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A longitudinal analysis of the predictors of life satisfaction for men in the transition from late middle age to early old age

Christopher John Tatarka

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A LONGITUDINAL ANALYSIS OF THE PREDICTORS OF LIFE SATISFACTION FOR MEN IN THE TRANSITION FROM LATE MIDDLE AGE TO EARLY OLD AGE

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Psychology

by
Christopher John Tatarka
June 1999
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Approved by:

Joanna Worthley, Ph.D., Chair
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JUNE 2, 1999
ABSTRACT

This research investigated the differences in the predictors of life satisfaction for men as they progress through their sixties, as well as the changes and differences in life satisfaction for retirees and non-retirees in their late sixties. Participants included approximately 400 men obtained from an archival, longitudinal data set collected by Lewis M. Terman and Robert Sears from 1922-1982. The current analysis used surveys administered in 1972 and 1977 (at mean age 62 and 67, respectively). A regression model, an ANOVA, and a paired t-test were used to determine results with all alpha levels set at .05. Results indicated that the predictors of life satisfaction did change over the five-year period and that, at age 67, non-retired men had significantly higher levels of life satisfaction than did their retired counterparts. The analysis also indicated that individual levels of life satisfaction dropped significantly during the five-year period. This research suggests that the predictors and levels of life satisfaction are not fixed, and shows the importance of retirement as a during this age period.
ACKNOWLEDGMENTS

The data used in this research were originally collected by Lewis M. Terman, Robert R. Sears and their associates at Stanford University. They are currently distributed by the Henry A. Murray Research Center and the Inter-University Consortium for Political and Social Research. Neither the collectors nor the distributors of the data are responsible for the analyses or interpretations presented here.
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INTRODUCTION

As the aged population in the United States continues to grow, research directed towards successful aging has been, and is likely to continue to be, a critical area for a variety of research disciplines. Although there are many aspects involved in successful aging, psychologists and sociologists, as well as researchers from other fields concur that an individual's sense of life satisfaction is an integral aspect of successful aging. Recent research underlines the importance of life satisfaction by noting that life satisfaction is not merely an aspect of successful aging, but rather a precursor which must be present for successful aging (Fisher, 1995).

The numerous researchers who have conducted empirical research on life satisfaction have utilized such constructs as self-concept, self-esteem, mood, the relationship between desired and achieved goals, happiness, attitude, adjustment, and morale as indicators of life satisfaction (Ryff, 1989). Definitions of life satisfaction have similarly depended upon each researcher's operational definition based on these
and other concepts (Medley, 1980; Tepperman, 1995; Toseland, 1979).

Despite the absence of a clear or universal operational definition of life satisfaction in middle-aged and elderly adults, the large body of research in this area has shown numerous significant findings concerning the correlates and predictors of life satisfaction in adult populations. Two correlates that have been consistently associated with life satisfaction in the elderly are relationships with family and health status (Lowry, 1984; DeGenova, 1993; Toseland, 1979; Tepperman, 1995; Medley, 1980). Along with these two correlates of life satisfaction, Tepperman (1995), Medley (1980), and Lowry (1984) have all found that family income and socio-economic status were also correlates of life satisfaction in older age. Other researchers have focused more on psychological, cognitive, or behavioral factors that have been hypothesized to have a significant association with life satisfaction. For example, De Genova’s [1993] study of 122 adults noted that individuals who lacked regrets about their lives were more likely to have high levels of life satisfaction than their counterparts.
Gaps and Difficulties in Life Satisfaction Research

Although life satisfaction has been studied using a variety of methods by a number of researchers, there are definite shortcomings and limitations to the research in this area. A major problem with almost the entire body of research into life satisfaction is the frequent use of extremely wide age ranges in assessing predictors and correlates of life satisfaction. Virtually all of the research in this area utilizes participants whose ages range from the lower sixties into the late eighties or early nineties, without any division of these groups in any manner. A not uncommon example is the previously mentioned research conducted by De Genova (1993), which utilized 122 participants in ages ranging from 54 to 91. The common use of wide age ranges in analyzing life satisfaction seems to reflect the stereotype that there is little change or development during middle age and into the elderly years (Stevens-Long, 1992). However, the use of wide age ranges to represent "older adults" in life satisfaction research conflicts with a growing body of gerontological research in other areas, which shows many differences between
individuals at various ages in later life (e.g., see Neugarten, 1985). This failure to distinguish between individuals in their fifties, sixties, seventies and eighties has likely lead to conclusions about life satisfaction that may not be accurate.

A second and perhaps even more significant problem with research in the area of life satisfaction in the elderly and middle aged has been a lack of research capable of assessing changes in the predictors of life satisfaction over time. The preponderance of research has utilized cross-sectional designs, which are limited in that they are capable only of showing predictors for different age groups. The common practice in research of this type has been to assess predictors of life satisfaction for various age groups, compare the groups, and then analyze the differences in predictors based on those comparisons (e.g., assessing the predictors of life satisfaction for a group of middle aged individuals compared to a group of elderly individuals). Because they utilize cross-sectional designs, these comparisons do not take into account the ideas of researchers who contend that adult development is most strongly shaped by both societal and personal historical
influences (such as education, health care, and social context, e.g. Brandstetter, 1990). Because they use cross-sectional comparisons, these approaches lack the depth of a true life-span approach to life satisfaction in that they fail to treat the period from mid-life into later life as an integration of experiences and events, and fail to identify age related changes due to individual development, culture, society, or other relevant factors. Likewise, these studies may possibly confound age and cohort, making their findings concerning age-related change essentially uninterpretable (Lachman, 1984).

A related problem with life-satisfaction research is that even when researchers did, in fact, attempt to assess changes in life satisfaction, their work was predominately focused on components of life satisfaction and not on the broader construct itself. For example, although Sears (1977) analyzed changes in predictors of life satisfaction by utilizing path analysis to predict family-life satisfaction, occupational satisfaction, and marriage success, his research did not assess changes in life satisfaction as a whole over time. Likewise, Holohan (1984, 1994) has conducted longitudinal studies of the influence of
goal setting and goal achievement on life satisfaction in elderly women. While informative, her findings that early goal setting behavior and successful attainment of those goals was correlated with successful aging also do not reveal trends in the broader construct of life satisfaction as a whole.

It should also be noted that in recent years, the construct of life satisfaction has become a less significant area of study within developmental psychology. The main reason for this decreased attention to the construct of life satisfaction has been an increased focus on the construct of well-being. This shift in emphasis has been primarily advanced by the work of Carol Ryff (1995, 1989). Ryff's model of well being encompasses six distinct factors, which are used to create an analysis of overall well being. This method differs from life satisfaction research in that it focuses much more on the detailed analysis of empirically derived psychosocial factors involved in successful aging than does research analyzing the construct of life satisfaction. However, despite the tremendous benefits presented by Ryff's model (and the accompanying research supporting and analyzing this model), a significant drawback
of this work is the lack of any longitudinal research applying Ryff's construct. Since there is not currently any longitudinal research applying her model, a gap continues to exist concerning successful aging and the individual changes in either life satisfaction or well-being which may occur during adult development.

Gaps and Difficulties in Research on Late Middle-Aged Men

A number of theorists in developmental psychology have proposed that the period from mid-life into old age involves numerous developmental changes for individuals. According to Erikson's (1960) theory of life-span development, the mid-life stage of adulthood is one in which individuals develop a sense of generativity. Generativity encompasses "procreativity, productivity, and creativity and thus the generation of new beings as well as of new products and new ideas" (Erikson, 1982, p.67). The antithesis of generativity according to Erikson, is self-absorption or stagnation. This stage is then followed by the final stage of life, in which the elderly must struggle with the issues of integrity vs. despair.
Although Eriskon's ideas remain an important backdrop for developmental work, many researchers have noted its shortsightedness in terms of addressing adult development. For example, Antonovsky and Sagy (1990) argue that Eriksonian ideas lack specificity and are limited by their broad approach to the mid-life and elderly periods. They suggest that there are specific transitions, issues, and developmental changes during the period from middle-age into older age and that these are lost in the broadness of Eriskon's theories. They further note that Eriskon's work "strongly suggests that once we have had children, written a poem, or shaped fine cabinets...we go through no further development until we face the final challenge of "integrity vs. despair" (p. 362).

Along with the lack of specificity concerning the late middle-age years in theoretical work, there seems also to be a lack of empirical research involving individuals in the later middle-age years (Antovosky & Sagy, 1990). While a number of researchers have focused their work on middle-aged individuals, a large amount of this research has been focused on the attempt to confirm or deny the presence of a mid-life crises, or on the effects of menopause (Schaie &
In addition, Schaie and Willis note that the age brackets which researchers have used to define "middle-age" have ranged from 40 to 60, while "old age" has commonly been labeled as 65, or 70, and older. These age definitions have not only left individuals between the ages of 60-70 without a label; but more importantly, they have meant that these ages were not included in much aging research. In other words, it seems that many researchers found individuals in ages 60-70 to be too old to be "middle-aged" and too young to be "elderly."

Retirement, Life Satisfaction and the Late Middle Age Years

Despite the aforementioned lack of any large, systematic, or comprehensive research base on the late middle-age years, one specific area, retirement, has been an exception. However, the majority of this retirement research has not been developmentally based.

The lack of developmentally-based research on retirement is striking, given the relative importance of retirement as a major life transition. As Hooker and Ventis
(1984) note, "both the loss of work role and the corresponding increase in the amount of unstructured time brought about by the transition to retirement could be significant sources of problems for retirees" (p. 478). Likewise, Antovosky and Sagy note that retirement is a major change in an individual's life, and that the importance of retirement as a transition "is the theme of almost all of the retirement literature" (p. 367). Surprisingly, although there is a variety of literature on such topics as the demographics of retirement (e.g., Fullerton, 1997), the phases of retirement, (e.g., Ekerdt, Bosse, & Levkoff, 1983), levels of satisfaction with retirement itself (e.g., Myers & Booth, 1996; Beck, 1982), the fact remains that "systematic studies on social and psychological consequences of retirement have been too few and too sketchy to enable assessment of the effects of retirement" (Markides & Cooper, 1987, as cited in Antonovosky and Sagy, 1990).

The limited number of retirement studies which maintained at least some type of developmental focus in measuring life satisfaction and well-being includes a study by Ekerdt, et al. (1985), who note that life satisfaction increases immediately after retirement but tends to drop
after 18 months of retirement. This work suggests the presence of a "honeymoon" phase of retirement as noted by Atchley (1982). The honeymoon phase, according to Atchley, is a period right after retirement in which life satisfaction dramatically increases for a brief period of time. In aggregate, however, the remaining studies which have analyzed retirement from a developmental perspective have produced equivocal results on the question of whether life satisfaction increases or decreases as a result of retirement (Schmitt, 1979; Dilliard, 1982; Fillenbaum, et al., 1985).

Synthesizing the Research Gaps

Taken together, the lack of specificity in Erikson's theory of adult development, the lack of research directed at late middle-aged individuals, and the retirement literature's lack of a developmental focus limits our understanding of development during the years between 60 and 70.

Likewise, these factors, added to the lack of longitudinally based study on life satisfaction, have
resulted in a very limited research-based understanding of the late middle-age period in terms of life satisfaction or well-being. In particular, there seems to be little developmental research which has addressed the impacts of retirement or "postponed" retirement on those individuals who continue to work past the traditional retirement age of 65.

The Present Study

In order to address at least a portion of this "gap" in the research on life satisfaction as it relates to individuals as they progress through their sixties, the current study examined the predictors of life satisfaction over a five-year period for a group of men who reached their sixties in approximately 1970. This study assessed these individuals at approximately age 62 and again at age 67 using both theoretical work from Erikson as well as the aforementioned empirical research as a framework for the exploration of changes in the predictors of life satisfaction during this period.

As mentioned previously, four of the consistent
predictors of life satisfaction in the research literature have been occupation, family relations, income, and health status. Although researchers have found other predictors, these four are the most prevalent throughout the literature and will therefore, be utilized in the present study.

Since not all individuals go through retirement during the period between age 60-70, the present study focused not only on determining the changes in predictors of life satisfaction as mentioned above, but also on assessing the differences in life satisfaction between those who have retired and those still working past the traditional retirement age of 65. The study analyzed differences in life satisfaction from age 62 to age 67 for both of these groups. By analyzing the differences between those retired and those still working, as well as changes in measured life satisfaction which have occurred for these two groups over a five year period, this study adds a much-needed developmental perspective to the limited research concerning retirement changes for men in this era.

**Use of Secondary Analysis.** It must be noted here that this study employs secondary analysis of a previously
collected data set to examine these research issues. As with most research utilizing this technique, the database under investigation is somewhat less than ideal for addressing the issues at hand. However, as McCall notes, "rarely is an existing database perfect for addressing a new research question" [thus] "compromises must be made in addressing the variables under investigation" (p.917). In line with McCall’s observations, the data set analyzed here utilized a wide variety of measures which were broad-based and not as psychometrically sound as one would prefer. Despite these limitations, the gains made by using this data outweigh the negative factors posed by its difficulties. In the present study we rely heavily on the idea from Brooks-Gunn (1991) that "the study of development from both life-course and context-dependent perspectives is virtually impossible if analyses of extant data sets are ruled out as viable options" (p. 907).

Operational Definitions. As noted previously, a significant problem with the life satisfaction research has been a lack of strict operational definitions in the construct of life satisfaction. In addition, previous
research has also defined the many life satisfaction predictors in a variety of ways. For this study, occupational satisfaction is defined as the amount of satisfaction as well as the feelings of success an individual derives from his occupation or career. Similarly, satisfaction in family relations is defined as the amount of satisfaction an individual derives from relationships with his spouse, children, and siblings as well as the importance that individual places on his relationships with these individuals. Health status involves one’s feelings about their level of health, health problems, and an individual’s ratings of health in relation to others their own age. Lastly, income or financial status will be based solely on the amount of income the individuals earn in their occupation (or from other sources).

An additional operational definition for the present study involves retirement and non-retirement. Since the amount of time one spends at work can vary greatly, the present study defines non-retired as meaning working more than half-time (i.e., more than 20 hours per week) and retired as working less than half-time (or less than 20 hours per week).
Research Hypotheses. Based on these operational definitions, and the previous theoretical approaches and empirical research conclusions, this study will address the following hypotheses:

Hypothesis 1. For men in their early sixties, occupational satisfaction and family satisfaction will serve as significant predictors of their overall life satisfaction, while health status and income status will not.

The basis for this hypothesis is the aforementioned body of life satisfaction literature. Although health status and income have been consistently found to be predictors of life satisfaction in the elderly, these factors have been found to be less significant as predictors of life satisfaction in the middle-aged. Likewise, studies on the elderly suggest that the strength of income and health as predictors of life satisfaction increase as age increases (Dowd, 1979). Given this, it seems likely that income and health will not be significant predictors in the early 60's, when the majority of men are likely to be working and still in relatively good health.

Hypothesis 2. Five years later (at age 67), family
relations, health, and income level will all serve as predictors of life satisfaction, whereas occupational satisfaction will not.

This hypothesis is based on research such as Dowd (1979), which suggests that as one progresses into older age, health concerns and health problems are likely to increase as predictors of one's overall well being. Likewise, the fact that a number of researchers (Hanks, 1990; Gall, et al., 1997) have found that financial status has been strongly linked to both retirement and the decisions concerning retirement would seem to increase the importance of this factor in predicting life satisfaction. Because retirement is such a significant normative event for individuals in their sixties, I estimate that financial status will be a predictor regardless of one's retirement status.

In addition, since these individuals are in a period of their early elderly years, one would assume that family relations will still remain a critical predictor of life satisfaction for this group. This is based not only on the previous (cross-sectional) research which generally shows this to be the case, but also in the theoretical ideas of
Erikson (1982), who suggests that the major psycho-dynamic focus for these individuals may still be one of generativity.

This second hypothesis also states that work will not be a significant predictor of life satisfaction for individuals at age 67. For those individuals who have retired this is an obvious assumption. However, it is my assessment that this will also be the case for those who are continuing to work past the traditional retirement years. Although there is little research to suggest this to be the case either way, it is my assumption that since retirement intentions are frequently linked to finances (Fillenbaum, George & Erdman, 1985), the majority of these individuals who are still working will be doing so for financial reasons and therefore, work may not be as significant a predictor for this group as it was in earlier periods.

Hypothesis 3. I also hypothesize that there will be a significant difference in life satisfaction levels at age 67 between those who continue to work and those who have retired, with those who have retired having higher levels of life satisfaction.

Although the literature which has analyzed satisfaction
with retirement has shown extremely mixed results, individuals who have retired may be more likely to have undergone what Antovosky and Sagy (1990) call "a reevaluation of life satisfaction" (p. 365), which in itself, is likely to produce an increased awareness of the importance of life satisfaction, and possibly more commitment to those aspects which make one satisfied.

Hypothesis 4. The fourth hypothesis for this study is that there will be significant changes in overall life satisfaction scores between age 62 and 67 for both retired and non-retired individuals. This hypothesis is somewhat exploratory, in that it is exceedingly difficult to hypothesize in what direction life satisfaction may change. That is, since there is not an adequate body of literature which has explored the changes in life satisfaction over time, and because the retirement literature has focused predominately on life satisfaction in periods immediately adjacent to retirement itself, this hypothesis is somewhat speculative. However, given the importance of retirement as a transition (as previously discussed), it seems intuitively possible that if an individual has moved into retirement, there are likely to be impacts on life satisfaction.
Likewise, if an individual is continuing to work past traditional retirement years, there is reason to believe that undertaking this task may be non-normative and may have impacts on life satisfaction as well. (This seems especially true for the cohort under investigation.)
Design

In the present study a correlation-regression approach was adopted to investigate the relationship between the criterion variable, life satisfaction, and the predictor variables of occupational satisfaction, satisfaction with family relations, health status, and income level. These predictors were utilized for three separate regression analyses. The first regression analysis evaluated predictors of life satisfaction for all participants at (mean) age 62. The second regression analyzed predictors of life satisfaction for all individuals at approximately age 67 who were retired. The third regression analysis analyzed the predictors of life satisfaction for all individuals at approximately age 67 who were non-retired or continuing to work.

In addition, a One-Way Analysis of Variance (ANOVA) was used to detect any significant differences between overall life satisfaction of retirees and non-retirees at age 67.
Lastly, a paired t-test was used to detect any differences between overall life satisfaction levels for individuals between age 62 and age 67.

**Data Base**

This study used archival data from a sixty-year longitudinal research project originated by Lewis Terman in 1922. The participants in Terman's project were a group of California school children who were classified (by IQ) as the top 1% of the population, with IQ scores greater than 135 (based on the results of the Stanford-Binet test). Originally, there were 1,528 individuals (857 males and 671 females). Approximately 98% of the participants were Caucasians, with the majority of subjects coming from above-average income families.

In this study, two “waves” of this longitudinal of data will be used, one from the 1972 data collection (participants’ mean age=62, SD=4 years) and the other from the 1977 survey (participants’ mean age=67 years old, SD=3 years). Only those data from the male participants who responded to both surveys (i.e., 1972 and 1977) were
examined, yielding approximately 395 participants for the analysis.

Materials

Two separate composite measures were created in order to determine life satisfaction scores. Likewise, four selected survey responses were used to measure predictor variables.

Overall Life Satisfaction Scores

a. 1972 Data. In order to measure the construct of life satisfaction and the various predictor variables for the 1972 data, this study mimicked a scaling system designed and utilized by Robert Sears (1977) in his analysis of this same data set.

Satisfaction was measured with respect to six areas of life experience. The measure was created from answers to two questions: "how important was each of these areas in life?" and, "how satisfied are you with your experience in each of these respects?" The six areas evaluated were occupation, family life, friendship, richness of cultural life, total service to society, and joy in living.
For the first question (i.e. "how important are these areas"), participants were given a 4 point response scale, ranging from a high of 4 ("of prime importance to me") to a score of 1 ("less important to me than to most people"). For the second question, (concerning success and satisfaction) there was a 5 point scale, ranging from a high of 5 ("had excellent fortune in this respect") to a low of 1 ("found little satisfaction in this area").

In order to account for the amount of satisfaction a person had gained from a life area, scores were weighted. Hence, a life satisfaction score for each area was computed by multiplying the second scale (success and satisfaction) by the first scale (importance). This strategy provided heavier weighting for needs rated high in importance.

A subtraction element was added to the formula in order to take account of the direction of any difference between the strength of need, and the degree of success and satisfaction obtained. The formula reads: \( A \times B - (A-B) \), where \( A \) is the rating on importance, and \( B \), the rating on success and satisfaction. This formula provided a scale of possible scores ranging from 1 to 21 for life satisfaction in each of the six areas. An overall life satisfaction
score was then obtained for each individual by taking the mean score of these six areas.

b. 1977 Data. Because the data set under investigation did not utilize the exact same method for obtaining life satisfaction scores in 1977, the current study undertook an approach similar to that used for the 1972 data to obtain an overall life satisfaction score.

In 1977, participants were asked to rank their overall satisfaction with the following areas of life: work, marriage, children, friendships, cultural activities, and service activities. Participants ranked their satisfaction in these areas on a scale of 1 to 5, with 5 being the highest score possible.

An overall life satisfaction score was obtained from these questions by obtaining a mean score from the total sum of each of the scores for each of these five areas. This overall life satisfaction score has a possible range of 6 (lowest) to 30 (highest). (Since the 1977 survey did not ask participants to rank the importance of these areas it was not possible to factor in the strength of need for this wave as was done in the 1972 data.)
Predictor Variables

a. Health. Health status was assessed by utilizing responses to the following, "please indicate your general, overall level of health." Possible responses range from 1 "low or poor health" to 5 "high or excellent health."

b. Financial. For 1972 data, financial status was obtained from a survey question asking respondents to assess the amount of household income they received in the previous 12 months. Amounts were coded from 1 ("$1,000") to 98 ("$98,000 or more"). For 1977 data, financial status was obtained from a question asking participants to give their "estimated annual income for 1976." Possible responses ranged from 1 ("very low-$1,600 or less") to 5 ("very high-$25,000 or more").

c. Occupation. Occupational information was obtained from both waves by utilizing responses from questions concerning work satisfaction. In each wave, participants were asked to rate their satisfaction with their work with possible answers ranging from 1 to 5.

d. Family Relations. Scores for family relations were obtained by utilizing responses to questions from both data waves which asked participants to rate how satisfied they
were with their family relationships. In 1972, participants were asked to respond to the question, "how satisfied are you with your family relationships?" Scores ranged from 1 ("not satisfied") to 5 ("highly satisfied"). In 1977, participants were directed to answer questions concerning satisfaction with marriage, as well as satisfaction with their relationship with their children. Scores again ranged from 1 ("not satisfied") to 5 "highly satisfied").

Procedure/Scoring/Analysis

The data set was analyzed using SPSS Statistical Software (version 7.0). Pearson product-moment correlation coefficients between the criterion variable (life satisfaction) and each of the predictor variables (Occupational Satisfaction, Family Satisfaction, Health Status, and Income Level) were calculated for each of the three separate regression analyses. A significance level of p = .05 was adopted to conclude statistical significance for the results (both for the correlation coefficients, R2, as well as the incremental change in R2).

A One-Way Analysis of Variance for independent groups
was employed in order to determine if any significant differences exist in life satisfaction between retirees and non-retirees in the 1977 data. Significance level for this test was set at p=.05.

Lastly, because the overall life satisfaction scores for the two separate waves utilized different measures and had a different scoring system, a paired t-test was utilized to analyze the differences in overall life satisfaction between the two time periods.

In order to standardize these scores for comparison, the overall life satisfaction score for each individual was divided by the highest possible life satisfaction score for that measure. The ensuing standardized value was then utilized for the t-test comparison. For example, when using the 1972 data, each participant’s overall life satisfaction score was divided by the highest overall score possible (i.e., 21). Similarly, overall life satisfaction scores from the 1977 data were standardized by taking each individual’s overall score and dividing it by the highest possible score for this measure (i.e., 30). These new values were then compared by utilizing a t-test procedure with significance level for this test set at p=.05.
RESULTS

Predictors of Overall Life Satisfaction at Age 62

A Simple Simultaneous Regression Analysis was utilized to determine predictors of life satisfaction for the sample in 1972 (mean age 62 years). Due to incomplete or missing data, 369 cases were analyzed for this statistical test. Results of the regression analysis are shown at Table 1. The overall results indicated significant results (R2=.33, p=.00). Likewise, an analysis of standardized beta weights indicate that family satisfaction (β=.46, p=.00) and work satisfaction (β=-.70, p=.00) were both significant predictors of overall life satisfaction. Results indicate that general health (β=.04, p=.32) and income level (β=.11, p=.14) were not significant predictors of life satisfaction during this period.
Table 1

Summary of Simple Simultaneous Regression Analysis for Variables Predicting Life Satisfaction at Mean Age 62 (N=369)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>Sig</th>
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<tr>
<td>General Health</td>
<td>.185</td>
<td>.186</td>
<td>.047</td>
<td>.322</td>
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<tr>
<td>Job Satisfaction</td>
<td>-.704</td>
<td>.157</td>
<td>-.21</td>
<td>.00*</td>
</tr>
<tr>
<td>Family Satisfaction</td>
<td>.144</td>
<td>.148</td>
<td>.461</td>
<td>.00*</td>
</tr>
<tr>
<td>Income</td>
<td>1.57</td>
<td>.006</td>
<td>.113</td>
<td>.140</td>
</tr>
</tbody>
</table>

*Indicates significant at the p<.05 level

Predictors of Overall Life Satisfaction at Age 67

In order to assess predictors of overall life satisfaction from the 1977 wave, two separate Simple Simultaneous Regressions analysis were conducted.

Firstly, a regression analysis was conducted on those subjects who were retired during the time of data collection. A total of 256 individual cases were utilized in analyzing these results. Results for this analysis are displayed in Table 2. Significant results were noted for
the overall regression (R2=.35, p=.00). Likewise, results indicate that health level (β=.24, p=.00), marriage satisfaction (β=.40, p=.00), satisfaction with children (β=.17, p=.00) and level of income (β=.141, p=.03) were all significant predictors of overall life satisfaction.

The second regression analysis on this wave of data analyzed 115 cases. Table 3 shows the results of this analysis. The regression analysis revealed significant results overall (R2=.54, p=.00). Similarly, for this group of men, marriage satisfaction (β=.39, p=.00), satisfaction with children (β=.34, p=.00) and work satisfaction (β=.31, p=.00) were all found to be significant predictors of overall life satisfaction. However, health (β=.10, p=.14) and income level (β=-.01, p=.85) were not found to be significant predictors of overall life satisfaction.
Table 2
Summary of Simple Simultaneous Regression Analysis for Variables Predicting Life Satisfaction at Mean Age 67 for Retirees (N=256)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Health</td>
<td>.848</td>
<td>.180</td>
<td>.243</td>
<td>.00*</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>-.704</td>
<td>.157</td>
<td>-.211</td>
<td>.00*</td>
</tr>
<tr>
<td>Marriage Satisfaction</td>
<td>1.16</td>
<td>.169</td>
<td>.409</td>
<td>.00*</td>
</tr>
<tr>
<td>Children Satisfaction</td>
<td>.516</td>
<td>.171</td>
<td>.174</td>
<td>.00*</td>
</tr>
<tr>
<td>Income</td>
<td>.400</td>
<td>.186</td>
<td>.116</td>
<td>.03*</td>
</tr>
</tbody>
</table>

*Indicates significant at the p<.05 level
Table 3

Summary of Simple Simultaneous Regression Analysis for Variables Predicting Life Satisfaction at Mean Age 67 for Non-Retirees (N=115)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Health</td>
<td>.451</td>
<td>.304</td>
<td>.102</td>
<td>.140</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>1.311</td>
<td>.303</td>
<td>.314</td>
<td>.00*</td>
</tr>
<tr>
<td>Marriage Satisfaction</td>
<td>1.24</td>
<td>.228</td>
<td>.390</td>
<td>.00*</td>
</tr>
<tr>
<td>Children Satisfaction</td>
<td>1.19</td>
<td>.258</td>
<td>.347</td>
<td>.00*</td>
</tr>
<tr>
<td>Income</td>
<td>-.115</td>
<td>.628</td>
<td>-.012</td>
<td>.855</td>
</tr>
</tbody>
</table>

*Indicates significant at the p<.05 level

Differences in Life Satisfaction Between Retirees and Non-Retirees

In order to analyze the differences in levels of overall life satisfaction, an ANOVA was conducted on data from 256 retirees and 115 non-retirees from the 1977 wave. Results from this analysis are shown at Table 4. As shown
in Table 5, retirees’ mean life satisfaction score in 1977 was 19.39, whereas non-retirees mean life satisfaction score was 24.24. Overall, a significant difference in life satisfaction scores was noted between retirees and non-retirees (F(1, 369)=247.20, p=.000).

Table 4
One-Way Analysis of Variance for Retirees and Non-Retirees at Mean Age 67

<table>
<thead>
<tr>
<th>Variable</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1862.76</td>
<td>1</td>
<td>1862.76</td>
<td>247.20</td>
<td>.00*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2780.542</td>
<td>369</td>
<td>7.535</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Indicates significant at the p<.05 level
Table 5

Mean Scores for Predictor Variables for Retirees and Non-Retirees at Mean Age 67

<table>
<thead>
<tr>
<th>Variable</th>
<th>Retirees (N=256)</th>
<th>Non-Retirees (N=115)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Health</td>
<td>4.24</td>
<td>4.38</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>N/A</td>
<td>4.21</td>
</tr>
<tr>
<td>Marriage Satisfaction</td>
<td>4.45</td>
<td>4.38</td>
</tr>
<tr>
<td>Children Satisfaction</td>
<td>4.36</td>
<td>4.31</td>
</tr>
<tr>
<td>Income</td>
<td>4.31</td>
<td>4.84</td>
</tr>
<tr>
<td>Overall L.S. Score</td>
<td>19.39</td>
<td>24.24</td>
</tr>
</tbody>
</table>

Differences in Individual Life Satisfaction Scores From Age 62 to Age 67

In order to assess the changes in individual Life Satisfaction during this five-year period, a Paired Samples t Test was utilized. Due to missing or incomplete data, a total of 242 cases were analyzed. The t-test results indicated a significant difference in standardized life satisfaction scores from 1972 to 1977 ($t(242)=8.67$, $p=.00$).
DISCUSSION

A general message from the results of this research is that both life satisfaction and the predictors of life satisfaction do not appear to be static when compared longitudinally. These results support the basic premise of this research: that the construct of life satisfaction, like numerous other aspects of adult development during the late-middle age period, is likely to be impacted by both life events and aging itself.

Overall Life Satisfaction at Age 62

The results indicating that family satisfaction and job satisfaction were significant predictors of overall life satisfaction for men in their early sixties, agrees with the first research hypothesis under investigation.

These results are not surprising, given the previous research which supports the role of family life satisfaction (e.g. Sears, 1977, Lowry, 1984) and the importance of job satisfaction in predicting life satisfaction (e.g., Adams, King, & King, 1996). Likewise, that health status and
income levels were not predictive of life satisfaction in this age group also concurs with the first research hypothesis. That is, since the majority of men in their early sixties are likely in relatively good health (as mentioned in Schulz, 1994), health is a low salience factor and would not likely be either a statistical or real factor in predicting how satisfied one is with his life. Similarly, because they are at age 62, the majority of participants could be assumed to be at the pinnacle of their career in terms of earning. Given this, the weak relation of the income variable to life satisfaction in the current results is not surprising.

Perhaps the most significant implication of the results from hypothesis 1 may be their indirect support of Eriksonian ideas regarding generativity (see Erikson, 1959, or Erikson, 1982). Erikson's claim that generativity is the most significant developmental issue during this period seems to coincide with findings here that both family and job satisfaction predicted overall life satisfaction. That is, if generativity is a major issue during this period, then relations with family should predict life satisfaction. Moreover, although the link is less direct, the fact that
job satisfaction also predicts life satisfaction during this period may be related to generativity as well. Vaillant (1980) notes that men late in their career tend to see their role as mentoring younger workers, a trend also noted by Salthouse and Maurer (1996). Given this, we can speculate that the current sample may link job satisfaction with their mentoring in the workplace, reflecting generativity.

Life Satisfaction at Age 67

Unlike results obtained for the sample at age 62, results for the sample five years later did not completely confirm the second research hypothesis. As expected, for both retired and non-retired individuals, family relations were significant predictors of life satisfaction. Contrary to my hypothesis, however, health status did predict overall life satisfaction for retirees, but not for their working counterparts. Also contrary to the research hypothesis, income level was a predictor of life satisfaction for retired individuals, but not for non-retired participants at age 67.

Since previous research determined that health concerns
gain in importance as one progresses into the elderly years (Heckhausen, 1997), my finding that the health variable differed between retirees and non-retirees is surprising. The fact that this variable was predictive for only the working group suggests that work may have an influence on health or perceived health. This finding leads one to speculate whether health status was a factor in the decision to retire, or if health status becomes more critical in perceptions of satisfaction as one moves into retirement. It may be that the non-retired have a higher (perceived or actual) health status, and this explains the weakness of health as a predictor of their overall satisfaction. It may also be the case that for this group, work, in some way, mediates the impact of health as a predictor of life satisfaction. The findings for health strongly suggest a need for further research as to how health impacts satisfaction and well being in the transition to retirement.

The findings for health also raise a larger question: When health status predicts life satisfaction, is it on a physical level, a psychological level, or both? That is, are the current findings that health status predicts life satisfaction scores due to physical capabilities or
infirmities (or lack thereof), or to concern or worry about current health status and the inevitability of its decline?

Although this question cannot be "answered" here, the answer is important for assessing the impact of health on life satisfaction and well being. A careful assessment of the health variable would involve evaluating both health perceptions and actual health status to test for the relative importance of perceived versus actual physical capabilities and limitations on life satisfaction.

As with health, income level in 1977 (mean age 67) was not a predictor of life satisfaction for non-retirees but was for their retired counterparts. The initial assessment is that the ability to maintain finances at some level may reduce the salience of financial status for life satisfaction, whereas loss of income at retirement has a direct impact on life satisfaction. Although this interpretation seems reasonable, it runs contrary to literature from satisfaction research and from retirement research, which both seem to suggest that retirement decisions are based on income, and that income frequently predicts life satisfaction in elderly samples. The results here are unusual in that, if retirement decisions are based
on income (as research suggests), one would expect that retired individuals would be those more financially secure, and therefore income would be less likely to predict overall life satisfaction than it might for those who have continued to work in order to continue to obtain financial resources.

In effect, the findings noted here suggest that retirement decisions may not be as strongly based on finances as the literature suggests, or at a minimum, that the previous findings may not apply to more "elite" samples who are likely to be at higher income levels than other individuals.

Differences in Life Satisfaction Between Retirees and Non-retirees

The comparison of overall life satisfaction scores between retirees and non-retirees in 1977 partially confirms the third research hypothesis: that these groups would differ in overall life satisfaction; however the direction of difference was opposite of our prediction. Given the equivocal nature of previous findings on the impacts of retirement on life satisfaction, this was not especially
surprising. However, the magnitude of the difference between the mean scores for the two group (M=19.3 for retirees; M=24.2 for non-retirees) is substantial in this sample.

In light of the equivocal findings in previous retirement-life satisfaction research, the findings here underline the need for closer attention in aging research to the psychological impacts of "on-time" retirement in comparison to the impacts of continuing to work past traditional retirement ages. This research focus will only grow more important, as "the number of older workers will increase dramatically in coming years in both absolute and relative terms" (Salthouse & Maurer, 1996). Similarly, from a policy perspective, the finding that life satisfaction may be higher for those who continue to work into older age suggests that the relaxation of mandatory retirement rules, and increases in ages for social security benefits, may be psychologically beneficial for many individuals in their late 60's or early 70's.

The differences between the non-retired and retired groups suggests that income and health both may have been an important influence on retirees' lower levels of life
satisfaction. Likewise, because of the similar characteristics of the sample group (e.g., IQ, race, SES), and since health and family were predictors of life satisfaction for both age groups, one could assume that at least part of the difference in life satisfaction scores between these groups was due to some factor associated with work status.

Unfortunately, due to limitations of the original surveys used in this study, the current research provides only a rudimentary analysis of this important area. Future studies must go beyond "status" questions to examine the mechanisms through which health, income and work participation contribute to differences in life satisfaction.

Individual Differences in Life Satisfaction Between (Mean) Age 62 and (Mean) Age 67

The findings regarding the longitudinal differences in life satisfaction confirmed the fourth research hypothesis: there were significant differences in individual life satisfaction scores between the two time periods. However,
it should be noted that because of the inconsistencies between the measures used in the two different data waves, it is important to interpret the findings in this area with caution.

Results for this last hypothesis suggest that levels of life satisfaction are not stable or fixed during aging. The data examined show a decline in life satisfaction (as mean standardized scores dropped from a mean of .74 in 1972, to .68 in 1977). Because of a lack of longitudinal work on life satisfaction in the middle aged, it is difficult to determine whether the findings presented here are normative for this age period. However, the fact that individual levels seem to have dropped during the five year period point to the importance of retirement during this life era for men (as also noted by Hooker & Ventis 1984; Antovosky & Sagy, 1990). The limited coverage of the response items from this archival study make it impossible to ascertain if other important life events may be a factor in reducing overall life satisfaction scores during this five year period. However, an analysis of the questions available for this study suggests that issues around the timing of retirement
are likely to have profound impacts on individuals at this age.

Given the findings presented here, showing that life satisfaction scores for men drop during their sixties (especially for retirees), one wonders whether life satisfaction levels continue to drop as individuals age? Likewise, one wonders whether the decrease in levels of life satisfaction noted here are temporary, perhaps due only to the change in roles brought about by retirement or non-retirement decisions (as noted by Atchley, 1982), that is, a time-of-measurement-effect.

Other Implications of the Study

There is little doubt that interpretation of the present findings is constrained by the methodological problems associated with the analysis of secondary data. Most notably, the measures utilized for Sears' original research reflect the methodological limitations of the period: they lack both depth and operational clarity in assessing life satisfaction. Moreover, the sample group utilized in this investigation was extremely homogenous in
terms of IQ, race, and SES, which makes generalization to larger populations problematic. Also, the very special niche occupied by this cohort limit generalizability to more contemporary samples.

It is also important to note that it is highly likely that the predictor variables investigated in the regression analyses utilized in this research, (i.e., work, family, health and income) "overlap" conceptually with the overall construct of life satisfaction. That is, these four factors, in addition to a variety of others, are all likely to be components that influence one's overall life satisfaction. For example, since work is a significant aspect of one's life, then satisfaction levels from work are likely to "spillover," to some degree, to one's overall life satisfaction (Berry & Rao, 1997). This conceptual overlap is noteworthy because the methodology utilized in the present research contains a similar statistical overlap in the area of family satisfaction. That is, because the values obtained in the measures of the predictor variables for family satisfaction were also used in obtaining the composite life satisfaction value, the conceptual overlap mentioned above also occurs statistically for this life
area. Although this is neither ideal nor desired, the methodology utilized here suggests that this overlap is not strong enough to make the regression analysis unstable or render its results invalid. Because the composite variable of overall life satisfaction for both data waves utilized scores from six different areas of an individual's life, family satisfaction values comprised only one-sixth of the total life satisfaction composite. This makes it unlikely that this single area, family satisfaction, presented enough of a statistical overlap to render the regression analysis invalid. In addition, the 1972 measure utilized a weighting factor of the importance that each participant placed on each specific life area utilized in creating the life satisfaction composite. This self-reported importance would also tend to soften the statistical overlap between family satisfaction and overall life satisfaction.

Despite these difficulties, however, the present study raises a number of important and relevant issues for future research in adulthood and aging. First, the finding that life satisfaction levels differ between retirees and non-retirees is both an intellectually interesting and timely finding, since the "Baby Boomers" will want to explore how
working into the elderly years impacts life satisfaction and aging. Although this study provides only a limited analysis in this area, the differences in the predictors and overall life satisfaction levels between retirees and non-retirees suggests a starting point for further research.

Secondly, the present research provides a longitudinal look into short-term changes in the predictors of life satisfaction during a period that has been understudied in previous research. That life satisfaction may drop for men during the sixties seems to be a relatively new finding, even given the massive body of life satisfaction research.

Finally, despite limitations inherent in the analysis of secondary data, the present study demonstrates the usefulness of existing databases for providing researchers with baseline information on a fundamental lifespan construct, life satisfaction. The study looks at life satisfaction in the years between late middle age and entry to old age, a period somewhat neglected in developmental research, especially in research on men's lives. Research on retirement is an exception, but as we see here, much retirement research treats retirement as a "fixed" aspect of satisfaction, when its effects on satisfaction surely vary
at different points in the process. The present findings invite further research, both to compare the sources of life satisfaction identified here with those identified in today's cohorts, and to continue to assess the impact of retirement, but now as a factor whose influence on happiness and satisfaction is mediated by time and context.
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