Understanding the Influence of Demographic and Psychological Variables on Retirement Planning

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The authors examined the degree to which workers were engaging in financial, health, interpersonal/leisure, and work planning for retirement, exploring whether demographic and psychological variables inhibited or promoted planning in each of these domains. Planning in each domain was influenced by a unique set of variables. Goals emerged as a consistent and positive predictor of planning. Gender accounted for health and interpersonal/leisure planning, while work planning behavior was negatively predicted by income. Time perspective also helped to clarify the amount of retirement planning undertaken in the financial and interpersonal/leisure domains. Practical implications for designing retirement interventions are discussed.

Keywords: retirement planning, predictors, time perspective, goals
in some form of postretirement work is significantly correlated to satisfaction during retirement (Barrow, 1996; Feldman & Kim, 2000; Kim & Feldman, 2000; Mor-Barak, 1995). Individuals are less likely to engage in voluntary work during their retirement years if they have had no prior association with the volunteer organization, suggesting that preretirement planning for volunteer work plays a critical function (Atchley, 1993; Harlow & Cantor, 1996).

Demographic Predictors of Retirement Planning

A great deal of research has already centered on understanding the factors (e.g., age, gender, education, and income) that inhibit or promote financial planning for retirement. Results from these studies have shown that being older (Bassett, Fleming, & Rodriguez, 1998; Glass & Kilpatrick, 1998), being male (Hurd & Wise, 1989; Quick & Moen, 1998), being more educated (DeVaney & Su, 1997; Yuh & Olsen, 1997), and earning a higher income (Bassett et al., 1998; Grable & Lytton, 1997) are related to greater financial planning. Individuals with these demographic characteristics are thought to engage in greater planning due to opportunity structures (Ekerdt, DeVinney, & Kosloski, 1996) afforded to this cohort. We expected that being older, male, and more educated and earning a higher income would predict retirement planning among participants in our study.

Psychological Predictors of Retirement Planning: Goals and Time Perspective

Goals

Goals have been shown to stimulate planning behaviors in a variety of domains (Lee, Locke, Latham, & Pervin, 1989). This is not surprising as most theories of planning are underpinned by the idea that goals are a necessary precursor to planning (Friedman & Scholnick, 1997; Locke, Durham, Poon, & Weldon, 1997; Locke & Latham, 1990). Hershey, Mowen, and Jacobs-Lawson (2003) reported that people who engaged in goal-setting exercises showed greater planning and saving practices after 12 months than people who did not. Furthermore, Neukam and Hershey (2003) showed that financial goal strength was positively related to retirement savings contributions. On the basis of previous research findings, we expected goals to positively predict retirement planning.

Time Perspective

Zimbardo and Boyd (1999) identify five types of time perspective (TP)—future, present hedonistic, present fatalistic, past positive, and past negative. Research has shown that individuals with a high future TP are concerned with working toward future goals and rewards, often at the expense of present enjoyment. In contrast, people with a high present hedonistic TP live in the moment, seek excitement and instant gratification, with little consideration of the future consequences of their actions. Individuals with high fatalistic TP, while also focused on the “here and now,” take a negative attitude toward the present, and believe that outside forces control one’s life. Finally, those with high past positive and past negative TPs tend to focus on the past. However, while high past positive individuals are characterized by a nostalgic, warm, and positive construction of the past, individuals high on the past negative scale place a strong emphasis on past experiences that are aversive or unpleasant (Zimbardo & Boyd, 1999).

Individuals who are future oriented have been found to engage in other planned and purposeful activities such as energy conservation, recycling, preventative health behaviors, and career planning (Aspinwall & Taylor, 1997; Rothsman & Read, 1996; Savelkas, Silling, & Schwartz, 1984; Zimbardo & Boyd, 1999). Consistent with other research findings, it is expected that individuals who score high on the future TP scale would be more likely to set goals and in turn better plan for their retirement (Hershey & Mowen, 2000; Jacobs-Lawson & Hershey, 2005). We expected that a high future TP score would positively predict retirement planning in each of the planning domains and that other TPs would inhibit planning.

To summarize, the central aim of this study was to determine the influence of demographic (age, gender, education, and income) and psychological variables (goals and time perspective) on retirement planning for older workers, within four specific domains known to promote satisfaction in retirement: finances, health, interpersonal relationships, and work.

Method

Participants

Employees 50 years of age and older working at a financial institution were invited via e-mail to participate in an anonymous, online study on retirement planning. Data were collected from 377 participants (168 men and 209 women). Participation was voluntary, and people were given the opportunity to enter a draw to win a $150 Australian (~$120 USD) gift voucher.

Materials

Demographic information. Participants were asked to indicate their current age, gender (male = 1; female = 2), highest level of education obtained, and income level.

Retirement goals. To assess retirement goals, we asked participants to list goals for retirement under the following headings: financial goals, health goals, leisure and travel goals, interpersonal goals, work goals, and other goals. As in previous research, participants were told that they could list up to five goals under each category heading (Hershey, Jacob-Lawson, & Neukam, 2002).

Retirement planning. As very few studies have looked at retirement planning beyond the financial domain, a comprehensive and broadly themed retirement planning questionnaire was developed for the purposes of this study. This questionnaire contained a set of 36 items designed to measure financial, health, leisure, interpersonal, work, and more general planning in preparation for retirement (Law & Lee, 2004; Stawski et al., 2007). Table 1 outlines the items used in the study.

Time perspective. Time perspective was assessed using the Zimbardo Time Perspective Inventory (ZTPI; for more details, see Zimbardo & Boyd, 1999). The ZTPI yields five subscales, each representing an orientation toward a temporal frame (past, present, future) and the attitude related to it. Higher scores on a scale reflect a greater orientation toward the time perspective being assessed by that scale.
An online questionnaire containing all of the aforementioned measures was developed. Items were presented in the order listed above. Participants accessed the questionnaire via a link embedded in an e-mail invitation. Participants’ confidentiality was preserved by having them enter the draw for the $150 gift certificate via a separate e-mail link.

### Procedure

An online questionnaire containing all of the aforementioned measures was developed. Items were presented in the order listed above. Participants accessed the questionnaire via a link embedded in an e-mail invitation. Participants’ confidentiality was preserved by having them enter the draw for the $150 gift certificate via a separate e-mail link.

### Results

#### Predictor Variables

**Demographic characteristics.** The 377 participants ranged in age from 50 to 66 years, with a mean age of 54 years (SD = 3.5).

#### Table 1

**Rotated Factor Loadings for the Retirement Planning Questionnaire**

<table>
<thead>
<tr>
<th>Questionnaire item</th>
<th>Financial/general</th>
<th>Health</th>
<th>Interpersonal/leisure</th>
<th>Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Watched/listened to programs on financial planning or superannuation</td>
<td>.61</td>
<td>.26</td>
<td>−.24</td>
<td>.03</td>
</tr>
<tr>
<td>2. Read books/articles/brochures on financial planning or superannuation</td>
<td>.61</td>
<td>.43</td>
<td>−.10</td>
<td>.06</td>
</tr>
<tr>
<td>3. Visited financial planning or superannuation sites on the Internet/Intranet</td>
<td>.48</td>
<td>.11</td>
<td>−.12</td>
<td>.20</td>
</tr>
<tr>
<td>4. Assessed your net worth</td>
<td>.61</td>
<td>−.17</td>
<td>.08</td>
<td>.02</td>
</tr>
<tr>
<td>5. Calculated the cost of your living during retirement</td>
<td>.59</td>
<td>−.11</td>
<td>.18</td>
<td>.12</td>
</tr>
<tr>
<td>6. Bought stocks, funds, or bonds for long-term investment</td>
<td>.46</td>
<td>.02</td>
<td>.01</td>
<td>−.11</td>
</tr>
<tr>
<td>7. Made contributions to a superannuation fund(s)</td>
<td>.54</td>
<td>.04</td>
<td>.15</td>
<td>−.41</td>
</tr>
<tr>
<td>8. Discussed financial planning or superannuation with a professional(s) in the field</td>
<td>.73</td>
<td>−.03</td>
<td>.03</td>
<td>−.11</td>
</tr>
<tr>
<td>9. Exercised regularly (at least twice a week)</td>
<td>.09</td>
<td>.16</td>
<td>.11</td>
<td>.01</td>
</tr>
<tr>
<td>10. Arranged a medical check-up periodically (at least once every 2 years)</td>
<td>.12</td>
<td>.37</td>
<td>.15</td>
<td>−.14</td>
</tr>
<tr>
<td>11. Quit/started to quit habits that are detrimental to your health</td>
<td>.01</td>
<td>.30</td>
<td>.12</td>
<td>−.09</td>
</tr>
<tr>
<td>12. Taken out a health insurance policy</td>
<td>.04</td>
<td>.39</td>
<td>.08</td>
<td>−.12</td>
</tr>
<tr>
<td>13. Watched/listened to programs on health</td>
<td>.01</td>
<td>.80</td>
<td>.04</td>
<td>.09</td>
</tr>
<tr>
<td>14. Read books/articles/brochures on health</td>
<td>−.13</td>
<td>.78</td>
<td>−.01</td>
<td>.26</td>
</tr>
<tr>
<td>15. Visited health-related sites on the Internet/Intranet</td>
<td>−.19</td>
<td>.42</td>
<td>.02</td>
<td>.42</td>
</tr>
<tr>
<td>16. Continued current leisure activity/travel or started new leisure activity/travel</td>
<td>.22</td>
<td>.07</td>
<td>.40</td>
<td>.06</td>
</tr>
<tr>
<td>17. Read books/publications related to current or future leisure activity/travel</td>
<td>.20</td>
<td>.20</td>
<td>.50</td>
<td>.08</td>
</tr>
<tr>
<td>18. Watched/listened to shows on current or future leisure activity/travel</td>
<td>.27</td>
<td>.26</td>
<td>.34</td>
<td>.13</td>
</tr>
<tr>
<td>19. Visited Web sites related to current or future leisure activity/travel</td>
<td>.11</td>
<td>.03</td>
<td>.43</td>
<td>.23</td>
</tr>
<tr>
<td>20. Joined/made inquiries about joining a club, team, or class related to current or future leisure activity/travel</td>
<td>.01</td>
<td>.26</td>
<td>.42</td>
<td>.04</td>
</tr>
<tr>
<td>21. Organized outings/activities with friends and/or family</td>
<td>−.07</td>
<td>.02</td>
<td>.70</td>
<td>.03</td>
</tr>
<tr>
<td>22. Called friends and/or family regularly</td>
<td>−.01</td>
<td>.01</td>
<td>.90</td>
<td>−.19</td>
</tr>
<tr>
<td>23. E-mailed friends and/or family regularly</td>
<td>−.09</td>
<td>.06</td>
<td>.63</td>
<td>.12</td>
</tr>
<tr>
<td>24. Visited friends and/or family regularly</td>
<td>.09</td>
<td>.03</td>
<td>.76</td>
<td>−.24</td>
</tr>
<tr>
<td>25. Made new friends recently</td>
<td>−.17</td>
<td>.11</td>
<td>.46</td>
<td>.11</td>
</tr>
<tr>
<td>26. Discussed financial planning or superannuation with a professional(s) in the field</td>
<td>−.02</td>
<td>.15</td>
<td>.41</td>
<td>.22</td>
</tr>
<tr>
<td>27. Spoken to relevant person(s) about postretirement worka</td>
<td>.09</td>
<td>−.22</td>
<td>.56</td>
<td>.53</td>
</tr>
<tr>
<td>28. Watched/listened to shows on postretirement worka</td>
<td>.02</td>
<td>.02</td>
<td>.13</td>
<td>.80</td>
</tr>
<tr>
<td>29. Read books/articles/brochures on postretirement worka</td>
<td>.08</td>
<td>.06</td>
<td>.12</td>
<td>.79</td>
</tr>
<tr>
<td>30. Visited Web sites on postretirement worka</td>
<td>.11</td>
<td>−.08</td>
<td>.20</td>
<td>.69</td>
</tr>
<tr>
<td>31. Participated in workshops, seminars, or courses on retirement</td>
<td>.78</td>
<td>.09</td>
<td>−.03</td>
<td>.34</td>
</tr>
<tr>
<td>32. Read books/publications related to retirement</td>
<td>.58</td>
<td>.23</td>
<td>−.16</td>
<td>.47</td>
</tr>
<tr>
<td>33. Watched/listened to programs concerning retirement</td>
<td>.48</td>
<td>.18</td>
<td>−.16</td>
<td>.41</td>
</tr>
<tr>
<td>34. Visited retirement Web sites on the Internet/Intranet</td>
<td>.41</td>
<td>.11</td>
<td>.20</td>
<td>.45</td>
</tr>
<tr>
<td>35. Discussed retirement with retired people</td>
<td>.47</td>
<td>−.07</td>
<td>.26</td>
<td>.29</td>
</tr>
<tr>
<td>36. Discussed retirement with family, friends, or colleagues</td>
<td>.47</td>
<td>−.18</td>
<td>.14</td>
<td>.41</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eigenvalue</th>
<th>9.86</th>
<th>3.67</th>
<th>2.75</th>
<th>2.29</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R^2$</td>
<td>9.40</td>
<td>3.19</td>
<td>2.28</td>
<td>1.82</td>
</tr>
</tbody>
</table>

Note. Items with loadings ≥ .30 that were retained on a factor are shown in boldface type. Where items cross-loaded, they were retained on the factor that was most theoretically justifiable.

V. Volunteer, part-time, contract, or self-employed postretirement work.

### Validation of retirement planning questionnaire.

We performed an exploratory factor analysis using principal-axis factoring with oblique (Kaiser with Oblim) rotation. On the basis of eigenvalues greater than 1 and inspection of the scree plot, we extracted four factors. The 36 items and their respective rotated factor loadings are presented in Table 1.

#### Dependent Variables

**Goals and time perspective (TP).** Please refer to Table 2 for a summary of results.

**Men** (44.6%) and **women** (55.4%) were almost equally represented in the sample. The median level of education for this group was 12 years, and the median income was $40,001–$60, 000 Australian ($32,002–$48,001 USD).
factor loadings are shown in Table 1, along with eigenvalues and R² values for each of the factors. Items with loadings equal to or greater than .30 that were retained on a factor are shown in boldface type. Where items cross-loaded, they were retained on the factor that was most theoretically justifiable.

Do demographic and psychological variables predict retirement planning? Four multiple regression analyses were conducted with predictors including demographic variables (age, gender, education, and income) entered as Block 1 and psychological variables (goals and time perspectives) entered as Block 2 along with predictors including demographic variables (age, gender, education, and income) entered as Block 1 and psychological variables (goals and time perspectives) entered as Block 2 along with Block 1. Only corresponding goals were included in each analysis.

Predicting financial/general planning. The predictor variables accounted for 13% of the total variance in financial/general planning. Of the demographic predictors, age was the only variable to emerge as a significant predictor of financial/general planning (β = .13, p < .05). The older individuals were, the more likely they were to engage in financial/general planning. Contrary to expectations, none of the other demographic variables entered into the regression were predictive of financial/general planning. However, in line with expectations, the number of financial goals listed by participants emerged as a significant positive predictor of planning within this domain (β = .15, p < .01). Also in line with expectations, present fatalistic TP emerged as a negative predictor of financial/general planning (β = −.18, p < .01) Past positive TP also emerged as a significant predictor of planning (β = .16, p < .01), though as a positive rather than as a negative predictor as was hypothesized. The other three TPs did not emerge as predictors.

Predicting health planning. The predictor variables accounted for 13% of the total variance in health planning. Gender (β = .29, p < .001), income (β = .17, p < .05), and education (β = .13, p < .05) emerged as significant predictors of health planning, such that participants who were female or more highly educated were more likely to engage in health planning. As hypothesized, health goals also emerged as a significant predictor of health planning (β = .23, p < .001). However, contrary to expectation, none of the five TPs was predictive of health planning.

Predicting interpersonal/leisure planning. The predictor variables entered into the regression model accounted for 13% of the variance in interpersonal/leisure planning for retirement. Of the demographic variables, gender emerged as the only predictor of interpersonal/leisure planning, with women more likely to plan than men (β = .22, p < .05). As hypothesized, goals were also predictive of planning within this domain (β = .16, p < .001). Present fatalistic TP emerged a negative predictor (β = −.15, p < .05) of interpersonal/leisure planning. However, contrary to expectations, present hedonic TP was a positive predictor (β = .21, p < .001) of planning, and none of the other three TPs was predictive of leisure planning.

Predicting work planning. The predictor variables accounted for only 8% of the observed variance in work planning. The only demographic variable to emerge as a significant predictor of work planning was income, such that lower income was associated with greater work planning (β = −.14, p < .05). As hypothesized, having a greater number of work goals for retirement also predicted the degree to which participants engaged in work planning (β = .15, p < .01). However, contrary to expectations, none of the five TPs emerged as significant predictors of planning within this domain.

Discussion

Age, Gender, Education, and Income as Predictors of Retirement Planning

Contrary to expectations, only age predicted financial planning in the present study. This finding may be explained by the fact that participants in the study were employees of a financial institution...
and, as such, were likely to have had higher levels of financial planning knowledge, regardless of gender, education, and income. Being female was associated with greater retirement planning in the health and leisure/interpersonal domains. One reason that women are thought to engage in more positive health behavior is that they are more active consumers of health information and health care services (Kandrack, Grant, & Segall, 1991). Planning in the interpersonal domain may be explained by the fact that in our society, women have been differentially socialized to establish and maintain interpersonal bonds (Gilligan, 1982; Miller, 1986). Education was positively related to health planning for retirement, a finding that is consistent with general research on health behavior (Clark, 1995; Ross & Wu, 1994). In the current study, more highly educated participants may have planned for their health to a greater degree because of greater knowledge or information seeking (Ross & Wu, 1994). Income emerged as a negative predictor of work planning, such that the lower an individual’s income, the more likely he or she was to engage in planning for postretirement work. In support of this idea, other research has shown that individuals are less likely to engage in work during retirement if their retirement salary is high (Kim & Feldman, 2000).

Goals as Predictors of Retirement Planning

Goals were positive predictors of retirement planning across all domains. In this way, the current study builds on previous retirement planning studies, which have shown financial goals to be an important predictor of financial planning (Hershey et al., 2003; Neukam & Hershey, 2003). It also adds support to Friedman and Scholnick’s (1997) model of planning, in which goals are conceptualized to be an important part of planning.

Time Perspective as a Predictor of Retirement Planning

Contrary to expectations, future TP did not emerge as a predictor of planning across any of the planning domains. Such a result is surprising given that previous research has implicated a high future TP as important to an individual’s ability to engage in planned and purposeful behavior such as financial planning for retirement (Hershey & Mowen, 2000; Jacobs-Lawson & Hershey, 2005). One possible reason for this is that the ZTPI taps a time frame that is not futuristic enough for planning that is required years or decades in advance (as opposed to weeks or months).

Contrary to expectations, present hedonistic TP emerged as a positive predictor of planning within the interpersonal/leisure domain. Upon reflection, we find this result to be not entirely surprising, given that individuals high on present hedonistic TP are naturally quite socially oriented and seek activity and excitement in their daily lives (Zimbardo & Boyd, 1999). It may be that people with this TP develop and recognize relationships as a priority for all purposes, not only retirement planning. This is particularly important since it has been found that many people do not initiate new hobbies or leisure pursuits postretirement (Vinick & Ekerdt, 1991). Past positive TP emerged as a positive, rather than as negative, predictor of planning within the financial/general domain. It could be that individuals who scored highly on the past positive scale may have planned more in this area because of their positive attitude toward retirement. Other findings suggest that individuals with a high past positive orientation tend to score high on positivity in general (Zimbardo & Boyd, 1999) and that a positive attitude toward retirement is associated with greater levels of financial planning (Taylor, Cook, & Weinberg, 1997).

Limitations

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 employees of the same organization and worked within the finance industry. As a result of their employment, employees may have been privy to greater financial knowledge, a known predictor of financial planning (Ekerdt & Hackney, 2002; Mitchell & Moore, 1998). It is possible that participants were more financially “savvy” than members of the general population. It should be noted, however, that at the time the study was conducted, no additional mechanisms were in place within the organization to deal with retirement planning for employees other than those readily available to customers. In this regard, employees were still highly reliant on their own propensity to plan and initiate goals. Replication of the study with participants from other industries responding to the retirement planning questionnaire would determine the extent of these differences.

Participation in the survey was voluntary, and it is possible that the sample may have been biased in terms of their general motivation and interest in retirement planning. It is impossible to know whether we, by asking questions relating to retirement planning behaviors, educated the sample about the possibilities, and they then volunteered goals developed independent of actual retirement planning. We attempted to minimize these effects as much as possible by requesting the participants to specify their goals prior to identifying retirement planning behaviors. Only free recall of goals and planning behaviors without any context could completely remove these effects. Currently, research is being conducted to explore the role of these questions in improving participants’ knowledge about the breadth and depth of planning behaviors required for successful retirement. It is also possible that participants responded in a socially desirable way. In a study that relied on self-report data and ratings of retirement planning behavior, people may have reported what they ought to do in preparation for retirement rather than what they have done. They may well recognize the need to attend retirement seminars, read books about financial planning, or meet with a financial planner but simply have not done so.

The role of providing an incentive must also be considered, and this may have acted as a filter for temporal preference (i.e., immediate participation for potential delayed gratification). The only way to avoid this in future studies is to conduct studies with and without incentives and to compare participants’ temporal preference with the ZTPI. However, we fear that such a strategy may result in significantly fewer participants in the no-incentive group, making such comparisons impossible. An additional limitation of the study relates to the moderate variance in planning accounted for by the demographic and psychological variables examined in the study (between 8% and 13%). While this variance may in part be due to the homogeneity of the sample used, it also suggests that variables outside the scope of the study could have influenced planning. Accordingly, we recommend that additional variables such as retirement worry, retirement attitudes, self-
efficacy, and motivation be assessed in future studies in order to better understand the predictors of retirement planning.

Implications and Future Directions

We discovered that planning in each of the four domains was influenced by a unique set of variables. This suggests that when attempting to create and deliver interventions designed to increase financial/general, health, interpersonal/leisure, and work planning for retirement, policy makers and counselors cannot apply a broadbrush, one-size-fits-all approach. Rather, proposed interventions should take into account and be designed around the specific variables known to influence planning within that particular domain. The exception to this was goal setting, which was the one consistent predictor of planning across all domains. Given that goals are malleable and not fixed characteristics of an individual, goal setting could represent an important ingredient in the design of interventions promoting holistic retirement planning.

References

groups. In S. L. Friedman & E. K. Scholnick (Eds.), *The developmental psychology of planning: Why, how, and when do we plan?* Mahwah, NJ: Erlbaum.


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