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Preretirement Expectations and the Quality of Life of Male Retirees in Later Retirement

TERRY LYNN GALL, Saint Paul University
DAVID R. EVANS, University of Western Ontario

Abstract

The impact of preretirement expectations for satisfaction and financial status on quality of life 6 to 7 years after retirement was evaluated while controlling for the influence of changes in physical health and psychological distress over time. Participants were 109 male residents of London, Ontario. Participants, 2 to 4 months preretirement, completed a self report of Physician Visits, a Disability Index and the Kaiser Health Index, the Symptom Checklist-90, and a modified form of the Retirement Descriptive Index. The three health measures, the Symptom Checklist-90, and the Quality of Life Questionnaire were administered 6 to 7 years postretirement. Based on structural equation modeling, preretirement expectations for satisfaction with respect to activity, finances, health, and interpersonal relations were identified as predictors of the quality of life of males 6-7 years following retirement.

Résumé

On a évalué l'impact des attentes à la pré-retraite concernant la satisfaction tirée de la vie de retraité et de la situation financière d'alors sur la qualité de vie des gens six à sept ans après la retraite, tout en contrôlant pour les changements d'état de santé et de détresse psychologique au fil des années. Au total, 109 résidents de London en Ontario ont participé à cette étude. Deux à quatre mois précédant leur retraite, ils ont rempli une auto-évaluation de leurs visites chez le médecin, un indice d'incapacité et l'indice de santé Kaiser, la liste des 90 symptômes et une version modifiée de l'indice descriptif de la retraite. Six à sept ans après la retraite, les trois mesures de l'état de santé ont été reprises et les participants ont rempli de nouveau la liste des 90 symptômes et répondu au questionnaire sur la qualité de vie. D'après la modélisation par équations structurelles, les attentes à la pré-retraite en ce qui a trait à la satisfaction tirée des activités, de la situation financière, de la santé et des relations interpersonnelles sont identifiés comme des variables prédictives de la qualité de vie des hommes six à sept ans après leur retraite.

As more and more individuals retire and as their healthy longevity increases, there is increased interest in the factors that predict quality of life in later retirement. Of particular interest are preretirement factors that could be addressed during retirement counselling, and that have the potential to influence an individual's quality of life in later retirement (Knesek, 1992; Reis & Gold, 1993; Robbins, Lee, & Wan, 1994). Major pre- or early retirement factors that have been suggested as influencing quality of life in retirement include income and occupational status, physical health, personality, and retirement expectations (Atchley, 1976; Dorfman, 1992; Dryer, 1989; Gall, Evans, & Howard, 1997; Moen, 1996; Osgood & Mizruchi, 1982; Robbins et al., 1994; Thériault, 1994). The aim of the current study was to evaluate the impact of preretirement expectations for income and satisfaction on the long-term quality of life of male retirees while controlling for changes over time in the retirees' physical health and psychological distress, two factors associated with the natural process of aging.

Preretirement Expectations

It has been suggested that the congruence between expectations for retirement and actual retirement experience would be an important factor contributing to the quality of life in retirement (Barfield & Morgan, 1978; Bell, 1978; Kamouri & Cavanaugh, 1986; Moen, 1996). Essentially, retirees who expect more than they receive may be more dissatisfied (Kamouri & Cavanaugh, 1986) with retirement than those retirees who either have their expectations met (Beck, 1982) or exceeded (Perry, 1980). Atchley (1976), in his stage model of retirement, proposed that preretirement expectations would play a major role in how the retirement adjustment process unfolded. To experience a successful adjustment postretirement, it would be crucial that the individual realistically appraise the amount of disruption in lifestyle that can be expected in retirement (e.g., decrease in income) (Atchley, 1975; McGee, Hall, & Lutes-Dunckley, 1979). In addition to having fewer financial and health resources, those

retirees who have unrealistic expectations of retirement may not experience a positive honeymoon phase but move directly into a phase of disenchantment or letdown during which they would experience less life satisfaction and/or greater emotional distress (Atchley, 1976).

The area of preretirement expectations that has received the most attention has been that of projected financial status. Considering the fact that income can decrease from 25% to 50% postretirement, financial strain can be anticipated as a problem for a large number of retirees (Atchley, 1976; Palmore, Nowlin, & Wong, 1985; Toevs & Hanhardt, 1982). For example, Monahan and Greene (1987) found that 39% of university and college faculty members viewed their financial plans for retirement as inadequate. Expectations for financial security, in turn, has been shown to predict a positive orientation toward retirement and adjustment in retirement (McGoldrick, 1983; Toevs & Hanhardt, 1982). The importance of preretirement expectations on the issue of retirement financial security cannot be underestimated since research has demonstrated that individuals with higher incomes or, at least, adequate finances report being more satisfied with life in retirement (Barfield & Morgan, 1978; Crowley, 1986; Dorfman, 1992; Fillenbaum, George, & Palmore, 1985; Seccombe & Lee, 1986). In general, the inability to maintain resources, such as level of income, may have a negative effect on adjustment in retirement (Richardson & Kilty, 1991).

In contrast to financial status, minimal research has been conducted on the impact of preretirement expectations with respect to other life domains, such as leisure activities and interpersonal relationships on the quality of life postretirement. For example, Stephenson, Hargreaves and Dyson (1988), in a pre-post study of 53 individuals from 23 organizations, demonstrated that general preretirement expectations for retirement influenced quality of life in the first year of retirement. Perry (1980) has reported that workers' views of retirement life tend to be largely inaccurate. It seems that the majority of preretirees are uncertain about the nature of retirement life (Bond & Bond, 1980), especially when they may have little first-hand knowledge about a particular aspect of retirement lifestyle, such as leisure patterns and activities (Glass & Grant, 1983). In this uncertainty, it has been noted that preretirees can develop expectations that focus on the potential negative rather the positive aspects of retirement. Preretirees may even go so far as to overestimate the problems (e.g., health decline) and underestimate the advantages of retirement, an evaluative process that promotes anxiety (Perry, 1980). For example, Perry (1980) found that retirees expected more financial problems and less pleasure in their interpersonal relationships than they actually experienced in retirement. In another study, Ekerdt and Bossé (1982) found that prior to

retirement, 49% of workers occasionally or often worried about becoming ill following retirement.

On the other hand, retirees who have inflated expectations may also run into difficulty when these expectations are no longer met in the long-term (Kamouri & Cavanaugh, 1986). Perry (1980) showed that retirees expected greater pleasure from traveling than they actually experienced in retirement. As well, some retirees can underestimate their actual dissatisfaction with poor health. Regardless of the nature of the discrepancy in retirement expectations, research has shown that individuals benefit from education on retirement. Specifically, Kamouri and Cavanaugh (1986) found that retirees who received education on retirement from a preretirement program became more satisfied as time passed in retirement, while those who had not been previously educated on what to expect in retirement reported a decrease in retirement satisfaction after one year.

Aging Factors

In order to clearly evaluate the impact of preretirement expectations on long-term quality of life in retirement, it is necessary to take into consideration aspects of the aging process such as the potential for change in retirees' physical and mental health over the long-term. In taking into account the possibility of a decline in health factors associated with the natural process of aging, one controls for the context of the individual's quality of life in long-term retirement. Physical health has been found to be the most consistent predictor of adjustment in retirement, with those individuals in poorer health reporting a lower quality of life in general (Bossé, Aldwin, Levenson, & Workman-Daniels, 1991; Crowley, 1986; Dorfman, 1989; Dorfman & Rubenstein, 1993; Hardy & Quadagno, 1995; Jonsson, 1993; Seccombe & Lee, 1986; Stull, 1988). For example, Anderson and Weber (1993) evaluated in a cross-sectional study 322 men and women from a wide range of occupations, who had retired between six months and three years earlier. They found that the health of the retirees was one factor that had an impact on their quality of life in retirement. In another cross-sectional study of 81 females and 41 males with a mean age of 72 years, DeGenova (1993) reported that physical health was a strong predictor of quality of life. Finally, Dorfman (1992), in a longitudinal study of retired university faculty, reported that self-perceived health preretirement was a major predictor of quality of life one year postretirement.

Maddi (1986) suggested that psychological factors or mood variables may also represent an important aspect of the current context of an individual's life. Specifically, emotional status or mood reflects the level of strain associated with an individual's current life circumstances and as such can play a role in his or her evaluation of

quality of life. In contrast to physical health, mental health or psychological distress factors have received little attention as predictors of retirement adjustment (Midanik, Soghikian, Ransom, & Tekawa, 1995). This is surprising given the often close relationship between physical and mental health among older adults (de Grâce, Joshi, Pelletier, & Beaupré, 1994; Himmelfarb, 1984; Romaniuk, McAuley, & Arling, 1983) especially men (Cochran & Hale, 1984). When present, symptoms of psychological distress may be experienced as more bothersome on a daily basis for the older adult than physical symptoms (Brody & Kleban, 1983). Such symptoms may be prevalent among unhappy as compared to satisfied retirees (Abrahams & Patterson, 1978), especially over the long-term as resources (e.g., support) may decline (Atchley, 1976).

Given the potential for physical and mental health factors to predict quality of life in long-term retirement, they were included in the analyses of the present study as control variables. Specifically, the change in physical health and psychological distress were entered into the model in an attempt to account for the context of a decline in health status over time when evaluating the impact of preretirement expectations on long-term quality of life in retirement.

Quality of Life

In previous research, a number of criteria have been used to define the quality of life of individuals in their retirement. The most popular criterion has been life satisfaction (Anderson & Weber, 1993; Aquino, Russell, Cutrona, & Altmaier, 1996; DeGenova, 1993; Dorfman,1995; Knesek, 1992; Robbins et al., 1994; Thériault, 1994), while other criteria include positive and negative affect (Reitzes, Mutran, & Pope, 1991; Stephenson et al., 1988), happiness (Dryer, 1989), morale (Dryer, 1989; Matthews & Brown, 1987) and general health (Stephenson et al., 1988). Seedhouse (1997) has argued that the majority of the latter measures are subjective in nature. As a result he has suggested that these measures vary both within and among individuals. Further he has argued that these measures are atheoretical in nature. He thus proposes a theoretical definition of quality of life that involves four key foundations: basic needs; information management; information-based decision-making; and responsible community participation. Evans and Kazarian (in press) have argued that specific subscales on the Quality of Life Questionnaire (QLQ, Evans & Cope, 1989) can be used to measure at least three of the foundations proposed by Seedhouse (1997). The respective foundations and the QLQ subscales are as follows: a) Basic needs – Material well being; b) Information-based decision-making – Personal growth; and c) Responsible community participation – Marital relations, extended family relations,

extrafamilial relations, and altruistic behaviour. In an effort to provide a more theoretical approach to measuring quality of life in retirement, the latter subscales of the QLQ were selected as the criterion used in the current study.

The Quality of Life Questionnaire was selected for the present study because it is a published instrument that has been used in numerous studies over the past 15 years. This questionnaire was constructed with the rationale that specific functional behaviours in response to given functional domains represent a good quality of life (Evans, Burns, Robinson, & Garrett, 1985). The rational-empirical approach (Jackson, 1970) was followed in the development of the instrument. In this approach prior research is used to predefine domains to be measured, items are then written by naive item writers, and the population sampled defines the final content by the pattern of items endorsed. Research to date has supported the construct validity of the Quality of Life Questionnaire (Evans & Cope, 1989; Evans, Hearn, Levy, & Shatford, 1989; Evans, Pellizzari, Culbert, & Metzen, 1993).

Present Study

The purpose of the present study was to evaluate the role of preretirement expectations in the prediction of quality of life in long-term retirement while controlling for aspects of the aging process, namely changes in physical health and psychological distress over time. The preretirement expectations to be evaluated in this study were projected income and expected retirement satisfaction. The initial model relating these preretirement and change factors to quality of life in later retirement is shown in Figure 1. Since multiple indicators are required for each construct in EQS models, preretirement occupational status was included with projected retirement income to fulfill this criteria. In addition, residual change scores were used for the physical health and psychological distress measures. Residual change scores allow one to take into consideration the concurrent long-term level of the predictor variables when evaluating their association to long-term quality of life. That is, what is measured in such scores is the change in a variable from pre- to postretirement. For example, a residual change score for the Kaiser Index indicates whether the retiree experienced a decrease or increase in illness from pre- to postretirement. As the primary goal of this study was to investigate the effect of preretirement expectations, residual change scores were not computed for the measures of projected income and expected retirement satisfaction. The hypotheses inherent in the model shown in Figure 1 are that pre- to postretirement Change in Physical Health and Psychological Distress, and preretirement Financial Expectations and Expected Retire-
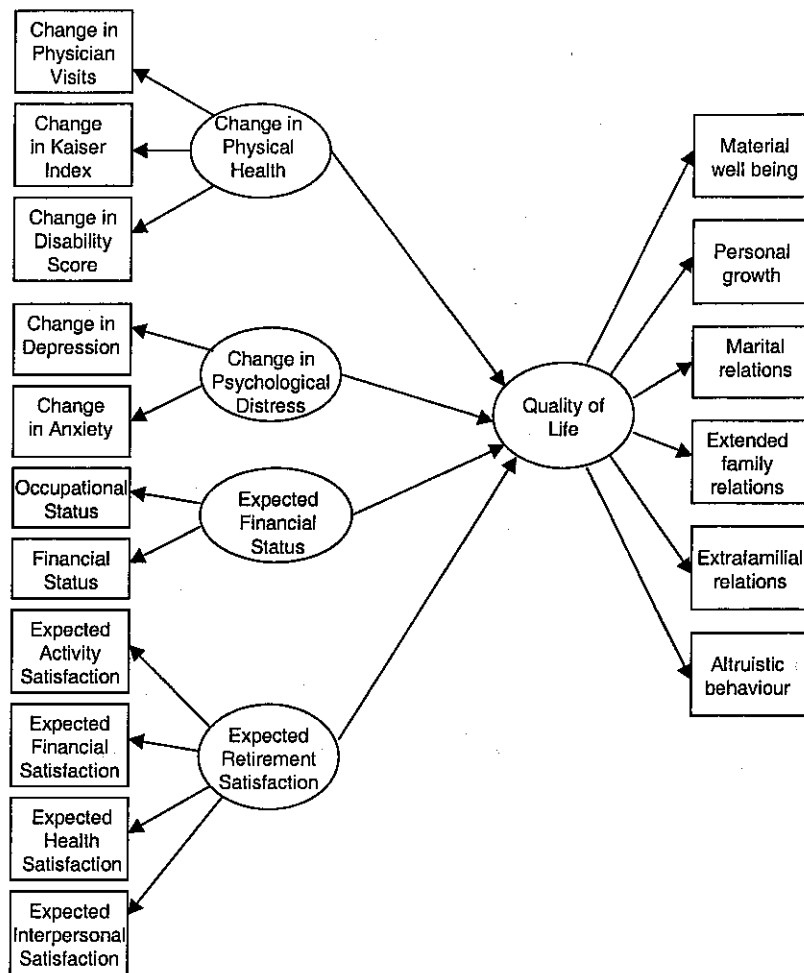
Figure 1. Initial model: Change in physical health and psychological distress, and expected retirement income and satisfaction and quality of life in later retirement.

ment Satisfaction interact as depicted to affect post-retirement Quality of Life.

METHOD
Sample
The present study involved a 6- to 7-year follow-up of the Retirement Research Study conducted at the University of Western Ontario (see Author Note). The original sample consisted of 224 male residents of London, Ontario, who had been recruited through contact with personnel departments of major organizations and through the media. Individuals were excluded from the original study if they were to be employed for more than 10 hours per week; were unable to participate in an exercise program due to physical disability; and/or had planned to be unavailable for an extended time period. The original sample was assessed at 2 to 4 months preretirement and one year postretirement.

Retirees were contacted by letter at 6-7 years postretirement. Of the original sample, 52.2% (117) agreed to participate in the follow-up. Attrition at the 6-7 year follow-up was due to several factors including: failure to respond (26.3%), refusal to participate (9.3%), unable to locate (4.9%), and death (7.1%). The attrition rate was found to be comparable to that in other longitudinal studies of equal duration (Rudinger & Schmitz-Scherzer, 1976).

At 6-7 years post-retirement (mean years retired = 6.6), the age range of the participant sample was 61-75 years with a mean age of 68.95 years (SD = 2.92) and median age of 70.0 years. The majority of participants were still married (95.7%), 2.6% were widowed, 0.9% never married, 0.9% separated, and 0.0% were divorced. The majority of retirees were previously white collar workers (65%). More specifically, 25.6% of participants had been employed in professional/technical vocations, 24.8% in managerial, 14.5% in clerical/sales, 19.7% in semi- and skilled labour, and 15.4% in service/labour positions preretirement. Although only 45.3% of the retirees had projected their annual income to be greater than $20,000 at preretirement, 74.4% currently reported annual income as greater than $20,000 per year, while only 3.6% of the

retirees reported income of less than $10,000 in the past year. More than half (57.3%) of the retirees had retired by their own choice, while the remainder retired due to company policy. None of the current participants had retired for health reasons.

To assess for bias due to sample attrition, participants in the current study were compared to nonparticipants on the preretirement variables included in the study. A MANOVA analysis of these variables by participation status was not significant, $F(10,203) = 1.10$, n.s. None of the univariate analyses were significant. Specifically, participants did not differ significantly from nonparticipants with respect to occupational status, financial status, physician visits, the Kaiser Index, the Disability Index, anxiety, depression, and the four measures of expected retirement satisfaction.

Measures

Demographics. At 2 to 4 months pre-retirement, the age, occupational status, type of vocation (e.g., clerical/sales), projected retirement income, marital status, ethnicity, and retirement type (i.e., voluntary) of the retirees were assessed. Occupational status was defined in terms of white and blue collar distinctions. White collar status included professional/technical, managerial and clerical/sales workers while blue collar status included skilled and semi-skilled workers, service, and labourers. Age, actual retirement income, and marital status were reassessed at the 6-7 year follow-up.

Summary Health Measure. Fifteen single items were selected from the general literature by the original researchers (see Author Note) to assess several aspects of self-reported physical health (e.g., overall perceived health status, energy level). Two measures were selected to represent this dimension in the present study. The first measure, Physician Visits, was a single item, self-report of the number of times a participant had visited his physician in the past 12 months (not at all, once, 2-4 times, 5-9 times, or 10 times or more). The second measure was a Disability Index, which was the sum of five true/false items assessing difficulty climbing stairs or getting outdoors, reducing activity due to illness, inability to run 300 feet, difficulty walking a mile, and inability to engage in sports or exercise. The Disability Index was found to be internally consistent for the current sample ($\propto = .73$).

Kaiser Illness Index. This index represents a proxy measure of objective health status which assesses the presence of acute and chronic illness, number of medications, and contact with the health system within the past year (Kisch, Kovner, Harris, & Kline, 1969). A cumulative score of all illness responses, with the type of illness being scaled appropriately for degree of severity, was calculated. A high score thus reflects a greater severity and number of illnesses. In a sample of ambulatory care patients, the Kaiser Illness Index was found to be associated with physician ratings of health and thus represents an appropriate measure for the estimation of health status in survey populations (Kisch et al., 1969).

Symptom Checklist-90. The SCL-90 was developed as a self-report measure of psychopathology (Derogatis, Lipman, & Covi, 1973). The two subscales of anxiety and depression were used in the present study. Retirees rated how distressed they were by each symptom during the past month, on a scale ranging from 0, not at all, to 4, extremely. Both the anxiety and depression subscales have demonstrated an appropriate level of reliability and validity for clinical and nonclinical populations (Derogatis et al., 1973; Derogatis, Rickels, & Rock, 1976). In the present study, the anxiety ($\propto = .80$) and depression ($\propto = .85$) sub-scales were highly reliable.

Retirement Descriptive Index. The RDI was developed as a measure of satisfaction with respect to four areas in retirement: activities and work, financial situation, health, and interpersonal (Smith, Kendall, & Hulin, 1969). Each section of the RDI consists of a checklist of adjectives/phrases (e.g., tiresome) to which the individual agrees or disagrees. In the present study the RDI was adapted to represent the individual's expectations for retirement satisfaction. A high score on each scale represents greater expected satisfaction with that aspect of retirement. The alpha coefficients in the present study for preretirement expectations of satisfaction ranged from .76 (financial) to .88 (activity). Regarding the issue of validity of the RDI as a measure of preretirement expectations, there are several instances in the psychological research in which the frame of reference of a questionnaire is changed in order to gather differential data. For example, when gathering data for life events and coping measures, participants may be asked to respond to the items from various perspectives — over the past week, month, or year depending on the purposes of the study. In the latter studies, as in the current study, it is assumed that the participants will take the instructions seriously and respond as requested. As the expectancy items were the first use of the RDI that participants encountered, there is greater certainty that this assumption is tenable.

Quality of Life/Health. The Quality of Life Questionnaire (Evans & Cope, 1989) is made up of 15 twelve-item true-false scales, of which six scales — Material well being, Personal growth, Marital relations, Extended family relations, Extrafamilial relations, and Altruistic behaviour — were used in the current study. The Quality of Life Questionnaire was completed only at the 6-7 year follow-up. The internal consistency for the six scales used in the present study ranged between .58 and .96 with and average of .72 in the Quality of Life Quest development study (Evans et al., 1985).

TABLE 1
Correlation Matrix, Means, and Standard Deviations for the Initial Model Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Change in Physician Visits	—																
2. Change in Kaiser Index	.31*	—															
3. Change in Disability Score	.14	.37*	—														
4. Change in Depression	.11	.25*	.25*	—													
5. Change in Anxiety	.11	.24	.13	.66*	—												
6. Activity Satisfaction[a]	-.02	-.09	-.08	-.18	-.22	—											
7. Financial Satisfaction[a]	.00	-.10	-.07	-.25*	-.22	.38*	—										
8. Health Satisfaction[a]	-.12	-.18	-.10	-.21	.03	.26*	.24	—									
9. Interpersonal Satisfaction[a]	.21	.01	-.08	.04	.06	.13	.18	.00	—								
10. Occupational Status	-.06	-.17	-.03	-.09	-.18	-.02	-.20	.01	-.23	—							
11. Financial Status	.23	.16	-.04	.06	.12	.10	.47*	.21	.17	-.48*	—						
12. Material well being	.02	.15	.01	-.06	-.04	-.18	.20	.07	.11	.25*	.15	—					
13. Personal growth	.11	-.20	.01	-.33*	-.35*	.32*	.39*	.22	.30*	-.19	.21	.35*	—				
14. Marital relations	.08	-.06	-.05	-.15	.01	.27*	.11	.04	.25*	-.13	.03	.21	.39*	—			
15. Extended family relations	.22	.15	.07	.03	-.06	.27*	.34*	.13	.14	-.13	.33*	.28*	.37*	.28*	—		
16. Extrafamilial relations	.15	-.20	-.01	-.30*	-.26*	.30*	.28*	.18	.28*	.11	.18	.12	.48*	.29*	.45*	—	
17. Altruistic behaviour	.14	.06	.05	-.11	-.07	.20	.12	.18	.14	-.27*	.19	.32*	.39*	.19	.38*	.28*	—
Mean	.02	-.01	-.03	.01	.01	46.15	41.65	42.16	46.35	2.75	2.62	5.15	9.05	8.91	9.00	8.49	7.85
Standard Deviation	.99	1.00	.93	1.01	1.01	8.73	7.89	10.93	8.12	1.45	1.01	.94	2.02	2.44	2.39	2.26	2.21

[a] Satisfaction measures represent expected retirement satisfaction in each area.
* $p < .01$.

RESULTS

As indicated in the introduction, the initial model (Figure 1) was specified on the basis of prior research and theoretical considerations. In this model it was hypothesized that preretirement expectations for satisfaction and financial status would affect retirees' 6- to 7-year postretirement quality of life after controlling for aspects of the aging process, notably, changes in the physical health and psychological distress of participants over time. Residual change scores (Cronbach & Furby, 1970; Hsu, 1989) were computed using regression analysis for pre- to 6/7 years postretirement physical health scores (Physician Visits, Kaiser Index, Disability Score), and psychological distress scores (Depression, Anxiety). Residual change scores represent the percentage of variance in the postretirement measure that was unexplained by the preretirement measure and, thus, the change in the measure from pre- to postretirement. Preretirement expected retirement satisfaction scores (Activity, Financial, Health, Interpersonal) and Financial status scores (Occupational Status, Projected Income) were also employed to test the initial model. The means, standard deviations and inter-correlations for the variables in the initial model are shown in Table 1.

The models in this study were analyzed using EQS for Windows 5.2 (Bentler & Wu, 1995). The maximum likelihood (ML) method of estimation was used in all analyses. The EQS program provides a number of indices by which to evaluate model fit. Five are reported in this study: chi-square (P^2), the nonnormed fit index (NNFI; Bentler & Bonett, 1980), the incremental fit index (IFI; Bollen, 1989), the LISREL goodness of fit index (GFI), and the root mean square error of approximation (RMSEA; Steiger, 1990). As Maruyama (1998) points out, a wide variety of tests of overall fit of structural equation models have been proposed over the past decade. He goes on to note that there is no agreement about which single index or combination of these indices is the optimal test. He argues that tests such as P^2 and the GFI are absolute indices, addressing the question of whether the residual or unexplained variance remaining after model fitting is appreciable. In his taxonomy the NNFI and IFI are relative indices and answer the question of how well a given model does in explaining a set of observed data compared to the null model. In addition, the NNFI is defined as an adjusted index, which identifies how well the model combines fit and parsimony. Goodness of fit of a model is demonstrated when the P^2 is nonsignificant and the GFI, NNFI, and IFI are equal to or greater than 0.90. RMSEA values below .05 indicate a good fit, less than .08 suggest a reasonable fit, and values greater than .10 reflect a poor fit (Broome, Knight, Joe, Simpson, & Cross, 1997; Maruyama, 1998). The GFI and χ^2 can be affected by sample size particularly when the sample size is below 100, whereas the NNFI and IFI are relatively unaffected by sample size (Ding, Velicer, & Harlow, 1995; Tanaka, 1993).

The initial model shown in Figure 1 failed to provide a good fit to the data. The chi-square for this model was significant, P^2 (119, $N = 110$) = 242.32, $p < .001$, the NNFI was 0.65, the IFI was 0.71, the GFI was 0.81, and the RMSEA was .098. The Wald test and the Lagrange multiplier test

TABLE 2
Summaries of Fit for Structural Models

Model	χ^2(df)	NNFI	IFI	GFI	RMSEA
Initial Model	242.32 (119)*	.65	.71	.81	.098
Change in Health Removed	174.08 (77)*	.68	.74	.84	.108
Occupational/Financial and Expectancies Correlated	160.06 (76)*	.72	.77	.84	.101
Occupational/Financial Removed	102.78 (54)*	.78	.83	.88	.091
Change in Psychological Distress Removed	46.21 (35)^{ns}	.92	.94	.93	.055

Note. NNFI = Nonnormed Fit Index, IFI = Incremental Fit Index, GFI = Goodness of Fit Index, RMSEA = root mean square error of approximation.
* $p < .001$.
^{ns} nonsignificant.

were used to suggest modifications that would lead to a model with acceptable fit. The Wald test is used to identify paths in the structural model that are nonsignificant, and hence may be dropped from the model (Bentler, 1995; Littlepage, Schmidt, Whisler, & Frost, 1995). In contrast, the Lagrange multiplier test indicates those paths that would be significant if they were added to the model (Bentler, 1995; Littlepage et al., 1995).

Four steps were involved in the derivation of the final model (see Table 2). On the basis of the Wald test, the path between Change in Physical Health and Quality of Life was dropped from the model. The fit indices shown in Table 2 suggest that this action had minimal effect in improving the model. The Lagrange multiplier test indicated that a path should be added to indicate the correlation between Expected Retirement Satisfaction and Occupational/Financial Status at preretirement. When this path was added, the fit indices improved minimally and the Wald test suggested that the path between Financial Status and Quality of Life was now nonsignificant and should be removed to improve the fit of the model. With this action the fit indices improved, but not to an acceptable level. At this point the Wald test suggested removal of the relationship between Psychological Distress and Quality of Life. When this path was removed the fit indices achieved acceptable levels (see Table 2). This simplified model is shown in Figure 2. This model provided an acceptable fit, the chi-square was nonsignificant, P^2 (35, $N = 110$) = 46.21, ns, the NNFI was 0.92, the IFI was 0.94, the GFI was 0.93, and the RMSEA was .055. The final model indicates that Expected Retirement Satisfaction 2 to 4 months prior to retirement is an important predictor of Quality of Life 6 to 7 years following retirement.

DISCUSSION

There is a paucity of studies identifying critical preretirement factors that influence quality of life in early retirement, and few if any studies identifying the preretirement factors that influence quality of life in later

retirement. The studies that do exist are either cross-sectional in nature (Anderson & Weber, 1993; DeGenova, 1993; Robbins et al., 1994), or brief longitudinal studies (Dorfman, 1992; Stephenson et al., 1988; Thériault, 1994). The current study is to the authors' knowledge the first to investigate preretirement factors that influence quality of life in males 6 to 7 years following retirement. The final model shown in Figure 2 shows that preretirement expectations for satisfaction with respect to activity, finances, health, and interpersonal relations predicted quality of life 6 to 7 years following retirement. In contrast, two aspects of the aging process, change in physical health and psychological distress from pre- to postretirement, did not appear to be important influences on quality of life in later retirement. Preretirement expectations for income also did not predict long-term quality of life in retirement.

Within a context of successful aging, the identification of potential resources and preventive techniques becomes central to the study of adjustment in retirement. Although the majority of individuals experience retirement as a positive life transition, not all workers (30-40%) look forward to retirement (Atton, 1985; Crawford, 1972; Toevs & Hanhardt, 1982), or adjust well on retirement (Atchley, 1976). Braithwaite, Gibson, and Bosly-Crafts (1986) reported that 32% of retirees found the transition into retirement as difficult or somewhat difficult. Specifically, retirees complained of financial difficulties, missing friends from work, being bored and having trouble adjusting to change. Sixteen percent saw nothing good with retirement. Dissatisfaction with retirement may especially become apparent in the later years for specific groups of retirees, for example, those in poor health (Streib & Schneider, 1971).

Given that a third of retirees may have difficulty adjusting in retirement, it is important to identify not just any preretirement characteristics (e.g., health) that may serve as potential indicators of a successful adjustment but those that can be accessible to change through intervention. The findings of the present study demon-
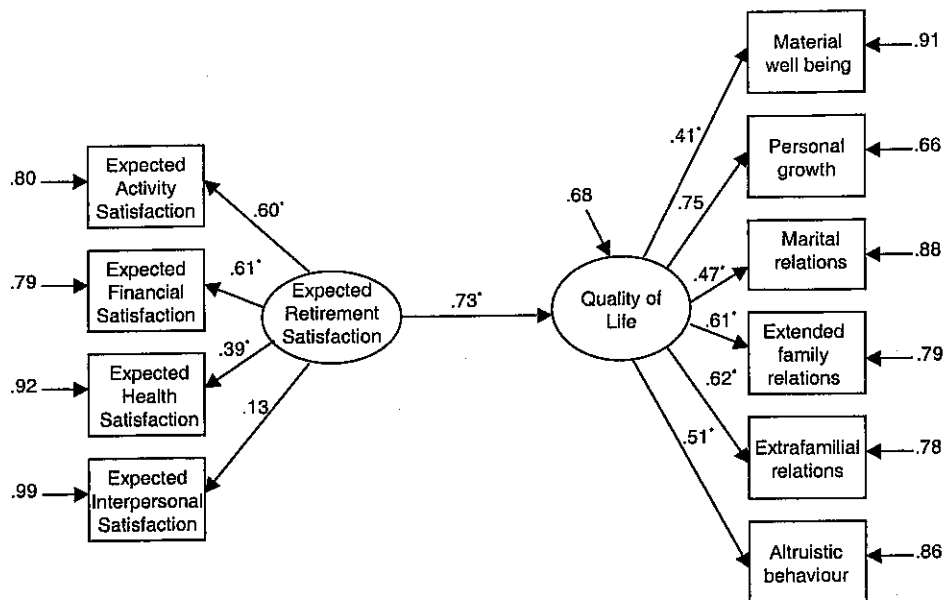
Figure 2. Final model: Preretirement expected retirement satisfaction and quality of life in later retirement.

strated that preretirement expectations for retirement satisfaction may be one such factor to target in preretirement programs. Several authors have argued for the importance of retirement counselling in light of the increased number of retirees and the potential length of their retirement (Aquino et al., 1996; Knesek, 1992; Reis, & Gold, 1993). Providing education about lifestyle changes in retirement would be one avenue by which to ground retirees' expectations in a more realistic manner. McVeigh (1980) and Perry (1980) believed that increasing the retiree's awareness with lifestyle changes, for example, in social relationships, may even be the most important facet of preretirement programs. Retirees who expect problems in retirement may especially benefit from such education. Ekerdt and Bossé (1982) suggested that retirees who expect health problems, for example, may be made less anxious if educated on the actual benign or positive impact of retirement. In addition to education, cognitive therapeutic techniques would aid those retirees who consistently anticipate the negative while overlooking the positive aspects of a situation.

Postretirement programs may also be helpful for those retirees who experience ongoing or new and unexpected difficulties in adjustment during retirement (Keating & Marshall, 1980). Such programs could serve as refresher courses on retirement attitudes and expectations, as the impact of preretirement programs on life satisfaction, job deprivation, and a positive attitude may not carry into the long-term (Glamser, 1981). As well, postretirement programs could serve to monitor changes in lifestyle and help retirees re-evaluate their values and goals to be congruent with their current experience of retirement (Atchley, 1976; McVeigh, 1980). It may even be that

retirees have different concerns than preretirees. Specifically, they may be more concerned with their activities and use of time rather than with their finances and health (Glass & Grant, 1983). This focus would be especially important for those retirees who were experiencing less satisfaction than they had expected in the life domains of leisure activities and social relationships. Hopefully, with early postretirement intervention, adjustment problems in long-term retirement could be prevented.

It is interesting in the present study that changes in physical health and psychological distress over time did not predict quality of life in long-term retirement. Such results might reflect the fact that this sample remained relatively healthy into the long-term, reporting minimal decline in health factors. This being the case, the statistical analyses would be limited by the restricted range in these health variables. These nonsignificant findings on health might also be interpreted from a theoretical perspective. Older adults may shift in the criteria they use in their evaluation of quality of life as time passes in retirement. Specifically, since they can reasonably expect some health decline with aging, older adults might base their evaluation of life quality on other life domains such as social relationships rather than on their physical status. In this way older adults would experience a readjustment of their life priorities with the passage of time. This readjustment of life priorities may also account for the finding that expected income and preretirement occupational status did not predict long-term quality of life in the present study. Financial status may be of perceived lesser value to older adults who have entered retirement, a time when reduction in income tends to be the norm.

Finally, there are a number of limitations that should

be considered in interpreting the generalizability of the current results. First, the sample is small in terms of what is desirable for structural equation modeling. As well, this sample is biased in terms of being relatively healthy. Second, the model developed in the current study needs to be cross validated with an independent sample. Third, the study was completed with an all-male sample, which is appropriate given the number of authors that have argued that the retirement experiences of men and women are different (Dryer, 1989; Matthews & Brown, 1987; Moen, 1996). However, it is important that comparable studies be carried out to identify the preretirement factors that influence the quality of life of women in later retirement. Fourth, the sample studied was drawn from retirees from companies in London, Ontario. It is important that the generalizability of the results be established for retirees in other locations and cultures.

Correspondence concerning this article should be addressed to Dr. Terry Lynn Gall, Faculty of Human Sciences, Saint Paul University, 223 Main St., Ottawa, Ontario K1S 1C4 Canada (E-mail: tgall@ustpaul. uottawa.ca).

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