

THE UNIVERSITY OF CALGARY

NEVER-MARRIED OLDER WOMEN:

WELL-BEING AND SOCIAL RESOURCES

BY

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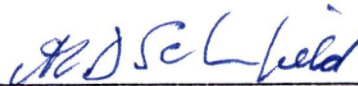
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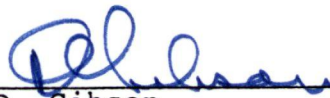
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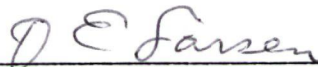
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## ABSTRACT

A common assumption has been that older never-married women are disadvantaged with respect to well-being and social resources relative to their married counterparts. This presumption is based on the expectation that never-married women are socially isolated and lack the familial support available to married women. To investigate this assumption, 30 older never-married women, 68 married women and 27 widows, all recruited from six large Calgary organizations, completed a set of questionnaires to gather information on such areas as well-being, social resources and background variables.

Contrary to expectations, the never-married women reported levels of well-being similar to those of married women. However, when personal income was statistically controlled, the never-married women had lower adjusted self-esteem than either the married women or the widows. Since the never-marrieds had the largest personal incomes, these results suggest that without this advantage, the never-marrieds will report lower levels of well-being than either married women or widows.

The never-married women were not socially isolated and, indeed, they had the most individuals with whom they

were "close". For the never-marrieds, friends were the primary source of social resources, while for the marrieds, family were the major source. Both family and friends comprised the social resources of the widows, but overall, the widows had the fewest number of close individuals. The married women felt they received more support from their families than the never-marrieds, while the groups were similar on levels of perceived social support from friends. Therefore, if the never-married women in this sample expect their friends to be replacements for family, they may be dissatisfied since the friends of the never-married do not provide as much social support as do the families of married women.

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## INTRODUCTION

Never-married older women or spinsters, as they are called with disparaging overtones, have rarely been the focus of social research, although they are frequently a topic of general conversation (Braito & Anderson, 1979). One explanation for this lack of research effort has been that they represent a fairly small proportion of the total population. However, at present there are over 242,000 never-married women - 4.1% of the population - aged 50 and over in Canada (Statistics Canada, 1984), which is justification enough to study this group. Further, there are suggestions that these numbers may be increasing (Braito & Anderson, 1979). More women are attending universities which is reported to be related to remaining single (Mueller & Campbell, 1977). Women are now less stigmatized for their decision to stay unmarried in our society making singlehood an acceptable alternative to marriage (Austrom & Hannel, 1985).

A conclusion that being married is associated with psychological well-being (Andrews & Withey, 1976; Campbell, Converse & Rodgers, 1976; Glenn, 1975; Pearlin & Johnson, 1977) might be adduced from a consideration of the influence of social integration and social support. Supposedly, having a spouse and children will foster social integration and ensure social support. Social integration has long been reported to be important for high levels of well-being for all individuals (Durkheim, 1897/1951). Social support is associated with high

morale among older individuals (Liang, Dvorkin, Kahana & Mazian, 1980), and it has been reported that the family is usually the major source of this support (Shanas, 1979). The implication, therefore, would be that older never-married women, on the average, have lower levels of well-being relative to married women.

Research findings on the well-being of never-married individuals are inconsistent. Some studies indicate that never-married individuals report lower levels of well-being relative to married persons (Andrews & Withey, 1976; Campbell et al., 1976; Ward, 1979), while others indicate that the never-marrieds have similar or even higher levels of well-being when compared with married individuals (Gubrium, 1974; 1975; Lawton, Moss & Kleban, 1984; Scott, 1979). The difficulty in drawing conclusions from this research is that most have not differentiated their samples by both age and gender. Older never-married women constitute a special subsample of the total group, yet they have rarely been categorized separately. As to the relationships between well-being and social support and social integration, these have not been investigated for older never-married women.

In the present study the well-being of older never-married women will be examined in comparison with older widowed and married women. Possible relationships between social support and happiness will also be investigated for these groups. In

addition, moderating effects of some personality factors and background characteristics will be examined.

The terminology used by many investigators has been a source of confusion. The tendency has been to categorize all unmarried individuals - widows, divorced, and never-married - into one group of singles. In this study, the term single will refer only to those who have never married.

### Psychological Well-Being

#### Nomenclature

Psychological well-being has been defined as "a self-perceived positive feeling or state" (Horley, 1984, p.126). Other terms which have been used almost synonymously with well-being are mental health, adjustment and successful aging. Well-being is a broad abstract concept and requires operationally defined measures for assessment. Some of the indicators which have been employed are life satisfaction, happiness, self-esteem and morale.

Life satisfaction. This is thought to imply a cognitive evaluation of life (Campbell, 1981). One definition is that it is the "gratification of an appropriate proportion of the major desires of life" (Stones & Kozma, 1980). Content analysis of a life satisfaction index (Life Satisfaction Index-A) indicated that it contains items which require comparison of the present to previous states, activities and conditions (Stones & Kozma,

1980). However, when a single question is used for assessment, for example "Are you satisfied with your life", older respondents sometimes seem to interpret this to mean "Are you satisfied with your past life" rather than an appraisal of their present state (A.E.D. Schonfield, personal communication, February 1986).

Happiness. This has been defined as "an activity or state in the sphere of feelings" (Stones & Kozma, 1980). Thus, the emphasis is on an affective response versus the cognitive appraisal of life satisfaction. Bradburn (with Caplovitz, 1965; 1969), one of the first to study happiness empirically, contends that happiness is the preponderance of positive affect over negative affect. Bradburn has developed a model of psychological well-being based on the distinction between positive and negative affect. (This model of Affect Balance will be examined in a later section). In accord with these definitions, indicating that happiness as an affective response, a content analysis of a happiness scale (Affect Balance Scale) revealed that all of the test items referred to current feeling states (Stones & Kozma, 1980). Campbell (1981) reported a correlation of .50 between his measures of happiness and life satisfaction, and he concludes that, although happiness and life satisfaction are related, they are not identical concepts.

Self-esteem. This has been defined as "a basic feeling of self-worth, a belief that one is basically a person of value, acknowledging personal strengths and accepting personal

weaknesses" (George & Bearon, 1980, p.72). One investigator includes a positive self-image, similar to high self-esteem, in her definition of life satisfaction (Neugarten, 1974). However, life satisfaction and self-esteem correlate at a moderate level,  $r=.51$ , which suggests that they should be considered as separate concepts (Andrews & Withey, 1976). The opinion of one gerontologist is that the maintenance of self-esteem is the most critical factor in successful aging (Schwartz, 1975). He comments that self-esteem "is the lynchpin that holds everything else in its appropriate place" (p.470).

Morale. This concept originated in organizational and military psychology where it encompassed both job satisfaction and productivity (Lawton, 1977). In order to define morale, Stones and Kozma (1980) consulted the Oxford dictionary which referred to morale as "a moral condition, as regards discipline and confidence" (p.270). George and Bearon (1980), however, suggest that investigators conceive of the concept of morale as a sense of satisfaction with life, which may also include aspects of optimism, affect and self-acceptance. Content analysis of one morale scale (Philadelphia Geriatric Center Morale Scale) indicated that the items were indistinguishable from those on the life satisfaction scale (Stones & Kozma, 1980). A precise definition of morale seems, therefore, difficult. Perhaps morale is better thought of as analogous to the broad concept of psychological well-being.



It appears that distinctions can be made between the concepts of life satisfaction, happiness and self-esteem, and that they may represent different components of well-being. However, a major difficulty in drawing conclusions about well-being is that investigators often use these components interchangeably with little regard for conceptual or operational differences (George, 1981; Horley, 1984; Sherwood, 1977). This terminological variance may be confusing and perhaps even misleading. It also, of course, restrains advances in theory (Horley, 1984). In the present study, the various concepts will be reported as distinctly as the literature allows.

### Self-Reports

Another problem with the assessment of well-being relates to its subjective nature. Well-being is considered an individual experience and therefore, by necessity, most indices have relied on self-reports. It has been suggested that these may not be valid. Firstly, people are not able to make accurate reports and secondly, they may not want to reveal their "true" feelings.

Validity of self-reports. The degree of accuracy of self-reports of well-being had been questioned because it relies on the assumption that individuals have sufficient insight into their own feelings to provide valid responses (Taylor, 1977). Some studies have attempted to utilize judgements by others for the assessment of well-being. Andrews and Withey (1976) reported the correlation between self-reports of life satisfaction and

ratings by friends to average .33 across a number of studies. A later study obtained happiness ratings by flatmates (Irwin, Kammann & Dixon, 1979). The correlation of the ratings between the flatmate and self was .19 for a multi-item index of affect and .27 for a single item measure of happiness. Overall, the concordance between the others' and self ratings was small. There was evidence to suggest that the others' ratings were biased, making them less valid than self-ratings. In the Irwin study cited above, flatmates were also asked to rate their own happiness. The correlation between the individual's rating of the other and self-rating was higher than the correlation between the individual's rating of the other and the other's self-rating. The investigators concluded that people project their own feelings of happiness on to others. The appropriate title of this article was "If you want to know how happy I am you'll have to ask me".

Social desirability. The concept of social desirability is defined as a response bias in which individuals try to present themselves in a favorable light (Crowne & Marlowe, 1964). Gerontological investigators are especially interested in this concept because of the tendency of older adults to report high levels of well-being even when their physical conditions would seem to warrant lower levels. Herzog and her colleagues (1982) found a decrease in the positive relationship between age and life satisfaction when they controlled for social desirability, from .06 to .02. Occasionally a negative association between age

and happiness is reported. In the Herzog study, this negative association was increased when social desirability was controlled, from  $-.05$  to  $-.09$ . The investigators concluded that there was a "consistent" reduction in the relationship between age and well-being when controlling for the effects of a social desirability bias. However, the actual reductions are slight for both life satisfaction and happiness, suggesting little real influence. Another group of investigators (Campbell et al., 1976), reported that socially accepted responses increased with age ( $r=.26$ ). When they controlled for social desirability they also found a slight attenuation in the relationship between age and well-being, but they concluded that the difference was negligible.

One study has examined the direct relationship between social desirability and well-being for an older sample (Carstensen & Cone, 1983). They reported correlations of  $.58$  and  $.70$  between measures of social desirability and two indices of life satisfaction. These very high associations between social desirability and well-being might suggest that they are measuring the same concept. Indeed, one group of investigators (Kammann, Farry & Herbison, 1984), decided to delete seven items from a social desirability scale employed in their study because they were indistinguishable from items found in well-being indices.

### Affect Balance Model

As mentioned earlier Bradburn (with Caplovitz, 1965; 1969) was one of the first to study happiness empirically as an indicator of psychological well-being. Through his investigations, he developed a model of happiness which is based on two dimensions, positive and negative affect. According to this model individuals will be high in well-being if they have more positive affect than negative affect and they would have low levels if there was more negative than positive affect. This model has been termed Affect Balance since it is the difference between the two feelings which determines well-being. Bradburn has identified three important aspects within this model. The first is that the two dimensions, positive and negative affect, are independent. He conducted a number of studies using his index and found the correlations between the two scales to be in the range of plus or minus .15. Secondly, he found the difference between the two dimensions of the affect balance to be a better predictor of global well-being than either of the dimensions separately. The association between each of the scales and self-reported happiness averaged approximately .32 in his studies, whereas the correlation between the affect balance and the same measure of happiness averaged .42. Finally, Bradburn found that there are different variables which relate to each of these components. Variables such as social participation, companionship and novel experiences correlate more highly with positive affect, whereas negative affect scores

relate primarily to more traditional mental illness measures such as anxiety and worry.

Even though other studies have replicated Bradburn's finding that positive and negative affect are independent (Andrews & Withey, 1976; Moriwaki, 1974), his model has been criticized. The basis of these criticisms has centered on the Affect Balance Scale itself. A number of weaknesses have been identified in this scale including: the positive items seem to reflect more arousal than the negative ones; a number of items could be classified as nonaffective; measures are confined to the presence or absence of feelings rather than frequency or intensity; the subscales may suffer from ceiling and floor effects (Diener, 1984); the response categories are limited to two (Warr, Barter & Brownbridge, 1983); and the scales suffer from both low internal consistency and poor test-retest reliability (Kozma & Stones, 1984). However, other measures used to assess affect balance do not suffer from these difficulties and have provided some evidence for independence of positive and negative affect (Diener, 1984).

A reasonable conclusion is that some of the features of the Affect Balance Model may be valid. Certainly, further investigation with this model, especially with other populations, will add to the body of relevant literature concerning this model. Furthermore, it has been argued that it is important to measure both ends of the well-being continuum rather than focus

on either positive affect or negative affect (Kammann et al., 1984).

### Predictors of Well-Being

A major goal in assessing psychological well-being is to discover what variables relate to this concept. Ultimately this knowledge should aid policy makers and clinicians in developing and implementing programs to enhance the well-being of the population.

### Quality of Life

Quality of life indicators associated with psychological well-being have been conceptualized in terms of objective circumstances. Initially, interest was focused on a nation's economic wealth. Campbell (1981) suggests governments and social scientists assumed that a satisfactory standard of living and healthy gross national product were associated with high levels of individual well-being. Social indicators are a second way of assessing the well-being of a nation. These indicators include divorce, crime and unemployment rates, life expectancy and housing statistics (Andrews & Withey, 1976). The expectation was that if the unpleasant events, such as divorce, are kept to a minimum, and the desired ones, such as life expectancy, enhanced, levels of well-being would be high. A third method of assessing well-being was to obtain objective information about various domains in an individual's life such as financial situation,

education, health and social contacts (Andrews & Withey, 1976; Campbell et al., 1976). Success in these domains, such as having a good income and many friends, was thought to be predictive of psychological well-being.

The popularity of objective measures as indicators of well-being has been attributed to their convenience (Kennedy, Northcott & Kivzel, 1978). Objective indicators are readily available and are usually in easily counted units. There has also been a wide spread belief that they are more valid than subjective indicators because they do not rely on a personal evaluation (Campbell et al., 1976; Rodgers & Converse, 1975). However, by eliminating the subjective aspect in assessing well-being, these measures omit any consideration of an individual's response to external circumstances and the internal experience would seem to be paramount in evaluating psychological well-being.

### Objective Indicators

As mentioned, a major drawback of the objective indicators of well-being is that they do not explore the individual experience. The association between these measures and subjective indices of psychological well-being is not particularly high. Campbell (1981) reported that the proportion of the American population who described itself as "very happy" declined from a high of 35% in 1957 to 24% in 1972. This decline took place even though the United States was experiencing a

considerable economic surge and rise in standard of living. Another example of the weak relationship between national indicators and well-being can be found in a recent study of happiness across nations. When comparing the percentage of people who felt they were "very happy", the wealthy nation of West Germany ranked last in a field of twenty countries which included the economically disadvantaged Northern Ireland, black South Africa and Mexico (Gallup Poll, 1985).

Monitoring statistics such as the divorce rate and life expectancy may give some index of a nation's well-being, but it appears inappropriate to equate these with individual well-being. Many of these indicators are prescriptive or normative in that they involve some standard which assumes some conditions as being advantageous (Bunge, 1975). An increase in the divorce rate may suggest an overall decrease in psychological well-being if divorce is presumed to be undesirable. However, this increase could also indicate that some of the individuals involved are happier because they have left unsatisfactory marriages. Increasing the life expectancy of persons in a nation may be advantageous, but it does not necessarily guarantee high levels of psychological well-being throughout these additional years. As the late President Kennedy stated "It's more important to add life to years than years to life". Thus it cannot be assumed that these social indicators reflect the psychological well-being of individuals.



Finally, objective measures of various domains in an individual's life do not account for much of the variance in indices of psychological well-being. In one large survey (Andrews & Withey, 1976), a combination of sixteen different classification variables including income, education and housing accounted for only nine percent of the variance in a measure of life satisfaction. The relatively small impact of these indicators was confirmed by Campbell and his colleagues (1976) who reported that their objective measures explained only eighteen percent of the variance in their index life satisfaction. Therefore, even at the more personal level of individual domains, objective measures do not predict psychological well-being.

There is no argument that objective indicators provide some information regarding an individual's life and they have the advantage of being easily definable and readily obtainable. However, since they do not take into consideration an individual's internal response to external events they are not acceptable as the sole measures of psychological well-being.

### Subjective Indicators

In order to provide more accurate predictors of psychological well-being as an individual experience, there has been a movement towards using subjective indicators (Kennedy et al., 1975). These measures assess the degree of satisfaction within various domains of an individual's life. The domains

typically examined include; financial situation, health, family and friends. Subjective measurements of these various areas are better predictors of overall well-being than the objective indicators of the same domains. In the study by Andrews and Withey (1976), reported above, the addition of subjective indicators increased the variance accounted for in the measure of life satisfaction to 61% from the 9% of the objective classification variables. In another study cited earlier (Campbell et al., 1976) the inclusion of same domain satisfaction indicators increased the explained variance in a measure of life satisfaction from 18% to 42%.

A person's objective situation is not a very adequate predictor of satisfaction within that domain. Campbell and his colleagues (1976) report a correlation of .23 between family income and satisfaction with this income. The association between education and satisfaction with the level of education was .26. It has been argued that the reason that subjective indicators are more highly related to psychological well-being than objective measures is because they are closer in an hypothesized causal chain between objective circumstances and overall well-being (Diener, 1984). The actual impact of the objective situation is attenuated by the view the individual takes of that situation. These objective circumstances remain important in that they provide an independent addition to the variance explained by subjective indicators (Campbell et al., 1976). It has therefore been suggested that they be investigated

along with subjective measures in order to provide a more thorough understanding of psychological well-being (Rodgers & Converse, 1975). However, if a researcher is primarily interested in predicting variation in well-being, subjective evaluations are more helpful than knowledge of objective circumstances.

### Specific Correlates

This review will focus on variables which are often examined in relationship to well-being. These are the background variables of age, gender, income, education and health. Two other areas which will be examined are personality characteristics and social resources.

#### Age

Wilson (1967) in an early review of happiness suggests that being young is one of the attributes of a happy person. There is evidence both to support and discredit this claim. Gurin, Veroff and Field (1960), who conducted one of the first large scale surveys of mental health, found that young respondents tended to be happier than older ones. Of the people aged 20-29, 40% reported they were "very happy" compared with only 27% of the individuals aged 55 and over. Bradburn and Caplovitz (1965) also found a marked decrease in happiness with age. They reported that of the sample aged 30 and under, 30% said they were "very happy", which decreased to 21% for those aged 60-69. These early

studies have been criticized because they did not take into consideration variables such as income and education which are related to age (Cameron, 1975). Cameron (1975) controlled for these variables in his own investigation and found no age differences in reported happiness. Another group of researchers (Herzog et al., 1982) reanalysed the data from seven large surveys conducted during the 1970's which had examined the relationship between age and happiness. When control variables were not used, results from five of the studies indicated no relationship between age and happiness or very slight negative trends (.00 to -.05). The other two data sets produced significant negative correlations, but their magnitude was small (-.07 and -.09). For the two data sets in which they introduced the controls of health, income and education they reported that there was an increase in the relationship between happiness and age from slightly negative to slightly positive, -.05 to .05 and -.01 to .06. They concluded that the variables of health, income and education actually suppressed the positive association between happiness and age.

Campbell (1981) examined perceived happiness in various age groups in the years from 1957 to 1978. In the 1957 study, 40% of the respondents aged 20-29 reported that they were "very happy", this decreased to 25% in the group aged 60 and over. However, in 1978 the pattern of reported happiness had changed, at this time only 29% of the young group were "very happy" and the percentage in the oldest group had increased to 31. These results would

seem to indicate a shift in happiness from a negative association between age and happiness to a slightly positive relationship. This has been partially corroborated by investigators who reanalysed a number of happiness studies from various years (Witt, Lowe, Peek & Curry, 1980). Although they report that much of this shift can be attributed to the increased use of control variables, they state this cannot completely explain the change. They conclude that older people are reporting slightly higher levels of happiness compared to past years.

Results from studies concerning age and life-satisfaction were also inconsistent. Campbell and his colleagues (1976) reported a positive association between age and life satisfaction, but the trend was quite modest. A reanalysis of this and other studies conducted during the 1970's (Herzog et al., 1982) produced mixed results. Four of the seven data sets provided significant positive correlations between age and life satisfaction, ranging from .05 to .12. The fifth set had results which indicated there was a significant negative association between age and life satisfaction ( $-.05$ ), while the last two sets produced nonsignificant negative correlations. Similar to their findings on happiness, the introduction of the control variables of health, income and education increased the positive relationship between age and life satisfaction in two of the studies they examined, .06 to .17 and .10 to .17. One study which examined the change in life satisfaction over a four year period (Palmore & Kivett, 1977) concluded that "there was no

overall decline in life satisfaction" (p.314) with age. Since this longitudinal study is of such a short duration it is impossible to generalize to the total life span. A Canadian study (Atkinson, 1979) suggests the relationship between life satisfaction and age is more complex. This study examined data gathered in three studies over nine years, from 1969 to 1977. The findings suggest that life satisfaction does increase with age, when income is controlled. In 1968, the percentage of individuals aged 50-59 who were "very satisfied" with their lives was 34, when this cohort was aged 60-69 in 1977, this percentage had increased to 46. Cross-sectional data also confirms this increase in life satisfaction with age. The pattern in the past appears to be high levels of life satisfaction during the youth and old age with a drop during the middle years. However, this pattern may change since the percentage of Canadian youth, aged 20-29, who were "very satisfied" with their lives in 1977 had decreased from that in 1968, 29% versus 43%. Atkinson concluded that the increase in life satisfaction over the years will also be found with this cohort, but perhaps to a lesser degree.

Overall psychological well-being appears to be not very different for various age groups. As Adams stated in 1971, "the inconsistency of findings in regards to chronological age indicates that it is, at best, a very gross index of group characteristics" (p.67). However, variables which relate to well-being have different effects at the various stages of life (Atkinson & Murray, 1982; Spreitzer & Snyder, 1974). Thus age

remains an important consideration in the study of well-being because of the possible interaction with other variables.

### Gender

Studies concerning the relationship between happiness and gender have produced contradictory results. One early investigation which examined the population as a whole (Gurin et al., 1960) reported that there were no significant sex differences in overall happiness. This was the case even though women reported more tension, worries and dissatisfactions. Bradburn and Caplovitz (1965) also found that overall happiness was similar for men and women even though women reported more negative affect. On the other hand, Campbell and his colleagues (1976) report that men and women have similar levels of negative affect, while women were found to have slightly more positive affect. Although Cameron (1975) also found that women were slightly happier than men, the difference was negligible. The results of investigations with older individuals also suggest the relationship between gender and happiness is usually nonsignificant (Bortner & Hultsch, 1970; Edwards & Klemmack, 1973; Palmore & Kivett, 1977).

Research concerning life satisfaction and gender indicates little relationship between these variables for different age groups (Andrews & Withey, 1976; Campbell et al., 1976). However, there is a modest age by gender interaction for life satisfaction reported by some investigators, with a change occurring at about

age 45 (Campbell, 1981; Medley, 1980; and Spreitzer & Snyder, 1974). The results of this research suggest that at a younger age women are slightly more satisfied than men, but there is a crossover between the ages of 45 and 65 after which men report more overall satisfaction. The women do not decrease their level of satisfaction, rather men have a monotonic increase in life satisfaction across the age groups. However, this crossover may only be a generation effect since none of these studies was longitudinal. Moreover, even if this crossover effect does exist, the relationship between gender and well-being at any age is still modest. The gender variable becomes more important when other variables are being considered.

The results from studies on gender and well-being are inconsistent. This suggests that gender, like age, is too broad a classification method to be helpful in predicting well-being. However, again like age, gender is important when examined in combinations with other variables such as marital status.

### Income

Subjective measures of income have often been found to be associated with psychological well-being. Objective indicators of income are also related to well-being but to a lesser degree. Sometimes objective measures are used as controls when examining the relationship between well-being and subjective measures of income.



Andrews and Withey (1976) reported that in their sample of the general population satisfaction with financial security and family income had correlations of .49 and .21, respectively, with an index of life satisfaction. Even when other variables such as self-assessed health were controlled, satisfaction with financial security remained predictive of life satisfaction although family income did not. These findings were replicated by Campbell and his colleagues (1976) in another study of the general population. In addition, these investigators reported that income resources were more important for the middle aged group, although the relationships were not presented for various age groups. Spreitzer and Snyder, (1974), report in their study that satisfaction with financial situation was more highly correlated with life satisfaction for their older group, aged 65 and over, than their younger group, aged 64 and under, .40 versus .21. These relationships remained after controlling for socioeconomic status variables. In other words, even though people were equated on their level of income, satisfaction with financial situation was still predictive of life satisfaction. The investigators concluded that perceived income sufficiency was a primary predictor of happiness, especially for the older group.

While the previous research suggests that satisfaction with income tends to be more important for older groups, Herzog and her colleagues (1982) found no difference across age groups in relationships between economic satisfaction and indices of life satisfaction and happiness. Economic satisfaction was still a

primary predictor of well-being for all ages in contrast to the objective indicator of family income, but not to a greater extent for the older groups. To confuse the issue even more, Medley (1980) obtained results which suggest that satisfaction with standard of living is more important for younger groups. Although satisfaction with standard of living was predictive of life satisfaction for all of the age groups in his study, he concluded that for the late middle aged (45-65) and late adulthood (65 and over) groups, health and family satisfaction were more important than satisfaction with standard of living. Although some of these studies do not support the contention that perceived income satisfaction is more salient for older age groups, they all agree that it is an important predictor of well-being.

One study has not found this relationship between subjective indicators of income and well-being. Bauer and Okum (1983), using a sample of older adults reported that perceived adequacy of income was not predictive of life satisfaction. They attributed this outcome to the fact that their groups were economically advantaged and homogeneous. Larson (1978) has similarly suggested that the relationship between socioeconomic factors and well-being is more important for lower income groups. Altogether, this suggests that beyond a certain level of objective income, subjective measures of income may not be predictive of life satisfaction.

Although the relationship between objective indicators of income and well-being is small, it is still meaningful. An observation by Chatfield (1977) indicates that this relationship may be more important than the correlations indicate. He reports that in his study of older individuals, there were many instances of high life satisfaction with low levels of income but relatively few instances of low life satisfaction when individuals had high incomes. This would suggest that a high income is not necessarily a prerequisite for high levels of well-being but it certainly helps!

Overall the evidence suggests that subjective measures of income are important correlates of psychological well-being. This association may be more evident for older adults, although this has not been totally supported by the literature.

### Education

There are very few studies which report subjective measures of education, although many utilize objective indicators. Education and income have both been used as indications of an individual's socioeconomic status (Larson, 1978), and the objective measures of these two variables are usually highly correlated (Campbell et al., 1976). The paucity of subjective indicators of education could be due to the assumption that it is redundant to obtain a subjective measure of education when a subjective measure of income would already provide an index of satisfaction with socioeconomic status.

Campbell and his colleagues (1976) did investigate the relationship between satisfaction with amount of education attained and well-being and reported a correlation of .29. This is much larger than the correlation between the objective indicator of number of years of education and well-being which was .10. Studies with the aged also report small correlations between objective measures of education and well-being. For example, Spreitzer and Snyder (1974) reported a correlation of .10 between number of years of education and life satisfaction.

### Health

Self-assessed good health has been consistently reported as related to higher levels of well-being (Diener, 1984; Larson, 1978; and Lohmann, 1978). When respondents of all ages were asked to rate the importance of various domains in their lives, the highest average rating was given to being in good health and good physical condition (Campbell et al., 1976).

One investigation which reanalysed a number of large survey studies (Herzog et al., 1982) found that self-reported health was one of the most important predictors of happiness. The relationship was equally strong for all age groups. George and Landerman (1984) reported that studies employing the Bradburn Affect Balance as a measure of happiness found that self-reported health correlated higher with negative affect than positive affect, and was related to the overall index.

As with happiness, the association between self-reported health and life satisfaction is also significant, although the correlations do vary. For example, one study using a sample of people aged 45 and over reported a significant correlation between perceived health and life satisfaction, .19 (Edwards & Klemmack, 1973). Spreitzer and Snyder (1974) examined two age groups, under 65 and over 65, and found that for both groups self-assessed health was one of the strongest predictors of life satisfaction. Their results also indicated that this relationship was stronger for the older group than the younger group, .41 compared with .21. When socioeconomic controls were introduced in both of these studies the strong relationship between perceived health and life satisfaction persisted. Campbell and his colleagues (1976) also reported that self-perceived health was more important for older adults than younger adults in their sample, although they did not provide the actual relationships. The results of a 4 year longitudinal study of persons aged 40 to 76 indicated that self-rated health at time one was significantly related to life satisfaction at both time two and at the time of the final round of data collection (Palmore & Kivett, 1977).

There is some evidence to suggest that perceived health status may be more important for the life satisfaction of females than males. Markides and Martin (1979) found that self-reported health was the best predictor of life satisfaction for females while being only the second best for males. In a path analysis,

Medley, (1980) reported that the relationship between health and life satisfaction was more important for females than males when both direct and indirect path effects were included.

Objective health indicators - physician ratings - and subjective health measures - self-reports - have been found to be associated, but objective indicators are not predictive of well-being. Maddox (1970) reported that two out of every three participants made health ratings which were in agreement with a physician's opinion of their health status. However, it is still satisfaction with health which relates to well-being. George and Landerman (1984) reanalysed a number of studies and reported that the correlation between physician-rated health and various measures of well-being ranged from .04 to .06, which is much smaller than the range of correlations between satisfaction with health and well-being, .24 to .28. Other studies have examined relationships between self-reports of objective measures, such as number of health problems and well-being. For example, Campbell and his colleagues (1976) obtained a correlation of .17 between the objective measure of number of health problems and an index of well-being and .28 for satisfaction with health and life satisfaction. When they used a regression analysis, involving many variables, health satisfaction remained a significant predictor of well-being, but the objective indicator, number of health problems, did not. This pattern was replicated in another study (Edwards & Klemmack, 1973), in which the relationship between the objective measure of number of ailments in the past

month and life satisfaction diminished to insignificance after controlling for a number of other variables while self-assessed health was still predictive of well-being.

Self-assessed health is an important correlate of well-being. There is some evidence which would suggest it is especially important for older individuals and women. Larson (1978) concludes that a range of .20 to .40, is a reasonable estimate of the net independent correlation between perceived health and well-being. Parallel to his statement on income, he suggests that this relationship can be underestimated if most of the participants in an investigation rate their health as good.

### Personality

This review of personality issues is intended to indicate the importance of including personality characteristics when examining psychological well-being. Not surprisingly, it will certainly not provide a complete discussion of the complexities of personality since whole volumes and journals have been and are still being devoted to that aim.

Diener (1984), in his review of subjective well-being, suggests that the personality factors of extraversion, neuroticism and locus of control consistently relate to well-being. Costa and McCrae (1984), with a sample of adult women, report that extraversion correlates .17 with happiness and .21 with life satisfaction, while neuroticism correlates -.52

with happiness and  $-.42$  with life satisfaction. Results were similar with males except extraversion was more highly associated with both happiness and life satisfaction. Reid and Ziegler (1980) reported that a belief in internal locus of control for their older sample correlated  $.52$  with life satisfaction,  $.25$  with happiness and  $.54$  with positive self-concept, a measure similar to high self-esteem. Another study (Nehrke, Hulicka & Morganti, 1980) also reported a significant relationship between positive self-concept and internal locus of control, although the correlation was smaller at  $.20$ . George (1978), using a comprehensive personality battery (Cattell's 16 PF) which included extraversion and internal control, reported that the battery explained over 18% of the variance in a measure of happiness for an older sample. She concluded that personality factors can be important predictors of well-being.

There have been suggestions that the personality factors of extraversion, neuroticism and locus of control are fairly stable across the life span. Costa and McCrae (1984) examined longitudinal studies of extraversion and neuroticism which spanned from 6 to 30 years. They found that the test-retest correlations for these measures over the years were at least  $.70$ . These investigators (Costa & McCrae, 1980) also examined the long term association between happiness and the personality factors of extraversion and neuroticism. Initial extraversion and neuroticism measures correlated  $.14$  and  $-.30$ , respectively, with a measure of happiness obtained 10 years later. Although the



correlations are not large, they were substantial enough for the investigators to conclude that knowing an individual's standing in these two personality dimensions is predictive of how happy the person will be 10 years hence. In their review of personality and older adults, Bengtson, Reedy and Gordon (1985), conclude that most studies indicate considerable stability in personality across the life span, particularly for the dimensions of extroversion and neuroticism. Locus of control also appears to be fairly stable over time and predictive of future life satisfaction, although the studies cover a shorter time period than those with extraversion and neuroticism. Reid and Ziegler (1980) report a one year test-retest correlation of .65 for locus of control and a correlation of .40 with a measure of life satisfaction obtained a year and a half later (Ziegler & Reid, 1983).

Overall, personality can be an important element in the well-being of older adults as shown by the factors examined - extraversion, neuroticism and locus of control - which are predictive of psychological well-being as well as being fairly stable across the life span. However, even though personality can account for up to 25% of the variance in measures of well-being (Costa & McCrae, 1984), there is a substantial amount left unexplained.

### Social Resources

The term social resources is being used to refer to measures of social interactions and social support (Harel & Deimling, 1984). Vaux and Harrison (1985) have compared social resources to a savings account and add that "...an individual can draw upon them (for affection, advice, assistance, etc.) in times of need or simply gain comfort from their existence" (p.246). The implication is clear that social resources are important for overall well-being. However, the relationships between social resources and well-being are complex and involve many different issues including: quantitative versus qualitative measures; how social support contributes to well-being; whether or not social support is a unitary concept; who provides social support; and the negative side of social relations.

Quantitative and qualitative measures. For many years social integration has been thought to be essential for a successful life (Durkheim, 1897/1951). Having a spouse, for Durkheim, was a criterion for social integration; an indicator still used by some investigators (Eaton, 1977). Another view of social resources is based on social interactions, with investigators like Henderson (1978) suggesting that personal adjustment, or well-being, depends on a minimum level of social interactions. The assumption of investigators with views such as these is that it is only the availability of people to interact with and/or the frequency of interactions which is basic to well-being (Rook,

1984a). However, the measures used are quantitative and research shows that they are not highly related to psychological well-being.

Conner, Powers and Bultena (1979) conducted a comprehensive study of older individuals for which they gathered information on the number of family members, friends and neighbors of each participant and the amount of face to face contact. Only 3 of the 22 measures obtained were significantly correlated with life satisfaction, and one of these, contrary to expectations, indicated that more frequent contact with family members was related to lower life satisfaction. The combination of all these measures only accounted for three percent of the variance in the measure of life satisfaction. They reached the obvious conclusion that the number of people available and frequency of contact was of little importance to the life satisfaction of older individuals. A similar finding was reported by Baldassare, Rosenfield and Rook (1984) in another study of older adults. The number of people with whom participants interacted for such activities as having a meal and visiting accounted for a very small amount - two percent - of the variance in a measure of happiness. These studies indicate the limitations of depending on quantitative measures of social resources to predict overall well-being.

When more qualitative, or subjective, measures of social support are obtained, the relationships between social resources

and well-being increase. Using a sample of older individuals, Liang and his associates (1980) reported that a subjective measure of social resources, in the form of feelings of loneliness and feelings of being integrated with family and friends, had the second highest correlation, .29, with life satisfaction, after self-assessed health and before financial satisfaction. The amount of social interactions, a quantitative measure, was very minimally correlated with life satisfaction at .03. In the study cited earlier by Baldassare and his colleagues (1984), a comparison of the qualitative and quantitative measures was provided. Satisfaction with social relations accounted for eight percent of the variance in the happiness measure while the number of social interactions only explained two percent.

Research with confidants obviously deals with quality relationships since, by definition, a confidant is someone who can be entrusted with personal feelings and problems. Lowenthal and Haven (1968) found that 59% of the older individuals who had a confidant reported that they were satisfied with their lives, while only 41% of those without a confidant were satisfied. A more recent study (Strain & Chappell, 1982) reported similar findings - older persons with at least one confidant were happier than those without a confidant. Medley (1980), using a different subjective measure of social relations, satisfaction with family life, found that it was an important predictor of life satisfaction for his sample of older persons.

These studies lead to the conclusion that social resources relate to psychological well-being. However, qualitative measures are more predictive of well-being than quantitative ones. The investigation of social support is a further step in examining the quality of social resources.

Social support. Recent discussion has centered on whether social support influences well-being only in times of need or whether its availability is a constant source of enhancement of well-being. These views have developed into two models of social support, the "buffering" model and the "main effect" model. Although the present study does not explore the buffering hypothesis, a short discussion of these models is appropriate because of their prominence in the social support literature.

The buffering model implies that social support protects a person from the potentially harmful influences of stressful events through various helping behaviors such as providing advice and listening to problems (Cohen & Wills, 1985). This model evolved from the statistical interaction found in empirical studies of stress and social support. Individuals under high levels of stress who also have high levels of support, show fewer symptoms of psychological distress than people who have low levels of support. When there is no stress, there are few differences among the groups, indicating that the availability of social support is only important during times of need. The alternative model is that the presence of social support, alone,

will enhance well-being, because it provides regular positive experiences in the form of companionship or assistance, and may help limit negative experiences, such as economic difficulties. The extreme of this model is that people with high levels of support are not protected from the harmful effects of stress any more than people with low levels of support. Because this model assumes that there is no interaction between support and stress, and just a main effect of support in the statistical analysis, it has been labeled the "main effect" model.

The extreme positions of both of these models are clearly contradictory. However, inconsistent results from studies - some of which support the buffering model, others supporting the main effect model and still others providing evidence for both models - would suggest that social support is influential both in times of need and as a background for overall well-being (Cohen & Wills, 1985; Sandler & Barrera, 1984). A reasonable conclusion is that trying to prove one or the other as being "the" correct model is counterproductive. Rather, attention should be focused on what aspects of social support are important in various situations. Another problem with the social support literature is that it often focuses on the negative dimensions of well-being, such as depression and anxiety, making it difficult to relate to a study such as the present one which deals with the positive side of well-being.

Components of social support. Some investigators have proposed that social support is not a unitary concept but is better thought of as being comprised of components (e.g., Gottlieb, 1978; Hirsch, 1980; Schaefer, Coyne & Lazarus, 1981). However, there is by no means complete agreement as to what these components are, nor is there a preferred terminology. The most important typologies fall under the following headings:

- instrumental aid - direct or material assistance;
- emotional support - discussing personal feelings and problems;
- socializing - companionship or having people to go out with;
- cognitive guidance - provision of information or advice;
- intimacy - being loved, respected and cared for;
- and social reinforcement - feedback in the form of praise or constructive criticism.

Unfortunately, the research with these various components of social support is in its infancy and concrete conclusions are difficult to make on the relationships between these and well-being. Among studies using a young sample, Hirsch (1980) found that cognitive guidance was the most salient factor in limiting psychological symptomatology, since it correlated at  $-.64$  with symptomatology, while socializing correlated at a level of  $.39$  with self-esteem. The other components examined, instrumental aid, social reinforcement and emotional support were only minimally correlated with either symptomatology or self-esteem. Cohen and Hoberman (1983), using a group of college students, reported that each of the three components of social support they examined - socializing, instrumental aid, and

emotional support - were negatively correlated with depressive symptoms. The composite score of these components correlated at  $-.47$  with depression, which was higher than any of the individual correlations. These investigators found a different pattern of correlations than was reported in an earlier study of older individuals (Schaefer et al., 1981), which lead them to the conclusion that the salience of the various components may change over the life course.

Studies which have focused on older samples report significant, albeit inconsistent, relationships between various components of social support and measures of well-being. Baldassare and his colleagues (1984) found that companionship was the most powerful predictor of happiness with a correlation of  $.30$ , while instrumental aid and emotional support correlated at lower levels. Overall, these measures accounted for 8% of the variance in the measure of happiness.

The Schaefer study (1981) cited earlier, found that all three of the support measures they used - instrumental aid, emotional support and cognitive guidance - were correlated with positive affect, with instrumental aid being the highest. However, only cognitive guidance was significantly correlated with negative affect. They concluded that a major function of social support must be to provide pleasant experiences since all the support measures were correlated with positive affect.



The one study (Fiore, Becker & Coppel, 1983) which did not find any significant correlations between support components and depression examined a group of spouse caregivers of Alzheimer's patients. The investigators suggested that these unexpected results could be because the participants were receiving a high level of support and any additional support could not reduce depression.

The results from these studies indicate that there are different patterns of correlations between social support components and measures of well-being depending on the population being examined. Therefore, it appears to be productive to examine social support in the form of separate components.

Providers of social support. It is usually assumed that the family is the most important source of social support for older individuals. Shanas (1979), for example, has concluded that family members are the primary source of instrumental, social and emotional support for older adults. Johnson and Catalano (1981) state that children have been referred to as "old age insurance" because it is anticipated that they will provide support for their parents. Vaux and Harrison (1985) found in their study of older individuals, that the spouse contributed to all aspects of social support, while other relationships tended to contribute only to one or two aspects.

There are suggestions that friends can also be important providers of support. In the study by Vaux and Harrison (1985)

cited above, the second most important source of support after the spouse were close friends, not immediate family members. Jerrome (1981) states that it is the availability of friends who provide companionship which is most important for the well-being of older women, rather than having family members provide support. Lee (1985) has suggested that some older individuals do not want to request assistance from their families because it reduces their sense of independence. Such people, along with those without available families, presumably receive support from other sources, most likely their friends.

It can be concluded that both families and friends provide social support for older individuals. However, most research has not carefully examined the situations in which families or friends are most important.

Negative aspects of social relations. Some investigators have noted an absence of expected positive consequences from certain social interactions, for example, the frequency of visits from family members (Conner et al., 1979). In accord with Bradburn's Model of Affect Balance (1969), a clear differentiation should be made between the absence of positive affect and the presence of negative affect, since the same variable can have both positive and negative effects on well-being. Within the research on social resources the potentially negative side of social relations has rarely been examined.

Rook (1984b) investigated negative social relations with a group of older widows. She obtained the following information from her participants: the number of people they knew who were a source of problems for such reasons as invading privacy or breaking promises of help; the number who were a source of support by providing instrumental aid, emotional support or companionship; and, the number who were both problematic and supportive. Her results agreed with previous research in that the number of people who provided support, a quantitative measure, was not significantly correlated with her measure of life satisfaction. However, the number of problematic people was negatively associated with life satisfaction and accounted for seven percent of the variance, while the number of problematic/supportive persons explained an additional one percent. She found that the frequency of interactions with these problematic people was not related to life satisfaction, thus suggesting that it is the number of such individuals which is upsetting rather than the amount of contact with them.

Conflicting outcomes from the same individuals were implied by Barrera (1981) when he concluded from his clinical work with distressed families that people who were a major source of support could also be a source of strain. Using a sample of pregnant teenagers, he found that it was the number of individuals who were both a source of support and conflict which correlated significantly with the dependent measure of psychological symptomatology, compared with the number of people

who were only supportive, .29 versus  $-.09$ . Using a different population - college students - Sandler and Barrera (1984) reported similar findings. These studies showing significant relationships between negative or conflicting social relations and well-being were based on quantitative measures.

A study cited earlier by Fiore and her associates (1983) used a qualitative measure of the negative aspects of social support and showed an even greater association with psychological well-being. Scores from the Beck Depression Scale were employed as the dependent measure. The qualitative measures of social relations were obtained by asking the respondents to rate the amount of perceived helpfulness and upset in a number of relationships on each of the following five areas of social support: socializing, instrumental aid, cognitive guidance, intimacy and emotional support. For each area, the correlations between perceived helpfulness and depression were not significant, an unexpected finding which was discussed earlier. However, all the correlations between perceived upset and depression were significant, with the correlations ranging from .36 to .54. Overall, perceived upset ratings accounted for 34% of the variance compared with only 7% for the perceived helpfulness ratings. Fiore's sample consisted of spouse caregivers of Alzheimer's patients and as such could have been especially sensitive to the negative aspects of social relations.

The negative side of social relations is clearly worthy of examination in any discussion of social resources as the studies of negative and conflicted relations have indicated. As should be noted, in the studies reported, both quantitative and qualitative measures of negative relations were associated with well-being, whereas it is typically only subjective indices of positive relations which show significant relationships with well-being.

#### Never-Married Older Women

The focus of the present study is an examination of the psychological well-being of older never-married women compared with older married and widowed women and possible differences of correlates thereto. There is a paucity of studies concerning the well-being of older never-married women. Further, drawing conclusions from the available studies is often difficult because most do not clearly distinguish among the groups of unmarried individuals - widowed, never-married, divorced and separated - nor sometimes even by gender.

#### Psychological Well-Being

Results from studies concerning the well-being of never-married women have been inconsistent, with some reporting that their well-being is low compared with married women, others indicating that the groups are similar or even that the never-married have higher levels of well-being. Most studies

report that the widowed are the group with the lowest levels of well-being. There are even fewer studies which have examined the divorced and separated groups and, thus, these groups will not be discussed here.

Studies which indicate that never-married women have lower levels of well-being relative to married women include an early study by Gurin and his associates (1960). They found that married women were happier than an unmarried group which included widowed, divorced and never-married women. These groups were also not differentiated by age. Campbell and his colleagues (1976) reported that more married women were very satisfied with their lives when compared with never-married and widowed groups, which were similar to each other. They concluded that "...whatever the psychological costs of marriage, the costs of being single are greater" (p.438). Unfortunately, their sample included all women aged 30 and over and the possibility of changes in well-being with age cannot be examined. Ward (1979) used a sample which was confined to individuals aged 50 and over, and although he did not report his gender analysis, he stated that the patterns of reported happiness were similar for the genders. He found that there was a greater percentage of married persons who were "very happy" compared with the never-married and widowed, 43%, 26% and 23%, respectively.

Other studies which have found less difference between married and never-married groups include an early study by

Bradburn and Caplovitz (1965). They reported that the proportion of married and never-married women who were "not too happy" was similar, while the widowed were substantially higher. The authors did not separate these groups according to ages. In a more recent study Scott (1979) examined an older group of individuals which were not differentiated by gender. He found few differences between the married and never-married groups, with both having a slight advantage over the widows and widowers. Similar results were reported by Lawton and his colleagues (1984).

A different conclusion was made by Gubrium (1974) based on his study of combined groups of older men and women. Forty-three percent of the never-marrieds were "very satisfied" with their lives compared with 41% of the marrieds and 36% of the widowed. Fewer of the never-marrieds felt "life getting worse" than the married or the widowed - 36%, 44%, and 52%, respectively. The differences are probably not large enough to be statistically significant, but it is interesting to note that the direction of the differences is opposed to most other studies.

What seemed to be, at first glance, the definitive study was reported by Glenn (1975) and based on a reexamination of a number of national U.S. survey studies. He concluded that married women were far happier than never-married women, since 46% of the marrieds were "very happy" compared with only 24% of the never-marrieds. However, a careful examination of the data

strongly suggests that it is the young never-married group who are weighting the figures. Among women aged 40 and over, 46% of the married women were "very happy" compared with 40% of the never-married women, a difference of only 6%. In the case of the young groups, 45% of the married women were "very happy" compared with only 19% of the never-marrieds, a more substantial difference.

Glenn also presented data on the reported happiness of older widows and never-married men, two groups often combined with never-married women. Only 18% of widows and 30% of never-married men aged 40-59 reported they were "very happy" compared with 40% of the never-married women. This clearly indicates that by not distinguishing among the various groups of unmarried individuals results are likely to be clouded.

A firm conclusion cannot be made on the basis of the studies presented. However, there are strong suggestions that older never-married women are not as disadvantaged, relative to married women, as has been assumed.

#### Income, Education and Health

There appear to be no studies which have directly examined the importance of income, education and health for the psychological well-being of older never-married women. However, some studies have suggested that the never-married are advantaged



on some of these variables compared with married and widowed women.

Never-married women tend to have higher personal incomes than either married or widowed women. Bernard (1972) states that women who remain single have higher incomes than their married counterparts, which is substantiated in a study by Braito and Anderson (1979). Surprisingly, Ward (1979) reports that the never-married women in his sample had the highest personal incomes of all groups including married men. Scott (1979) was the only investigator to obtain a measure of subjective adequacy of income along with actual income. He found that there were no differences in either measure between any of his groups of married, widowed and never-marrieds. However, this is difficult to interpret because he did not separate his groups by gender.

As to education, most studies, (e.g., Anderson & Braito, 1979; Bernard, 1972), report that the never-married tend to have more years of formal education than women in other marital groups. Howe (1979) found that the never-married in her study averaged 16 years of education, the married averaged 13 years, while the widows averaged 12 years. Spreitzer and Riley (1974) report that a quarter of college educated women remain single compared to the 5% of never-married women in the total population.

In the case of health, no studies separate the genders. The two available studies report contradictory conclusions. Ward

(1979) found that married persons were more likely to rate their health as good, 62% compared with the never-marrieds, 55% and the widowed, 49%. Scott (1979) reported no differences in self-assessed health among his groups of never-married, married and widowed individuals.

The apparent advantage that never-married women have over married and widowed women on income and education might be anticipated to influence their well-being. Ward (1979), in fact, examined this influence in a combined group of older males and females, married versus never-married. He found that income, education and health were more predictive of happiness for the group of older singles. His explanation for this finding was the relevance of these variables for the independent lifestyle of the never-marrieds.

### Personality

The potential importance of personality for the well-being of older never-married women does not appear to have been investigated. However, there have been a number of speculations regarding the special personality characteristics of never-married women.

Anderson and Braito (1981) have discussed never-married women in the context of a social selection model which would predict that men tend not to marry women with strong, independent personalities. The implication being that never-married women

have different personalities than women who do marry. Barnett and Baruch (1978) have stated that it is the most competent women who remain unmarried. Some investigators have suggested that with age, the never-married become more self-reliant and have developed a sense of autonomy and internal locus of control because they have had to depend on their own efforts (Gubrium, 1975; Lipman & Longino, 1984; Ward, 1979). These views lead to the conclusion that older never-married women tend to have characteristics different from women who marry.

Apparently, the only study on the personality of older never-married women is that of Norris (1980), who reported that older never-married women have more internal locus of control than older widows. Internal locus of control has been shown to be an important positive predictor of overall well-being for older individuals (Reid & Ziegler, 1980).

### Social Resources

Investigators such as Durkheim (1897/1951) and Eaton (1978) have characterized unmarried individuals as being socially isolated. However, few studies have actually investigated the social resources of never-married individuals. The available research indicates that never-married women are not socially isolated, but the impact on well-being has not been investigated.

Atchley, Pignatiello and Shaw (1979) studied the pattern of interactions with family and friends for older never-married,

widowed and married women. They found the widows had more interactions than never-married women, who in turn had more than the marrieds. The interactions of the married women were probably underestimated since contacts within the household were not included. Within the groups, the widowed had more interactions with family than with friends, while the never-married had more interactions with friends. There were no differences in the interaction patterns with family and friends for the married group.

Longino and Lipman (1982) obtained measures of the number of family and friends who provided social support for older married, never-married and widowed women. They found that the married women had significantly more family members who provided support than either the widows or never-marrieds, who were similar to each other, but there were few differences among the groups on the number of friends who provided support. The inclusion of husbands as part of the potential family members explains in part the advantage of the marrieds with their family.

It seems reasonable to conclude from these two studies that never-married women are not socially isolated, and do have support available to them, even though they have fewer family available to them. Evidence is mixed as to whether the never-married compensate for less family by having more friends or by increasing their contact with friends. The Atchley study provided some support for substitution of friends for family, but

the Longino study found no increase in the number of friends who provided social support for the never-married.

Lowenthal and Haven (1968) examined a more qualitative measure, the presence of a confidant, and reported that the majority of older women have at least one confidant. They found that 81% of married women had a confidant compared with 67% of the never-marrieds and 65% of the widows. Similar findings were reported in a more recent study by Babchuk (1978-1979). However, Strain and Chappell (1982) reported that over 80% of older women of all marital groups had one confidant and at least 50% had two or more confidants. All of these studies indicate that the majority of never-married and widowed women have a confidant even in the absence of a spouse, whom Ward (1979) has called a "ready-made" confidant.

Some investigators have obtained measures of the degree of satisfaction with friends and family as another subjective measure of social resources. Braito and Anderson (1979), using a sample confined to older never-married women, found that the majority were highly satisfied with their friendships. Ward (1979), with a combined sample of never-married men and women, reported that the married were most likely to be very satisfied with their friendships and family ties, followed by the widowed and the never-married. However, no significant differences were reported by Scott (1979), who also examined men and women together.

Ward (1979) investigated the relationships between social resources and happiness for a combined group of males and females. He reported that the frequency of contact with friends, but not with family, was significantly correlated with happiness for the never-marrieds. For the married group both of these correlations were insignificant and small. The qualitative measures of satisfaction with friends and with family were of equal importance to the happiness of both the married and never-married groups.

Clearly, empirical studies must make the distinction between family and friends when assessing the social resources of never-married women. It is worth reiterating that all these studies show that the never-married are not socially isolated. What is missing from most of these studies is the significance of social resources for the well-being of older never-married women.

#### Prologue to the Main Study

The well-being of older never-married women is worthy of careful examination because of their substantial numbers and the anticipation of future growth. A contradiction between the apparent continuing assumption that older never-married women are disadvantaged compared with research to the contrary, is another important consideration. Research concerning the well-being of older never-married women is scarce and beset by difficulties. The majority of studies have not examined older never-married women as a unique group of unmarrieds. The studies which have

separated the never-marrieds have typically employed single-item measures of happiness which are not as reliable nor as useful as multi-item indices (Diener, 1984). Further, there do not appear to be any studies which have simultaneously examined a number of predictors of well-being in order to ascertain differences in their salience to well-being of the never-marrieds compared with other groups.

Following from these points there are three aims of the present study. Firstly, using multi-item measures, comparisons will be made between the well-being of older never-married women versus that of older married women and widows. This is, of course, the fundamental question - are there differences in well-being among the marital groups? Secondly, a comparison will be made among the marital groups on variables which have previously been found to be related to well-being. There are, of course, many differences among these groups, but the variables which are of particular interest are: background variables, personality characteristics, social resources and negative social relations. The final aim will be to examine differences among the marital groups as to which variables are the best predictors of well-being. Even if there are no group differences on the correlates of well-being, there may still be differences on the weighting of the variables to the prediction of well-being.

Two multi-item measures of psychological well-being are employed. The first was derived from the Memorial University of

Newfoundland Scale of Happiness (MUNSH, Kozma & Stones, 1980), and the second was derived from Rosenberg's (1965) scale of Self-esteem. The MUNSH is comprised of two subscales, the Positive Affect Scale (PAS) and the Negative Affect Scale (NAS) and allows an examination of Bradburn's (1969) hypothesis that the positive and negative dimensions of well-being are independent. Self-esteem was chosen as the second dependent measure because it is thought to be a particularly important indicator of well-being for older individuals (Schwartz, 1975). Based on both Glenn's (1975) and Ward's (1979) studies of happiness it is expected that married women will report the highest level of happiness, followed by the never-married and finally, the widows. A similar pattern is anticipated with self-esteem.

A measure of social desirability (Crowne & Marlowe, 1964) will be obtained in order to assess its relationship with the measures of well-being. Social desirability will be included as a control for a possible response bias in the analyses to predict well-being.

The background variables of income, education and health are employed because they have consistently been shown to be associated with the well-being of older individuals, particularly when in the form of subjective measures. Previous studies have indicated that never-married women are advantaged on personal income and education and it is expected that these results will



be replicated. No prediction is made on the relationship between subjective indices of these measures and the overall well-being of the never-married women.

Two personality measures are employed in order to investigate possible personality differences that may have enhanced the never-marrieds ability to cope with their single status. The first is the Desired Locus of Control scale (Reid & Ziegler, 1981), on which it is expected that the never-married will report the highest level of internality. There is no prediction of differences between the married and the widowed women. The second measure to be used is the Assertion of Autonomy scale (Hirschfeld et al., 1977). Gubrium (1975) found that the never-marrieds in his study usually did not feel lonely even though they had limited social contacts. This greater tolerance, or even desire, for being alone may translate into the never-married not needing close social contacts for high levels of well-being. Therefore, it is expected that the never-married should have more feelings of autonomy, which in turn will be related to their overall well-being. No specific prediction is made for the married and widowed groups.

With regard to social resources, both quantitative and qualitative measures will be used and the distinction between family and friends will be made in the present study. The quantitative measures are expected to show that the size of the family and amount of contact with family will be the greatest for

married women, followed by the widowed, while the never-married will be last. The never-married, however, should have the most friends and the most contact with friends, while the married should have the fewest friends and the widowed group in-between.

The qualitative measures consist of the subjective assessment of closeness and perceived social support from family and friends. It is expected that the never-marrieds will feel closer and feel they receive support from friends than the married group, who will be closer to their family and will feel they receive more social support from their family. Again the widows should fall somewhere in between these groups.

An important consideration, not ignored in this study, is the influence of the presence or absence of a spouse as a "ready-made" confidant. Since no measure of the support provided by the closest individual was uncovered in the literature, a new scale was developed for this study entitled the Support and Conflict Scale (SCS). In this scale respondents are asked to nominate three very close individuals and to rate each of them on four support scales: emotional support, social participation, instrumental aid and intimacy. These components were chosen on the basis of findings reported by Baldassare and associates (1984), Cohen and Hoberman (1983), Gottlieb (1978), Jerrome (1981), Hirsch (1980), Rook (1984b), and Schaefer and his colleagues (1981). It is expected that, for the married group, the person thought to be closest, probably the spouse, would be

rated highest on intimacy. But no predictions are made as to the differences among the marital groups on the other support components. However, the total support from all three individuals for all groups should be similar, since the married may have more support from the first closest person but less from the second and third.

The negative side of social relations is measured by means of the number of people who provoke conflicts or upset, the degree of upset in the relationships and, through a fifth subscale on the SCS, the amount of conflict with the three individuals nominated as closest. It is anticipated that all of these measures will be highly predictive of well-being. Friendships, typically, are voluntary commitments based on pleasure and enjoyment, whereas family relationships may involve some feelings of duty and responsibility. As a consequence families might be a greater source of conflicts and upset than friends, leading to the expectation that the married women would be highest on all three measures of negative social relations, followed by the widows and lastly, the never-marrieds.

### Hypotheses and Issues

The distinction between hypotheses and issues is based on Underwood's (1949) early Experimental Psychology text in which he stated that there are two types of experimental problems. The first is the "I-wonder-what-would-happen" type (p.11), when there is limited or no previous research on which to base a prediction.

The second is the "I'll-bet-this-would-happen" type (p.12), where there are some "facts" on which to make a shrewd guess. Both of these types of experimental problems will be examined in the present study since there are hypotheses and some issues with no predictions.

#### Well-being

1. Married women will report the highest levels of overall well-being, on both the measures of happiness and self-esteem, the never-married women will be next, with the widows being the lowest of all groups.

#### Background Variables

2. a) The never-marrieds will have the highest levels of personal income and education of all three groups. Differences between the married and widowed groups are not anticipated.  
b) No predictions are made regarding the levels of self-assessed health and perceived adequacy of income for these groups.  
c) The adequacy of income and self-assessed health levels should be more predictive of well-being for never-married women compared with married women, but no predictions are made about the widows.

#### Personality Characteristics

3. a) Never-married women will have the highest level of internal locus of control and social autonomy. No prediction is made for differences between the married and widowed groups on these personality factors.

- b) For all groups, internal locus of control will be highly related to well-being. Differences among the groups as to this relationship are not predicted.
- c) For never-married women higher levels of autonomy should be associated with greater levels of well-being. How autonomy will relate to well-being for married and widowed women is not predicted.

#### Quantitative Social Resources

- 4. a) Married women will have more family members to whom they are close than the widows, who in turn will have more than the never-marrieds. The pattern for amount of contact with family members will be the same - married the most, then the widows and, finally, the never-married.
- b) Never-married women will have more close friends than married women, and the widowed group will be in between. The frequency of contact with friends will be in the same direction - never-married, widows, finally the marrieds.

#### Qualitative Social Resources

- 5. a) Qualitative measures of perceived social support for and closeness from families will be highest for married women, then widows and lowest for the never-marrieds.
- b) Perceived social support from and closeness with friends will be the greatest for never-marrieds, then the widows and least for the married women.
- c) No prediction is made as to which of these measures will be most related to overall well-being.

### Support and Conflict Scale

6. a) The intimacy ratings obtained from the first closest individual will be highest for the married group than the other two groups. No predictions are made as to the similarities or differences across the marital groups for the other three social support components - emotional support, social participation, and instrumental aid. The marrieds will also have the highest levels of conflict with this first closest person compared with the other two groups.
- b) The overall support from the three closest individuals will be similar across groups.

### Negative Relations

7. a) Never-married women will report the fewest number of people who provoke conflicts, while married women will report the highest numbers, with the widowed falling in-between.
- b) Never-married women will also have the lowest level of conflict with the three individuals nominated as closest to them, followed by the widows and the married women will have the most.
- c) These measures of negative social relations will be more predictive of overall well-being than the measures of positive social resources.

## PRELIMINARY STUDY

A preliminary study was conducted to pre-test and attempt to validate a newly constructed measure - the Support and Conflict Scale (SCS) (see Appendix B). The SCS consists of four support subscales: Emotional Support; Social Participation; Instrumental Aid; and Intimacy; and one Conflict subscale. The first aim of the study was to ascertain whether the five subscales of the SCS meet the stringent requirements of a Guttman scale, thus indicating that they have good internal consistency and are unidimensional (Dunn-Rankin, 1983). The second purpose of the preliminary study was to provide some validation data for the SCS.

Two groups of women participated in this study. A community sample of 22 older women recruited from Calgary and Lethbridge (mean age=55.27, SD=9.91) and 47 young undergraduates (mean age=22.18, SD=4.77) from the University of Calgary. Both groups were asked to identify two individuals to whom they felt closest and a third "acquaintance" who was well-known but not considered close. Respondents rated each of these individuals on the five subscales of the SCS.

Two statistics serve as criteria for evaluating potential Guttman scales. The first is the coefficient of reproducibility which indicates the extent to which the respondents' pattern is represented by the scale score (Guttman, 1970). This coefficient should be .90 or greater for a scale to be considered valid

(Dunn-Rankin, 1983). The coefficient of scalability is the second important statistic and should be greater than .60 for a scale to be regarded as unidimensional and cumulative (Dunn-Rankin, 1983). The coefficients were obtained for both young and old groups.

The four support subscales of the SCS met the two requirements of a Guttman analysis for both old and young samples but the Conflict subscale did not. Confidence in the Guttman analysis is increased with a larger sample size and therefore, the two groups were combined for a second analysis. The combined sample coefficients of reproducibility and scalability for the support subscales were: Emotional Support, .91 and .68; Social Participation, .92 and .76; Instrumental Aid, .90 and .70; and Intimacy, .95 and .82. Coefficients for the Conflict subscale did not meet the criteria reaching only .83 and .23. Results indicated that the four support subscales can be treated as Guttman scales, but the Conflict subscale required modification.

A 2 by 3 - Age Groups by SCS Support - analysis of variance (ANOVA) was performed, with the support measures being repeated across the age groups, to examine differences in SCS ratings of the two individuals identified as being close and the acquaintance. The support measures used were combined scores from the four support subscales on the SCS for each of the three target individuals. Table 1 presents the means and standard deviations of the support measures for both age groups along with



Table 1

## Preliminary Study

(a)

## Means and Standard Deviations for Combined Social Support Scores

<u>Target</u>	<u>Young</u>		<u>Old</u>		<u>Both Groups</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Close1	31.74	6.31	32.91	6.98	32.12	6.51
Close2	27.96	6.31	25.95	8.63	27.32	7.13
Acquaintance	11.57	5.79	11.82	6.85	11.65	6.09

(b)

## Summary Table for 2 Age by 3 Target Analysis of Variance on Combined Social Support Scores

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
<u>Between Ss</u>			
Age (A)	1	1.76	.03
Error	67	60.35	
<u>Within Ss</u>			
Target (T)	2	6866.60	193.75**
A x T	2	39.78	1.12
Error	134	35.44	

\*\*  $p < .01$

a summary of the ANOVA. There was not a significant main effect for age, nor was there an age by support interaction. There was a significant within group effect for the support ratings of the three individuals,  $F(2,134)=193.75$ ,  $p<.01$ . Since there was no age effect the groups were combined for the test of differences between the means. As can be seen in Table 1, the means were in the expected order, with support from the first closest being highest, followed by the ratings of the second closest, and the support from the acquaintance being much lower than the other two. A Tukey's (HSD) test of these means indicated that each was significantly different from each other, at the  $p<.01$  level of significance. Results suggest that the support subscales of the SCS differentiate not only between close and nonclose individuals, but also between individuals identified as first and second closest.

Both groups of women completed the five questionnaires used for validation. The women were asked to rate each of the three target individuals on perceived closeness and perceived upset, using scales ranging from 1 to 100 (Identification of Social Resources and Negative Relations - see Appendix B). Other questionnaires were: the UCLA Loneliness Scale (Russell, Peplau & Cutrona, 1980) - a four item measure of loneliness; Social Desirability - described in the Method section below; MUNSH - altered from its published form as indicated in the Method section; and Self-Esteem - in its original form as described in the Method section. The young group also completed the Perceived

Social Support measure described in the Method section, but for this study it had been modified to encompass the support network as a whole. Table 2 presents the correlations for each group, between the SCS support measures - a total score of the four support scales and the SCS Conflict subscale - and the other measures obtained in the preliminary study.

Results indicated high correlations for both groups between SCS support ratings and perceived closeness for each of the three target individuals, first closest, second closest and acquaintance. For example, correlation between SCS support and perceived closeness for the first closest individual were .70 and .52, respectively, for the old and young groups. With regard to the Conflict subscale, the relationships with perceived upset were fairly high for the young group, ranging from .39 to .62. For the older group, the correlation between the Conflict subscale and perceived upset was comparable for the acquaintance, .44, but correlations were low for the first and second closest individuals, -.05 and .10, respectively.

Correlations between other measures of social relations and the SCS were a mixture of high and low correlations, providing limited validation data for the SCS scale. For the older group, loneliness was only minimally correlated with any of the SCS measures, yet for the younger sample, loneliness was correlated with support and conflict from the second close individual at -.38 and at .32. Perceived support from the support network

Table 2

## Preliminary Study

## Correlations Between Measures from Support and Conflict Scale and Validation Indices

Old Group

<u>Indices</u>	<u>Support1</u>	<u>Support2</u>	<u>Support3</u>	<u>Conflict1</u>	<u>Conflict2</u>	<u>Conflict3</u>
Self-esteem	.00	.31*	.08	.02	-.29	-.11
Happiness	.13	.17	.11	.15	-.33*	-.31*
Loneliness	-.14	-.07	.05	-.19	.08	.00
Social						
Desirability	-.12	-.21	.11	.01	.17	-.01
Close1 <sup>a</sup>	.70**	.27	-.16	.02	-.19	-.02
Close2 <sup>a</sup>	.58**	.63**	.15	-.01	-.54**	-.24
Close3 <sup>a</sup>	.21	.38*	.62**	-.24	-.24	-.28
Upset1 <sup>b</sup>	-.10	.14	-.03	.00	.33*	-.29
Upset2 <sup>b</sup>	.09	-.08	-.19	-.32	.05	-.09
Upset3 <sup>b</sup>	.36*	.44*	-.30	-.05	.10	.44*

Young Group

<u>Indices</u>	<u>Support1</u>	<u>Support2</u>	<u>Support3</u>	<u>Conflict1</u>	<u>Conflict2</u>	<u>Conflict3</u>
Self-esteem	.01	.26*	-.14	-.16	-.26*	.11
Happiness	.28*	.35**	.02	-.29*	-.28*	.03
Loneliness	-.19	-.38**	-.09	.33*	.32*	.07
Perceived						
Social Support	.28*	.44**	-.15	-.39**	-.17	.06
Social						
Desirability	-.19	-.12	.06	-.17	-.09	-.21
Close1 <sup>a</sup>	.52**	.17	.19	-.51**	-.22	-.03
Close2 <sup>a</sup>	.26*	.48**	.17	-.29*	-.01	-.06
Close3 <sup>a</sup>	.10	.16	.60**	-.16	-.06	-.38**
Upset1 <sup>b</sup>	-.29*	-.25*	.02	.39**	.21	-.10
Upset2 <sup>b</sup>	-.10	-.14	-.05	.01	.53**	.00
Upset3 <sup>b</sup>	.28*	.14	.20	-.13	-.03	.63**

<sup>a</sup> refers to perceived closeness rated on a scale from 1 to 100.

<sup>b</sup> refers to perceived upset rated on a scale from 1 to 100.

Note. Numeric labels refer to target individuals.

correlated at .28 with support for the closest individual and at .44 with support from the second closest individual and, as would be expected, at a low of  $-.15$  with support from the acquaintance.

Correlations between Social Desirability and all the SCS measures were low. Other results suggest the importance of a measure of conflict within relationships. For example, correlations between the amount of conflict with the second closest person and Self-esteem was  $-.29$  and  $-.26$ , old and young groups respectively, and with MUNSH at  $-.33$  and  $-.28$ .

Results of the preliminary study indicate the feasibility of using the four support subscales of the SCS in a Guttman format. They also showed that the Conflict subscale required modification. Support for the sensitivity of the SCS to distinguish between close and nonclose individuals was obtained. The SCS does relate to other measure of social support and conflict but still appears to measure a separate aspect of social resources. There does not appear to be a social desirability bias associated with the ratings on the SCS. As would be expected, the SCS scores do correlate with measures of well-being.

## METHOD-MAIN STUDY

Subjects and Procedure

One hundred and twenty-five employed women recruited from six Calgary organizations, ranging in age from 43 to 66 years,  $M=54.16$ ,  $SD=5.83$ , completed the study. A "snowball" sample, which involves obtaining names of potential new participants from people who have already volunteered, seemed inadequate because the social resource issue might be clouded. Women who are nominated by others are probably involved in a social network and, as such, may be different from single women in general. Obtaining singles from a singles club also seemed inappropriate since the motivations for belonging to such an organization are likely to be unknown and once again might cloud the social resources issue. Some women might belong because they are very lonely, while others might belong for almost the opposite reason, because they are very sociable. To reduce any bias and in an attempt to make the marital groups as similar in their backgrounds as possible, participants were recruited from six large Calgary organizations: the University of Calgary, the Southern Alberta Institute of Technology, Calgary Public Libraries, the Holy Cross Hospital, Woodward's Department Stores, and Alberta Government Telephones. The first part of Appendix A shows the percentages of women by marital group who were obtained from each of these organizations. The proportions from each marital group recruited from the locations vary somewhat, but the

differences were not large and are unlikely to invalidate the sampling.

Criteria for the sample selection were that the women be: married, widowed or have never-married: presently employed; and at least 45 years of age. Potential participants were contacted in one of two ways; through direct appeals made by the investigator or a liason person; or through an explanatory letter or poster. In all cases the women were informed of the following: the criteria for participation, the basic theme of the study, the time commitment necessary, that they would be required to complete questionnaires, and the existence of a five dollar honorarium.

The refusal rate is difficult to compute since most of the organizations did not allow direct contact with their employees and they could not supply the number of women who met the criteria for the study. Of 15 direct appeals made to University of Calgary employees, 2 refused to participate (one widowed and one never-married woman), a consent rate of 86%. When other staff members made appeals to the employees at the University, for example, an administrative secretary, 15 of 20 women agreed to participate, an acceptance rate of 75% - the marital status of the five refusals is unknown. The only other measure of participation is from two departments at the University of Calgary, where women were asked to return reply forms to the investigator even if they did not wish to participate in the

study. Eighteen of the twenty-four eligible women volunteered to participate, a response rate of 75%. However, the total number of women to whom letters were given is not known. These response rates are quite high in comparison with others which have been reported, but it must be remembered that they are only estimates since the total number of eligible women is unknown.

Women who volunteered were asked to provide their names and telephone numbers. Contact was made as soon as possible and arrangements were made either to deliver or to mail the questionnaires. Each of the questionnaire packages contained 10 self-report measures (see below) in which order was randomized. Women were also asked to sign an Informed Consent Form (see Appendix C), which explained the nature of the study, the requirements of the study and assured them of confidentiality. Respondents were informed that they would receive a short summary of the overall results as soon as they were available. Completed questionnaires were either picked up by or mailed back to the investigator. If the package was picked up, participants were encouraged to discuss their thoughts and feelings regarding the questions asked and the study in general.

Of the 133 women who agreed to participate, 6 failed to complete the study (4 married and 2 widowed women), making the return rate 95.48%. An additional 2 married women were dropped from the study because of extensive missing data. One never-married woman of 43 was included in the study since she was



very close to the criterion age of 45 and she added to the small sample size of the never-marrieds. Final tally of the participants per group was: 68 married women, mean age=52.65, SD=5.40; 27 widows, mean age=56.52, SD=5.01; and 30 never-married women, mean age=55.36, SD=6.73. A possibly important variable relating to the widows was not obtained - the number of years since their husband had died. Relevant discussion with the widows suggests that none had become widowed in the past two years and, for most, it had been five years or more.

A detailed summary of the characteristics of the final sample employed in the study is presented in Appendix A. Although there were some differences among the marital groups, they had quite similar backgrounds except on variables which were directly linked with their marital status such as living arrangements. The married women were slightly younger and in slightly better health, but these differences were small. With regard to education, personal income and occupational status it was anticipated that the never-married women would be advantaged, as has been found in previous studies (e.g., Ward, 1979). The limited variations among the marital groups suggests that there are no fundamental reasons against making comparisons across the groups. However, because this sample could not be selected as a "true" representation of older women in general, it is unwarranted to assume that conclusions from this study will necessarily relate to other samples.

### Questionnaire Measures

A questionnaire comprised of ten individual scales was used, three of which were constructed for the study and minor alterations to the published forms were made on two others. Newly devised and modified scales appear in Appendix B.

- A) Background Measures-Appendix B. This includes information about the respondent's: (1) age; (2) marital status; (3) education level - years of formal education; (4) income, a) yearly personal income and, if married, also the combined yearly income with their husbands - seven response categories were available, ranging from "under \$7,000" to "over \$30,000" for personal income and ranging from "under \$10,000" to "over \$35,000" for combined income; b) a subjective measure was obtained by having respondents rate the adequacy of their income for their needs on a five point scale ranging from "not adequate" to "more than adequate". (5) health, a) respondents indicate any health problems which interfere with their daily activities; b) single-item measure of subjective health on which health is rated using a four point scale ranging from "poor" to "excellent". Tissue (1972) has reported correlations between this subjective measure and the following objective indicators of health: number of health problems, .50; functional health measure, .66; and last time in hospital, .31.

B) Identification of Social Resources and Negative

Relations-Appendix B. On this measure respondents are asked to complete three groups of questions: (1) a) to identify by initials, the three individuals to whom they feel the closest; b) to provide information about them including: family relationship, if any; frequency of contact, using a five point scale ranging from "at least once a year" to "daily"; perceived closeness, using a scale of 1 to 100, with 100 being very close; and perceived upset, also using a scale of 1 to 100, with 100 being the most upset; (2) to identify by initials, all the other people to whom they feel close; b) to provide pertinent information about them including: family relationship, if any; frequency of contact, using the same scale as in 1b; and perceived closeness on a scale of 1 to 100, as in 1b; (3) a) to identify by initials, all the individuals who are a source of conflicts or upset; b) to provide pertinent information about them including: family relationship, if any; frequency of contact, as in 1b; and degree of upset in the relationship using a scale of 1 to 100, as in 1b. Very few studies report measures of "negative relations" and the approach used in this study was partly derived from Barrera (1981).

Some of the measures used later for analyses require further explanation, in particular; "total amount of contact", "total amount of closeness", and "total amount of

upset". Total amount of contact refers to a combined score of frequency of contact with all pertinent individuals, for example, total contact with close family members is a measure of all the contact ratings of individuals identified as being family and as being close, whether they are one of the three closest individuals or among the other close individuals. Total amount of closeness and upset are similar, except the combined scores consist of the perceived closeness and perceived upset ratings made on the scales as described in 1b, 2b and 3b, above.

- C) Support and Conflict Scale (SCS)-Appendix B. This new instrument was constructed for this study and pre-tested before being used in the main investigation (see Preliminary Study above). On this measure respondents are asked to use five subscales to rate each of the three people identified as closest on the Identification of Social Resources and Negative Relations measure (item 1a above). (The three target individuals here are not the same as in the Preliminary Study). Four subscales, each comprised of either 11 or 12 items, are concerned with different components of social support: Emotional Support; Social Participation; Instrumental Aid; and Intimacy. There are five response options for each item on these scales, ranging from "strongly agree" to "strongly disagree". Results from the Preliminary Study indicated that these support subscales would "Guttmanize".

The fifth subscale relates to conflict within the relationship and is comprised of 12 items with five response alternatives, ranging from "never" to "constantly". As was reported in the Preliminary Study, the Conflict subscale did not meet the requirements of a Guttman scale. In an attempt to make the Conflict scale meet these requirements, modifications were made to the response categories and some items were changed as a result of discussion with participants and others.

The items for the SCS were either original or derived from existing support and conflict scales (Barrera, 1981; Braiker & Kelly, 1979; Gottlieb, 1978; Millar & Lefcourt, 1982; Rook, 1984b; Sarason, Levine & Sarason, 1983; Schlein, 1977). New items were constructed following discussion with a variety of middle-aged and older women as well as gerontological experts. Published items were modified, when necessary, to make them appropriate for the targets of this study.

- D) Perceived Social Support-Family (PSS-FA) and Friends (PSS-FR). These two scales were obtained from Procidano and Heller (1983). Each scale consists of 20 items, many of which are identical except that they refer to the two different support groups. There are three response options, "yes", "no" and "don't know", with yes answers scored as 1 and the other two scored as zeros. An example from the

PSS-FA is "My family gives me the moral support I need", and family is replaced by friends for the PSS-FR, "My friends give me the moral support I need". Another example from these two scales, "My family is good at helping me solve problems", and "My friends are good at helping me solve problems". Both the PSS-FA and the PSS-FR are homogeneous measures with Cronbach's alpha coefficients of .90 and .88, respectively, and factor analysis suggests that each scale is unidimensional. One-month test-retest reliability coefficients for each scale were high, both being greater than .80. The correlation between the two scales has been reported to be only .21, suggesting that although they are related, they measure different aspects of support. Using scales from the MMPI, validation data show that both the PSS-FA and the PSS-FR are correlated with measures of Psychasthenia (-.33 and -.23) and Schizophrenia (-.33 and -.20) but only PSS-FA relates to Depression (-.43 versus -.12).

- E) Desired Locus of Control. The scale employed is the shortened form of part of an instrument developed by Reid and Ziegler (1981) intended to measure the extent to which respondents feel they have control over a desired outcome. This scale consists of 16 items with five possible responses ranging from "strongly agree" to "strongly disagree". An example from the scale is "I am able to find privacy when I want it". This scale has good psychometric properties, with

an internal consistency coefficient of .76 (Cronbach's alpha) and factor analysis has revealed that there is only one dominant factor which accounts for 67.7% of the variance. Reported correlations between this scale and measures of well-being are .47 with life satisfaction and .48 with positive self-concept.

- F) Assertion of Autonomy . This scale was developed by Hirschfeld and his associates (1977) to measure preferences for being alone and independent behavior. It is a 14-item scale with four response alternatives ranging from "strongly agree" to "strongly disagree". An example of an item is "I prefer to be by myself". Split-half reliability of .84 has been reported and the scale has been found to differentiate between the genders with women reporting less preference for autonomy than men.
- G) Social Desirability Scale. This scale was developed by Crowne and Marlowe (1964) to measure the extent to which people try to present themselves in a favorable light. There are a total of 36 items on the scale with two possible responses, "true" or "false". An example from the scale is "My table manners at home are as good as when I eat out in a restaurant". An internal consistency coefficient of .88 (Kuder-Richardson) and a one-month test-retest reliability of .88 have been reported. Validation data includes correlations with the three MMPI measures of response bias:

.40 with the K scale, an indication of defensiveness in test taking attitudes; .54 with the L or lie scale; and  $-.36$  with the F scale, which is comprised of infrequently endorsed items.

- H) Memorial University of Newfoundland Scale of Happiness (MUNSH)-Appendix B. This 24-item scale was developed by Kozma and Stones (1980) to measure happiness of older individuals. The original format allows three responses, "yes", "no" and "don't know", but these were changed to five alternatives ranging from "strongly agree" to "strongly disagree" following suggestions and objections from participants in a pilot study. The scale correlates at .67 with avowed happiness and at .50 with happiness ratings made by others. The internal consistency has been reported to be .85 (Cronbach's alpha) and a 6-month test-retest reliability of .70 has been obtained. The MUNSH provides three scores, the Positive Affect Scale (PAS), the Negative Affect Scale (NAS), and a total score which is the difference of the two subscales. Both the PAS and the NAS have internal reliability coefficients greater than .70 and correlations with happiness ratings by others is reported to be .37 and  $-.55$ , respectively.

- I) Self-Esteem Scale-Appendix B. Rosenberg (1965) developed this 10-item scale to measure self-esteem which was defined as a basic feeling of self-worth. A major disadvantage of



this measure is high correlations with social desirability, and, indeed, a correlation of .26 was found between these measures in the Preliminary study. This correlation was reduced to  $-.16$  in a subsequent study in which the response options had been modified to five categories, ranging from "never" to "always", from the original four possibilities which ranged from "strongly agree" to "strongly disagree". For the original format, Ward (1977) has reported an internal consistency coefficient of .74 (Cronbach's alpha) for the scale. The scale was initially developed for adolescents but has subsequently been used successfully with all age groups (Breytspraak & George, 1982).

## RESULTS

The initial section of the Results section will deal with items which require consideration before reporting on findings pertinent to the hypotheses.

### Prefatory Analyses

Data transformations. The initial statistical computation was aimed at determining whether the skewness values of 16 of the major variables were significantly different from a value of zero which denotes a normal distribution. The skewness values were standardized and the assumption of normality was rejected if the  $z$  scores fell within the adopted critical region,  $p < .01$  (Tabachnick & Fidell, 1983). Using this procedure four variables were identified as being significantly skewed: years of formal education; perceived support from family; perceived support from friends; and self-esteem. The square root transformations performed on each of the four variables were successful in reducing the skewness values to below the criterion level (Table 3).

Multivariate analyses of variance (MANOVA) were performed with transformed and nontransformed data using the four variables with significantly skewed distributions as dependent variables and the three levels of marital status as the independent variable. This allowed an examination of the utility of transforming these variables and the results of the analyses are

Table 3

Skewness Values Before and After Square Root Transformations of Variables with  
Significantly Skewed Distributions

<u>Variable</u>	<u>Skewness Before Transformation</u>	<u>Skewness After Transformation</u>
Self-esteem	-.77	.01
Education	.60	.31
Perceived Social Support		
Family	-1.16	.55
Friends	-.66	.13

presented in Appendix D. Differences between the two sets of analyses are negligible, making the use of transformed data inadvisable according to Tabachnick and Fidell (1983), since there are difficulties in interpretation. Therefore, the remaining analyses presented use nontransformed data.

Missing data. Among the 125 participants, there were a total of 19 with some missing data. Of these 10 were married, 4 were widows and 5 were never-marrieds. Since complete elimination of these cases would have diminished the sample size to an unacceptable level, where necessary missing values were replaced with estimations.

Regression procedures were used to obtain estimates of the missing values. This procedure is useful when there are few missing data points and is superior to the more conservative method of inserting mean values (Tabachnick & Fidell, 1983). There was only a small amount of data missing in the present study and it was primarily from the Support and Conflict Scale (SCS). Eighteen participants did not answer one or more questions on the SCS, ranging from 1 to 12 items, out of the possible 174 - amounting to .3% of the data. The only other missing values came from a married woman who failed to provide her husband's income and a response on the perceived adequacy of income item. Because of the small amount of missing data the regression method was deemed appropriate.

A MANOVA was performed firstly, with all individuals with missing data excluded and secondly, with all participants included and the missing values estimated. The independent variable was marital status and the dependent variables were the seven measures with some missing data points - adequacy of income, total income, and the five subscale scores from the SCS - all based on a composite of the three target individuals. The results, in Appendix E, show that the differences between the analyses are minimal except for the increased power when all cases were included. All remaining analyses are performed with missing values estimated.

Support and Conflict Scale (SCS). Data from the five subscales were processed through a Guttman scalogram analysis and following this computation each of the subscales was pared down to the 10 "best" items, as indicated by the analysis. This is in accord with Edward's (1957) recommendation that Guttman scales not exceed 10 items. For all five subscales the final coefficients of reproducibility and scalability met the respective criteria of .90 and .60: Emotional Support, .91 and .66; Social Participation, .93 and .79; Instrumental Aid, .91 and .67; Intimacy, .95 and .80; and Conflict, .93 and .67. The scale is presented in its entirety in Appendix B; deleted items are indicated, as are the cutoff criteria, and the rankings of the retained items from least to most supportive or least to most upsetting, whichever is appropriate. (It will be recalled that results from the Preliminary Study indicated that the four

support subscales would "Guttmanize", but the Conflict subscale required modification).

Independence of positive and negative affect. A highly significant correlation of  $-.66$ ,  $p < .001$ , was obtained between the Positive Affect Scale (PAS) and the Negative Affect Scale (NAS) of the Memorial University of Newfoundland Scale of Happiness (MUNSH) for the total sample. Based on this modified version of the MUNSH there was no support for the Bradburn's Affect Balance Model (1969), since he would have predicted that the positive and negative dimensions would have been independent of each other.

#### Differences on Correlates of Well-Being

Differences between the marital groups were examined on four categories of variables which previous studies have found to be important for well-being, viz., background variables, personality characteristics, social resources, negative relations, as well as the newly constructed Support and Conflict Scale. A multivariate analysis of variance (MANOVA) was conducted with each of these five groups. The use of MANOVA instead of separate analyses of variance provided protection against Type I errors. Another advantage of MANOVA is that correlated dependent measures can be examined simultaneously.

This multivariate analysis provides a number of statistics which assist in the interpretation of data. A short summary of the relevant statistics follows. Using Wilk's criterion, the

multivariate F ratio tests for group differences on a linear combination of the dependent variables. The overall F is considered significant if it meets a criterion of  $p < .05$ . A significant multivariate effect indicates that the groups differ on at least one discriminant function. Discriminant functions are a linear combination of the dependent variables, and when significant, using a criterion of  $p < .05$ , show the dimension(s) on which the groups differ. Group centroids are analogous to group means in a univariate context, except they are means of the composite score obtained through a linear combination of the dependent variables. The discriminant coefficients, standardized and structure, indicate which variables are important in distinguishing the groups. Standardized discriminant coefficients can be interpreted in the same manner as standardized beta weights in multiple regression analysis. The magnitude of the standardized coefficient reflects the effect the variable has on the independent measure once all other variables in the equation are held constant. Structure coefficients are correlations between each dependent variable and the composite score of the linear combination of variables, and is only considered meaningful if .30 or greater (Pedhazur, 1982). If structure coefficients are positive the associated variable will be high for the group with a positive centroid and low for the group with a negative centroid; conversely, a group with a negative centroid will be higher on variables with negative structure coefficients and lower on variables with positive structure coefficients.

Examining the results of univariate analyses in conjunction with the multivariate interpretation provides some indication of consistency across these two methods of analyses, a criterion of  $p < .01$  was adopted for significance for the univariate analyses.

Background variables. Five variables were included in the MANOVA for the background variables: education, perceived adequacy of income, personal income, self-assessed health, and number of health problems. For a discussion of the measurement of these variables refer to the Method section.

There was a significant multivariate effect, indicating that the groups were different on a linear combination of the dependent variables,  $F(10,236)=2.17$ . However, the strength of association between the combined variables and marital status was quite small,  $\eta^2=.16$ . The first discriminant function was significant,  $\chi^2(10)=21.16$ , but the second was not,  $\chi^2(4)=3.99$ , indicating that the groups differ only on one dimension. For completeness the results of both functions are presented in Table 4, but only the first function will be discussed. In this analysis the centroids indicate that the first function separated the never-marrieds ( $c=.64$ ) from the marrieds ( $c=-.30$ ), with the widows in-between ( $c=.05$ ).

Personal income was an important variable in distinguishing the groups with a high standardized coefficient ( $\beta=.78$ ) and a meaningful structure coefficient ( $s=.79$ ). The univariate analysis was consistent, indicating that there were significant



## Summary of Multivariate Analyses of Marital Groups with Background Variables

<u>Predictor Variable</u>	<u>Raw Coefficient</u>		<u>Standardized Coefficient</u>		<u>Structure Coefficient</u>		<u>Univariate F (2,122)</u>
	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	
Education	.10	.23	.31	.68	.53	.67	3.62
Income Adequacy	-.05	.74	-.04	.63	.16	.58	.95
Personal Income	.49	-.40	.78	-.64	.79	.00	5.81**
Self-assessed Health	-.77	.59	-.50	.38	-.29	.40	1.16
Health Problems	.30	.63	.18	.37	.40	.06	1.54
Canonical R	.36	.18					
Eigenvalue	.15	.03					

Group Centroids

	<u>1</u>	<u>2</u>
Married	-.30	.08
Widows	.05	-.34
Never-married	.64	.11

Correlation Matrix

	Education	Income Adequacy	Personal Income	Self-assessed Health
Education				
Income Adequacy	.27**			
Personal Income	.48**	.36**		
Self-assessed Health	.29**	.23*	.25*	
Health Problems	.03	-.26**	.02	-.43**

\*\*  $p < .01$ \*  $p < .05$ Note. Only the first discriminant function was significant,  $p < .05$ .

group differences on personal income,  $F(2,122)=5.81$ . Since the never-marrieds have the largest positive group centroid, which is associated with the positive structure coefficient, they will be the highest on this variable. Verification of this is found by examining the group means presented in Table 5: never-marrieds have more personal income,  $\underline{M}=5.93$ , than the marrieds,  $\underline{M}=4.73$ , with the widows in-between,  $\underline{M}=5.18$ .

The structure coefficient associated with years of education was meaningful ( $s=.53$ ), indicating that this variable can distinguish the groups. With a liberal criterion, the univariate analysis was significant, indicating group differences on education,  $F(2,122)=3.62$ ,  $p<.05$ . Standardized coefficients are sensitive to intercorrelations between variables and therefore, the standardized coefficient was not large for this variable because of a high correlation with personal income (Table 4). The positive structure coefficient indicates that the never-marrieds will again be advantaged, and the means in Table 5 confirm this, with the average number of years of formal education being more for the never-marrieds ( $\underline{M}=15.53$ ), than either the marrieds ( $\underline{M}=13.98$ ), or the widows ( $\underline{M}=13.70$ ).

Self-assessed health is rated lower by the never-marrieds since there is both a negative standardized coefficient ( $\beta=-.50$ ) and a negative structure coefficient which was very close to being meaningful ( $s=-.29$ ). The group means show that the marrieds rate their health as better, ( $\underline{M}=3.44$ ), than either

Table 5

Means and Standard Deviations for Background Variables by Marital Status

<u>Variable</u>	<u>Married</u>		<u>Widows</u>		<u>Never-married</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Education	13.98	2.51	13.70	2.47	15.53	3.98
Income Adequacy	3.38	.86	3.22	.75	3.53	.89
Personal Income	4.73	1.72	5.18	1.30	5.93	1.57
Self-assessed Health	3.44	.60	3.25	.71	3.26	.69
Health Problems	.33	.53	.40	.57	.56	.72

the never-marrieds, ( $\underline{M}$ =3.26) or the widows, ( $\underline{M}$ =3.25). The other health measure, number of health problems, has a positive structure coefficient ( $s$ =.40) which indicates that the never-marrieds will report the most health problems. This is confirmed by the group means: never-marrieds,  $\underline{M}$ =.56; marrieds,  $\underline{M}$ =.33; and widows,  $\underline{M}$ =.40. However, for both health variables the actual group differences appear to be small and in a univariate context would not have been significant.

These results support the prediction that the never-marrieds would be advantaged on personal income and years of education. The never-marrieds are disadvantaged on the health variables relative to the other groups. However, all groups rated their health between "good" and "excellent" and had a mean of less than one health problem, so even for the never-marrieds health would not appear to be a major difficulty. The subjective measure of income, perceived income adequacy, did not differ across the marital groups.

In the MANOVA above, using background variables as the dependent measures, personal income was the only objective indicator of income included. The majority of the marrieds were from two-income families and to have compared these combined incomes with the single incomes of the never-marrieds and widows may have concealed important differences on other variables. Therefore, a separate analysis of variance was performed, with total income as the dependent variable and marital status as the

independent variable. As anticipated, there were significant group differences on total income,  $F(2,122)=24.64$ ,  $p<.01$ . A Scheffe's test of group means confirms that, with a criterion of  $p<.01$ , the married women have more total income ( $M=6.28$ ,  $SD=1.37$ ), than either the never-marrieds ( $M=4.93$ ,  $SD=1.57$ ), or the widows ( $M=4.18$ ,  $SD=1.30$ ). The never-marrieds and widows were not significantly different from each other.

Personality. The personality variables, locus of control and assertion of autonomy were included in the second MANOVA. The means of these personality variables, presented in Table 6, show few differences across groups, and the MANOVA confirms this,  $F(4,242)=1.77$ , n.s.. The hypotheses that the never-married women would report the highest levels of internal locus of control and autonomy are not supported.

Social resources. A total of 12 variables were included in the MANOVA for social resources - six concerning family and six concerning friends: total number, total amount of contact, mean amount of contact, perceived social support, total amount of closeness, and mean closeness. These measures are described in the Method section. Mean contact and mean closeness measures were included to examine possible group differences on these variables for family and friends, irrespective of the total number of each available. Perceived social support is a subjective indicator of the adequacy of social support.

Table 6

Means and Standard Deviations for Personality Characteristics by Marital Status

<u>Variable</u>	<u>Married</u>		<u>Widows</u>		<u>Never-married</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Locus of Control	61.47	5.22	63.74	7.09	61.70	6.24
Autonomy	28.46	5.92	29.80	7.03	30.93	5.59

There were significant group differences on the combined dependent variables,  $F(24,222)=3.72$ . The strength of the association between the combined variables and marital status was high,  $\eta^2=.55$ . The first discriminant function was significant,  $\chi^2(24)=93.31$ , but the second function was not,  $\chi^2(11)=17.20$ , indicating that the groups only differed on one dimension. For completeness, the results of both discriminant functions are presented in Table 7, but only the first discriminant function will be discussed. The group centroids show that the discriminant function separated the marrieds ( $c=.84$ ) from the never-marrieds ( $c=-1.33$ ), while the widows were in-between, but closer to the never-marrieds ( $c=-.64$ ).

When examining social resources of the marital groups, the most salient feature is that family were the primary source of social resources for the marrieds, while friends were the primary source of social resources for the never-marrieds. Given the importance of this distinction, the results of the discriminant function analysis will be examined along the lines of family and friends.

The marrieds had a positive group centroid which indicates that they will be high on variables with positive structure coefficients. The five meaningful positive structure coefficients were all associated with families: total contact with family ( $s=.69$ ); total amount of closeness with family ( $s=.59$ ); number of close family ( $s=.53$ ); mean contact with family

Table 7

## Summary of Multivariate Analyses of Marital Groups with Social Resources

<u>Predictor Variable</u>	<u>Raw Coefficient</u>		<u>Standardized Coefficient</u>		<u>Structure Coefficient</u>		<u>Univariate F (2,122)</u>
	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	
Family							
Number Close	-.27	-.23	-.70	-.60	.53	.27	16.63**
Total Contact	-.05	-.03	.47	-.24	.69	.21	27.82**
Mean Contact	.53	.11	.44	.09	.47	-.12	8.94**
Perceived Support	.00	-.05	-.01	-.27	.32	-.05	5.87**
Amount Close	.00	.00	1.03	1.20	.59	.35	20.72**
Mean Close	-.01	-.01	-.28	-.13	.23	.09	3.07
Friends							
Number Close	-.04	.41	.17	1.53	-.42	.36	11.20**
Total Contact	.01	.01	.26	.24	-.36	.17	7.67**
Mean Contact	-.21	-1.16	-.22	-1.23	-.21	-.49	4.71
Perceived Support	.01	-.01	.07	-.06	-.09	-.07	.59
Amount Close	.00	.00	-1.01	-1.34	-.43	.40	12.10**
Mean Close	.00	.01	.05	1.01	-.25	.14	3.69
Canonical R	.69	.37					
Eigenvalue	.92	.16					

Group Centroids

	<u>1</u>	<u>2</u>
Married	.84	.08
Widows	-.64	-.70
Never-married	-1.33	.43

\*\*  $p < .01$ Note. Only the first discriminant function was significant,  $p < .05$ .



Table 7 continued

Correlation Matrix

Family		Total	Mean	Perceived	Total	Mean
Family	Number	Contact	Contact	Support	Close	Close
Number						
Total Contact	.92**					
Mean Contact	-.09	.21*				
Perceived Support	.34**	.38**	.28**			
Amount Close	.91**	.89**	.01	.42**		
Mean Close	-.07	.04	.57**	.32**	.22*	

Friends		Total	Mean	Perceived	Total	Mean
Friends	Number	Contact	Contact	Support	Close	Close
Number						
Total Contact	.95**					
Mean Contact	.26*	.39**				
Perceived Support	.38**	.38**	.17*			
Amount Close	.94**	.90**	.00	.38**		
Mean Close	.17*	.17*	.26*	.29**	.33**	

Family		Total	Mean	Perceived	Total	Mean
Friends	Number	Contact	Contact	Support	Close	Close
Number	.17*	.17*	-.02	.09	.17*	-.08
Total Contact	.16	.19*	.03	.13	.17*	-.04
Mean Contact	.04	.07	.03	.06	.06	-.02
Perceived Support	.08	.09	.05	.44**	.12	.07
Amount Close	.18*	.19*	-.01	.15	.24*	.02
Mean Close	.08	.08	-.02	.16	.13	.08

\*\*  $p < .01$ \*  $p < .05$

( $s=.47$ ); and perceived social support from family ( $s=.32$ ). Results of the univariate analyses were consistent with the multivariate interpretation since there were significant group differences on all five variables (Table 7). Due to the high correlations between these five variables (Table 7) only one of these variables had a large standardized coefficient - total amount of closeness with family,  $\beta=1.03$ . An examination of the means presented in Table 8, confirms the interpretation that the marrieds are advantaged on all five of these variables. The marrieds were higher on total contact with family ( $\underline{M}=22.95$ ), than either the never-marrieds ( $\underline{M}=10.37$ ), or the widows ( $\underline{M}=12.52$ ). Marrieds reported more total closeness with family than the never-marrieds or the widows;  $\underline{M}=515.32$ ,  $280.63$ , and  $278.00$ , respectively. The number of family identified as close was greater for the marrieds ( $\underline{M}=6.31$ ), compared both with the never-marrieds ( $\underline{M}=3.53$ ), and the widows ( $\underline{M}=3.70$ ). The married women had more mean contact with their families ( $\underline{M}=3.74$ ), than either the never-marrieds ( $\underline{M}=2.88$ ) or the widows ( $\underline{M}=3.25$ ). The marrieds were also advantaged on the amount of perceived social support from family ( $\underline{M}=16.54$ ), followed by the widows ( $\underline{M}=14.22$ ), and finally the never-marrieds ( $\underline{M}=12.77$ ).

The negative group centroid associated with the never-marrieds indicates that they were high on variables with negative structure coefficients. Three variables had meaningful negative structure coefficients, and all were related to indices of friendships: total amount of closeness with friends ( $s=-.43$ );

Table 8

Means and Standard Deviations for Social Resources by Marital Status

<u>Variable</u>	<u>Married</u>		<u>Widows</u>		<u>Never-married</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Family						
Number	6.31	2.88	3.70	2.01	3.53	2.38
Total Contact	22.95	9.58	12.52	7.79	10.37	7.23
Mean Contact	3.74	.65	3.25	.88	2.88	1.11
Perceived Support	16.54	4.36	14.22	6.71	12.77	5.68
Amount Close	515.32	223.14	280.63	157.18	278.00	195.64
Mean Close	83.32	13.59	75.27	14.48	75.27	25.44
Friends						
Number	3.97	3.59	5.22	3.81	7.83	3.95
Total Contact	12.87	12.43	18.15	14.04	24.13	14.49
Mean Contact	2.78	1.29	3.50	.57	3.07	.77
Perceived Support	14.20	4.98	15.15	3.77	15.07	4.46
Amount Close	252.53	230.29	332.67	275.20	520.77	264.66
Mean Close	55.91	26.59	61.69	13.68	69.02	16.48

number of close friends ( $s=-.42$ ); and total contact with friends ( $s=-.36$ ). The results of the univariate analyses were consistent by indicating significant group differences on all three variables (Table 7). Only total amount of closeness with friends ( $\beta=-1.01$ ) had a large standardized coefficient because of the high correlations between variables (Table 7). An examination of the groups means confirms the interpretation that the never-marrieds were advantaged on the three friendship variables (Table 8). The never-marrieds reported more total closeness with friends ( $\underline{M}=520.77$ ), than the marrieds ( $\underline{M}=252.53$ ), with the widows in-between ( $\underline{M}=332.67$ ). The never-marrieds had the most close friends ( $\underline{M}=7.83$ ), followed by the widows ( $\underline{M}=5.22$ ), and finally, the marrieds ( $\underline{M}=3.97$ ). In addition, the never-marrieds had more contact with their friends than the marrieds, and the widows were in-between;  $\underline{M}=24.13$ ,  $12.87$ , and  $18.15$ , respectively.

These results support the hypotheses that the marrieds would have more quantitative social resources from their families since the marrieds had the most close family and amount of contact with family. Also as predicted, the married women reported more perceived social support from their families, which was a qualitative measure of social resources. However, on the second qualitative measure, mean closeness ratings of family, the marrieds were not higher. The hypothesis that the never-marrieds would have more quantitative resources from friends was supported, since the never-marrieds had the most available close friends and the most contact with friends. However, the

prediction that there would be a concomitant increase in the quality of friendships for the never-marrieds was not supported, since the level of perceived social support from friends and mean closeness with friends were similar across the marital groups. Originally, the variables of total amount of closeness with family and with friends were intended as qualitative measures of social resources, but the very high correlations with the quantitative measures, particularly number of close family and close friends (Table 7), indicates that the total closeness indices were not distinctive from the quantitative measures of social resources.

An important implication of these results, is that the never-married do not appear to be socially isolated. The never-marrieds reported slightly more individuals with whom they felt close, when family and friends were combined ( $\bar{M}=11.36$ ), than the marrieds ( $\bar{M}=10.28$ ), and were quite advantaged compared with the widows ( $\bar{M}=8.92$ ).

Negative relations. Six variables were included in the MANOVA to determine differences between groups on negative relations: number of people who provoked conflicts; amount of contact with these people; mean amount of contact; total amount of upset; and the total conflict with the three closest individuals as rated on the Conflict subscale of the Support and Conflict Scale, refer to the Method section for a discussion of these measures.

The multivariate  $F$  was significant, indicating that the groups were different on a linear combination of the dependent variables,  $F(12,234)=4.07$ . The association between the variables and marital status was moderate,  $\eta^2=.32$ . The first discriminant function was significant,  $\chi^2(12)=45.35$ , but the second function was not,  $\chi^2(5)=6.17$ , indicating that the groups differed only on one dimension. Table 9 presents the results for both discriminant functions, but only the first discriminant function will be discussed. According to the group centroids the first discriminant function separated the never-marrieds ( $c=-.59$ ) from the marrieds ( $c=.45$ ), with the widows very close to the never-marrieds ( $c=-.48$ ).

An examination of the discriminant function analysis indicates that total contact with people who are upsetting had a distinctive standardized coefficient ( $\beta=2.08$ ) and a meaningful positive structure coefficient ( $s=.54$ ). The univariate analysis was consistent and indicated significant group differences,  $F(2,122)=6.76$ . The marrieds will be highest on this variable since they have a positive group centroid which is associated with the positive structure coefficient. This is confirmed by the group means (Table 10), the married women had more contact with people who were upsetting ( $M=21.01$ ), than either the never-marrieds ( $M=16.10$ ), or the widows ( $M=17.22$ ).

The mean amount of contact with people who are upsetting had high positive structure coefficient ( $s=.83$ ). The univariate

Table 9

## Summary of Multivariate Analyses of Marital Groups with Negative Relations

<u>Predictor Variable</u>	<u>Raw Coefficient</u>		<u>Standardized Coefficient</u>		<u>Structure Coefficient</u>		<u>Univariate F (2,122)</u>
	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	
Number Upsetting	-.78	.73	-1.72	1.59	.28	-.04	1.87
Total Contact	.26	-.85	2.08	-.68	.54	-.08	6.76**
Mean Contact	.41	.32	.36	.28	.83	.30	16.86**
Total Amount Upset	.00	-.01	-.07	-1.20	.22	.16	1.21
Mean Amount Upset	.00	.06	.09	1.23	.14	.70	2.12
SCS Total Conflict	.02	-.09	.12	-.52	.45	-.46	5.39**
Canonical R	.53	.22					
Eigenvalue	.38	.05					

Group Centroids

	<u>1</u>	<u>2</u>
Married	.55	-.04
Widows	-.48	.39
Never-marrieds	-.82	-.28

Correlation Matrix

	<u>Number</u>	<u>Total Contact</u>	<u>Mean Contact</u>	<u>Total Upset</u>	<u>Mean Upset</u>
Number					
Total Contact	.79**				
Mean Contact	.10	.29**			
Total Upset	.80**	.72**	.07		
Mean Upset	.08	.20*	.23*	.55**	
SCS Conflict	.27**	.12	.29**	.20*	.01

\*\*  $p < .01$ \*  $p < .05$ Note. Only the first discriminant function was significant,  $p < .05$ .

Table 10

Means and Standard Deviations for Negative Relations by Marital Status

<u>Variable</u>	<u>Married</u>		<u>Widows</u>		<u>Never-married</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Number Upsetting	4.56	2.09	3.89	2.27	3.73	2.30
Total Contact	21.01	7.28	17.22	5.44	16.10	6.47
Mean Contact	4.11	.63	3.46	1.03	3.03	1.22
Total Amount Upset	172.07	107.05	155.00	123.91	134.60	108.63
Mean Amount Upset	37.90	17.51	40.94	25.42	30.80	17.89
SCS Total Conflict	12.17	5.74	8.59	5.54	9.43	4.39



analysis was consistent, indicating significant group differences on the mean amount of contact with people who are upsetting,  $F(2,122)=16.86$ . The marrieds, with their positive group centroid, will report the highest levels of mean contact with upsetting people. This was confirmed by the group means (Table 10): marrieds,  $\bar{M}=4.11$ ; never-marrieds,  $\bar{M}=3.03$ ; and widows,  $\bar{M}=3.46$ .

The marrieds also reported the most conflicts with the three individuals identified as being close with a positive structure coefficient of .45. The univariate analysis was consistent, indicating significant group differences,  $F(2,122)=5.39$ . Group means show that the marrieds report the most conflicts with the three close individuals ( $\bar{M}=12.17$ ), followed by the never-marrieds ( $\bar{M}=9.43$ ), and finally, the widows ( $\bar{M}=8.59$ ).

The number of people who provoke conflicts was important as a suppressor variable because it had a distinctive negative standardized coefficient ( $\beta=-1.72$ ), while the structure coefficient indicated that it was not highly correlated with the composite discriminant score ( $s=.28$ ). The impact this variable had on the discriminant function was to reduce error variance from other variables in the equation. The correlation matrix presented in Table 10 shows that the number of people who provoke conflicts, is indeed, correlated with other variables in the analysis.

These results support the hypothesis that the married women would have more negative relations than either the never-marrieds or the widows. The widows are quite similar to the never-marrieds, rather than, as expected, reporting more negative relations.

Support and Conflict Scale (SCS). A MANOVA was conducted on the SCS ratings of the three individuals identified as being closest. A total of 15 variables were entered into the analysis - each individual rated on the five SCS subscales: Emotional Support; Social Participation; Instrumental Aid; Intimacy; and Conflict.

There were significant group differences on the combination of these 15 dependent measures,  $F(30,216)=1.77$ . The strength of the association between the variables and marital status was moderately high,  $\eta^2=.36$ . The first discriminant function was significant,  $\chi^2(30)=50.66$ , but the second function was not,  $\chi^2(14)=12.51$ , indicating that the groups differed on only one dimension. Complete results of the analysis are presented in Table 11, but only the results of the first discriminant function will be discussed. The group centroids indicate that the first discriminant function separated the marrieds ( $c=.56$ ) from the never-marrieds ( $c=-.81$ ), with the widows in-between but closer to the never-marrieds ( $c=-.51$ ).

The high correlations between the measures (Table 11) make the standardized coefficients difficult to interpret because none

Table 11

## Summary of Multivariate Analyses of Marital Groups with the Support and Conflict Scale

<u>Predictor Variable</u>	<u>Raw Coefficient</u>		<u>Standardized Coefficient</u>		<u>Structure Coefficient</u>		<u>Univariate F (2,122)</u>
	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	
Emotion1	-.02	-.06	.04	.14	.00	.14	.14
Emotion2	.11	.04	.27	.09	.11	.08	.36
Emotion3	-.21	-.02	-.53	-.05	-.14	.07	.55
Social1	-.11	.13	-.37	.44	.10	.16	.44
Social2	-.09	.09	-.30	.31	.04	.19	.29
Social3	-.10	-.04	-.34	.13	-.09	.14	.36
Instrumental1	.26	-.11	.65	-.27	.36	-.04	3.09
Instrumental2	-.01	-.37	.03	-1.00	.08	-.34	.98
Instrumental3	-.09	-.04	.27	.12	.11	.08	.33
Intimacy1	.17	-.18	.38	-.41	.41	.00	3.99
Intimacy2	.17	.22	.42	.55	.36	.20	3.41
Intimacy3	.08	.06	.21	.17	.14	.11	.58
Conflict1	.18	-.15	.44	-.36	.45	-.10	4.84**
Conflict2	.19	.18	.48	.45	.30	.39	3.27
Conflict3	-.06	.14	-.14	.32	.23	.35	2.11
Canonical R	.53	.32					
Eigenvalue	.39	.11					

Group Centroids

	<u>1</u>	<u>2</u>
Married	.56	.05
Widows	-.51	-.57
Never-married	-.81	.40

-----

\*\*  $p < .01$

Note. Only the first discriminant function was significant,  $p < .05$ . The numeric labels refer to target individuals.

Table 11 continued

Correlation Matrix

	E1	E2	E3	S1	S2	S3	IA1	IA2	IA3
Emotion1									
Emotion2	.39**								
Emotion3	.36**	.40**							
Social1	.69**	.34**	.43**						
Social2	.44**	.69**	.47**	.52**					
Social3	.30**	.41**	.59**	.42**	.54**				
Instrumental1	.62**	.37**	.37**	.73**	.49**	.47**			
Instrumental2	.38**	.57**	.46**	.46**	.67**	.49**	.47**		
Instrumental3	.33**	.42**	.56**	.34**	.43**	.56**	.38**	.49**	
Intimacy1	.52**	.33**	.35**	.68**	.42**	.42**	.62**	.34**	.32**
Intimacy2	.29**	.59**	.40**	.38**	.71**	.42**	.44**	.62**	.40**
Intimacy3	.25*	.45**	.59**	.41**	.45**	.63**	.37**	.44**	.62**
Conflict1	-.39**	-.23*	-.17*	-.21*	-.23*	-.17*	-.32**	-.20*	-.25**
Conflict2	-.20*	-.40**	-.04	-.13	-.27**	-.07	-.24*	-.31**	-.22
Conflict3	-.12	-.02	-.33**	-.04	-.08	-.20*	-.07	-.12	-.13

\*\*  $p < .01$ \*  $p < .05$ 

	I1	I2	I3	C1	C2	C3
Intimacy1						
Intimacy2	.42**					
Intimacy3	.42**	.41**				
Conflict1	-.14	-.09	-.11			
Conflict2	-.09	-.23*	-.19*	.39**		
Conflict3	-.01	-.04	-.15	.26*	.23*	

are particularly distinctive. Accordingly, interpretation of the results will be based primarily on the structure coefficients and the univariate analyses.

Three of the subscales associated with the SCS ratings of the first closest individual had meaningful positive structure coefficients: Conflict,  $s=.45$ ; Intimacy,  $s=.41$ ; and Instrumental Aid,  $s=.36$ . The univariate analysis indicated that there were significant group differences on the Conflict rating of the first target individual,  $F(2,122)=4.84$ . With a less conservative criterion,  $p<.05$ , the univariate analyses for Intimacy with the first closest person,  $F(2,122)=3.99$ , and Instrumental Aid from the first closest person,  $F(2,122)=3.09$ , were also significant. Since the marrieds have a positive group centroid they will report the highest levels on all three of these variables. The group means (Table 12) confirm this. The marrieds report more conflicts with the individual identified as closest, ( $\underline{M}=4.48$ ), than either the never-marrieds ( $\underline{M}=2.90$ ) or the widows ( $\underline{M}=3.48$ ). However, the marrieds also have more social support in the form of intimacy and instrumental aid from the first target person, ( $\underline{M}=8.75$ , and  $7.63$ ), compared with the never-marrieds ( $\underline{M}=7.50$  and  $6.37$ ), and the widows ( $\underline{M}=7.78$  and  $6.74$ ).

Two other variables had meaningful structure coefficients; Conflicts with ( $s=.30$ ) and Intimacy from ( $s=.36$ ) the second closest person. The univariate analyses with these two variables as dependent measures would have been significant with a more

Table 12

Means and Standard Deviations for Support and Conflict Scale by Marital Status

<u>Variable</u>	<u>Married</u>		<u>Widows</u>		<u>Never-married</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Emotion1	7.76	2.25	7.55	2.63	7.86	1.87
Emotion2	6.89	2.41	6.48	2.36	6.60	2.28
Emotion3	6.42	2.59	6.70	2.41	7.00	2.39
Social1	7.42	3.29	6.70	3.78	7.13	3.31
Social2	5.78	3.27	5.26	3.51	5.83	3.01
Social3	5.04	3.28	5.07	3.28	5.63	3.28
Instrumental1	7.63	2.39	6.74	2.90	6.37	2.48
Instrumental2	6.15	2.53	6.48	2.94	5.50	2.98
Instrumental3	5.54	2.82	5.07	2.69	5.20	2.93
Intimacy1	8.75	2.09	7.78	2.70	7.50	2.08
Intimacy2	7.75	2.48	6.48	2.48	6.70	2.46
Intimacy3	6.41	2.72	5.85	2.24	6.03	2.47
Conflict1	4.48	2.51	3.48	2.78	2.90	1.93
Conflict2	4.13	2.75	2.66	2.53	3.43	2.16
Conflict3	3.56	2.61	2.44	2.01	3.10	2.20

Note. Numeric labels refer to target person.

liberal criterion of  $p < .05$ , Conflict  $F(2,122)=3.27$ , and Intimacy  $F(2,122)=3.41$ . Since both of these variables have positive structure coefficients, the marrieds will again report the highest levels of both, which is confirmed by the group means (Table 12). The married group have more conflicts with and intimacy from the second closest individual than either the never-marrieds or the widows, the respective means being: 4.13 and 7.75; 3.43 and 6.70; and 2.66 and 6.48.

These results support the hypotheses that married women would have more conflict with and intimacy from the individual identified as closest than either the never-marrieds or the widows. No predictions had been made about differences among groups on the results of the other subscales, but it appears that the marrieds also receive more instrumental aid from the first closest person. In addition, the marrieds have more conflicts with and more intimacy from the second closest individual.

#### Group Differences on Well-Being

The means and standard deviations of well-being measures for each marital group (Table 13) do not show great differences between groups and this was confirmed by analyses of variance (ANOVA). A summary of the four ANOVA's - marital status by self-esteem, happiness, positive affect and negative affect - is presented in Table 14. The prediction that married women would report the highest levels of well-being, followed by the never-married and, finally the widows, was not supported.

Table 13

Means and Standard Deviations for Indices of Well-being by Marital Status

<u>Index</u>	<u>Married</u>		<u>Widows</u>		<u>Never-married</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Self-esteem	41.86	4.50	41.66	3.87	39.60	5.58
Happiness	19.39	13.23	15.74	14.11	18.13	10.48
Positive Affect	42.88	7.71	41.03	7.37	43.03	5.22
Negative Affect	23.47	6.87	25.48	7.43	24.90	6.33



Table 14

Analysis of Variance Summary Tables for Differences Between Marital Groups on  
Indices of Well-being

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Self-esteem	2	56.09	2.57
Error	122	21.75	
-----			
Happiness	2	129.76	.78
Error	122	164.86	
-----			
Positive Affect	2	38.10	.47
Error	122	50.74	
-----			
Negative Affect	2	47.46	1.00
Error	122	47.25	
-----			

Note. None of the F ratios were significant.

Multivariate analyses of covariance (MANCOVA) were conducted to examine possible marital group differences on well-being after statistically controlling for other variables. For a covariate to be effective in increasing the precision of an analysis it should be correlate at .30 or greater with at least one of the dependent measures of well-being and it must be different across marital groups (Pedhazur, 1982). Although both personal income and total family income met these two criteria, only personal income was used as a covariate. Holding total income constant would have meant equating income for the never-marrieds and widows which was used by one person, with the income of the married which was used by at least two persons.

Two MANCOVA's were performed: first, using self-esteem and happiness (MUNSH) as dependent variables; second, using self-esteem and the two subscales of the MUNSH, positive affect (PAS) and negative affect (NAS) as the dependent variables. The happiness score is a linear combination of the positive and negative affect measures and as such, these three variables cannot be analysed in combination. For consistency, self-esteem was included in both of the analyses.

The first MANCOVA was significant, indicating group differences on the combined variables of self-esteem and happiness when personal income was held constant,  $F(4,240)=4.23$ ,  $p<.01$ , with Wilk's criterion. The second analysis, with a combination of self-esteem, positive affect and negative affect

all adjusted for personal income, was also significant,  $F(6,238)=2.94$ ,  $p<.01$ .

Four univariate analyses of covariance were performed to ascertain which of the adjusted measures of well-being were significantly different across the marital groups. Results of the univariate analyses (Table 15) indicate that only self-esteem, adjusted for personal income, was significantly different for the marital groups,  $F(2,121)=6.74$ ,  $p<.01$ . Follow up analyses, using a Scheffe's test of adjusted means, indicated that the adjusted self-esteem of the never-marrieds ( $M=39.60$ ,  $SD=5.58$ , adjusted mean=39.12), was significantly lower than either that of married women ( $M=41.86$ ,  $SD=4.50$ , adjusted mean=42.72),  $F(1,120)=13.35$ ,  $p<.01$ , or that of widows ( $M=41.66$ ,  $SD=3.87$ , adjusted mean=42.01),  $F(1,120)=6.29$ ,  $p<.05$ . The marrieds and the widows were not significantly different from each other. The implication is that, without the advantage of a higher personal income, the never-marrieds would be lower in self-esteem than either of the married women or widows.

#### Prediction of Well-Being

Hierarchical multiple regression was employed to ascertain which variables were important in predicting well-being. This analysis allows predictor variables to be entered, individually or in blocks, into the regression equation in a predetermined order. By specifying the order of entry each predictor, or block

Table 15

Analysis of Covariance Summary Tables for Differences Between Marital Groups on  
Indices of Well-being using Personal Income as a Covariate

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Self-esteem	2	125.86	6.74**
Covariate			
Personal Income	1	508.63	27.28**
Error	121	18.65	
-----			
Happiness	2	213.22	1.33
Covariate			
Personal Income	1	754.69	4.71*
Error	121	159.98	
-----			
Positive Affect	2	45.86	.92
Covariate			
Personal Income	1	185.45	3.73
Error	121	49.86	
-----			
Negative Affect	2	80.54	1.74
Covariate			
Personal Income	1	187.56	4.07
Error	121	46.09	
-----			

\*\* $p < .01$

\* $p < .05$

of predictors, can be evaluated as to its unique contribution to explained variance after the earlier variables are held constant. The order in which the variables are to be entered is based on logical and/or theoretical grounds (Tabachnick & Fidell, 1983). Variables which are presumed to be related to the dependent variable but are actually "nuisance" variables are entered first, for example, in this study social desirability was entered first because it is thought to be an indication of a response bias which should be statistically controlled early in the analysis. Variables with stability and perhaps known to relate to the criterion measure are entered second and in this study include both background variables and personality characteristics since they have been found to be associated with well-being and are fairly stable. The last entries are variables of primary interest in the study and are perhaps less stable and in this study include: quantitative and qualitative social resources, and "negative relations". The possibility of Type I errors is reduced by entering the predictors in a block instead of individually, since variables within each block are examined for a contribution only if the block itself was significant.

Two sets of four hierarchical regressions were performed - one set to predict happiness (MUNSH) and a second set to predict self-esteem. Within each set, a regression analysis was conducted on the total sample and then each marital group was analysed separately. The adopted criterion for significance in all subsequent analyses was  $p < .05$ . Throughout the discussion of

the results of the regression analyses, it is understood that once a variable is entered into the regression equation it acts as a control for all variables entered in later steps.

Prediction of happiness for total sample. In the regression performed to predict happiness for the total sample, social desirability and marital status were entered first to control for the possible effects of these variables. Five more blocks of predictors were entered into the equation in the following order: (a) background variables, (b) personality characteristics, (c) quantitative social resources, (d) negative relations, (e) qualitative social resources. The three background variables were: perceived adequacy of income, self-assessed health and years of education. The two personality variables were locus of control and assertion of autonomy. The two quantitative social resources included were number of close family and number of close friends. The negative social relations block was comprised of three variables: number of people who provoke conflicts; total amount of upset from these relationships; and, amount of conflict from the three individuals identified as closest as rated on the Support and Conflict Scale. There are five variables in the qualitative social resources block: perceived support from family and from friends; amount of closeness to family and to friends; and support from the three individuals nominated as closest - the latter based on a combined score of the four support subscales of the SCS.

Table 16 presents the results of the regression of happiness for the total sample. The complete set of predictors accounted for 61% of the variance in happiness,  $F(18,106)=9.16$ . Social desirability accounted for 9% of the variance,  $F(1,123)=12.57$ . Marital status did not contribute significantly to the explained variance. As a block, background variables accounted for 26% of the variance in happiness,  $F(93,118)=16.38$ , and within this block, adequacy of income,  $\beta=.40$ ,  $t(118)=5.21$ , and self-assessed health,  $\beta=.25$ ,  $t(118)=3.18$ , were significant, while education was not. Women with greater perceived income adequacy and good physical health tended to report greater happiness. The personality block accounted for an additional 15% of the variance,  $F(2,116)=17.97$ , and both locus of control,  $\beta=.38$ ,  $t(116)=5.03$ , and autonomy,  $\beta=-.18$ ,  $t(116)=-2.66$ , were significant. More internal locus of control and less preference for being alone were associated with greater feelings of happiness for these women. The block of quantitative social resources explained another 3% of the variance in happiness,  $F(2,114)=4.31$ , but only number of close family was significant,  $\beta=.19$ ,  $t(114)=2.70$ . Having more close family members was associated with more happiness, but having more close friends was not. The last two blocks of predictors, negative social relations and qualitative social resources, did not significantly contribute to the explained variance.

Prediction of happiness for marital groups. The hierarchical regression conducted for each marital group, had

Table 16

## Hierarchical Multiple Regression: Prediction of Happiness for the Total Group

Predictor Blocks	$R^2$	df	F
1) Social Desirability	.09	1,123	12.57**
2) Marital Status	.01	2,121	.55
3) Background Variables	.26	3,118	16.38**
4) Personality Characteristics	.15	2,116	17.97**
5) Quantitative Social Resources	.03	2,114	4.31*
6) Negative Relations	.03	3,111	2.44
7) Qualitative Social Resources	.03	5,106	1.69
Total	.61	18,106	9.16**

-----  
Individual Predictors

	$r$	$B$	$t$
<u>Block 1</u>			
Social Desirability	.30*	.30	3.54**
<u>Block 2</u>			
Marital Status1	-	.04	.51
Marital Status2	-	-.10	-1.05
<u>Block 3</u>			
Income Adequacy	.47**	.40	5.21**
Self-assessed Health	.35**	.25	3.18**
Education	.15*	-.01	-.23
<u>Block 4</u>			
Locus of Control	.54**	.38	5.03**
Autonomy	-.31**	-.18	-2.66**
<u>Block 5</u>			
# Close Family	.28**	.19	2.70**
# Close Friends	.08	-.12	-1.58
<u>Block 6</u>			
# Upsetting	-.07	-.03	-.41
Mean Upset	-.27**	-.16	-2.52
SCS Conflict	-.01	.06	.90
<u>Block 7</u>			
Perceived Social Support			
Family	.43**	.13	1.48
Friends	.37**	.05	.63
Mean Closeness			
Family	.09	-.01	-.11
Friends	.04	-.07	-1.04
SCS Support	.32**	.12	1.67

\*\*  $p < .01$ \*  $p < .05$



only four blocks of predictors, due to the necessity of reducing the number of predictor variables to a minimum 2 to 1, subject to variable, ratio. The negative relations block was not included in the regressions and only two variables - perceived social support from family and from friends - were retained from the qualitative social resources block. Contrary to expectations, negative relations were not highly associated with well-being and, therefore, were excluded from the analyses. The two perceived social support variables were chosen because they are multi-item measures with good reliability and validity. In addition, there were high correlations between these variables and the measures of well-being for the groups.

The percentage of variance in well-being explained by the predictors is probably overestimated in the two unmarried groups because of the small ratio of number of independent variables to the size of the samples. As a protection against overstating the importance of some variables, an adjusted value, which takes into account the small ratio of variables to sample size (Pedhazur, 1982), will be provided for the never-married and widowed groups, in addition to the proportion of variance in well-being explained.

Table 17 presents the results of the hierarchical regression for the married group. A total of 66% of the variance in happiness was explained by the blocks of predictors,  $F(10,57)=11.01$ . Social desirability did not contribute

Table 17

Hierarchical Multiple Regression: Prediction of Happiness  
(Marital Groups Analyzed Separately)

Predictor Blocks	Married			Widows			Never-married		
	$R^2$	df	F	$R^2$	df	F	$R^2$	df	F
1) Social Desirability	.04	1,66	3.03	.18	1,25	5.45*	.15	1,28	5.19*
2) Background Variables	.32	3,63	10.83**	.19	3,22	2.19	.26	3,25	3.75*
3) Personality	.19	2,61	13.43**	.19	2,20	4.24*	.23	2,23	7.53**
4) Quantitative Social Resources	.03	2,59	2.48	.15	2,18	4.47*	.01	2,21	.21
5) Qualitative Social Resources	.06	2,57	5.24**	.01	2,16	.39	.03	2,19	.91
Total	.66	10,57	11.01**	.72	10,16	4.07**	.68	10,19	4.14**
<hr/>									
Individual Predictors									
	$r$	$B$	$t$	$r$	$B$	$t$	$r$	$B$	$t$
<u>Block 1</u>									
Social Desirability	.21*	.21	1.74	.42*	.42	2.33*	.39*	.39	2.28*
<u>Block 2</u>									
Income Adequacy	.51**	.42	4.02**	.43*	.32	1.79	.43**	.54	2.88**
Self-assessed Health	.37**	.27	2.56*	.38*	.24	1.28	.22	.21	1.24
Education	.17	.07	.66	.06	.01	.04	.23	-.20	-1.00
<u>Block 3</u>									
Locus of Control	.46**	.32	3.33**	.70**	.59	2.65*	.67**	.61	3.65**
Autonomy	-.46**	-.28	-3.02**	-.17	-.16	-1.02	.01	.24	1.70
<u>Block 4</u>									
#Close Family	.19	.17	2.02	.46**	.47	2.55*	.36*	.11	.64
#Close Friends	.12	-.13	-1.44	.01	-.20	-1.19	.20	.00	.01
<u>Block 5</u>									
Perceived Social Support									
Family	.52**	.30	3.23**	.46**	.19	.83	.22	-.27	-1.19
Friends	.35**	-.12	-1.08	.36*	.08	.35	.53**	.33	1.29

\*\* $p < .01$ \* $p < .05$

significantly to the variance. The block of background variables accounted for 32% of the variance in happiness,  $F(3,63)=10.83$ . In this block, perceived adequacy of income,  $\beta=.42$ ,  $t(63)=4.02$ , and self-assessed health,  $\beta=.27$ ,  $t(63)=2.56$ , were significant, but education was not. For married women, feelings of income adequacy and good physical health were related to greater levels of happiness. The block of personality variables explained 19% of the variance,  $F(2,61)=13.43$ , and both locus of control,  $\beta=.32$ ,  $t(61)=3.33$ , and autonomy,  $\beta=-.28$ ,  $t(61)=-3.02$ , made significant contributions to the prediction of happiness. Having more internal locus of control, but less desire for autonomy was associated with greater happiness for married women. The block of quantitative social resources did not significantly contribute to the explained variance. Qualitative social resources accounted for an additional 6% of the variance,  $F(2,57)=5.24$ , and within this block perceived social support from families was important,  $\beta=.30$ ,  $t(57)=3.23$ , but support from friends was not. Married women with higher levels of perceived support from their families tended to report higher levels of happiness.

Table 17 presents the results of the regression analysis for the widowed women. Overall, 72% (adjusted-52%) of the variance in happiness was accounted for,  $F(10,16)=4.07$ . Social desirability was a major contributing factor, explaining 18% (adjusted-14%) of the variance,  $F(1,25)=5.45$ . The background variables did not make a significant contribution to the explained variance. Personality accounted for 19% (adjusted-17%)

of the variance in happiness,  $F(2,20)=4.24$ , and it was locus of control which made the major contribution,  $\beta=.59$ ,  $t(20)=2.65$ . Widows with more internal locus of control tend to report more happiness. Quantitative social resources explained an additional 15% (adjusted-15%) of the variance,  $F(1,18)=4.47$ , but only the number of close family members was significant,  $\beta=.47$ ,  $t(18)=2.55$ . For widows, having more family, but not more friends, was associated with greater happiness. The qualitative social resources block did not make a significant contribution to the explained variance.

The results of the regression analysis for the never-married group is presented in Table 17. Sixty-eight percent (adjusted-52%) of the variance in happiness was explained by the set of predictors,  $F(10,19)=4.14$ . Social desirability accounted for 15% (adjusted-13%) of the variance,  $F(1,28)=5.19$ . Background variables, as a block, contributed 26% (adjusted-20%) to the explained variance,  $F(3,25)=3.75$ , but only perceived adequacy of income was significant,  $\beta=.54$ ,  $t(25)=2.88$ . For never-married women, a feeling of income adequacy was related to greater levels of happiness, while self-assessed health and education were not. Personality accounted for an additional 23% (adjusted-23%) of the variance in happiness,  $F(2,23)=7.53$ , but only proportion of locus of control made a significant contribution,  $\beta=.61$ ,  $t(23)=3.65$ . For never-married women, a sense of internal locus of control was related to greater levels of reported happiness. Neither the quantitative or the qualitative blocks of social resources were

significantly associated with happiness for the never-married women.

Summary of prediction of happiness. Social desirability was a significant contributor to the prediction of happiness for the total sample, the widows and the never-marrieds, but not for the marrieds. The block of background variables were highly predictive of happiness in all the regressions except for the widows. However, education did not make a significant contribution for any groups, and it was predominantly perceived income adequacy which was important. After controlling for social desirability and background variables, personality made a significant contribution to the explained variance for the total sample and all marital groups. However, it was primarily internal locus of control which was important since autonomy was only significant for the married group and, for them a desire for autonomy was related to less happiness. The number of close family was predictive of happiness for the total sample, the widows and the marrieds after holding the variables in the previous blocks constant. Of the qualitative measures, perceived social support from family was predictive of happiness only for the married women, while support from friends was not significant in any of the regressions. For the never-married women, the quantitative and qualitative social support measures were not predictive of happiness.

Prediction of self-esteem for total sample. The blocks of predictors were the same as those used to predict happiness with the total sample.

Table 18 presents the results of regression analysis of the prediction of self-esteem for the total sample. Forty-nine percent of the variance in self-esteem was explained by the total set of predictors,  $F(18,106)=5.81$ . Social desirability accounted for 14% of the variance,  $F(1,123)=21.62$ . Marital status did not contribute significantly to the explained variance. Background variables explained 14% of the variance,  $F(3,118)=8.27$ , and within this block only perceived income adequacy was important,  $\beta=.31$ ,  $t(118)=3.84$ . A feeling of income adequacy was associated with higher levels of self-esteem for these women, but self-assessed health and education were not. Personality accounted for 12% of the variance in self-esteem,  $F(2,116)=13.31$ , with locus of control making a significant contribution,  $\beta=.41$ ,  $t(116)=5.08$ , while autonomy did not. Internal locus of control was related to higher levels of self-esteem. None of the last three blocks of predictors - quantitative social resources, negative relations, or qualitative social resources - contributed significantly to the prediction of self-esteem.

Prediction of self-esteem for marital groups. The blocks of variables were the same as those used to predict happiness when the marital groups were analysed separately.

## Hierarchical Multiple Regression: Prediction of Self-esteem for the Total Sample

<u>Predictor Blocks</u>	<u>R<sup>2</sup></u>	<u>df</u>	<u>F</u>
1) Social Desirability	.14	1,123	21.62**
2) Marital Status	.02	2,121	1.52
3) Background Variables	.14	3,118	8.27**
4) Personality	.12	2,116	13.31**
5) Quantitative Social Resources	.01	2,114	1.42
6) Negative Relations	.01	3,111	.93
7) Qualitative Social Resources	.03	5,106	1.13
Total	.49	18,106	5.81**

Individual Predictors

	<u>r</u>	<u>B</u>	<u>t</u>
<u>Block 1</u>			
Social Desirability	.38**	.38	4.65**
<u>Block 2</u>			
Marital Status1	-	.07	.81
Marital Status2	-	.09	1.03
<u>Block 3</u>			
Income Adequacy	.35**	.31	3.84**
Self-assessed Health	.15*	.02	.25
Education	.16*	.14	1.70
<u>Block 4</u>			
Locus of Control	.54**	.41	5.08**
Autonomy	-.07	.10	1.47
<u>Block 5</u>			
# Close Family	.17*	.04	.47
# Close Friends	.10	.13	1.52
<u>Block 6</u>			
# Upsetting	-.10	-.04	-.43
Mean Upset	-.01	-.04	-.56
SCS Conflict	-.14	-.11	-1.38
<u>Block 7</u>			
Perceived Social Support			
Family	.32**	.11	1.11
Friends	.28**	-.03	-.40
Mean Closeness			
Family	.03	.00	.00
Friends	.06	-.01	-.16
SCS Support	.39**	.15	1.83

\*\*  $p < .01$ \*  $p < .05$

The set of predictors accounted for 48% of the variance in self-esteem for the married group (Table 19),  $F(10,57)=5.18$ . Social desirability explained 15% of the variance,  $F(1,66)=11.46$ . The block of background variables accounted for 10% of the variance in self-esteem,  $F(3,63)=2.91$ , but only perceived adequacy of income was significant,  $\beta=.26$ ,  $t(63)=2.28$ . For married women, a feeling of income adequacy was related to higher levels of self-esteem, while self-assessed health and education were not. Quantitative social resources did not significantly contribute to the explained variance. Qualitative social resources accounted for 7% of the variance,  $F(2,57)=4.07$ . Within this block perceived social support from family was significant,  $\beta=.33$ ,  $t(57)=2.83$ , but support from friends was not. Married women who feel they receive more support from their families tend to report greater self-esteem.

Table 19 presents the results of the regression analysis for the widows. The set of predictors account for 72% (adjusted-54%) of the variance in self-esteem,  $F(10,16)=4.05$ . However, only social desirability made a significant contribution, explaining 23% (adjusted-20%) of the variance,  $F(1,25)=7.51$ . The lack of other significant predictors is perhaps due to the small numbers in this sample.

For the never-married group, 64% (adjusted-46%) of the variance in self-esteem was explained (Table 19),  $F(10,19)=3.47$ . Social desirability and the background variables did not make



Table 19  
 Hierarchical Multiple Regression: Prediction of Self-esteem  
 (Marital Groups Analyzed Separately)

Predictor Blocks	Married			Widows			Never-married		
	R <sup>2</sup>	df	F	R <sup>2</sup>	df	F	R <sup>2</sup>	df	F
1) Social Desirability	.15	1,66	11.46**	.23	1,25	7.51*	.08	1,28	2.36
2) Background Variables	.10	3,63	2.91*	.21	3,22	2.73	.24	3,25	2.93
3) Personality	.12	2,61	5.64**	.10	2,20	2.31	.27	2,25	7.64**
4) Quantitative Social Resources	.03	2,59	1.62	.12	2,18	3.31	.02	2,21	.67
5) Qualitative Social Resources	.07	2,57	4.07*	.05	2,16	1.39	.03	2,19	.83
Total	.48	10,57	5.18**	.72	10,16	4.05**	.64	10,19	3.47**
<hr/>									
<u>Individual Predictors</u>									
	r	B	t	r	B	t	r	B	t
<u>Block 1</u>									
Social Desirability	.38*	.38	3.38**	.48*	.48	2.74*	.28	.28	1.54
<u>Block 2</u>									
Income Adequacy	.31**	.26	2.28*	.53*	.46	2.78	.41*	.30	1.47
Self-assessed Health	.09	.02	.21	.14	-.03	-.15	.22	.08	.44
Education	.14	.14	1.22	-.09	-.05	-.27	.44**	.21	.99
<u>Block 3</u>									
Locus of Control	.43**	.38	3.32**	.67**	.44	1.92	.67**	.63	3.52**
Autonomy	-.13	.15	1.32	-.12	-.13	-.84	.17	.32	2.08*
<u>Block 4</u>									
#Close Family	-.07	-.14	-1.32	.48**	.41	2.06	.38*	.19	1.15
#Close Friends	.18	.17	1.53	.26	.33	1.81	.18	-.02	-.15
<u>Block 5</u>									
Perceived Social Support									
Family	.38**	.33	2.83**	.28	-.38	-1.01	.18	-.26	-1.06
Friends	.19	-.15	-1.14	.48**	-.12	-.49	.44**	.35	1.27

\*\*p < .01

\*p < .05

significant contributions to the explained variance. Personality explained 27% (adjusted-27%) of the variance,  $F(2,23)=7.64$ . Both locus of control,  $\beta=.63$ ,  $t(23)=3.52$ , and autonomy,  $\beta=.32$ ,  $t(23)=2.08$ , were significant. However, autonomy did not make a direct contribution to the prediction of self-esteem, but rather acted as a suppressor by reducing some of the variance associated with other variables in the equation which were directly related to self-esteem. Never-married women with a sense of internal locus of control tended to report higher levels of self-esteem. Neither quantitative or qualitative social resources made a significant contribution to the prediction of self-esteem.

Summary of prediction of self-esteem. In all four regression analyses a significant amount of variance in self-esteem was explained. Social desirability made a significant contribution for the total sample, the marrieds and the widows. After controlling for social desirability the only background variable which was significantly associated with self-esteem was income adequacy and this was limited to the total sample and the marrieds. A sense of internal locus of control was associated with higher levels of self-esteem for the total sample, the marrieds and the never-marrieds, with the previously entered variables held constant. The blocks of social resource variables did not predict self-esteem in any of the regressions after controlling for other variables.

Predicting happiness and self-esteem for marital groups using the Support and Conflict Scale. A major purpose of this study was to investigate the relationships between well-being and support from and conflicts with the three closest individuals and with the first closest person. To this aim, the Support and Conflict Scale (SCS) had been constructed and pre-tested. The size of the widowed and never-married groups were too small to allow these variables to be included in the major analyses. The total support and total conflict measures from both the three closest individuals and from the first closest individual were not highly correlated with the social resource measures already employed in earlier regressions. Therefore, a second set of regressions were performed with the original social resources replaced, first, by a block of predictors comprised of total support from and total conflicts with all three close individuals as rated on the SCS, and second, by a block of predictors comprised of support from and conflicts with the first closest individual as rated on the SCS. The first groups of predictors, social desirability, background variables, and personality characteristics, were the same as those in the previous analyses and, as such, these results will not be reiterated.

The results of the prediction of happiness for the marital groups by support from and conflict with the three target individuals is presented in Table 20. For the married women, this block of predictors explained 6% of the variance in happiness,  $F(2,59)=4.61$ , and total support from the target

Hierarchical Multiple Regression: Nonredundant Results of Prediction of Happiness Using the Total Scores from the Support and Conflict Scale (Each Marital Group Analyzed Separately)

Married

Predictor Block

	$R^2$	df	F
Support and Conflict Scale	.06	2,59	4.61*

Individual Predictors

	$\beta$	B	t
Total Support	.28*	.29	2.99**
Total Conflict	.03	.18	1.76

---

Widows

Predictor Block

	$R^2$	df	F
Support and Conflict Scale	.01	2,18	.22

Individual Predictors

	$\beta$	B	t
Total Support	.27	.12	.63
Total Conflict	-.26	.08	.41

---

Never-married

Predictor Block

	$R^2$	df	F
Support and Conflict Scale	.01	2,21	.39

Individual Predictors

	$\beta$	B	t
Total Support	.52**	.12	.73
Total Conflict	.02	-.05	-.41

---

\*\*  $p < .01$

\*  $p < .05$

individuals was the important contributor,  $\beta=.29$ ,  $t(59)=2.99$ . This block did not make a significant contribution for either the widows or the never-marrieds.

Similar results were found using the block of predictors which contained support from and conflict with the first closest individual (Table 21). For the marrieds, 7% of the variance in happiness was explained by this block,  $F(2,59)=5.25$ . Both support,  $\beta=.32$ ,  $t(59)=2.75$ , and conflict,  $\beta=.23$ ,  $t(59)=2.12$ , made significant contributions. This block did not make a significant contribution to the explained variance for either the widows or the never-marrieds.

In predicting self-esteem (Table 22), support from and conflict with the three target individuals was only significant for the widows, explaining 18% (adjusted-20%) of the variance,  $F(2,18)=6.35$ , and within this block, support was the important variable,  $\beta=.52$ ,  $t(18)=3.51$ . For the marrieds and never-marrieds, this block of predictors did not make a significant contribution to the explained variance.

Prediction of self-esteem with support from and conflict with the first closest individual, provided results (Table 23) similar to those found in the previous analyses. For the widows, 17% (adjusted-19%) of the variance was explained,  $F(2,18)=5.64$ , and support, again made the major contribution,  $\beta=.53$ ,  $t(18)=3.28$ . The block was not significant for either the marrieds or the never-marrieds.

Hierarchical Multiple Regression: Nonredundant Results of Prediction of Happiness Using Ratings  
of the First Closest Person on the Support and Conflict Scale  
(Each Marital Group Analyzed Separately)

Married

Predictor Block

	$R^2$	df	F
First Closest Person	.07	2,59	5.25**

Individual Predictors

	$\beta$	B	t
Support	.27*	.32	2.75**
Conflict	.18	.23	2.12*

---

Widows

Predictor Block

	$R^2$	df	F
First Closest Person	.01	2,16	.21

Individual Predictors

	$\beta$	B	t
Support	.21	.10	.49
Conflict	-.31	-.01	-.05

---

Never-married

Predictor Block

	$R^2$	df	F
First Closest Person	.01	2,21	.18

Individual Predictors

	$\beta$	B	t
Support	.23	-.10	-.56
Conflict	.03	-.06	-.44

---

\*\*  $p < .01$

\*  $p < .05$

Table 22

Hierarchical Multiple Regression: Nonredundant Results of Prediction of Self-esteem Using the Total Scores from the Support and Conflict Scale (Each Marital Group Analyzed Separately)

MarriedPredictor Block

	$R^2$	df	F
Support and Conflict Scale	.01	2,59	.54

Individual Predictors

	$\beta$	B	t
Total Support	.28*	.10	.82
Total Conflict	-.18	-.03	-.22

---

WidowsPredictor Block

	$R^2$	df	F
Support and Conflict Scale	.18	2,18	6.35**

Individual Predictors

	$\beta$	B	t
Total Support	.63**	.52	3.51**
Total Conflict	-.30	.10	.64

---

Never-marriedPredictor Block

	$R^2$	df	F
Support and Conflict Scale	.07	2,21	2.41

Individual Predictors

	$\beta$	B	t
Total Support	.48**	.00	.00
Total Conflict	-.13	-.29	-.217

---

\*\*  $p < .01$

\*  $p < .05$

Table 23

Hierarchical Multiple Regression: Nonredundant Results of Prediction of Self-esteem Using  
Ratings of the First Closest Person on the Support and Conflict Scale  
(Each Marital Group Analyzed Separately)

MarriedPredictor Block

	$R^2$	df	F
First Closest Person	.01	2,59	.29

Individual Predictors

	$r$	$B$	$t$
Support	.11	-.04	-.39
Conflict	-.04	.07	.58

---

WidowsPredictor Block

	$R^2$	df	F
First Closest Person	.17	2,16	5.64*

Individual Predictors

	$r$	$B$	$t$
Support	.49**	.53	3.28**
Conflict	-.33*	.21	1.11

---

Never-marriedPredictor Block

	$R^2$	df	F
First Closest Person	.03	2,21	.97

Individual Predictors

	$r$	$B$	$t$
Support	.44*	.18	.93
Conflict	-.02	-.09	-.61

---

\*\*  $p < .01$

\*  $p < .05$



Summary of the prediction of well-being by the Support and Conflict Scale. After controlling for the previously entered variables, more support from the three closest individuals was associated with greater happiness for the marrieds and higher levels of self-esteem for the widows, but not with happiness or self-esteem for the never-marrieds. No support was found for the prediction that conflict from these three individuals would be related to well-being.

Greater happiness for the marrieds was related to more support from and fewer conflicts with the first closest person. For the widows, more support from the first closest individual was associated with higher levels of self-esteem. The prediction that the marrieds would benefit most from support from the first closest individual and be harmed most from conflict is only partially supported, since the widows also benefited from support from the first closest individual. Neither the never-marrieds' happiness nor self-esteem were related to the amount of support from or conflicts with the first closest individual once the other variables were held constant.

## DISCUSSION

Well-Being

The hypothesis that the married women would report the highest levels of well-being, followed by the never-marrieds and, lastly by the widows was not supported. In the present study the married, never-married and widowed women all reported similar levels of well-being, with respect to both happiness and self-esteem. Therefore, these results run counter to the assumption, which is perhaps not so common now as in the past, that the family is all important for women and that being married is necessary for high levels of well-being.

The original prediction that the never-marrieds would not report levels of well-being similar to married women, had been based primarily on studies by Glenn (1975) and Ward (1979). Some of the differences in methodology and sampling between these investigations and the present one might explain the dissimilar results. The data for Glenn's and Ward's studies came from U.S. national surveys, making their samples much larger than the present one and probably more representative of older never-married women. These studies included a variety of participants, for example, women who were employed and unemployed, from urban and rural communities and in Ward's study the women were aged 50 and over, therefore, including very old women. The women in the present study were from a more restricted group - all were employed, urbanites and within the

age range of 43 to 65. In addition, the data for these U.S. surveys were collected over a decade ago and may not reflect possible recent trends for never-married women to be more adjusted to their single status. An advantage of the present study over both previous investigations is more reliable multi-item measures of well-being were employed rather than the single-item measures used in the earlier studies.

To assume that measures of well-being are uncontaminated by the influence of other variables associated with marital status is clearly not realistic. Indeed, when personal income was statistically controlled, the adjusted self-esteem of the never-married women became lower than that of either the married women or the widows. The never-marrieds reported the highest levels of personal income of all three groups and it appears that, without this economic advantage, their feelings of well-being would not be as great as the other two marital groups. Personal income may well be related to other variables which influence well-being, such as status and job satisfaction. Controlling for personal income may also result in controlling for these other variables related to employment. Thus it might be reasonable to conclude that employment is an important consideration in the well-being of older never-married women.

Studies which have examined the well-being of women, according to their marital status, have almost invariably found that widows report the lowest levels of well-being. However,

these findings were not replicated in the present study, presumably because all the widows were employed outside the home, unlike previous investigations. Their employment may have had an important effect in that the widows in this study were not economically deprived; most of them felt their incomes were adequate for their needs. Widows in other studies have been found to be less advantaged, with many of them living in poverty (Atchley, 1975; Hutchison, 1975). Besides income, other concomitants of employment have been found to be associated with greater levels of well-being for women (Fox, 1977; Jaslow, 1976). The positive influence of employment was verified by the numerous spontaneous comments made by the widows in this study, who felt that their work had provided them with structure in their lives and kept them occupied after their husbands' death.

#### Background Variables

The never-married women in this study had larger personal incomes and more years of formal education than either the marrieds or the widows. These results confirmed the hypothesized group differences and are in accord with the findings of previous studies (Bernard, 1972; Braito & Anderson, 1979; Ward, 1979). The married women were highest on total family income which is not surprising since most of them came from two-income families, while the never-marrieds and widows reported only one income. Of course, greater family income for the marrieds does not assure them of more disposable income since along with the second income

comes another individual with his own financial requirements. The many difficulties involved in trying to obtain a reliable, objective measure of income which accounts for financial responsibility by prorating dependents were such that this was not attempted for any of the marital groups. The groups did not differ with regard to the subjective measure, perceived income adequacy, with the majority of women from all groups indicating that their incomes were "fairly adequate" for their needs. It is a little unexpected that the widows, with the lowest levels of income, would view their incomes as being as adequate as the other two, objectively more advantaged groups. However, subjective evaluations of financial situations tend to be influenced by a number of factors and are often not highly associated with objective levels (Campbell et al., 1976). The widows in this sample may not have felt economically disadvantaged because they compared themselves to other widows with even lower incomes.

The never-marrieds reported having more health problems which impede their daily activities than the married women, while the widows were in-between these groups. These health problems appear to be reflected in the self-assessed health measure since the never-married women rated themselves as being least healthy of the three groups. However, the negative impact of health on well-being for the women in this study seems to be minimal since few women from any group reported having health problems. Indeed, the majority of the women in this study regarded their

health as being "good" or "excellent". A restricted range such as this, especially in conjunction with small samples, may have the effect of attenuating correlations and result in the underestimation of the importance of health for well-being. For never-married women older than those in the present sample, and perhaps also for some widows, it might be expected that health becomes a major influence in their lives since they would not have the familial support available to married women during a prolonged illness. Previous studies have found that never-married individuals are more highly represented in institutionalized populations - nursing homes - than other marital groups and this has been partially attributed to the absence of informal care outside the institutions (Lipman & Longino, 1984; Verbrugge, 1979).

Based on Ward (1979), the original prediction was that the background variables of education, income and health would all be more highly associated with the happiness of the never-marrieds compared to the marrieds. However, the results of the present study are equivocal. First, education was not significantly associated with happiness for any of the groups. On the other hand, the subjective measure of perceived income adequacy was significantly correlated with happiness for all three marital groups, but was slightly higher for the married women. When an objective measure of income was used, as in Ward's study, the correlations with happiness were significant for the never-marrieds and the widows but not for the married women.

This suggests that objective income is more closely associated with well-being for unmarried women than it is for married women. This provides some support for Ward's contention that income is more necessary for the well-being of the never-marrieds. The third background variable, self-assessed health, was significantly related to happiness for the marrieds and the widows but not for the never-marrieds, which is almost the opposite of the prediction. The participants in Ward's study were older than the women in this sample and, given that health is expected to become of increasing importance to the never-marrieds with age, it is not entirely surprising that Ward found health to be a predictor of happiness for the never-marrieds while the same outcome was not found in the present study. As this group gets older, they too may feel that health is more salient for their well-being, but why it is of such limited importance to them at this age is a puzzle. Overall, background variables appear to be an important component of well-being, but from the results of this study it is impossible to conclude whether they are more important for any one marital group.

### Personality

The results of this study did not support the hypothesis that older never-married women would differ from married women and widows on the personality characteristics of locus of control and desire for autonomy. This would suggest, contrary to a

social selection framework (Anderson & Braito, 1981), that the personalities of future never-married women in their youth, were not much different from the personalities of these married women at a younger age. It is also possible that the personalities of the never-marrieds may have been different initially, but married women and widows developed more internal locus of control and desire for autonomy over the years and eventually became similar to the never-marrieds. Unfortunately, without knowledge of the personalities of these women as young adults "the" correct explanation cannot be ascertained. A comparison of group means on the two personality characteristics between this sample and those of previous studies (Hirschfeld et al., 1977; Reid & Ziegler, 1981) indicates that the women of all marital groups in this study had slightly more internal locus of control and desire for autonomy than women in other investigations. Again, this might be attributable to their employment since many of the women in this study held positions of high status.

Correlations between locus of control and both happiness and self-esteem were highly significant for all marital groups. This is in accord with both the prediction and with previous research (Reid & Ziegler, 1980). For older women, a sense of internal locus of control is associated with higher levels of well-being. However, only for the married group was autonomy associated with well-being, and for them a desire for autonomy was related to less happiness. When a married woman agrees to an item such as "I prefer to be alone", it is not surprising that she might have



difficulties within a marriage. The prediction that a preference for being alone would be correlated with greater levels of well-being for the never-marrieds was not supported. Personality predicted the happiness of all the marital groups after controlling for social desirability and background variables. With regard to self-esteem, personality made a significant contribution to the explained variance for the married and never-married women, but not for the widows. Not unexpectedly, it was a sense of internal locus of control which was associated with greater levels of well-being. For the marrieds, a desire for autonomy was also related to lower levels of happiness.

Personality characteristics are obviously important factors in the well-being of never-married women. However, the results of this study suggest that traits which are adaptive for never-married women are similar to those which are adaptive for older married women and widows.

### Social Resources

The never-married women in this study were not socially isolated, contrary to the never-married individuals in Gubrium's (1975) study. In fact, the never-married women in this study reported having slightly more individuals with whom they felt close than the marrieds and much more than the widows.. The idea that being unmarried is associated with social isolation goes back as far as Durkheim (1897/1951) and although, single women may have been isolated in the 1800's, this assumption appears no

longer appropriate for women with backgrounds similar to the never-marrieds in this study. Durkheim, himself, had acknowledged that single women tended to be less socially isolated than single men.

Friends rather than family, were the primary source of social resources for never-married women while for married women it was the reverse, with family, more than friends who were social resources. These results are in accord with those of Atchley and his associates (1979) who found that older never-married women were more involved with their friends, while older married women were more involved with their families. The following discussion will focus on the contrast between the never-married and married women since the widows tended to be in-between the other two groups on the social resource variables. The widows were somewhat more heterogeneous in their social resources, with some tending to be like the married women with more familial support, while a greater number were more similar to the never-marrieds in that they depended more on friendships.

Given that friends are the main source of social resources for never-married women, it might be expected that the never-marrieds would evaluate their friends as being closer and more supportive than the married women. However, this supposition was not substantiated with either of the subjective measures of friendship. The amount of closeness with friends was similar for the never-married and the married women, as was the

amount of perceived social support from friends. The expectation that the marrieds would evaluate their families as more supportive and closer than the never-marrieds would evaluate their family was partially confirmed. The married women felt that their families provided them with more social support than the never-marrieds felt their families did. However, the married women did not rate their family as being closer to them than the never-marrieds. All in all, there was no confirmation of the prediction that the never-married women would subjectively evaluate their friends higher than the married women evaluated their friends, but there is some corroboration for the contention that the marrieds evaluate their families higher than do the never-marrieds. Longino and Lipman (1982), from their investigation of the importance of family and friends for social support of married and never-married women, reported similar findings. They found that the married women had more family who provided social support than the never-marrieds, but the groups were similar on the number of friends who provided social support.

Married women rated their families as being much closer to them than their friends, as well as feeling that their families provided them with slightly more social support than did their friends. The never-marrieds also rated their families as closer to them than their friends, but the difference was not as great as for the married women. However, the never-married women felt that their friends provided them with slightly more social

support than did their families. Since friends are not considered as close as family by the never-marrieds, even though friends provided more social support, it appears that friends are not substitutes for family.

If never-married women expect their friends to be substitutes for family and, yet, do not evaluate them as highly as the married women rate their families, the implication could be that the never-marrieds are dissatisfied with their friendships. Ward's (1979) study provides some relevant information on the subjective evaluations of friends by never-married individuals. He found that the majority of the married and never-married individuals in his study were "very satisfied" with their friendships, but the proportion was even greater for the marrieds. He concluded that the never-marrieds expected more from their friends than the marrieds and that these expectations were not always met, resulting in lower levels of friendship satisfaction for the never-marrieds. This could also be the case for the never-marrieds in the present study, especially if never-married women expect friends to replace family. Measures of expectations of and satisfaction with social resources were not obtained in the present study, making further enlightenment on this issue impossible with the available results.

Ward (1979), with a combined group of men and women, examined the relationships between happiness and social resources for never-married individuals. He found the frequency of contact

with friends, a quantitative measure, and satisfaction with friends, a qualitative measure, were both significantly correlated with happiness for the never-marrieds. For the never-married women in the present study, only perceived social support from friends, a qualitative measure, was significantly correlated with happiness, while the quantitative measure - number of friends - was not. This suggests that the never-married women in the present study value the social support provided by friends rather than having numerous friends with whom to interact.

With regard to family, Ward found that satisfaction with family, a qualitative measure, was associated with happiness for the never-marrieds. However, in the present study it was the quantitative measure - number of close family - which was significantly correlated with happiness rather than the qualitative measure of perceived support from family. Since many of the never-married women in this study commented that they were geographically distanced from their families, it is possible that this lack of proximity influenced the never-marrieds' expectations of social support from their family.

One of the interesting points concerning the never-marrieds was that social resources did not make a significant contribution to their happiness or self-esteem once other variables were held constant. Superficially, this is surprising, since there were significant correlations between some of the measures of social

resources and well-being. There were also high correlations with other variables already in the regression equation, such as income adequacy and locus of control. The implication is, contrary to public wisdom, that there are aspects of life which are equally as important as social resources to the well-being of never-married women.

### Negative Relations

As predicted, the married women reported having more negative relationships than either the never-married women or the widows. The hypothesis that the married women would have more negative relations was based on the expectation that families, especially husbands, tend to be a greater source of conflicts than friends. Indeed, it was found that for the married women it was primarily family who provoked conflicts while for the never-marrieds and widows it was work associates who tended to be the source of conflicts or upset. Friends were rarely regarded by any of the three groups as being a source of conflicts. However, the advantage of friends as not being a source of conflicts is balanced by the suggestion, as shown earlier, that they may not provide as much social support as do families.

It had been anticipated that negative relations would be major predictors of well-being for the women in this study. However, the correlations between negative relations and the measures of well-being tended to be small for all groups. In addition, when the negative relations were used to predict

well-being for the total sample, the results were not significant. Considering that others have consistently reported results contradictory to the present ones (Barrera, 1981; Fiore et al, 1983; Rook, 1984b), it is difficult to explain the outcome of this study. However, in some of the previous investigations the populations were in "crisis", for example, pregnant teenagers and spouse caregivers of Alzheimer's patients, and this may mean that any kind of negative relations would be particularly upsetting. This could be an interesting reversal of the "buffering" model of social support, in which social support, with its often concomitant negative aspects, may be especially detrimental during periods of stress.

#### The Support and Conflict Scale

The major purpose of constructing the Support and Conflict Scale (SCS) had been to examine differences between the three marital groups with regard to the support provided by and conflicts with the individual nominated as being closest as well as two other individuals identified as being close. It will be recalled that the participants were asked to nominate the three persons with whom they felt closest.

The majority of the married women, 71%, nominated their spouses as being the first closest person, while another 15% included the spouse as either the second or third closest individual. Daughters were the next most frequently identified by the marrieds as being within the group of three close

individuals, followed by friends. For the never-marrieds, friends tended to be most often nominated as being among the three closest persons, but sisters and brothers were also identified. Widows identified daughters and friends most often as close individuals. Drawing firm conclusions from these results may be dangerous, since the scope of the population from which these "close" individuals were being derived, such as the number of children and siblings, is unknown.

Based on the expectation that the married women would nominate their spouses as the first closest person, the prediction had been that the marrieds would have the highest levels of intimacy from this person as well as the most conflicts. This hypothesis was supported by the results of the present study.

There had been no prediction as to differences in the levels of emotional support, social participation and instrumental aid among the marital groups. The results showed that the married women received more instrumental aid from the first closest person than the other two groups, but all groups were similar on the amount of emotional support and social participation they received. In their study of social support, Longino and Lipman (1982) reported that married women had more family members provide emotional support, social participation or companionship, and instrumental aid than either the never-marrieds or the widows. The investigators felt it might be appropriate to equate



the groups on some of their available social resources and, therefore, examined a subgroup of women without children. They found married women maintained their advantage only with respect to instrumental aid. In other words, much of the emotional support and social participation that the married women had was due to the presence of children and not to a husband. These unexpected results lead the investigators to conclude that husbands provide "task oriented" or instrumental aid but are not as important as a source of either emotional support or social participation.

The results of the present study can be interpreted in a similar manner as the Longino and Lipman study. A spouse appears to make a positive difference in the amount of intimacy and instrumental aid provided, but at the same time a negative impact through being a source of conflict. Married women are not advantaged compared to unmarried women with respect to the amount of emotional support and social participation. It appears that women may have to look outside their marriages for some types of social support and, indeed, all three groups seem to have equal amounts of some aspects of social support from the individual closest to them.

The married women also reported having more intimacy with and more conflicts from the second closest individual. This may be because the spouse was often identified as the second closest person when he had not been nominated as the first closest.

Therefore, it is possible that the pattern seen with the second individual is again due to the relationship the married women have with their husbands - they enjoy more intimacy but also endure more conflicts.

It had been expected that the total support from all three close individuals would be similar for the three marital groups, eliminating any advantage that the spouse provided for the married women. Indeed, the total amount of instrumental aid from the three close individuals was similar for all three groups. However, the married women still had more overall intimacy than either the never-marrieds or widows; but, the unmarried groups should feel fortunate because the married women were still beset with more conflicts than they were.

Correlations between the subscales of the SCS and the measures of well-being tended not to be high and the total support and total conflict measures were of limited importance in predicting well-being. When the SCS was conceived it had been intended as a qualitative measure of support and conflicts. I have now reached the conclusion that the subscales are more an assessment of the quantity of support and conflicts rather than an indication of the satisfaction/dissatisfaction with these support and conflicts. The results of the SCS remain important as measures of the quantitative aspects of social support and conflicts from individuals considered close by these marital groups. This approach also provides some suggestion of the

individuals who are most likely to be considered close by the women of these groups. What the scale did not provide was an indication of the subjective evaluations of support and conflicts.

### Social Desirability

In many of the regression analyses, social desirability made a significant contribution to the explained variance of well-being. The association between high levels of social desirability and well-being could be interpreted as indicating that women who report high levels of well-being are simply trying to present themselves in a favorable light and therefore, casting doubt on some of the data. In order to overcome this possible response bias, social desirability was statistically controlled and interpretations of the prediction of well-being were made after this control was in place. To examine further the effect of social desirability on well-being, analyses were performed both with and without social desirability as a control variable. The results from the two analyses were almost identical. Therefore, similar to Campbell and his associates (1976), the conclusion is that the impact of social desirability was minimal in this study.

### IMPLICATIONS

There are two major limiting factors with the present study. Firstly, the sample size is rather small, which is especially unfortunate in the case of the never-married group who constitute

the major focus of the study. All conclusions, therefore, must be accepted with caution. Secondly, by trying to obtain a fairly homogeneous sample of never-married women, generalisability of results from the present study is restricted to never-married women of similar backgrounds, that is, women with a fairly high socioeconomic status, good physical health and within the age range of 45 to 65. However, even with these constraints some of the results remain of interest.

Never-married older women in this study do not appear to be a disadvantaged group compared with married women in terms of their well-being or the amount of available social resources. The high levels of well-being for the never-married women is partly attributable to certain advantages they have, such as personal income. Therefore, lower income never-married women are possibly a more vulnerable group than those seen in the present study. To investigate this, research should be extended to allow comparisons between never-married women of different socioeconomic groups.

The never-married women in this study were of a restricted age range, which some might even consider as "young", and the majority were in good physical health. Therefore, never-married women may feel disadvantaged with their social resources when they are older and the possibility of a prolonged illness increases which might tax their available social resources. A prolonged illness could result in institutional care for the

older never-married women while it is more probable that the married women and even the widows would be able to depend on familial support. The social resources of never-married women older than the women in the present sample would be of interest, particularly if they could provide some insight into possible anticipatory interventions to enhance the social resources of never-married women.

Overall, friends are not substitutes for family for never-married women. This implies that if never-married women expect friends to replace family, they could feel that they are deficient in their social resources. The present study made no attempt to assess the subjective evaluations of social resources made by the never-married women, nor their expectation of friendships. Obtaining this information appears critical in understanding the importance that never-married women place on their social resources.

The important predictors of well-being for the never-married women of this sample, appear to be the background variable of income and the personality characteristic of locus of control. However, the salience of these factors for well-being was similar for all three groups. Thus, features which are adaptive for older never-married women, also appear to be advantageous for married women and widows.

Group differences were found on the relationships between personality and social resources, specifically between locus of

control and social resources. Internal locus of control was associated with high involvement with both family and friends for the never-married women. In other words, the never-married women in this sample who were lower in internal locus of control, also seemed to be more deprived of social resources. The missing social resources appear to be close family and supportive friends. In the case of the marrieds and widows, being involved with family seemed to be independent of locus of control. In other words, the married women and widows in this study, appeared to have some social resources available to them in the form of family whether or not they had a sense of internal locus of control. Never-married women without internal locus of control are more likely to be deprived of all social resources, while only the involvement with friends for married women and widows is associated with a greater sense of internal locus of control.

Future research may be able to concentrate on the characteristics of older never-married women who are able to develop close social relations. Perhaps even more important, would be to investigate the impact of the absence of social resources on the well-being of never-married women in their later years.

It is worth reiterating that sampling of participants in a study such as the present one is a very important and often difficult issue. Most aging studies are faced with some sampling problems, such as refusals and not being able to include persons

who are away from home due to hospitalization or holidays. In addition to these usual problems, obtaining a sample of older never-married women is particularly difficult in a city the size of Calgary; there are simply not many older never-married women available to participate and an attempt to find a stratified sample would almost certainly result in failure. The sampling techniques in the present study are such that there is no question that firm conclusions must be restricted to the women who actually participated. However, some of the issues and implications appear to be important considerations for other older women and for future research.

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## Appendix A – Characteristics of Sample by Marital Status in Percentages (numbers are in parentheses)

		Married		Widowed		Never-married	
		<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>
1) Source Organizations:							
University of Calgary		38.2	(26)	51.8	(14)	43.3	(13)
Southern Alberta Institute of Technology		17.6	(12)	11.1	(3)	10.0	(3)
Calgary Public Libraries		11.8	(8)	14.8	(4)	16.7	(5)
Holy Cross Hospital		29.4	(20)	7.4	(2)	16.7	(5)
Woodward's Department Store		1.5	(1)	7.4	(2)	6.7	(2)
Alberta Government Telephones		<u>1.5</u>	<u>(1)</u>	<u>7.4</u>	<u>(2)</u>	<u>6.7</u>	<u>(2)</u>
Total		100	68	100	27	100	30
2) Age:							
49-44		-	(0)	-	(0)	3.3	(1)
45-49		35.3	(24)	7.4	(2)	23.3	(7)
50-54		26.5	(18)	25.9	(7)	16.7	(5)
55-59		23.5	(16)	33.3	(9)	23.3	(7)
60-64		13.2	(9)	33.3	(9)	23.3	(7)
65-69		<u>1.5</u>	<u>(1)</u>	<u>-</u>	<u>(0)</u>	<u>10.0</u>	<u>(3)</u>
Total		100	68	100	27	100	30
Median		51.5		56.3		55.2	
3) Living Arrangements:							
With Spouse		100	(68)	-	(0)	-	(0)
Alone		-	(0)	37.0	(10)	80.0	(24)
With Family		-	(0)	59.3	(16)	6.7	(2)
With Friends		-	(0)	-	(0)	13.3	(4)
Other		<u>-</u>	<u>(0)</u>	<u>3.7</u>	<u>(1)</u>	<u>-</u>	<u>(0)</u>
Total		100	68	100	27	100	30
4) Number of Dependents:							
none		52.9	(36)	77.8	(21)	93.3	(28)
1		20.6	(14)	14.8	(4)	6.7	(2)
more than 1		<u>26.5</u>	<u>(18)</u>	<u>7.4</u>	<u>(2)</u>	<u>-</u>	<u>(0)</u>
Total		100	68	100	27	100	30

## Appendix A - continued

		Married		Widowed		Never-married	
5) Socioeconomic Status <sup>a</sup> :		<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>
25-34 <sup>b</sup>		4.4	(3)	14.8	(4)	10.0	(3)
35-44 <sup>c</sup>		16.2	(11)	14.8	(4)	6.7	(2)
45-54 <sup>d</sup>		51.5	(35)	29.6	(8)	20.0	(6)
55-64 <sup>e</sup>		23.5	(16)	33.3	(9)	33.3	(10)
65-74 <sup>f</sup>		<u>4.4</u>	<u>(3)</u>	<u>7.4</u>	<u>(2)</u>	<u>30.0</u>	<u>(9)</u>
Total		100	68	100	27	100	30
Median		51.3		52.4		56.8	
6) Years of Formal Education:							
8-10		5.9	(4)	7.4	(2)	6.6	(2)
11-13		39.7	(27)	48.2	(13)	30.1	(9)
14-16		39.7	(27)	33.3	(9)	23.3	(7)
17-19		11.8	(8)	7.4	(2)	26.7	(8)
20-22		2.9	(2)	3.7	(1)	6.7	(2)
23-25		<u>-</u>	<u>(0)</u>	<u>-</u>	<u>(0)</u>	<u>6.7</u>	<u>(2)</u>
Total		100	68	100	27	100	30
Median		14.1		13.1		15.9	
7) Income:							
(a) Personal							
under \$7,000		5.9	(4)	-	(0)	-	(0)
\$7,000-9,999		5.9	(4)	3.7	(1)	3.3	(1)
\$10,000-14,999		10.3	(7)	7.4	(2)	13.3	(4)
\$15,000-19,999		19.1	(13)	11.1	(3)	-	(0)
\$20,000-24,999		23.5	(11)	18.5	(5)	16.7	(5)
over \$30,000		<u>19.1</u>	<u>(13)</u>	<u>18.5</u>	<u>(5)</u>	<u>56.7</u>	<u>(17)</u>
Total		100	68	100	27	100	30
Median		\$19,375		\$20,910		\$33,090	

<sup>a</sup> Based on Socioeconomic Index for occupations in Canada by Blishen and McRoberts (1976).

<sup>b</sup> Includes occupations such as hospital service aid and cleaning porter.

<sup>c</sup> Includes occupations such as receptionist and stock-keeper.

<sup>d</sup> Includes occupations such as registered nurse and administrative secretary.

<sup>e</sup> Includes occupations such as medical laboratory technologist and librarian.

<sup>f</sup> Includes occupations such as university professor and administrator.

## Appendix A - continued

	Married		Widowed		Never-married	
7) Income (cont.):	<u>£</u>	<u>N</u>	<u>£</u>	<u>N</u>	<u>£</u>	<u>N</u>
(b) Combined with spouse						
under \$10,000	1.5	(1)	-	(0)	-	(0)
\$10,000-14,999	1.5	(1)	-	(0)	-	(0)
\$15,000-19,999	4.4	(3)	-	(0)	-	(0)
\$20,000-24,999	2.9	(2)	-	(0)	-	(0)
\$25,000-29,999	10.3	(7)	-	(0)	-	(0)
\$30,000-34,999	8.8	(6)	-	(0)	-	(0)
over \$35,000	<u>70.6</u>	<u>(48)</u>	<u>-</u>	<u>(0)</u>	<u>-</u>	<u>(0)</u>
Total	100	68	0	0	0	0
(c) Adequate for needs						
not adequate	4.4	(3)	-	(0)	3.3	(1)
barely adequate	4.4	(3)	14.8	(4)	6.7	(2)
fairly adequate	47.1	(32)	51.9	(14)	33.3	(10)
very adequate	36.8	(25)	29.6	(8)	46.7	(14)
more than adequate	<u>7.4</u>	<u>(5)</u>	<u>3.7</u>	<u>(1)</u>	<u>10.0</u>	<u>(3)</u>
Total	100	68	100	27	100	30
8) Health:						
(a) Self-assessed health						
poor	-	(0)	-	(0)	-	(0)
fair	5.9	(4)	14.8	(4)	13.3	(4)
good	44.1	(30)	44.4	(12)	46.7	(14)
excellent	<u>50.0</u>	<u>(34)</u>	<u>40.7</u>	<u>(11)</u>	<u>40.0</u>	<u>(12)</u>
Total	100	68	100	27	100	30

## Appendix A - continued

		Married		Widowed		Never-married	
8) Health (cont.):		<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>
(b) Number of health problems							
3		-	(0)	-	(0)	3.3	(1)
2		2.9	(2)	3.7	(1)	3.3	(1)
1		27.9	(19)	33.3	(9)	40.0	(12)
none		<u>69.1</u>	<u>(47)</u>	<u>63.0</u>	<u>(17)</u>	<u>53.3</u>	<u>(16)</u>
Total		100	68	100	27	100	30
(c) Severity of health problems							
very severe		1.5	(1)	-	(0)	3.3	(1)
severe		7.4	(5)	14.8	(4)	16.7	(5)
slight		22.1	(15)	22.2	(6)	26.7	(8)
not present		<u>69.1</u>	<u>(47)</u>	<u>63.0</u>	<u>(17)</u>	<u>53.0</u>	<u>(16)</u>
Total		100	68	100	27	100	30

Note. There are slight rounding errors in the calculations of percentages.

Appendix B

- I) Background Measures (original by author)
- II) Identification of Social Resources and  
Negative Relations (original by author)
- III) Support and Conflict Scale (original by author)
- IV) Memorial University of Newfoundland Scale  
of Happiness - MUNSH (Kozma & Stones, amended)
- V) Self-esteem (Rosenberg, amended)

## Appendix B - Background Measures

Please complete the following questions.

1) Age \_\_\_\_\_

2) Marital Status (check one)

Married \_\_\_\_\_

Widowed \_\_\_\_\_

Single \_\_\_\_\_

Other \_\_\_\_\_ (please specify) \_\_\_\_\_

3) Living Arrangements (check one)

With spouse \_\_\_\_\_

Alone \_\_\_\_\_

Family other than spouse \_\_\_\_\_ (please specify) \_\_\_\_\_

With friend(s) \_\_\_\_\_

Other \_\_\_\_\_ (please specify) \_\_\_\_\_

4) Number of Dependents \_\_\_\_\_ (please specify relationship and age of each)

\_\_\_\_\_

\_\_\_\_\_

5) Present Occupation (please be very specific) \_\_\_\_\_

\_\_\_\_\_

Full-time \_\_\_\_\_

Part-time \_\_\_\_\_

6) a. Years of Formal Education \_\_\_\_\_

b. What type of institution did you obtain your highest level of education? (check one)

Junior High \_\_\_\_\_

High School \_\_\_\_\_

College \_\_\_\_\_

Technical School \_\_\_\_\_

University \_\_\_\_\_

Post-graduate University \_\_\_\_\_

Other \_\_\_\_\_ (please specify) \_\_\_\_\_

## Appendix B - Background Measures

7) Approximate Yearly Income (check one). If married complete both columns.

## a. Personal Income

Under \$7000 \_\_\_\_\_  
 \$7000-\$9999 \_\_\_\_\_  
 \$10,000-\$14,999 \_\_\_\_\_  
 \$15,000-\$19,999 \_\_\_\_\_  
 \$20,000-\$24,999 \_\_\_\_\_  
 \$25,000-\$29,999 \_\_\_\_\_  
 Over \$30,000 \_\_\_\_\_

## b. Combined Income of You and Spouse

Under \$10,000 \_\_\_\_\_  
 \$10,000-\$14,999 \_\_\_\_\_  
 \$15,000-\$19,999 \_\_\_\_\_  
 \$20,000-\$24,999 \_\_\_\_\_  
 \$25,000-\$29,999 \_\_\_\_\_  
 \$30,000-\$34,999 \_\_\_\_\_  
 Over \$35,000 \_\_\_\_\_

8) Is your present income adequate for your needs? (check one)

Not adequate \_\_\_\_\_  
 Barely adequate \_\_\_\_\_  
 Fairly adequate \_\_\_\_\_  
 Very adequate \_\_\_\_\_  
 More than adequate \_\_\_\_\_

9) For someone your age, would you say your health is: (check one)

Excellent \_\_\_\_\_  
 Good \_\_\_\_\_  
 Fair \_\_\_\_\_  
 Poor \_\_\_\_\_

10)a. Please indicate any health problems which interfere with your everyday activities and/or work.

\_\_\_\_\_  
 \_\_\_\_\_

b. How severe do you feel this problem is? (check one)

Very severe \_\_\_\_\_  
 Severe \_\_\_\_\_  
 Slight \_\_\_\_\_

11) Please indicate any health problems within your family which interfere with your everyday activities and/or work.  
 (Give the relationship to you of the person with the problem, their age, and the problem).

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## Appendix B - Identification of Social Resources and Negative Relations

- I. a) Think of the three people to whom you feel closest. Such people can be family or friends, male or female.

i) Of these three people, to whom do you feel closest?  
Please write their initials in the blank space provided.

CLOSE #1 \_\_\_\_\_

ii) To whom do you feel second closest? Please write their initials in the blank space provided.

CLOSE #2 \_\_\_\_\_

iii) Please write in the blank space the initials of the third person to whom you feel close.

CLOSE #3 \_\_\_\_\_

- b) Whenever these people are referred to they will be identified by CLOSE #1, CLOSE #2, and CLOSE #3. Please keep in mind the people you have selected to represent each category as you answer questions about them.

- II. Please fill in the requested details for each of the people you have mentioned.

CLOSE #1    Gender \_\_\_\_\_ Age \_\_\_\_\_  
             Relationship to you (spouse, sister, friend, etc.) \_\_\_\_\_  
             How long have you known them? \_\_\_\_\_ years

CLOSE #2    Gender \_\_\_\_\_ Age \_\_\_\_\_  
             Relationship to you \_\_\_\_\_  
             How long have you known them? \_\_\_\_\_ years

CLOSE #3    Gender \_\_\_\_\_ Age \_\_\_\_\_  
             Relationship to you \_\_\_\_\_  
             How long have you know them? \_\_\_\_\_ years



## Appendix B - Identification of Social Resources and Negative Relations

III. How often do you have contact (visit, letter, or telephone) with each of the people you have mentioned? Please circle the appropriate letter for each person.

- a) daily
- b) at least once a week
- c) at least once a month
- d) a few times a year
- e) at least once a year

CLOSE #1    a   b   c   d   e

CLOSE #2    a   b   c   d   e

CLOSE #3    a   b   c   d   e

IV. On a scale from 1 to 100, such as the one below, I would like you to evaluate how close your relationship is with each of the people you have mentioned. The number 1 would mean you are not close at all (only an acquaintance). The number 100 would mean you are extremely close (you would give your life for them!!).

Not close at all	Extremely close
1	100
25	75
50	

Now write the number, between 1 and 100, which best indicates how close you feel to each of the people you have mentioned.

CLOSE #1 \_\_\_\_\_

CLOSE #2 \_\_\_\_\_

CLOSE #3 \_\_\_\_\_

V. Would you consider any of these people to be close enough to be considered a confidant? Please circle the appropriate answer for each of the people you have mentioned.

CLOSE #1    yes   no

CLOSE #2    yes   no

CLOSE #3    yes   no

## Appendix B - Identification of Social Resources and Negative Relations

VI. Would you please now think of any other close friends, including relatives you consider to be close friends, who were not previously mentioned.

- a) If there are any such people please write their initials below next to the letter a. Please do not feel you have to complete all the spaces, use only as many as you require.

For each of these people I would like you to do four things: indicate your relationship with them, indicate their gender, indicate how close you feel your relationship is, and indicate how often you have contact with them.

- b) Please indicate if each person mentioned is a family member (please specify the relationship), a friend, a neighbor, or a work associate. Place this next to the letter b below.

- c) Indicate their gender next to c below.

- d) To evaluate how close you feel your relationship is, use a scale from 1 to 100, as in the one below. Put the number which best indicates how close you are next to the letter d below.

Not close at all					Extremely close
1	25	50	75	100	

- e) To indicate how often you have contact with each person use the scale below. Contact includes visits, letters, and telephoning. Put the appropriate number next to e below.

- 1) daily
- 2) at least once a week
- 3) at least once a month
- 4) a few times a year
- 5) at least once a year

\*\*\*\*\*

- 1) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-closeness \_\_\_\_\_  
e-contact \_\_\_\_\_
- 2) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-closeness \_\_\_\_\_  
e-contact \_\_\_\_\_
- 3) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-closeness \_\_\_\_\_  
e-contact \_\_\_\_\_

## Appendix B - Identification of Social Resources and Negative Relations

- 4) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-closeness \_\_\_\_\_  
e-contact \_\_\_\_\_
- 5) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-closeness \_\_\_\_\_  
e-contact \_\_\_\_\_
- 6) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-closeness \_\_\_\_\_  
e-contact \_\_\_\_\_
- 7) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-closeness \_\_\_\_\_  
e-contact \_\_\_\_\_
- 8) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-closeness \_\_\_\_\_  
e-contact \_\_\_\_\_
- 9) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-closeness \_\_\_\_\_  
e-contact \_\_\_\_\_
- 10) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-closeness \_\_\_\_\_  
e-contact \_\_\_\_\_
- 11) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-closeness \_\_\_\_\_  
e-contact \_\_\_\_\_
- 12) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-closeness \_\_\_\_\_  
e-contact \_\_\_\_\_
- 13) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-closeness \_\_\_\_\_  
e-contact \_\_\_\_\_
- 14) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-closeness \_\_\_\_\_  
e-contact \_\_\_\_\_
- 15) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-closeness \_\_\_\_\_  
e-contact \_\_\_\_\_

## Appendix B - Identification of Social Resources and Negative Relations

VII. Would you please now think of the people who make you angry or upset. Some of the people who upset you might have previously been mentioned as closest or close friends (or family you consider as close friends), include these people as well. (People who are close often make one angry or upset!).

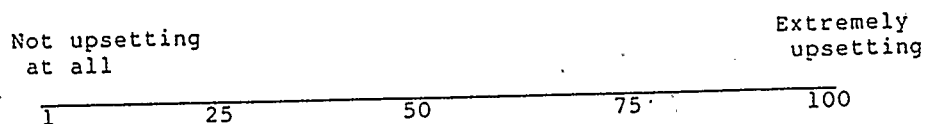
- a) If there are any such people, please write their initials below next to the letter a. Do not feel you have to complete all available spaces, use only as many as you require.

For each of these people I would like you to do five things: indicate their relationship to you, indicate their gender, indicate how upsetting you feel the relationship is, indicate how often you have contact with them and indicate whether or not you have previously mentioned them as being close to you.

- b) Please indicate if each person mentioned is a family member (please specify the relationship), a friend, a neighbor, or a work associate. Place this next to b below.

- c) Indicate their gender next to c below.

- d) To estimate how upsetting your relationship with each person is, use a scale from 1 to 100, such as the one below. The number 1 would mean not very upsetting, whereas the number 100 would mean extremely upsetting. Put the number which best indicates how upsetting the relationship is next to d below.



- e) To indicate how often you have contact with the person use the scale below. Contact includes visits, letters, and telephoning. Put the appropriate number next to e below.

- 1) daily
- 2) at least once a week
- 3) at least once a month
- 4) a few times a year
- 5) at least once a year

- f) Indicate whether or not they were previously mentioned as being close by completing f below.

- 1) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
 c-gender \_\_\_\_\_ d-upset \_\_\_\_\_  
 e-contact \_\_\_\_\_ f-previously mentioned as close? yes \_\_\_ no \_\_\_
- 2) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
 c-gender \_\_\_\_\_ d-upset \_\_\_\_\_  
 e-contact \_\_\_\_\_ f-previously mentioned as close? yes \_\_\_ no \_\_\_

## Appendix B - Identification of Social Resources and Negative Relations

- 3) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-upset \_\_\_\_\_  
e-contact \_\_\_\_\_ f-previously mentioned as close? yes\_\_ no\_\_
- 4) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-upset \_\_\_\_\_  
e-contact \_\_\_\_\_ f-previously mentioned as close? yes\_\_ no\_\_
- 5) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-upset \_\_\_\_\_  
e-contact \_\_\_\_\_ f-previously mentioned as close? yes\_\_ no\_\_
- 6) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-upset \_\_\_\_\_  
e-contact \_\_\_\_\_ f-previously mentioned as close? yes\_\_ no\_\_
- 7) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-upset \_\_\_\_\_  
e-contact \_\_\_\_\_ f-previously mentioned as close? yes\_\_ no\_\_
- 8) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-upset \_\_\_\_\_  
e-contact \_\_\_\_\_ f-previously mentioned as close? yes\_\_ no\_\_
- 9) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-upset \_\_\_\_\_  
e-contact \_\_\_\_\_ f-previously mentioned as close? yes\_\_ no\_\_
- 10) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-upset \_\_\_\_\_  
e-contact \_\_\_\_\_ f-previously mentioned as close? yes\_\_ no\_\_
- 11) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-upset \_\_\_\_\_  
e-contact \_\_\_\_\_ f-previously mentioned as close? yes\_\_ no\_\_
- 12) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-upset \_\_\_\_\_  
e-contact \_\_\_\_\_ f-previously mentioned as close? yes\_\_ no\_\_

Appendix B - Identification of Social Resources and Negative Relations

- 13) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-upset \_\_\_\_\_  
e-contact \_\_\_\_\_ f-previously mentioned as close? yes\_\_ no\_\_
- 14) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-upset \_\_\_\_\_  
e-contact \_\_\_\_\_ f-previously mentioned as close? yes\_\_ no\_\_
- 15) a-initials \_\_\_\_\_ b-relationship \_\_\_\_\_  
c-gender \_\_\_\_\_ d-upset \_\_\_\_\_  
e-contact \_\_\_\_\_ f-previously mentioned as close? yes\_\_ no\_\_

VIII. If you have not already rated the three people you have identified as CLOSE #1, CLOSE #2 and CLOSE #3 on upset in your relationship, please do so now. Use a rating from 1 to 100 as in the previous question.

CLOSE #1 upset \_\_\_\_\_  
CLOSE #2 upset \_\_\_\_\_  
CLOSE #3 upset \_\_\_\_\_

## Appendix B - Support and Conflict Scale

## INDIVIDUAL IN QUESTION \_\_\_\_\_

This group of questions deals with emotional support. This is intended to mean sharing of feelings, support in time of trouble, and personal interactions about concerns and problems.

		1. Strongly agree.	2. Agree	3. Uncertain	4. Disagree	5. Strongly disagree.
Rank		1	2	3	4	5
1	1. She/he would be happy for me if something good happened to me.	1	2	3	④	5
5	2. I would like to be with her/him if I were feeling depressed.	1	2	3	④	5
8	3. She/he would understand why I was anxious about something.	1	2	3	4	⑤
9	4. She/he would give me the confidence I needed to do something I was not sure I could do.	1	2	3	4	⑤
10	5. She/he would help me solve a personal problem.	1	2	3	4	⑤
7	6. I would be able to tell her/him about minor problems I was having.	1	2	3	4	⑤
6	7. If someone close to me died, she/he would help me through my grief.	1	2	3	4	⑤
2	8. I could tell her/him if I was having a bad day.	1	2	3	④	5
omit	9. I feel I could confide my innermost feelings to her/him without embarrassment.	1	2	3	4	5
4	10. She/he would make me feel I was OK the way I am.	1	2	3	④	5
3	11. She/he would be one of the few people I would turn to for emotional support if something really terrible happened to me.	1	2	3	④	5

Note. Numbers beside each item are the rankings from least to most supportive. Numbers circled indicate the cutoff points for each item.

## Appendix B - Support and Conflict Scale

This group of questions deals with social participation. This is intended to mean companionship, enjoyment of activities together, having fun and relaxing together.

		1. Strongly agree	2. Agree	3. Uncertain	4. Disagree	5. Strongly disagree
Rank						
omit	1. Being with her/him is one of my greatest pleasures.	1	2	3	4	5
10	2. I would really enjoy taking vacations with her/him.	1	2	3	4	(5)
1	3. I would look forward to exchanging letters or telephone calls if she/he were away for awhile or lived out of town.	1	2	3	(4)	5
2	4. I would feel comfortable going to meetings (church, club, exercise class) with her/him.	1	2	3	(4)	5
6	5. I would like going for a walk or a drive with her/him just for pleasure.	1	2	3	4	(5)
5	6. I would enjoy going out, just by ourselves, for some kind of entertainment (play, movie).	1	2	3	4	(5)
8	7. She/he would be a great person to celebrate holidays with.	1	2	3	4	(5)
9	8. We would have fun entertaining our friends and/or family together.	1	2	3	4	(5)
4	9. I would feel comfortable chatting with her/him.	1	2	3	4	(5)
3	10. I would enjoy a leisurely meal with her/him.	1	2	3	4	(5)
7	11. She/he would be one of the people I would enjoy talking with at a party.	1	2	3	4	(5)

Note. Numbers beside each item are the rankings from least to most supportive. Numbers circled indicate the cutoff points for each item.



This group of questions deals with instrumental aid. This is intended to mean provision of material assistance, sharing of tasks, financial aid, care when ill.

		<div> <div>1. Strongly agree</div> <div>2. Agree</div> <div>3. Uncertain</div> <div>4. Disagree</div> <div>5. Strongly disagree</div> </div>				
Rank		1	2	3	4	5
omit	1. She/he would not mind if I borrowed something without first asking.	1	2	3	4	5
2	2. I could count on her/him to check my home if I were going away (water plants, take in mail, etc.).	1	2	3	④	5
1	3. She/he would loan me a small amount of money.	1	2	3	④	5
3	4. She/he would help me with household duties (shopping, cooking, small repairs, etc.).	1	2	3	④	5
4	5. She/he would help me organize some kind of gathering (party, reunion, meeting, etc.) even though it was a lot of work.	1	2	3	④	5
omit	6. If I needed assistance with my personal hygiene (washing hair, cutting fingernails and/or toenails, etc.) she/he would help me.	1	2	3	4	5
5	7. She/he would readily lend me things if I needed them.	1	2	3	4	⑤
6	8. She/he would take care of me if I was ill.	1	2	3	4	⑤
8	9. I feel I could always count on her/his help in a crisis even if it would greatly disrupt her/his life.	1	2	3	4	⑤
10	10. If I needed someone to accompany me to a special event, she/he would come even if it was inconvenient.	1	2	3	4	⑤
9	11. If I was unable to get out to buy gifts (for Christmas or birthdays) she/he would choose them for me.	1	2	3	4	⑤
7	12. She/he would help me settle into a new place (as much as she/he was able).	1	2	3	4	⑤

Note. Numbers beside each item are the rankings from least to most supportive. Numbers circled indicate the cutoff points for each item.

## Appendix B - Support and Conflict Scale

This group of questions deals with intimacy. This is intended to mean feelings of being loved, respected, trusted, being thought of as a special person.

Rank		<div>1. Strongly agree</div> <div>2. Agree</div> <div>3. Uncertain</div> <div>4. Disagree</div> <div>5. Strongly disagree</div>				
		1	2	3	4	5
3	1. I know she/he respects me.	1	2	3	④	5
6	2. She/he is very special to me.	1	2	3	4	⑤
4	3. I trust her/him completely.	1	2	3	④	5
omit	4. I have told her/him quite a bit about my background.	1	2	3	4	5
2	5. At the very least I would consider us good friends.	1	2	3	④	5
1	6. I like her/him and know its reciprocated.	1	2	3	④	5
5	7. I have talked to her/him on many occasions.	1	2	3	4	⑤
7	8. I know she/he loves me and I feel the same for her/him.	1	2	3	4	⑤
9	9. Even if she/he were only going to be away for a short while, I would want to keep in touch.	1	2	3	4	⑤
8	10. I feel a strong emotional bond between us.	1	2	3	4	⑤
omit	11. I would be inconsolable if she/he were suddenly to die.	1	2	3	4	5
10	12. She/he shows me physical affection.	1	2	3	4	⑤

Note. Numbers beside each item are the rankings from least to most supportive. Numbers circled indicate the cutoff points for each item.

## Appendix B - Support and Conflict Scale

This group of questions deals with interpersonal differences.  
This is intended to mean sources of disagreements and arguments.

		1.Never	2.Rarely	3.Sometimes	4.Frequently	5.Constantly
Rank		1	2	3	4	5
5	1. She/he invades my privacy.	①	2	3	4	5
4	2. Our different views on some topics such as politics, religion or finances cause quarrels between us.	①	2	3	4	5
3	3. She/he is selfish or inconsiderate.	①	2	3	4	5
6	4. When working on something together we have disputes about how it should be done.	1	②	3	4	5
2	5. She/he takes advantage of me.	①	2	3	4	5
1	6. We don't seem to communicate with each other.	①	2	3	4	5
omit	7. She/he breaks promises of help.	1	2	3	4	5
8	8. We argue about how to spend our leisure time.	1	②	3	4	5
9	9. She/he demands too much of my time and energy.	1	②	3	4	5
10	10. She/he is critical of me in a way that hurts.	1	②	3	4	5
7	11. We have different ideas about the people close to me which leads to conflicts.	1	②	3	4	5
omit	12. She/he is envious of my attainments.	1	2	3	4	5

Note. Numbers beside each item are the rankings from least to most upsetting. Numbers circled indicate the cutoff points for each item.

## Appendix B - MUNSH

Directions: I would like to ask you some questions about how things have been going. Please respond to each question or statement by indicating, on the scale provided, the degree to which you agree or disagree with each item.

In the past few months have you been feeling:

	1.Strongly agree	2.Agree	3.Uncertain	4.Disagree	5.Strongly disagree
1) Particularly content with your life?	1	2	3	4	5
2) Bored?	1	2	3	4	5
3) Lucky?	1	2	3	4	5
4) Very lonely or remote from other people?	1	2	3	4	5
5) Depressed or unhappy?	1	2	3	4	5
6) In high spirits?	1	2	3	4	5
7) Bitter about the way your life has turned out?	1	2	3	4	5
8) Flustered because you didn't know what was expected of you?	1	2	3	4	5
9) On top of the world?	1	2	3	4	5
10) Generally satisfied with the way your life has turned out?	1	2	3	4	5

The next few statements refer to more general life experiences.

11) Little things bother me more this year.	1	2	3	4	5
12) I often feel lonely.	1	2	3	4	5
13) As I look back on my life, I am fairly well satisfied.	1	2	3	4	5
14) Life is hard for me most of the time.	1	2	3	4	5

## Appendix B - MUNSH

	1. Strongly agree	2. Agree	3. Uncertain	4. Disagree	5. Strongly Disagree
15) Most of the things I do are boring or monotonous.	1	2	3	4	5
16) This is the dreariest time of my life.	1	2	3	4	5
17) I am just as happy as when I was younger.	1	2	3	4	5
18) My health is the same or better than most people's my age.	1	2	3	4	5
19) Things are getting worse as I get older.	1	2	3	4	5
20) I sometimes feel life isn't worth living.	1	2	3	4	5
21) I am completely satisfied with my life.	1	2	3	4	5
22) Even if I had the choice to live anywhere else, I would still want to live where I am now.	1	2	3	4	5
23) I am as happy now as I was when I was younger.	1	2	3	4	5
24) The things I do are as interesting as they ever were.	1	2	3	4	5

## Appendix B - Self-esteem

Directions: The following statements refer to ways which people may think about themselves. Read the statements carefully and decide how often each applies to you. PLEASE ANSWER EACH STATEMENT ACCORDING TO HOW YOU REALLY FEEL ABOUT YOURSELF, not as you would like to be and not as you would like others to think of you. Indicate your decision by circling one of the numbers which corresponds to the response categories: 1.Never, 2.Rarely, 3.Sometimes, 4.Usually or 5.Always.

---

	1.Never	2.Rarely	3.Sometimes	4.Usually	5.Always
1. I feel that I'm a person of worth, at least on an equal plane with others.	1	2	3	4	5
2. I feel that I have a number of good qualities.	1	2	3	4	5
3. All in all, I am inclined to think I am a failure.	1	2	3	4	5
4. I am able to do things as well as most other people.	1	2	3	4	5
5. I feel I do not have much to be proud of.	1	2	3	4	5
6. I take a positive attitude toward myself.	1	2	3	4	5
7. On the whole I am satisfied with myself.	1	2	3	4	5
8. I wish I could have more respect for myself.	1	2	3	4	5
9. I feel useless.	1	2	3	4	5
10. I think I am no good at all.	1	2	3	4	5

## Appendix C - Consent Form



2500 University Drive N.W., Calgary, Alberta, Canada T2N 1N4

Faculty of SOCIAL SCIENCES  
Department of PSYCHOLOGY

Telephone (403) 284-5562

INFORMED CONSENT

The study for which you have volunteered is being carried out by Marlys Reynar, a Master's student, working under the supervision of Professor David Schonfield at The University of Calgary. The aim of the study is to examine the well-being of women and various relationships women have.

I, \_\_\_\_\_, am aware that the study in which I have volunteered to participate is a study of well-being and relationships which will take approximately an hour and a half (1½) of my time. I am also aware that I can withdraw from the study at any time, and that the information acquired from me will remain confidential.

\_\_\_\_\_  
(your signature)\_\_\_\_\_  
(address)\_\_\_\_\_  
(phone number)\_\_\_\_\_  
(date)

## Appendix D

Multivariate Analyses Using Variables with Skewed Distributions by Marital Status :  
Before and After Square Root Transformations

## Untransformed Data

<u>Variable</u>	<u>Univariate</u> <u>F (2,122)</u>	<u>Stepdown</u> <u>F      df</u>	<u>Raw</u> <u>Coefficients</u>	<u>Standardized</u> <u>Coefficients</u>	<u>Structure</u> <u>Coefficients</u>
Self-esteem	2.57	2.57    2,122	-.09	-.45	-.39
Education	3.62	5.07** 2,121	.19	.56	.42
Perceived Social Support					
Family	5.87**	4.91** 2,120	-.15	-.81	-.60
Friends	.58	3.56* 2,119	.12	.56	.16

---

## Transformed Data

<u>Variable</u>	<u>Univariate</u> <u>F (2,122)</u>	<u>Stepdown</u> <u>F      df</u>	<u>Raw</u> <u>Coefficients</u>	<u>Standardized</u> <u>Coefficients</u>	<u>Structure</u> <u>Coefficients</u>
Self-esteem	2.29	2.29    2,122	-.55	-.42	-.37
Education	3.03	4.13* 2,121	1.39	.54	.38
Perceived Social Support					
Family	6.03**	5.30** 2,120	-.87	-.91	-.61
Friends	.36	4.01* 2,119	.67	.63	.13

\*\*  $p < .01$ \*  $p < .05$



Appendix E  
Multivariate Analyses Using Variables with Missing Data by Marital Status

Cases with Missing Data Excluded

<u>Variable</u>	<u>Univariate F (2,122)</u>	<u>Stepdown F      df</u>	<u>Raw Coefficients</u>	<u>Standardized Coefficients</u>	<u>Structure Coefficients</u>
Income Adequacy	.81	.81    2,105	.56	.48	-.04
Total Income	21.63**	25.43** 2,104	-.67	-.96	-.72
SCS Subscales					
Emotion	.03	.45    2,103	.05	.26	.01
Social	.25	.11    2,102	.08	.62	-.07
Instrumental	2.11	4.56*   2,101	-.04	-.28	-.18
Intimacy	3.56*	5.28** 2,100	-.13	-.77	-.29
Conflict	3.30*	1.64    2,99	-.05	-.31	-.27

Missing Values Estimated

<u>Variable</u>	<u>Univariate F (2,122)</u>	<u>Stepdown F      df</u>	<u>Raw Coefficients</u>	<u>Standardized Coefficients</u>	<u>Structure Coefficients</u>
Income Adequacy	.95	.95    2,122	.52	.44	-.01
Total Income	24.64**	30.32** 2,121	-.67	-.95	-.72
SCS Subscales					
Emotion	.12	.31    2,120	.02	.09	.00
Social	.29	.07    2,119	.07	.56	-.04
Instrumental	1.31	3.45   2,118	-.03	-.16	-.14
Intimacy	3.56*	5.44** 2,117	-.12	-.67	-.27
Conflict	5.39**	3.47*   2,116	-.07	-.40	-.34

\*\*  $p < .01$

\*  $p < .05$

Note. Missing values estimated by regression method.