo $R^2 = .07$; Nagelkerke $R^2 = .10$). Specifically, work centrality is a significant predictor of intention to take bridge employment ($B = .12, p < 0.05, OR = 1.13$). This suggests that employees with a one-unit high rating of work centrality were 1.13 times more likely to indicate their intention to participate in bridge employment. Psychological

health and mastery are not predictive of intention to engage in bridge employment. In the third block, resources were included as a predictor. Resources improve the model fit (Model χ^2 (8, $N = 311$) = 24.93, $p < .01$; Cox and Snell pseudo $R^2 = .09$; Nagelkerke $R^2 = .12$), and is a significant predictor of intention to take bridge employment ($B = .02$, $p < 0.05$, $OR = 1.02$). This suggests that individuals with a one-unit increase in resources were 1.02 times more likely to engage in bridge employment. Including planning in the fourth model did not significantly improve the model fit, and planning was not a predictor of intention to undertake bridge employment independent of the other variables. This data therefore rejects hypothesis 3d, and suggests that resources are predictive of intention to engage in bridge employment but planning is not.

Discussion

Main Findings

This research was aimed at understanding the preretirement preparation phase of retirement well-being. It investigated whether the resource theory of retirement adjustment could be applied to retirement preparation and if accumulation of resources is distinguishable from retirement planning as preparatory behaviour. The RRI was used to measure resources, and was shown to be a valid and reliable instrument to measure resources in an employee sample. Overall, this study compared retirement planning and resources with respect to their antecedents and consequences and found that accumulation of resources can be considered preparatory behaviour distinct from planning. Interventions focusing on planning alone may not achieve the end goals required. Resource accumulation must also be investigated as an important enabler.

Antecedents of planning and resources.

Turning to specific hypotheses, there was partial support for Hypotheses 2 and 3. Consistent with past research, older individuals with more education and a sense of mastery were shown to have invested more energy in planning (e.g. Petkoska & Earl, 2009). Contrary to expectations, income, psychological health and work centrality were not shown to be related to retirement planning. Considering the demographic predictors of resources, consistent with resource theory, age was not related to total level of resources. Also consistent with Hypothesis 3, income, work centrality, health and mastery were positive predictors of resources.

Comparing planning and resources with respect to antecedents, it is clear that they can be differentiated by both demographic influences and psychosocial influences. Regarding demographic influences, age and education predict planning activities, while income predicts resources. Only gender is a common influence on both planning and resources. However, no studies have shown that females are planning more than males using a general measure of planning so this finding is novel and bears further investigation. Interestingly, females were also shown to have accumulated more resources than males. Investigating the motivations of women may provide useful insights that could be shared with men to encourage greater participation in planning and resource accumulation. Importantly, individuals with higher income are likely to perceive higher adequacy of financial resources for retirement (Stoller & Stoller, 2003) although income was not an important driver of planning. Furthermore, resource theories do not predict that resources are related to age, which is supported by the results.

Turning to psychosocial predictors, only mastery was shown to predict planning but work centrality, psychological health and mastery were all predictors of resources. Our finding regarding mastery is significant at a policy level. Clearly herding people into workshops to improve planning will have little effect if people do not truly believe they have the power to influence outcomes. For example I may recognise that greater wealth will be accumulated if I re-negotiate my mortgage with my bank manager but I do not believe that I am capable of such a conversation, so I do nothing. Unlike retirement planning, all psychosocial variables predict resources. The current findings suggest that individuals who have a strong worker identity have more resources useful to retirement than those who have a weaker work role identity but that these individuals are not planning for retirement. It may be that a strong work identity and commitment to keep working results in the incidental accumulation of resources (e.g. wealth) but the assumption is that they will never retire.

Consequences of planning and resources.

This study compared three established outcomes of retirement planning, and considered the incremental contribution of retirement resources. Hypothesis 4b suggested that both planning and resources would independently predict confidence in retirement preparation (Taylor-Carter et al., 1997), and this study supports this. However, this study extended this finding, and found that resources also predict confidence in preparation, independent of planning. In fact, both planning and resources account for similar levels of variance in confidence when controlling for demographic and psychosocial effects.

Hypothesis 4c was also supported as planning for retirement was, above the effects of demographic and psychosocial variables, a negative predictor of time to retirement but resources were not a predictor of proximity to retirement. This result, along with the finding that resources are not predicted by age, suggests that resources are relatively independent of time. This supports the view that accumulation of resources, unlike planning, is not related to life stages, as continuity theory (Atchley, 1999) or role theory (Moen, 1996) would suggest, but are affected by personal actions and by changes in the environment. It may be that the inclination for resource accumulation exists throughout the life span, and those people who earlier in life ignored the accumulation of resources continue to do so. The implications here are clear, encourage resource accumulation early as there is no evidence of a resource accumulation “gene” activated by age.

Hypothesis 4d was not supported, as it was shown that retirement planning was not a predictor of intention to engage in bridge employment when controlling for demographic, psychosocial and resource variables. Instead, it was shown that resources and work centrality increased the odds of intending to participate in bridge employment. The current results favour the findings of Warburton, Le Brocque and Rosenman (1998) who noted that volunteerism in older Australians was related to the availability of social and personal resources. One alternative explanation could be in the operationalization of bridge employment to include both paid and voluntary employment in the current study, in previous research only paid employment was considered (e.g. Wang et al., 2008). Work centrality has been previously shown to predict bridge employment, and is assumed to work through the continuation of the worker role (Griffin & Hesketh, 2008; Templer, Armstrong-Stassen & Cattaneo, 2010).

Theoretical and Practical Implications

The current study makes several important contributions to the theory and practice of retirement preparation. Primarily, this study has shown that the resource model can be applied to the preretirement phase of retirement planning to understand the precursors of preparation and to predict relevant outcomes. Furthermore, this study has shown that retirement planning can be successfully differentiated from retirement resources in an employee sample, using predictors and outcomes of these preparatory behaviours. Practically, this research has shown that the RRI is a valid, cost-effective way of measuring resources that are useful for retirement well-being in an employee sample. This tool was designed to provide individuals with feedback to assist their preparation for retirement, and guide an intervention to improve retirement preparation (Leung & Earl, 2012). The current research supports these goals for the RRI, as it has shown that the factor structure in an employee sample matches that of the retirement sample on which it was developed.

Extending the concept of retirement preparation.

The resource perspective has been shown to successfully model the retirement transition, and the current study extends resource theory into the preparatory phase of retirement. This has important implications for theories of retirement preparation, as well as for development of interventions aimed at preparation for retirement. Models of behaviour change, along with the current results, show that resources are useful in preparing for major changes in life. For example, the dynamic equilibrium model of resources (Gorgievski-Duijvesteijn et al., 2005) is a model disentangling the cause and effect relationships between material resources and well-being. Through this model, it is clear that individuals have stable trait-like baseline levels of resources, which can be increased or decreased by environmental stressors. Individuals are innately able to use their cognitive and motivational resources as well as to apply deliberative planning and actions to protect their resources and maintain stable levels. This model is one example of how both innate resources and deliberative planning can be used to counter environmental stressors. Applied to retirement preparation, individuals could be coached to understand their resources, and provided strategies, including planning, to maintain well-being and cope with the transition to retirement.

As outlined earlier, the transtheoretical model has also been shown to be applicable to financial planning and savings interventions (Gutter, Hayhoe, & Wang, 2007; Shockey & Seiling, 2004; Xiao et al., 2004). This type of behaviour is distinct from that which is traditionally defined as planning, due to the unconscious or non-deliberate nature of the preparation. Together, the dynamic equilibrium and transtheoretical models along with the current results, suggest that interventions designed to improve retirement preparation should target both planning and resource accumulation to assist holistic retirement preparation. Future research should also investigate how resources and planning interact to maintain well-being as individuals move into retirement.

Limitations and Future Directions

One of the most obvious limitations of the current study is the generalizability of the findings. Although a large, national sample was secured, all participants were recruited and paid for participation through an online panel operator. Respondents were shown to be largely similar to the

national sample with respect to education, income, industry, and type of employment. However, use of online panels has been associated with non-representative data due to panel conditioning from ongoing survey participation (Goritz, 2007). However, other research has found that online panel based research is associated with lower response rates than traditional mailed surveys, while simultaneously producing higher data quality due to fewer item non-response (Shin, Johnson, & Rao, 2012). Replication of this data with participants sourced using traditional sampling methods would determine the extent of any differences.

Like any cross-sectional study, the results presented here provide only a static picture of the retirement planning process. Future studies that use a longitudinal design are needed to map the dynamic nature of the relationships between individual and psychosocial variables and their impact upon retirement planning and retirement resources.

Conclusion

Accumulation of resources required for retirement has been shown to be evidence of preparatory behaviour distinct from retirement planning. This research has shown that planning and resources are affected by similar, but distinct sets of demographic and psychosocial predictors, and that planning and resources independently predict outcomes relevant to the retirement transition and well-being. Policies advocating change by the OECD and others may be better to look beyond planning to resource accumulation and mastery in promoting self-sufficiency and workforce longevity. The current study highlights the importance of adopting a holistic view of retirement preparation in order to assist older individuals prepare for retirement and to ensure that they have access to appropriate resources in their retirement.

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Table 2

Hierarchical multiple regression analyses predicting planning antecedents and consequences from demographic, psychosocial, planning and resource variables.

	Outcome Measure			
	Antecedents		Consequences	
	Total Planning	Total Resources	Confidence in Preparation	Years to Retirement
Step 1	$\Delta R^2 = .12^{**}$	$\Delta R^2 = .09^{**}$	$\Delta R^2 = .06^{**}$	$\Delta R^2 = .50^{**}$
Gender	.22**	.25**	.08	-.14**
Age	.20**	.07	.21**	-.71**
Income	.12	.18**	.06	-.13**
Education	.21**	.11	.11	.02
Step 2	$\Delta R^2 = .03^*$	$\Delta R^2 = .21^{**}$	$\Delta R^2 = .13^{**}$	$\Delta R^2 = .02^*$
Gender	.20**	.18**	.03	-.15**
Age	.17**	-.04	.13*	.71**
Income	.09	.13**	.03	-.19**
Education	.19**	.10	.11	.02
WorkCentrality	.05	.14**	.02	.13**
GHQ	-.07	.16**	.20**	-.02
Mastery	.19**	.32**	.23**	.00
Step 3	-	-	$\Delta R^2 = .04^{**}$	$\Delta R^2 = .00$
Gender	-	-	-.01	-.14**
Age	-	-	.14*	-.71**
Income	-	-	-.01	-.13**
Education	-	-	.08	.03
WorkCentrality	-	-	-.02	.14**
GHQ	-	-	.16*	-.01
Mastery	-	-	.15*	.02
Resources	-	-	.25**	-.06
Step 4	-	-	$\Delta R^2 = .04^{**}$	$\Delta R^2 = .01^*$
Gender	-	-	-.04	-.12*
Age	-	-	.09	-.69**
Income	-	-	-.02	-.13**
Education	-	-	.04	.04
WorkCentrality	-	-	-.02	.14**
GHQ	-	-	.19**	-.03
Mastery	-	-	.13	.04
Resources	-	-	.17*	-.02
Planning	-	-	.24**	-.12*
Total R ²	R ² = .16**	R ² = .31**	R ² = .28**	R ² = .53**

** p < .01 * p < .05

Table 3
Logistic regression with demographic, psychosocial, resources and planning predicting intention to engage in bridge employment

	Step χ^2	B	SE	OR	95% CI for OR
Step 1	8.49				
Gender		-.02	.27	.96	.59, 1.74
Age		.04*	.02	1.04	1.00, 1.08
Income		.02	.03	1.02	.97, 1.06
Education		.18*	.09	1.20	1.00, 1.44
Step 2	11.77*				
Gender		.14	.28	1.15	.66, 2.01
Age		.03	.02	1.04	.99, 1.08
Income		.01	.03	1.01	.96, 1.06
Education		.17	.09	1.18	.98, 1.42
WorkCentral.		.12*	.05	1.13	1.03, 1.24
GHQ		-.04	.04	.97	.90, 1.04
Mastery		.10	.05	1.10	.99, 1.22
Step 3	4.67*				
Gender		.28	.30	1.33	.74, 2.37
Age		.04	.02	1.04	.99, 1.08
Income		.00	.03	1.00	.95, 1.05
Education		.14	.09	1.15	.96, 1.39
WorkCentral.		.10*	.05	1.11	1.01, 1.22
GHQ		-.05	.04	.95	.87, 1.02
Mastery		.06	.05	1.06	.96, 1.18
Resources		.02*	.01	1.02	1.00, 1.04
Step 4	.37				
Gender		.31	.30	1.36	.76, 2.43
Age		.04	.02	1.04	.99, 1.08
Income		.00	.03	1.00	.95, 1.05
Education		.14	.10	1.14	.95, 1.38
WorkCentral.		.10*	.05	1.11	1.01, 1.22
GHQ		-.05	.04	.96	.89, 1.03
Mastery		.06	.05	1.06	.96, 1.18
Resources		.02*	.01	1.02	1.00, 1.04
Planning		.01	.02	1.01	.98, 1.04
Total χ^2	25.30*				

*Bridge Employment coded 0 – I will not engage in bridge employment; 1 = I will engage in bridge employment** p < .01 * p < .05*

Table 1

Means, standard deviations, and correlations for the individual difference variables, retirement planning and retirement resources, and outcome variables

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender	1.50	0.50	-											
2. Age	55.80	6.74	-.02	-										
3. Income	7.73	6.06	-.21**	-.09	-									
4. Education	2.77	1.53	-.01	-.11*	.15*	-								
5. Work Centrality	29.82	4.58	.07	.05	.04	.03	-							
6. Psych. Health	26.97	3.35	.06	.20**	-.01	-.06	.14*	-						
7. Mastery	15.95	3.19	.08	.21**	.10	.04	.25**	.57**	-					
8. Planning	16.26	9.26	.18**	.17**	.10	.22**	.14*	.09	.25**	-				
9. Resources	113.13	16.99	.19**	.04	.14*	.16**	.28**	.36**	.48**	.40**	-			
10. Confidence	2.92	0.98	.03	.20**	.05	.07	.10	.33**	.37**	.37**	.35**	-		
11. Years to Retirement	8.90	6.25	-.07	-.69**	-.03	.05	.07	-.18**	-.18**	-.27**	-.13*	-.31**	-	
12. Bridge Emp.	.70	0.46	.01	.12*	.05	.11	.19**	.07	.17**	.19*	.20**	.02	-.00	-

Gender (male = 1, female = 2); Education (1 = secondary or lower, 2 = certificate, 3 = diploma or advanced diploma, 4 = bachelor degree, 5 = graduate certificate or graduate diploma, 6 = postgraduate); Confidence (1= Not at all prepared, 2 = not very prepared, 3 = Moderately prepared, 4= Very well prepared, 5 = extremely well prepared); Years to Retire. (Age intend to retire – current age); Bridge Emp. (0 = I will not work after retirement , 1 = will work after retirement) ** p<0.01 *p<0.05