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## AN EXPERIMENTAL COMPARISON OF RETIREMENT PLANNING INTERVENTION SEMINARS

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*The need for effective financial planning interventions has recently increased, as members of the baby boom generation near retirement. In the present study, the efficacy of three different retirement seminars was evaluated one year following intervention. The retirement seminars focused on either (1) information about financial planning and investing, (2) financial goal-setting exercises, or (3) a combination of financial information and goal-setting exercises. Post-intervention goal clarity and planning and savings practices were compared across the three groups, as well as to individuals in a control condition who received a memory improvement seminar. Intervention had the strongest impact on those in the combined (information and goals) condition, and a moderate influence on the behavior of those who attended the information-only seminar. These findings suggest that the influence of information-based seminars (the most common form of motivational intervention) can be enhanced by the addition of a supplemental goal-setting module.*

One of the more significant societal challenges we will face in the coming decades will be to ensure that the aging cohort of American

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baby boomers will plan and save wisely for retirement (Glass & Kilpatrick, 1998a; Poterba, 1996). For most individuals, the key to successful planning will involve the cultivation of a portfolio of personal savings and investments that will supplement income from private pensions and Social Security. Currently however, most Americans are saving at a rate that is insufficient to guarantee retirement income security (Lusardi, 2000; U.S. Social Security Administration, 2000), thus creating the need for training and intervention programs that effectively motivate individuals to save. This need for empirically-validated financial intervention should continue to increase in the foreseeable future, given the added personal responsibilities associated with the shift from defined benefits to defined contribution savings programs (Mitchell & Schieber, 1998).

In this paper, three brief financial intervention seminars aimed at stimulating retirement planning and savings practices are compared. Specifically, individuals were exposed to seminars that consisted of (1) information about financial planning and investing, (2) retirement goal-setting activities, or (3) a combination of the financial information and goal-setting conditions. The post-intervention planning, goal-setting, and savings activities of members of these groups were then compared to the same set of behaviors exhibited by members of a control group.

In order to position the present study within the existing retirement intervention literature, the distinction between *comprehensive* and *limited* intervention programs is acknowledged (Monk, 1972). Comprehensive programs cover a range of topics that typically include but are not limited to financial planning, leisure, social adjustment, and health maintenance. Limited interventions, as the name implies, focus attention only on one aspect of retirement preparation (e.g., financial planning). We also recognize the distinction between retirement preparation programs that focus on *planning*, and those that focus on *counseling* (Kasschau, 1974). Planning programs often involve group-based seminar presentations, highlighting ways in which late life financial needs can be met by adaptive preretirement planning behaviors. Counseling programs, in contrast, typically involve individualized discussions with a worker, in order to clarify retirement goals and shape attitudes toward retirement so as to maximize positive future adjustment (Ekerdt, 1990; Richardson, 1993). The financial information intervention exemplifies work within the planning tradition, and the goal-setting intervention leans heavily toward the counseling perspective. The combined information and goal-setting condition cuts across boundaries established in the planning and counseling literatures.

## RETIREMENT PLANNING INTERVENTION EFFORTS

Surprisingly few outcome studies have been published that examine the effect of retirement interventions on behavior, despite repeated calls for work in this area over the past three decades (e.g., Glass & Kilpatrick, 1998b; Hershey, Walsh, Brougham, Carter, & Farrell, 1998; Lynch, Ogg, & Christensen, 1975; Palmore, 1982; Richardson, 1993). A variety of different types of interventions have been evaluated in this relatively small area of the literature, including those designed to foster good health and active leisure pursuits (Palmore, 1982), improve attitudes toward and increase knowledge about retirement (Glamser & DeJong, 1975), ease the retirement transition adjustment and improve post-retirement life satisfaction (Glamser, 1981), optimize the timing of one's departure from the workforce (Kilbom, 1999), and increase preretirement socialization in order to improve retirement adjustment and satisfaction (Kamouri & Cavanaugh, 1986). Unfortunately, it has been suggested that most programs and seminars developed along these lines have met with limited success (Ekerdt, 1990; Siegel & Rees, 1992).

A handful of training and intervention studies have been conducted that were designed to improve financial planning for retirement, financial decision-making, and long-term savings practices. Although limited in number, these investigations have generally demonstrated positive outcomes. Because the focus of the present research is on how *knowledge* and *goals* influence planning practices, the following discussion is limited to findings specific to these two constructs.

## KNOWLEDGE, RETIREMENT PLANNING, AND SAVINGS

Studies that have investigated the relationship between knowledge, financial planning behaviors, and savings activities have shown these variables to be positively related (Bernheim, 1998; Devaney & Su, 1997; Ekerdt, Hackney, Kosloski, & DeViney, 2001; Grable & Lytton, 1997; Hershey & Mowen, 2000; Neukam, 2002). Mitchell and Moore (1998), and Bernheim (1998) have argued that the reason many individuals do not plan adequately for retirement is because they lack sufficient economic knowledge and financial literacy to do so in a competent fashion. Consistent with this suggestion, Loewenstein, Prelec, and Weber (1999) found that near retirees and recent retirees reported that they needed to become more knowledgeable about retirement savings and investments.

In a series of training and intervention studies, Hershey and his colleagues have shown that financial knowledge has an appreciable

impact on the quality of individuals' financial planning and decision-making efforts. In one study (Hershey & Walsh, 2000/2001), college students who had received a brief (six-hour) financial knowledge intervention made significantly better investment decisions than their untrained counterparts when deciding how much six different hypothetical individuals should invest in a 401(K) account. To a great extent, these training-based differences were shown to be due to the quality of information individuals considered when making their decisions, and the way in which that information was processed (see also Hershey, Jacobs-Lawson, & Walsh, *in press*; Hershey, Walsh, Read, & Chulef, 1990; and Walsh & Hershey, 1993). Interestingly, those students who had attended the training seminar tended to be significantly less confident in the quality of their investment decisions than their untrained counterparts (Hershey & Wilson, 1997), perhaps due to an enhanced appreciation for both the complexity of the issues, and the uncertainty inherent in the decision domain. In a different study, Hershey et al. (1998) found that a brief, group financial information seminar attended by older pre-retirees had a modest (although not statistically significant) impact on their ability to determine whether a series of hypothetical individuals could afford to retire.

In one particularly novel and creative intervention outcome study, Bernheim, Garrett, and Maki (1997) examined the long-term impact of consumer and financial education programs offered in high schools nationwide between 1957 and 1995. Of particular relevance to the current investigation, was whether individuals in the Bernheim et al. study who had been exposed to the financial training amassed more wealth during the years after graduation than those who had not. Analyses revealed a positive influence of financial education on savings; an effect that became more pronounced over time as income levels increased among members of the sample.

Other forms of financial education have been studied in addition to seminar-style or group-based knowledge interventions. Clark and Schieber (1998) found that printed financial education materials distributed by employers had a positive impact on 401(K) participation and savings rates. Their analyses, based on data from 17 different companies representing over 50,000 workers, revealed that employer communications in the form of account balance statements, newsletters, and information focusing on the individual company's specific 401(K) plan, all had a beneficial impact on plan participation rates. Similar positive effects of employer communications on plan participation were identified in a study reported by Bernheim (1998).

Taken together, the studies cited above are encouraging when it comes to the impact that knowledge acquired through training or

intervention has on retirement planning and savings practices. Higher financial knowledge levels and exposure to financial information are associated with better investment allocation decisions, increased competence in judging whether one can afford to retire, and higher rates of retirement plan participation and savings contributions. The generally positive outcomes associated with these educational interventions provide a foundation for speculation that the financial information condition in the present study will have a beneficial impact on retirement planning and saving tendencies.

## **GOALS, RETIREMENT PLANNING, AND SAVINGS**

Psychologists have written extensively about the motivating influence goals have on purposeful and adaptive behavior (Austin & Vancouver, 1996; Winell, 1987). Many goal-oriented investigations in the area of retirement have focused on either the specific content of individuals' goals (e.g., Hershey, Jacobs-Lawson, & Neukam, 2002; LaPierre, Bouffard, & Bastin, 1997), or the impact of stable and concrete goals on post-employment satisfaction and psychological adjustment (e.g., Rapkin & Fischer, 1992; Robbins, Lee, & Wan, 1994; Smith & Robbins, 1988). Only a limited number of studies have explored goals in relation to financial planning for retirement.

Research has shown that clear and strong retirement goals are positively associated with retirement planning and savings practices. For example, Devaney and Su (1997), using data from the 1995 Retirement Confidence Survey, found that future expectations about the quality of one's lifestyle in retirement were related to personal savings and investment practices. Similarly, Neukam (2002) demonstrated that the strength of individuals' financially oriented retirement goals was predictive of general retirement goal clarity, and general retirement goal clarity, in turn, was found to predict retirement-oriented financial planning behaviors. In a different study that used the same retirement goal clarity measure employed by Neukam (2002), Stawski and Hershey (2003) found that age successfully predicted goal clarity, and goal clarity, in turn, predicted financial planning behaviors among workers 20–65 years of age.

Despite the findings cited above, which demonstrate the adaptive nature of financial goal setting, many American workers appear to show little interest in thinking about and planning for their financial futures. Loewenstein et al. (1999) found that most workers nearing retirement age fail to set specific goals regarding how much will need to be saved in order to maintain their desired standard of living (see also Murray, 1998). It has been suggested that absent or weak retirement

goals could be due to the fact that, as a society, we lack clear norms regarding the roles individuals are expected to adopt in retirement (Moen, 1996). It would appear that norms regarding what constitutes an appropriate level of personal savings are lacking as well, given the large number of workers who exit the workforce without first having established a reasonable level of retirement income security.

One theoretical model of goal-based planning and decision making called image theory (Beach, 1993, 1998; Beach & Mitchell, 1987), suggests that the possession of clear, long-term goals is a prerequisite to ensuring adaptive future behaviors. Possession of goals for the future makes up what Beach and his colleagues describe as a "trajectory image." This trajectory image helps to guide specific behaviors and strategic decisions; thereby allowing individuals to achieve desired outcomes. The set of behavioral tactics that enables one to meet these future goals is called an "action image," because it sets out an action plan, which, if followed, should allow the goal to be successfully accomplished. In the financial planning context, the trajectory image may be fairly abstract, such as having the general goal of being financially independent and reasonably comfortable (e.g., Hershey et al., 2002). A better case scenario, however, would involve having a more specific personal savings goal, such as a dollar amount one hopes to accumulate prior to leaving the workforce (Lowenstein et al., 1999). In a case such as this, a concrete action image can then be formulated that would encompass a variety of financial decisions, investment behaviors, and portfolio monitoring activities.

Image theory in its full form is appreciably more complex than the partial description provided above, however, for the purposes of the present study, the two images outlined above are the most critical. In previous empirical studies, image theory has been successfully used to investigate a number of consequential life planning decisions, such as decisions about the timing of one's departure from the workforce (Prothero & Beach, 1984), childbearing decisions (Beach & Morrison, 1989), and decisions associated with socially responsible consumer behaviors (Nelson & Puto, 1998). In this investigation, the ideas set forth in image theory were used as a springboard to develop a retirement goal-setting module. Additional details about the financial intervention modules and the objectives of the present study are provided below.

## **STUDY OBJECTIVES**

Four different treatment conditions were employed in the present investigation. The four conditions were achieved by crossing two

factors: (1) the presence or absence of information-based seminar content, and (2) the presence or absence of goal-based seminar content; thus, establishing the basis of a  $2 \times 2$  factorial design. The impact of the three active treatments and the (fourth) control condition was evaluated one year following the intervention by examining scores on three different dependent variables.

The first outcome measure used was the nine-item financial planning activity index employed in the Neukam (2002), and Stawski and Hershey (2003) investigations. It was predicted that the active treatment levels for both the information and goal-setting factors would facilitate planning activities. Thus, two main effects were predicted for this dependent variable. The second outcome measure was a five-item general retirement goal clarity scale. Again, this was the measure employed by both Neukam (2002), and Stawski and Hershey (2003). It was hypothesized that scores on this indicator would differ across levels of the goal-setting factor, with those who received this module generating higher scores than those who did not. Finally, we collected self-report data on the percentage of household income voluntarily contributed to a retirement savings plan. Here again, two main effects were expected, demonstrating a positive impact of both the information and goal-setting modules. Of particular interest in these three analyses was whether the combined information and goal-setting condition had an additive impact on participants' scores for each of the dependent measures.

Unlike most previous retirement intervention studies which have used older pre-retirees as participants, in this study, younger workers between 25–45 years of age were targeted for inclusion. The rationale for selecting members of this age group was that workers at this stage of life stand to benefit the most from exposure to a financial intervention. By cultivating a pattern of savings practices that extends out over two to four decades, they can reap the rewards associated with the miracle of compounding, and they have time on their side when it comes to enduring the inevitable ebb and flow of resources held in long-range investment accounts.

## METHOD

### Participants

A total of 118 individuals living in a mid-sized university-dominated city (35 men, 83 women) participated in the study. The sample ranged from 25 to 45 years of age ( $M = 33.9$ ,  $SD = 6.65$ ), and participants were well-educated relative to national norms ( $M = 15.3$  years of schooling,

$SD = 1.80$ ). All individuals were employed at least 35 hours per week (a requirement for participating in the study), and the median income of the group was \$35,000. Just over half of the participants were married, nearly one-quarter were single, and the remainder were either divorced or separated. Each individual received a \$75 honorarium for successful completion of the one-year investigation.

## Procedure

Multi-method recruiting procedures (radio advertisements, newspaper solicitations, fliers placed at businesses, and snowball sampling techniques) were employed in an attempt to ensure a diverse pool of participants. Those who expressed an interest in the study were screened for inclusionary criteria (i.e., age and employment status) and then randomly assigned to one of four intervention conditions: a financial information condition, a retirement goal-setting condition, a combined financial information and goal-setting condition, and a memory training (control) condition. In order to avoid sampling a disproportionate number of individuals who were differentially interested in financial planning for retirement, the decision was made to advertise the investigation as a "study of life planning." Participants were not informed that the study would focus on financial planning for retirement until they arrived at the intervention session.

Participants completed the same set of dependent measures on two different occasions. The first occasion of measurement, which involved completion of a mailed questionnaire, was always scheduled to occur within two weeks of each individual's planned intervention session. The study questionnaire asked participants to indicate the level of retirement planning activities they engaged in over the past 12 months, rate the clarity of their retirement goals during that same period, and indicate the percentage of income they contributed to a retirement plan. The planning and goal clarity scales are described in greater depth, below. Participants also completed a variant of these measures in which they indicated what they expected their planning activities, goal clarity, and savings contributions would be during the next 12 months (i.e., the 12 months following the intervention). The second occasion of measurement took place one year (plus or minus one week) after individuals attended the intervention.

Attrition in the experiment was not unreasonable for a project of this type. Twelve individuals who attended the seminars and completed the first set of measures failed to return the second questionnaire, or could not be located for testing at the one-year follow-up. This resulted in a final sample of 106, with 30 individuals in the



financial information group, 25 in the goal-setting group, 25 in the financial information and goal-setting group, and 26 in the control condition.

### **Seminar Content**

The financial information intervention module, which was designed to last for 90 minutes, included information on a variety of issues related to long-range saving and investing. When initially developing this session, advice was sought from eight professional financial and retirement planning specialists. These experts met as a group to discuss topics that should be included as part of the seminar, and ultimately came to a consensus on the following set of issues: (1) common reasons why individuals fail to save for retirement, (2) expected human longevity rates and the relationship between longevity and retirement duration, (3) typical sources of retirement income, (4) the relationship between inflation and purchasing power, (5) principles of compound interest accumulation, (6) the logic behind the incremental savings approach strategy, and (7) tips and suggestions for establishing an effective personal retirement savings program. A standard classroom lecture format was adopted for this session, with sufficient time allocated for questions and discussion.

The retirement goal-setting intervention module also was designed to last for 90 minutes. Unlike the financial information module, which was primarily lecture-oriented, the goal-setting module included some lecture material, a brief individual writing exercise, guided visualization exercises, and small group discussion exercises. The lecture material focused on a presentation of the logic behind image theory, and in particular, the way in which one's financial goals can influence savings practices. The writing and visualization exercises (available upon request from the authors) were designed to elicit and clarify individuals' perceptions of retirement, and convey the importance of establishing a strategic savings program that will allow one to meet post-employment financial needs. The small group discussions focused on the issues raised in the writing and visualization exercises. Finally, as was the case in the financial information module, all participants received tips and suggestions for establishing an effective personal retirement savings program. The combined 3-hour financial information and goal-setting session involved presentation of the two 90-minute modules described above.

The memory improvement module presented to members of the control group was designed to last for 3 hours. The topic and content of this session was selected based on the assumption that it would not

interact in any way with individuals' ongoing retirement planning and savings practices. This module included a lecture on how long-term memory operates, supplemented by practice with a variety of mnemonic techniques.

When initially planning the study, there was concern that a confound could arise due to the fact that individuals in the combined information and goal-setting condition would spend twice as much time attending the seminar than those in the information only or goal-setting only conditions. Therefore, to equate the amount of time spent in the seminar environment, individuals in these two conditions also received a brief (90 minute) version of the memory improvement module. Thus, participants in all four conditions spent a total of three hours in the seminar room. All seminar sessions (including the memory intervention) were taught by an instructor who had previous experience in leading financial and retirement planning intervention programs and memory improvement seminars.

### **Retirement Planning Measures**

Two recently developed retirement scales were used in this experiment, both of which served as dependent measures. The first was a 9-item financial planning activity scale (Neukam, 2002; Stawski & Hershey, 2003) that focused on different types of retirement savings and investment behaviors engaged in over the past 12 months. This scale, which was administered both prior to the intervention and then again at the one-year follow-up, is purported to tap three dimensions: (1) seeking information about financial planning and retirement (e.g., on the Internet; by watching television shows; by reading books and pamphlets), (2) seeking advice from experts (e.g., from financial planners; from employer benefits specialists), and (3) instrumental financial planning behaviors (e.g., calculating one's net worth; organizing records; review of household budget). Some of the items used a dichotomous response format (e.g., "Gathered or organized personal financial records," 0 = no; 1 = yes), whereas others used a trichotomous format (e.g., "Visited retirement planning or investing sites on the Internet," 0 = not at all; 1/2 = some; 1 = a lot). All items were equally weighted when summed to create an overall financial planning activity score. The psychometric characteristics of this scale, including its factor structure, level of internal consistency, and test-retest reliability have been shown to be reasonable for a research instrument of this type (Stawski & Hershey, 2003). Moreover, the predictive validity of the scale has previously been established, with scores on the measure shown to be positively related to the percentage of

income contributed to a retirement savings program, and positively correlated with individual self-reported savings effort (Neukam, 2002). A variant of this scale was developed for this study in which individuals indicated the amount of planning activities they expected to do in the next (as opposed to past) 12 months. This prospective version of the scale was only administered on one occasion, prior to the intervention session.

The second scale used in the present study, also administered prior to the intervention and then again at the one-year follow-up, was a 5-item retirement goal clarity measure, also employed by Neukam (2002) and Stawski and Hershey (2003). The five, 7-point Likert-type items read as follows: (1) Set clear goals for gaining information about retirement, (2) Thought a great deal about quality of life in retirement, (3) Set specific goals for how much will need to be saved for retirement, (4) Have a clear vision of how life will be in retirement, and (5) Discussed retirement plans with a spouse, friend, or significant other. The phrases "strongly disagree" and "strongly agree" served as anchors for the items. As was the case with the planning activity measure described above, individuals were asked to evaluate items on the goal clarity scale in the context of the past 12 months. This scale has been shown to possess adequate psychometric properties, including test-retest reliability, internal consistency, and a unitary factor structure (Neukam, 2002; Stawski & Hershey, 2003). A prospective variant of the scale (i.e., expectations about retirement goal clarity during the next 12 months) also was developed and administered prior to the intervention. A unit-weighting scheme was used for both the prospective and retrospective goal clarity scales, and separate scores were arrived at by summing over items for the pre- and post-intervention versions of the measure.

A third dependent measure, similarly assessed prior to the intervention and again at the one-year follow-up, required participants to indicate the average monthly percentage of household income they had saved for retirement during the previous 12 months. Scores on this variable for the entire sample ranged from 0–55% at posttest ( $M = 7.02\%$ ,  $SD = 8.33$ ). Inspection of the raw scores for this indicator revealed the distribution to be both positively skewed and leptokurtic, with the latter characteristic due to an appreciable number of individuals who indicated they were not currently saving. In that such a distribution is unsuitable for use in general linear models, the variable was recoded to represent four discrete levels of retirement savings contributions, thereby approximating a uniform distribution. A score of 1 indicated no monthly savings contributions during the previous 12 months (20.8% of the sample), a value of 2 indicated 1–4% saved on

average (24.5% of sample), 3 indicated 5–9 percent saved on average (23.6% of sample), and a score of 4 indicated 10–55 % saved on average (31.1% of sample). A prospective variant of this question also was asked prior to the intervention, in which individuals estimated the percentage of income they believed they would save during the next 12 months.

In addition to the measures described above, a seminar evaluation form was distributed at the end of each intervention module to assess how interesting, educational, informative, and worthwhile participants found the sessions. These data were collected to rule out the possibility of observed group differences in seminar effectiveness being attributable to differences in either the quality of the trainer's presentations, or seminar-specific differences in participant interactions. The evaluations were uniformly high across all intervention sessions, with no statistically significant differences found among ratings across the four groups.

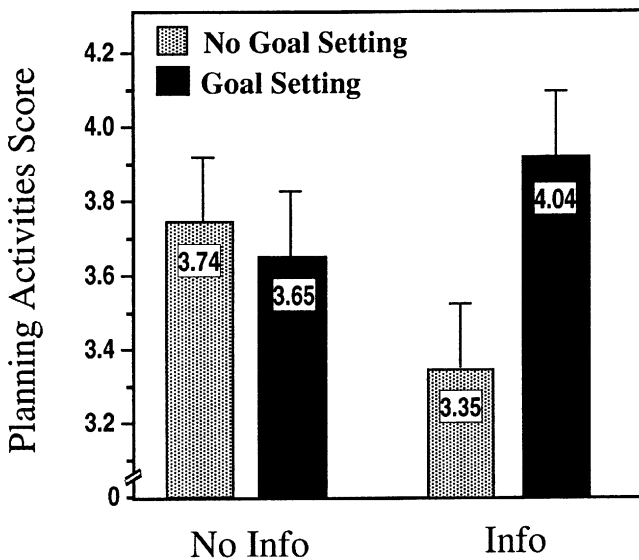
## RESULTS

In this section, treatment effects are examined separately for each of three dependent measures: financial planning activities, retirement goal clarity, and voluntary savings contributions. Following the recommendations of Maxwell and Delaney (1990), we adopted an analysis of covariance (ANCOVA) framework to examine the data in order to provide for the most powerful and least biased form of treatment comparisons across groups. Two factors—the information intervention and the goal intervention—were included in each of the three ANCOVAs, each of which contained two levels (present; absent). For all three models, two variables were used as covariates, both of which were commensurate with their respective dependent measures. The first covariate was the level of retirement planning activity (goal clarity; contributions) engaged in during the 12 months prior to the intervention. The second covariate was the level of retirement planning activity (goal clarity; contributions) individuals anticipated for the 12 months following the intervention. This basic analytic design poses the question: Are there differences across treatment conditions on the three dependent measures one year following the intervention, after first statistically controlling for individual differences in pretest levels of prior behavior and future expectations?

Consistent with the analysis plan described above, a  $2 \times 2$  ANCOVA for the retirement planning activity scale was computed. The covariate for the pre-intervention level of planning was statistically significant,  $F(1, 100) = 21.22, p < .01$ , as was the covariate for anticipated future

planning behaviors measured at pretest,  $F(1, 100) = 4.84, p < .05$ . The main effect for the information module was not significant,  $F(1, 100) = 0.00$ ; however, the goal module demonstrated a reliable trend,  $F(1, 100) = 2.80, p = .09$ . More importantly, the two-way information by goal interaction was found,  $F(1, 100) = 4.72, p < .05$ . Mean planning activity scores for each of the four groups, adjusted for the covariates, are shown in Figure 1.

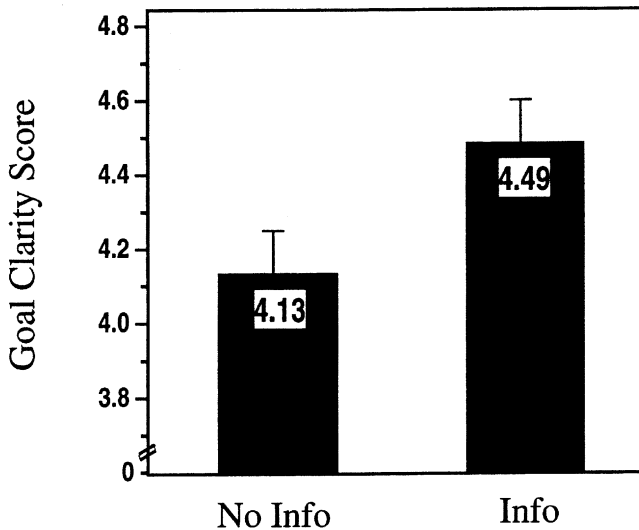
Simple main effects were then conducted to isolate the source of the interaction reported above. This resulted in two separate tests. In the first, the two levels of the goal factor (present/absent) were compared at the "information absent" level of the financial information factor. Specifically, this involved a comparison of the goals-only condition ( $M = 3.65, SE_M = .18$ ) to the control condition ( $M = 3.74, SE_M = .18$ ). This difference test failed to obtain significance,  $F(1, 100) = 0.12$ . For the second test, the two levels of the goal factor (present/absent) were compared at the "information present" level of the financial information factor. Specifically, this involved a comparison of the combined goals and information condition ( $M = 4.04, SE_M = .18$ ) to that of the information-only condition ( $M = 3.35, SE_M = .18$ ). This comparison was found to be statistically significant,  $F(1, 100) = 7.90, p < .01$ .



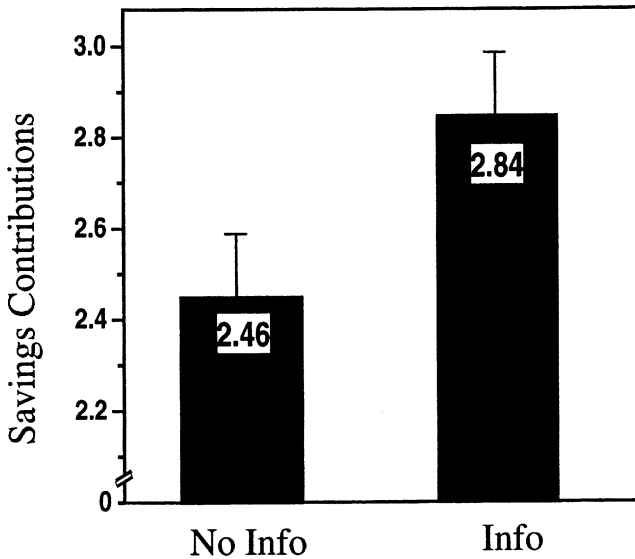
**FIGURE 1** Adjusted mean retirement planning activity scores for each of the four treatment conditions.

Next, a  $2 \times 2$  ANCOVA was computed using the goal clarity measure as the dependent variable. The covariate for the pre-intervention level of goal clarity was significant,  $F(1, 100) = 8.73$ ,  $p < .01$ , as was the covariate for anticipated future goal clarity measured at pretest,  $F(1, 100) = 14.96$ ,  $p < .01$ . Furthermore, the main effect for the information module was significant,  $F(1, 100) = 3.79$ ,  $p = .05$ , with those who had attended the information session scoring 4.49 ( $SE_M = .13$ ) on the dependent measure (adjusted for covariates), and those who had not attended scoring an average of 4.13 ( $SE_M = .14$ ). Contrary to expectations, the main effect for the goal module failed to obtain significance,  $F(1, 100) = 0.04$ , and the two-way information by goals interaction also failed to reach the critical threshold,  $F(1, 100) = 0.06$ . Mean goal clarity scores for the two levels of the information factor, adjusted for the covariates, are shown in Figure 2.

In the third  $2 \times 2$  ANCOVA, treatment group differences in voluntary contributions to a retirement savings account were examined. As was the case in the previous two analyses, both of the covariates were statistically significant. The pre-intervention level of savings contributions exceeded the critical threshold,  $F(1, 100) = 5.56$ ,  $p < .05$ , as did the covariate for anticipated future savings contributions,  $F(1, 100) = 8.08$ ,  $p < .01$ . The main effect of the information module also was



**FIGURE 2** Adjusted mean retirement goal clarity scores (and standard errors) for the two levels of the financial information factor.



**FIGURE 3** Adjusted mean savings contribution scores (and standard errors) for the two levels of the financial information factor.

significant,  $F(1, 100)=3.86$ ,  $p<.05$ . Mean voluntary contribution scores for the two levels of the information factor, adjusted for the covariates, are shown in Figure 3. The main effect associated with the goal module was not significant,  $F(1, 100)=2.03$ , nor was the information by goals two-way interaction,  $F(1, 100)=0.21$ .

## DISCUSSION

The objective of this study was to determine whether brief, group-based financial information and retirement goal-setting seminars have a positive impact on individuals' financial planning activities, retirement goal clarity, and retirement savings practices. The findings were somewhat mixed, and not entirely consistent with a priori predictions. A trend was identified in which retirement planning activities were found to be more numerous among those who had received the goal-setting module, as compared to those who had not. This main effect was overshadowed, however, by a significant information by goal-setting interaction. The source of this interaction was found to be due to the fact that those in the combined goals and information condition had engaged in more planning activities in the 12 months following the intervention than those in the information-only

condition. Furthermore, mean goal clarity scores were found to differ as a function of exposure to the financial information module, but not the goal-setting module. The former was an unexpected finding, and the latter was a hypothesized effect that failed to *obtain*. Finally, voluntary savings practices were found to differ in the expected direction as a function of exposure to the financial information module, but not as a function of the goal-setting manipulation.

Certainly, getting individuals to increase their level of financial planning activities is an important applied intervention objective. In the present study, the planning activity measure tapped three key dimensions: information seeking, instrumental planning behaviors, and communications with financial planning specialists. In terms of these three dimensions, the combined information and goals condition was found to have a reliably stronger influence on behavior than the information-only manipulation. We see this as a potentially important finding, in that the majority of financial interventions focus solely on the communication of information to workers. Findings from the present study suggest that one way to enhance the effectiveness of existing information-oriented seminars would be through the addition of a supplementary goal-setting component.

It seems odd that the goal-setting manipulation did not have a more pronounced impact on levels of goal clarity at the one-year follow-up. Perhaps the measure used, which was designed to tap general perceptions of retirement goal clarity, may have been too domain-general. A more domain-specific measure of finance or investment goal strength, such as the Financial Activation Scale (FAS) recently developed by Neukam (2002), might have been more sensitive to differences in goal orientation as a function of the treatment. Unfortunately, the FAS, which was specifically designed to measure retirement investing goal strength, had not yet been developed and validated prior to the beginning of this investigation. Another possibility is that the goal seminar did indeed have the intended impact of motivating individuals to examine their goals. However, for those who had not previously contemplated goals for retirement in much depth, this examination may have muddied rather than clarified by bringing to light the wide range of goals associated with the retirement planning process. This is a distinct possibility, given the relatively young age range of the participants, and the previous finding that retirement goal clarity tends to increase developmentally (Stawski & Hershey, 2003). This suggests that a sleeper effect could be operating (c.f. Bernheim et al., 1997), such that measurable changes in general retirement goal clarity may only become apparent years after exposure to the goal-setting module.



Surprisingly, the financial information manipulation was found to have a beneficial impact on goal clarity. Perhaps elements of image theory (Beach, 1993, 1998) could provide clues as to how this effect might be interpreted. Exposure to the information module presumably not only increased individuals' knowledge of retirement finances, but also conceivably strengthened elements of their action image by providing a set of tactics, which, if followed, would presumably lead to financial security. It is not unreasonable to assume that the development of a strategic plan such as this would stimulate individuals to think about and clarify their long-term retirement goals. In image theory terms, the act of strengthening the action image could have had unintended beneficial spillover effects on the quality and clarity of goals associated with the trajectory image. This unintended advantage of the information manipulation has, to the best of our knowledge, not been discussed elsewhere in the retirement planning literature.

Findings from this study also suggest that if the sole purpose of an intervention is to increase savings behaviors, then strictly information-based seminars appear to be sufficient to accomplish this goal. This conclusion is based on the fact that post-intervention savings practices were only found to differ as a function of the information manipulation. However, if the goal of the intervention is to increase planning activities in addition to savings, then a supplementary goal-setting component is indicated (see above discussion of planning activities). We do not mean to suggest, however, that the aim of increasing savings activities is in and of itself a trivial goal, quite the contrary. For younger workers in particular, perhaps the most important initial objective is to establish a regular pattern of savings contributions.

Clearly, one of the more prominent take-away messages from this investigation is that a relatively brief financial information intervention can have a positive effect on retirement planning, goal-setting, and savings practices. These findings are consistent with those of previous studies in which similar conclusions have been reached (e.g., Bernheim et al., 1997; Clark & Schieber, 1998). Furthermore, when it comes to stimulating financial planning activities in particular, the addition of goal-setting exercises to an information intervention is likely to enhance the desired outcome. This represents a novel empirical finding not previously documented in the retirement planning literature.

Limitations of the study include the use of a relatively small sample, drawn from a restricted geographical region of the country. This leaves open questions regarding the broader generalizability of the findings. Another limitation is that as a group, participants represented a fairly restricted age range. It is possible that stronger

results would have occurred had a somewhat older group of pre-retirees been recruited, based on the fact that relatively few individuals show an interest in retirement planning and saving prior to their mid-thirties (Bernheim et al., 1997; Ekerdt, 1990). Finally, we acknowledge that the length of the information and goal-setting modules were shorter than typical retirement programs, particularly those that have been offered in the counseling tradition (Richardson, 1993). It may be worth exploring whether an extended, multi-session version of the modules tested in this study would lead to stronger effects.

For reasons outlined in the introduction of this paper, the need has never been greater for high quality retirement interventions designed to inform and motivate American workers to save for the future. Consistent with this proposition, bipartisan delegates at a Department of Labor retirement savings summit unanimously concluded that a lack of effective financial education opportunities represents a significant barrier to increasing personal savings and financial literacy (U.S. Department of Labor, 1998). Despite recommendations for an increase in both public and private sector support for financial education campaigns, delegates stopped short of calling for research designed to assess the effectiveness of new and existing intervention efforts. We believe that controlled experimental studies, such as the one described in this paper, represent an important step in the intervention validation process. Despite the fact that evaluative field studies are both resource intensive and challenging to conduct, they can shed light on whether specific intervention efforts are effective, and thus, worthy of dissemination to the general public on a broad scale.

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