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THE OHIO STATE UNIVERSITY, PH.D., 1978
THE RELATIONSHIP OF IRRATIONAL BELIEFS, ADAPTIVE BEHAVIOR, AND LIFE SATISFACTION IN ELDERLY PEOPLE

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

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1978

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CHAPTER ONE
STATEMENT OF THE PROBLEM

No one likes to get old, or so it seems. Old age has not been a phase of life looked upon favorably in our culture. Perhaps as a result, few investigations of adequate coping mechanisms and satisfaction with life in old age have been made until recently. Psychologists are beginning to realize that, as with other developmental phases, old age presents an individual with challenges that are often unique to this time of life (Havighurst, 1968a). Examples of some of these challenges are retirement, relocation, death of spouse and/or friends, and one's own death. The skills required to cope with such crises may be different from those needed in other phases of life (Loeb, 1975).

In order to help the elderly, research is needed on appropriate coping mechanisms for this age group (Neugarten, 1973) and on how to increase their life satisfaction.

Counseling psychologists are increasingly calling attention to the elderly as a population warranting their concern (Blake, 1975; Buckley, 1972; Lawton and Gottesman, 1974). It is the goal of counseling psychologists to provide services for all people and to "increase man's understanding of himself and others" (APA, 1972). That the majority of past research has been with white, middle class, younger people has been recognized in recent years as a problem. We need to
recognize and understand challenges and crises typical of old age in order to provide appropriate assistance to the elderly.

**Life Satisfaction**

Numerous investigations of the elderly have focused on their satisfaction with life (e.g., Adams, 1969, 1971; Bull and Aucoin, 1975; Graney, 1975). Research in this area has come mainly from developmental psychologists in their efforts to formulate a theory of aging. Investigation of life satisfaction was begun in an attempt to substantiate the two main theories of aging which have been developed. The activity theory of aging states that the desired activity level of an individual does not change substantially between middle age and old age. The people who will be most satisfied in old age are the ones who generally maintain their activity level from middle age. This may mean finding substitute activities for the ones they are no longer able to do. The amount of activity or engagement that a person has will be influenced by his past life style and by socioeconomic forces. Activity, according to this theory, is necessary for successful aging (Palmore, 1969b). Disengagement theory, on the other hand, states that successful aging is characterized by appropriate withdrawal, both on the part of the elderly person and on the part of society. This disengagement process is viewed as being the natural course of events and a person who is satisfactorily disengaged will experience a sense of psychological well-being. This theory postulates lack of activity as being necessary for life satisfaction (Havighurst, 1968b).

The correlates of life satisfaction have been examined in many investigations to gather support for one or the other of these theories.
of aging. Some of the factors which have been found to be correlated with life satisfaction are socioeconomic status (Bull and Aucoin, 1975), perceived health and participation in nonfamilial activities (Edwards and Klemmack, 1973), social participation (Graney, 1975), and lack of residential constraint (Wolk and Tellen, 1976). In spite of the amount of research which has been done, the question of what leads to life satisfaction in elderly people seems complex and far from being adequately answered. One reason for inadequate answers may be the failure of researchers to take personality variables into consideration (Havighurst, 1968b). Still other variables may need to be taken into account before life satisfaction and what contributes to it is fully understood. Continued research in this area is necessary.

Life satisfaction may be an area of potential interest to counseling psychologists as well as developmental psychologists. It is suggested here that increasing the life satisfaction of life dissatisfied elderly people seems a legitimate goal for counseling psychologists. However, how to reach this goal is a complex question which cannot be answered in a single investigation. The existing research on life satisfaction in the elderly could be used as an initial starting point for our research. The task, then, is to try to examine life satisfaction and its correlates in such a way that it will lead to useful information about the elderly and, hopefully, to implications for treatment.

How might we intervene most effectively in order to increase the life satisfaction of life dissatisfied elderly people? Various methods have been suggested for treating elderly people in general.
Some of these have been the use of operant techniques (Hoyer, 1973),
behavior modification (Lawton and Gottesman, 1974), and self-instruc-
tional training (Meichenbaum, 1974). Little research is available on
the appropriateness or effectiveness of such treatments.

An initial step in determining appropriate treatment would be to
assess differences between life satisfied and life dissatisfied elderly
people on a few relevant dimensions. Differences between the two
groups may provide clues as to what factors are important to life
satisfaction. Selecting specific dimensions to investigate is
difficult, particularly in that there is very little counseling re-
search in this area. However, dimensions logically related to coun-
seling intervention strategies would seem to be a useful place to begin.
One purpose of this study, then, was to select dimensions that were
related to counseling interventions and to see if these dimensions were
correlated with life satisfaction in the elderly.

Adaptive Behavior

The preceding discussion focused on increasing life satisfaction
as a goal in counseling the elderly. Various authors, however, have
suggested that increasing coping or adaptive behavior may be the most
appropriate goal for treatment of old people (Gottesman, Quarterman,
and Cohen, 1973; Neugarten, 1973). While it might be assumed that a
person who reports high life satisfaction is also displaying adequate
adaptive behavior, the relationship between adaptive behavior and life
satisfaction is not clear. Suggestions of a possible relationship
between these two variables come from Herzberg (1966) and Loeb (1975).
Herzberg proposes that people have two basic sets of needs.
The hygiene needs are basically maintenance needs. Herzberg likens them to those elements which provide us with a healthy environment... Motivator needs are higher-order or growth needs. These needs are unique to humans and distinguish them from other animals. These needs seem to be related to some innate characteristic of individuals which requires them to seek challenge, stimulation, and autonomy. These needs are satisfied by things such as responsible work, independence of action, and recognition for the accomplishment of difficult tasks (Landy and Trumbo, 1976, p. 302).

Loeb presents a similar theory within the context of adaptation. Based on the concept that people's energy diminishes over a lifetime, Loeb states that adaptive mechanisms differ between the young and the old. He proposes that adaptive behavior has two goals: the first is survival and the second is maintenance of a comfortable existence. Loeb believes that younger people are able to deal with both personal and social survival behaviors. The elderly, however, must mainly concentrate on personal survival due to their diminishing energies. What is being proposed here, based on Herzberg's and Loeb's theories, is that adaptive behavior may represent lower order needs while life satisfaction may represent higher order needs. In this conceptualization adaptive behavior is seen as a component of life satisfaction.

Adaptation seems to be an important concept and one which has received attention in the literature. Increasing adaptive behavior is a goal which counseling psychologists might consider in working with the elderly. How to increase adaptive behavior is a complex question which cannot be answered in a single investigation. Taking a beginning step in trying to understand adaptation and its relationship to life satisfaction, however, seems useful. Therefore, two additional objectives were selected for the present research. One was to study the
relationship between adaptive behavior and the correlates selected for investigation. The second was to investigate the correlation between life satisfaction and adaptive behavior. This latter objective was chosen because of the lack of information about the relationship between those two variables.

**Irrational Beliefs**

Believing is a characteristically human function and it has been proposed that belief patterns are relevant to happiness and ability to cope (Ellis, 1962). Ellis considers belief patterns so important that he has developed a theory of counseling based on the premise that disturbed behavior results from people holding unrealistic, or, as he calls them, irrational beliefs. Since this function is considered important for other age groups, it may be important for the elderly as well. The present study examined the relationship between irrational belief patterns and measures of life satisfaction and adaptive behavior.

Irrational beliefs were chosen for correlation with life satisfaction and adaptive behavior because they are central to a theory of counseling. Rational-emotive therapy (Ellis, 1962) postulates that psychological disturbance is due to a person's irrational beliefs. An individual's emotional reaction to any given situation is due more to that person's belief systems than to the actual situation. According to Ellis (1962), people have an innate tendency to adopt irrational belief systems, and social institutions such as family, church, and school help perpetuate these beliefs. The purpose of counseling is to identify the client's irrational beliefs, make them known to him,
and to help him develop a more rational way of thinking (Ellis, 1962).

It was the overall purpose of this investigation to examine the relationship between life satisfaction, adaptive behavior, and irrational beliefs. Results indicating that belief in certain irrational ideas are correlated with lowered life satisfaction or less adaptive behavior may suggest that a counseling intervention based on Rational-emotive therapy merits consideration for use with elderly people. However, two cautions must be noted. First, such a finding would only be suggestive. Second, elderly people are not a homogeneous group. Therefore, although this investigation may imply the appropriateness of that treatment, it is not being suggested that Rational-emotive therapy is effective for elderly people.

Demographic Variables

Previous research has indicated certain demographic variables to be correlated with life satisfaction: age and sex (Spreitzer and Synder, 1974); perceived health (Bull and Aucoin, 1975; Cutler, 1973; Edwards and Klemmack, 1973); and marital status (Rubin, 1977). Because other investigations have shown these variables to be related to life satisfaction, it seemed worthwhile to account for their influence in this research as well. Therefore, information about the subjects' sex, age, marital status, and perceived health was collected. How these variables were related to life satisfaction in conjunction with adaptive behavior and irrational beliefs was investigated.

Counseling Questions

In addition to the demographic information, three questions were asked to begin to assess some of the elderly's attitudes toward
receiving counseling. The questions asked were:

(1) Have you ever consulted a counselor, psychologist, psychiatrist, or clergyman for assistance with a personal problem?
(2) Would you consult a counselor if you felt the need to do so?
(3) If you were to consult a counselor what sort of person would you prefer?

Instruments

The life satisfaction of subjects was estimated by scores on the Life Satisfaction Index A (Neugarten, Havighurst, and Tobin, 1961). Adaptive behavior was assessed by the Adaptive Behavior Scale (Nihira, Foster, Shellhaas, and Leland, 1974). A short series of questions constructed by the author were used to obtain information about the demographic variables and about the subjects' attitudes toward counseling. Finally, the Irrational Beliefs Test (Jones, 1968) was used to measure the subjects' irrational belief systems.

Hypotheses

There were limited data to suggest directional hypotheses. Therefore, hypotheses concerning life satisfaction, beliefs, and adaptive behavior were stated in the null form:

Hypothesis 1: Multiple correlations between life satisfaction and scores on the Irrational Beliefs Test will be zero.

Hypothesis 2: Multiple correlations between life satisfaction and scores on the Adaptive Behavior Scale will be zero.

To test the relationship between adaptive behavior and beliefs, the following hypothesis was stated:

Hypothesis 3: Multiple correlations between scores on the
Adaptive Behavior Scale and scores on the Irrational Beliefs Test will be zero.

Based on the research cited earlier, it was expected that the demographic variables would have some influence on the variables and relationships under study. However, the direction and extent of this influence was not known. Therefore, this hypothesis was stated regarding the demographic variables:

**Hypothesis 4:** The demographic variables of age, sex, marital status, and perceived health will be associated with life satisfaction and adaptive behavior.
CHAPTER TWO
REVIEW OF THE LITERATURE

The research on aging is diverse and scattered among many disciplines. Medicine, developmental psychology, and social work are some of the fields which have been concerned with the study of aging. At the present time counseling psychology has not performed much research with the elderly, particularly research of an experimental nature. Therefore, this review attempts to present theoretical and experimental literature from a variety of sources which is relevant to the present investigation. Theoretical articles which explore broad issues about aging are reviewed to give the reader a basic understanding of how various experimental issues evolved. Experimental literature investigating life satisfaction, adaptive behavior, and counseling the elderly is presented. Relevant research on the Life Satisfaction Index A and the Adaptive Behavior Scale is also examined.

Myths about Aging and Old People

Although the study of the elderly has been neglected by psychology, knowledge and interest in this area has increased greatly within the past 20-30 years. While the elderly are receiving more attention and their needs are becoming more well-known, this group is still surrounded by myths and stereotypes. Further, our society seems to have a negative attitude toward old age. Literature is presented below.
which illuminates the place of the elderly in American society and which speaks to some of the commonly held myths about old people.

What has caused the elderly to hold such an unwanted position in American society? The emphasis on youth in our society has been noted by many authors. This fact may be a partial cause for disinterest in the plight of the elderly. It may also be a contributing factor to their lowered life satisfaction. Palmore (1969b) suggests some other reasons why the elderly may be less satisfied living in America or in any industrial society: (1) The decreased importance of land and capital as a source of income and status; (2) the decreased importance of the extended family; (3) high rates of geographical mobility; (4) rapidly changing technology; and (5) rapidly changing social structures and cultural values.

It seems plausible that these factors may have helped put the elderly into an isolated, unwanted category. Evidence that the elderly do occupy such a position is given by Palmore (1969b). He states that old people are treated as a minority group in our society. Characteristics the elderly hold in common with other minority groups are being thought of in terms of stereotypes, being segregated from other portions of the population, being discriminated against in employment, and have a subculture of their own.

Further support for the conception of the elderly as a minority group comes from Butler (1975). In his book Why Survive? Being Old in America, Butler sharply attacks the attitude of American society toward the elderly. We are very harsh on our old, Butler states. He supports his arguments with the following statistics: one-fifth of
America's population are poor and one-fifth of these poor are old people; 30% of our elderly live in substandard housing; our government spends 4.2% of its gross income on our old while Britain and France spend 6-7% of their gross incomes on their elderly.

Butler also attacks many of the stereotypes which people tend to hold about the elderly. These include ideas of how people age, that old people are unproductive, inflexible, senile, or serene. Butler notes that there are great differences in the rate of physiological and psychological change that accompanies chronological change. Because of this diversity the ideas that people become more alike as they age and that all old people have the same characteristics is untrue. Unfortunately, however, due to the belief in stereotypes and prejudice against older people in our society, we tend to ignore the elderly. Butler urges that something be done to help the old share America's affluence.

Palmore (1969b) also disputes the myths of old age and presents evidence which disproves many of them. The elderly are often pictured as frequently ill, forgetful, unproductive, grumpy and unhappy, sexually inactive, alone and isolated. Research findings give a different picture, however. There is little decline in ability for physical activity with age and, regarding mental abilities, speed of responding slows but accuracy does not. There is no significant decrease in activities with age and the old are sexually active. Either a slightly positive relationship or no relationship has been found between age and productivity. While somewhat more depression and unhappiness appears in older people, there is not a large difference with
Finally, regarding the idea that the old are lonely and isolated, Palmore states that four-fifths of the elderly live with someone and three-fourths say they are not often alone.

Evidence quoted by Palmore and Butler suggests that whatever psychological and biological issues the old face, they also have to contend with a potentially negative societal attitude. It is suggested here that these sociological forces do affect the elderly and make the task of adjusting to old age more difficult.

It seems that the aging process may be due to an interweaving of biological, sociological, and psychological factors. How these three elements are related to each other and to the aging process itself is unknown. There has been some concern about how much of the decline in old age is due to any or all of these factors.

Jarvik and Cohen (1973) examine decline in old age. They note that aging is accompanied by psycho-biological changes that produce the gradual enfeeblement of one's mind and body, but that the rate and amount of decline varies greatly among individuals. To what degree are these changes due to pathology and to what degree are they preventable? From the research on behavior change in old age, Jarvik and Cohen present the following results. One consistent change found in older people is a decrease in performance on speeded tasks. Reaction time is generally slowed, but this varies between individuals. The sensory and perceptual modalities decline but the rate of decline and time of onset varies across modalities. Intelligence tests reveal no decline with age except on speeded tasks. Regarding learning and memory, speed is again a factor. The elderly seem to have more
difficulty in acquiring stimuli and in knowing how to handle data input. Task performance can be improved, however, through more time, clearer instructions, operant conditioning, and explanation of the constructs involved in the task. From this data Jarvik and Cohen conclude that the most pronounced change in the elderly's behavior is its slowed rate. They believe that a long and happy life will include concentration on processes that are independent of pathology and that maintain cognitive functioning.

Partial support for Jarvik and Cohen's (1973) last conclusion comes from Palmore (1969b). In a 13 year long longitudinal study of factors predicting longevity, Palmore examined the following variables: actuarial life expectancy (this was based upon the subject's age, sex, race, and socioeconomic status), health, intelligence, activities, attitudes, adjustment ratings, and socioeconomic status. The four best predictors of longevity were actuarial life expectancy, physical functioning of the subject as assessed by a physician, work satisfaction as assessed by an attitude questionnaire, and performance intelligence as measured by the Wechsler Adult Intelligence Scale. Palmore found the best single predictor of longevity was actuarial life expectancy. Use of the other three predictors improved the amount of variance accounted for by about one-third. For ages 60-69 years, work satisfaction was the best predictor for men while physical functioning was the best predictor for women and Blacks. For those 70 years of age and older, actuarial life expectancy was the best predictor for both males and females. Intelligence was also found to be an important factor in longevity for this age group. Palmore concludes
that maintaining one's health, mental abilities, and satisfying social roles may be the most important factors related to longevity.

The issue of what causes decline in old age is also examined by Schaie and Gribbon (1975) in their review of adult development and aging. How to view adult development has posed some problems and, until recently, a decrement model of aging has generally been accepted. This is the idea that with age comes physical and mental decline. This model is now being questioned and Schaie and Gribbon suggest that sociocultural change may be a cause of decline rather than it being a normal process. These authors also point out that research with the elderly has suffered from the problem of differential mortality of subjects. Because subjects who score lower on test instruments tend to drop out, the present body of research may be dealing with a specially selected sample.

Finally, evidence about the personality and social behavior of the elderly is presented in a comprehensive literature review by Botwinick (1970). Regarding personality patterns, he reports that a negative self-concept in old age is common and that many elderly people see the environment as rejecting. Considering Butler's (1975) findings, the latter view may not be unrealistic. Older people acknowledge being depressed often and suicide is more common in the old than in the young. There is more rigidity and less impulsivity in old age, and psychopathology results from failure to adjust to changes in ego identity as well as failure to accomplish developmental tasks earlier in life. Attitudes toward death and aging seem to be predictable from life-long adjustment patterns. Regarding attitudes toward aging and
self, Botwinick reports that positive attitudes toward aging probably involve positive and realistic attitudes toward health. Physical and psychiatric complaints were found to be related to poor mental health, not poor physical health. The literature on activity and its relationship to happiness is not clear, Botwinick states. Finally, factors found to be related to longevity were high occupational and social status membership, maintenance of occupational and marital roles, and high intelligence.

The research in this section was presented to show the place of old people in American society and to present factual data about their capabilities and behavior. Data have been presented which indicate most of the stereotypes of the elderly to be false. The evidence suggests that biological factors may not play as large a part in the decline associated with old age as was previously thought. Schae and Gribbon (1975) suggest that sociological factors may also play a part in the decline of elderly people, and they have questioned the usefulness of a decrement model for understanding old age. The findings of Palmore (1969b) and Butler (1975) indicate that the social environment of the elderly is probably a negative one. How these stereotypes and negative attitudes affect the elderly is not known, however.

Positive aims for old age have been suggested by Jarvik and Cohen (1973) and Palmore (1969a). Their suggestions seem to be directed toward helping the elderly maintain their life satisfaction. Means to carry out their suggestions are not given, however, and the negative societal attitude held toward the elderly seems a potential
hinderance to maintaining life satisfaction in old age.

Successful Aging

The study of aging has been approached from biological, sociological, and psychological standpoints. Literature in the latter category has concentrated efforts on discovering factors of successful aging. Investigations of life satisfaction and well-being in older people are also concerned with successful aging. The literature in this section presents some ideas about how positive adjustment in old age occurs.

Two theories of successful aging which have received much attention are activity theory and disengagement theory. Activity theory proposes that positive adjustment in old age results from maintaining one's activity level between middle age and old age. This may mean finding replacement activities for those things the elderly person is no longer able to do (Palmore, 1969b). Disengagement theory, on the other hand, proposes that in old age there is a mutual withdrawal between the elderly individual and society. The successful elderly person will have a decreased activity level and will disengage from the responsibilities and activities of middle age (Cummings and Henry, 1961).

Havighurst (1968b), in a review of the literature for these two theories, concludes that there is support for both of them. Some elderly people are happy with disengagement while others prefer a higher activity level. Havighurst suggests that neither theory is an adequate explanation of successful aging because both fail to account for personality variables. He believes personality is a
pivotal dimension in predicting the relationship between life satisfaction and activity level and urges that personality dimensions be included in future investigations of patterns of aging.

Other investigators have also been dissatisfied with activity and disengagement theories. Gubruim (1972) states that activity and disengagement theories have not been explicit enough to adequately explain the behavior of elderly people. He attempts to redefine the relationship between activity and morale in old age through the consideration of environmental and personal factors. His theory is based upon previous research as well as interviews he conducted on 210 people aged 60-94 years old. Gubruim suggests two different types of environments which exist with regard to age. Age-homogeneous settings are ones where members of the community are in essentially the same age group. In this setting norms are likely to become age-linked and a subculture of aging may develop. Here the norms for acceptable and deviant behavior are narrowly defined. An age-heterogeneous setting is one which contains members from all age groups. People in such settings will encounter many different types of situations and will need greater resources to successfully navigate their environment. The activity and adjustment levels of people are influenced not only by the environment but also by their personal resources. Health, solvency, and social support are personal factors that affect activity level.

Gubruim conceptualizes four different environment-activity combinations, which are illustrated in Figure 1. High morale is predicted for those in situations I and IV. Those people have the personal resources to meet the demands of their environment. Congruence exists
between their expectations and the expectations of others for their behavior (Secord and Backman, 1961). People in situations II and III will not be happy. People in situation III will have lower morale because they are unable to perform the behaviors required of a typical member of their environment. Those in situation II will be unhappy because their resources exceed the demands of their environment.

Finally, Gubruim notes four factors which could potentially modify the contingencies suggested above: (1) Having a significant group of age-homogeneous friends in an age-heterogeneous setting; (2) not being behaviorally oriented toward one's local environment; (3) having experienced life-cycle isolation; and (4) not having the normal coping mechanisms of other elderly people.

Taking a different perspective from activity and disengagement theories but one somewhat similar to Gubruim's (1972), Havighurst (1968a) proposes that successful aging is really a process of successful adaptation and that life satisfaction is a by-product of adaptation. How a person copes with the biological and social change that accompanies old age is based upon his or her personality and coping style. Maximal adaptation results from a close fit between the individual's personality, social environment, and physical capabilities. Positive factors in producing a good fit are a strong, flexible personality, a supportive social environment, and good physical health. The individual's life history is also important because people adapt to the present in terms of the past. Havighurst suggests that a limited number of aging patterns exist. These patterns represent a complex of behavior which includes personality, social interaction,
FIGURE 1: Socio-environmental Model for the Elderly
Proposed by Gubruim (1972)
and use of free time in connection with the physical organism and social setting. Havighurst believes these patterns can be discovered empirically.

Havighurst and Gubrium emphasize many of the same factors in their theories. Other ideas are presented by Bortner (1967). Bortner, in a review of several theories potentially useful in understanding the elderly, favors a developmental model presented by Secord and Backman (1961). These authors suggest that personality stability and change is determined by the interaction between one's self-concept, one's own behavior, and the behavior of others. Incongruities between these elements lead to disruption of behavioral stability. Old age is likely to present people with these incongruities because of changes in status, role loss, and so on. Various reactions to this disruption are possible. People can ignore it, they can be overwhelmed by it so they return to older response modes, or they can recognize the challenge of the disruption and adequately meet it.

Bortner draws on several theories of social psychology to describe how behavioral disruption occurs for the elderly. In particular, he emphasizes Barker's (1960) concepts of behavior settings and undermanned and overmanned environments. Bortner suggests that America is an overmanned environment where everyone is a specialist but also easily replaced. In such an environment reference group membership is important for the maintenance of identity. Elderly people, however, are generally unable to meet the demands of most reference groups. Being "old" in our society does not give people membership into a sufficiently well-defined group to create a sense of identity for
them. Possible reactions to inability to identify with a reference group are withdrawal (which is what disengagement theory proposes) or seeking different ways to maintain identity. Bortner proposes that adjustment of the elderly is a function of each individual's behavioral setting. He suggests that new functions need to be developed and optimal environments found for the elderly. The two models presented by Bortner suggest that successful elderly people may recognize the incongruities old age presents but are able to meet the challenge through the discovery of new reference groups and new functions.

Evidence that perceptions of the environment do change with age is presented by Neugarten (1972). She found that while 40 year olds see the environment as rewarding boldness and risk-taking, 60 year olds see the environment as dangerous and complex. Forty year olds see themselves as having the energy to take risks while 60 year olds see conformity to the environment as the most advantageous solution.

Neugarten (1972) also suggests that people have certain expectations about aging. There seems to be an established norm pattern about the appropriate age for marriage, settling on a career, holding the top job of one's life, and retirement. This system functions as a control so people know when they are on and off schedule. Neugarten believes that how people age is predictable from their earlier life, personality, coping style, success in adapting to earlier life events, and their expectations about life.

Neugarten's (1972) ideas on aging seem to put more emphasis on earlier life experiences than Havighurst's (1968a) or Bortner's (1967). How much influence do previous life experiences have? Should old age
be viewed as a separate developmental period? Neugarten (1969) presents evidence that old age is a distinct phase of life. She states that the psychological issues prevalent in old age are not the same as in previous periods of life. The developmental tasks people face differ with age, and due to biological and social change, the way the elderly people perceive and respond to the environment is different than when they were younger. The old are faced with the additional task of putting memories in order. To study old age effectively Neugarten proposes that a frame of reference and dimensions appropriate to this time of life be developed. Descriptive studies and attention to the issues old people believe are important would be a way to accomplish this.

A final and somewhat different perspective on aging is given by Hamlin (1967) who proposes what he calls a "utility theory" of aging. Advanced technology has been the accepted cause of the increased life span. Hamlin suggests, however, that the lengthened life span is not due to technology but rather because our society needs the resources of older people. Survival no longer depends so much on physical prowess as on wisdom and experience, which older people possess. Hamlin proposes that human functioning revolves around behavioral programs and task orientation. While physiological functioning predominates the organism early in life, task orientation predominates later in life. Breakdown and death of an individual occur because the culture prevents the person from formulating and engaging in task-oriented behavior. Thus Hamlin sees the physiological, behavioral, and sociocultural components of an individual as bound together. The culture determines the utility of the individual. When people
have no task to direct their behavior toward, physical breakdown and eventually death occur.

Of the ideas presented in this section, personality, coping style, and the environment have received emphasis as important factors in successful aging. It has been suggested that all people need tasks and functions to perform (Bortner, 1967; Hamlin, 1967) and that the elderly may not always be given access to such tasks (Bortner, 1967; Butler, 1975). Comparing the theories, activity theory and disengagement theory seem less comprehensive than the others. They deal mainly with the activity level of the individual and propose it as the most significant factor in successful aging. Bortner (1967), Gubrium (1972), Hamlin (1967), Havighurst (1968a), and Neugarten (1969, 1972) view successful aging as more complex. Neugarten seems to emphasize previous life experience and ability to cope more than the others. Of the theories, Bortner's and Gubrium's ideas seem the most explicit as far as prediction of behavior.

The ideas presented above have also stimulated research into factors of successful aging. Much of this research has been concerned with life satisfaction and its prediction. Since life satisfaction is one of the major components of this research, the literature reviewed next will be on the development of the Life Satisfaction Index A and the correlates of life satisfaction.

Life Satisfaction

This section reviews the literature on life satisfaction in the elderly. The first part of the review traces the development of the Life Satisfaction Index A as well as available research on this
instrument. The second part of the review examines the experimental research on life satisfaction and its correlates.

**Life Satisfaction Index A.** The five-year Kansas City Studies of Adult Life (Williams and Wirths, 1965) represent a major research effort on the elderly. As part of this research lengthy and repeated interviews were performed with middle aged and elderly people on their life patterns, attitudes, and values. From these interviews the Life Satisfaction Ratings (LSR) were developed by Neugarten, Havighurst, and Tobin (1961), and the LSIA developed from the LSR. Because the LSR played a large part in the conception of the LSIA, the development of both instruments will be described here.

The LSR contains five components which Neugarten et. al. considered to reflect life satisfaction: zest versus apathy, resolution and fortitude, congruence between desired and achieved goals, positive self-concept, and mood tone. Intercorrelations among these components ranged from .48 to .84, from which the authors concluded that the scales have some degree of independence. Judges rating the life satisfaction of 177 sample cases showed a correlation of .78 with the LSR, and agreement between the judges themselves was 94%. The LSR showed no correlation with age \(r = -.07\), no significant differences in responding due to sex, and a positive but not marked correlation with socioeconomic status \(r = .39\). Finally, as a validity check for the LSR, a clinical psychologist interviewed some of the subjects and rated their life satisfaction. The correlation between his ratings and those of the LSR were .64. Disagreement in the ratings fell into two main categories: those who scored high on the LSR but were not
rated highly by the psychologist because he broke through their defenses, and those who had had a change in their life between filling out the LSR and being interviewed (e.g., death of a spouse).

Because the LSR is lengthy and time consuming, the Life Satisfaction Index A (LSIA) was developed. Sixty sample cases were selected from the LSR population. The high and low scorers from this sample served as the criterion groups for the LSIA. Questions were selected which best differentiated these two groups and which reflected the five components of life satisfaction. This questionnaire was administered to a sample of 92 people. An item analysis was performed on the results and questions which did not clearly differentiate the criterion groups were discarded. The resulting questionnaire represented the final form of the LSIA and it correlated .55 with the original LSR. Neugarten et. al. recommend it for use with people 65 years of age and older.

Further validity and reliability research was conducted by Adams (1969) who factor analyzed the LSIA and examined its item reliability. The subjects were 508 people living in small towns in Missouri. Reliability was assessed by item biserial correlation and item discriminative value. The discriminative value of the items is the difference in the percentage of affirmative responses to each item in the low and high scoring groups. The ideal range for D-values is 20-80% with a mean of 50%. The D-values of the LSIA ranged from 16-63% with a mean of 42%. Only item 20 fell outside the ideal range. Biserial correlation is a correlation between the mean of the affirmative response group of each item and the LSIA mean score for the
entire sample. It is desirable that the biserial correlations of all items be greater than .30. The biserial correlation range for the LSIA was from .16 to .55, with items 19 and 20 falling below the desired figure. Item 17 showed a significant sex bias in this analysis.

Factor analyses were performed to determine if the instrument measures the single factor of life satisfaction, to determine how the items correlate with the life satisfaction factor, and to determine if the items reflect the five theoretical components Neugarten et. al. say it does. The results indicated that the first factor explained 34% of the variance while the next factor accounted for only 8% of the variance. From this, Adams concludes that the instrument measures one main factor. It was found that individual items explained from .008 to .81 of the variance of the major factor. Only items 19 and 20 accounted for little of the variance, .07 and .008 respectively. Of the five theoretical components, all were found in the analysis except self-concept. Adams points out, however, that self-concept is inherent in all the questions. From these results, Adams concludes that the LSIA gives a fair estimate of life satisfaction but that the theoretical components need further research.

A final study on the LSIA was done by Wood, Wylie, and Sheafor (1969) who examined the relationship of the LSIA and the LSR with a rural population. These authors used a sample of 100 people who had filled out the LSIA and who were willing to be interviewed. The interviews in this study differed from those in Neugarten et. al.'s (1961) study in that they were shorter and only one interview was conducted. From the interviews the authors rated the life satisfaction
of the subjects. The correlation between the LSR and LSIA was .56. From their findings Wood et al. developed a different form of the index which they called the Life Satisfaction Index Z. This index is shorter, having only 13 items, and has a test reliability of .79. Wood et al. found this instrument to be more valid with an older sample and more valid for men, $r = .42$ for women and $r = .83$ for men.

Correlates of Life Satisfaction. Theories of successful aging, particularly activity and disengagement theories, have stimulated research on the correlates of life satisfaction. The next group of studies examines the experimental literature on life satisfaction and its relationship to various factors such as activity, health, and environment.

Tobin and Neugarten (1961) tested the hypothesis that disengagement is positively related to psychological well-being in older people. The subjects were 187 men and women from two age groups, 50 to 69 years old and 70 years old and over. Social interaction was assessed by four different measures: an Interaction Index, which was based on the intuitive judgment of the interviewer; social life space, which was the subjects' estimate of their number of interactions with others per month; a role count, which was the number of social roles the subjects had; and perceived life space, which was the subjects' perception of their present interaction rate compared with when they were 40 years old. The well-being of the subjects was measured by their scores on the LSR. Disengagement theory predicts the following relationships: no association between social interaction and the LSR for the younger group, or a negative relationship between these
measures for the older group; a positive relationship between social interaction and the LSR for the younger group and then a decrease in this relationship for the older group. The results of the study did not support disengagement theory. All the social interaction measures except perceived life space were positively related to life satisfaction for both age groups. There was some evidence, however, that those who perceived their life space as large are low on social interaction. Tobin and Neugarten conclude that with advancing age engagement is more closely related to psychological well-being.

In a two year study, Lowenthal and Boler (1965) examined the effects of voluntary versus involuntary withdrawal on morale and attitudes in elderly people. Withdrawal was defined as a reduction in family participation, and in organizational activity. Withdrawal was termed involuntary if the subject had retired within seven years of the last interview, been widowed within seven years of the last interview, or had suffered physical disablement during the two years of interview contact. Lowenthal and Boler termed these latter conditions as deprivations. The subjects fell into four groups: voluntarily withdrawn, involuntarily withdrawn, not withdrawn—not deprived, not withdrawn-deprived. All groups were given an attitude questionnaire which contained items about older people and a morale questionnaire which tapped depression versus satisfaction, irritability, and the will to live. Lowenthal and Boler found that deprivation had a bigger effect on morale than social withdrawal. The involuntarily withdrawn subjects had the lowest morale, but their morale was not much lower than that of the deprived-not withdrawn subjects. The morale of the voluntarily
withdrawn subjects was just slightly lower than the not withdrawn-not deprived subjects. The effects of withdrawal and deprivation on attitudes was different, however. Here the presence or absence of social withdrawal had almost as much impact as did the presence or absence of deprivations. The involuntarily withdrawn showed the most negative attitudes about being old but the voluntarily withdrawn also had negative attitudes about aging. Here the voluntarily withdrawn resembled the deprived-not withdrawn group. Lowenthal and Boler conclude regarding morale, "...that it is the deprivations themselves rather than consequent changes in social interaction that are decisive" (p. 371).

Havens (1968) investigated the role of activity during and following the involuntary relocation of 88 elderly men and women to a non-institutional residential community. This study tested four hypotheses: (1) A high level of adjustment was predicted to be associated with continuation of most activities after relocation; (2) a medium level of adjustment was predicted to be associated with the substitution of related activities following relocation; (3) a medium level of adjustment was predicted to be associated with the addition of new activities following relocation; and (4) a low level of adjustment was predicted to be associated with the continuation, addition, or substitution of few activities after relocation. An activity measure, Life Satisfaction Ratings, and a Socialness Scale were used to assess the activity and adjustment levels of the subjects. Regarding activities, the subjects were rated in 12 areas, two of which required little social interaction. These activities were then classified
according to whether they were continued, substituted, added, or discontinued. Based on these results, subjects were divided into categories: continuers, substituters, adders, or discontinuers. The results, in general, supported the hypotheses. Discontinuation of activities was found to be associated with a low level of adjustment and continuation of activities was associated with a high level of adjustment. Substitution of activities was positively related to adjustment, although not as strongly as continuation of activities. Addition of activities was not found in this sample, so the hypothesis regarding it could not be tested. Finally, it was found that in the period following relocation, adjustment increased for continuers and substituters while it decreased for discontinuers. The decrease for discontinuers was larger than the increase for the other two groups. This study, then, provides further support for the idea that continuation of activity is positively associated with adjustment in old age.

Palmore (1968) has also examined activity in old age. The questions he was interested in answering were, does aging reduce activities and attitudes? Is there a persistence in life styles among the elderly? Does aging increase homogeneity or differentiation among elderly people? Palmore conducted a ten year longitudinal study with 127 subjects being interviewed at three year intervals. The Activity and Attitude Inventory (Cavan, Burgess, Havighurst, and Goldhammer, 1949) was used to assess activities and life satisfaction. This instrument has questions in five activity areas and eight attitude areas. The results showed only a small decrease in activities and attitudes (life satisfaction) as the subjects grew older. More changes were found for women
than for men and Palmore suggests that women may face more overall changes in old age than men. The evidence indicated that the elderly tend to maintain the same activities and attitudes in old age, contrary to disengagement theory, and activities were positively correlated with attitudes. Thus a decrease in activity was associated with more dissatisfaction. Finally, there was no evidence for an increase in either homogeneity or differentiation with old age.

Graney (1975) has done a more recent study on the relationship of life satisfaction and activity in old age. He has criticized the use of so many different terms for the definition of happiness in this research area. For instance, many studies have looked at morale and adjustment, which are not synonymous with happiness, says Graney. This study consisted of 46 elderly women who were interviewed initially and then in a four year follow-up. Graney used the Affect Balance Scale (Bradburn and Caplovitz, 1961) to measure happiness. This questionnaire contains 10 items with five questions about happiness and five questions about unhappiness. Social participation was assessed with questions about media use, interpersonal interaction, and voluntary participation. The results of the study showed certain types of activity were positively related to happiness. These activities were radio use, visiting friends and relatives, attending religious services, attending voluntary association functions, and maintaining voluntary association memberships. Watching television and reading were found to be unrelated to happiness. Graney also found that a change in activity level was positively related to happiness and suggests that the elderly may be more sensitive to activity level change than other
The foregoing studies have examined activity level in relationship to happiness and life satisfaction in old age. Although a variety of measures have been used to assess activity level and life satisfaction, all the studies have supported the idea that activity level is positively related to life satisfaction in old age. Withdrawal from activities has not been found in any of these studies as a typical pattern which many elderly people follow. Where reduction in activity level has been found in the subjects, it has been related to low adjustment levels.

The next group of studies differs from the preceding group in that closer attention is paid to various characteristics of the subjects. The preceding studies did not consider factors such as sex, marital status, health, or socioeconomic status as possible mediating factors in the relationship between activity and life satisfaction. The studies reviewed next, however, indicate that certain other variables are important to life satisfaction as well.

Jeffers and Nichols (1961) have pointed out that little of the research on activity and life satisfaction has considered the influence of the elderly's physical capabilities on their activities and attitudes. Jeffers and Nichols looked at the subjects' physical functioning, activity level, and life satisfaction. Physical functioning was assessed by having a doctor rate the subject physically. Activity level was measured in the areas of intimate contacts, leisure, security items, health problems, and religious activities. The attitude questionnaire used contained 56 items concerning satisfaction with
activities and status with friends, family, work, religion, health, socioeconomic status, state of happiness, and feelings of usefulness. The results showed that subjects with no physical disabilities were much more likely than those with mild to severe disabilities to have few symptoms of illness, to be married and have frequent contact with friends and family, to engage in a variety of activities, and to be employed or occupied with housekeeping. Significant and positive relationships were found between all the activity categories and the physical capability rating of the subjects. Regarding life satisfaction, positive but nonsignificant relationships were found between the physical functioning rating and life satisfaction except in the area of religion. Here a negative relationship was found.

Adams (1971) presents an excellent review summarizing research on the correlates of life satisfaction. From the research Adams concludes that social relations seem to constitute a major determinant of life satisfaction. A positive relationship has been found between life satisfaction and social contact. In particular, activity with a reference group seems important. There is a decline in self-perceptions as age increases. Feelings of inadequacy and social impotence in men and feelings of rejection in women are negatively related to life satisfaction. Also found in dissatisfaction are feelings of deprivation in comparison to others and a contracting life space. Adams suggests considering health and socioeconomic status as intervening variables that may affect life satisfaction, research showing increased dissatisfaction with physical disability and loss of mobility and higher life satisfaction with high socioeconomic status. The research on
roles and role change indicates role maintenance to be associated with higher life satisfaction. Adams believes, however, that this relationship is too complex to be represented by a simple linear relationship because it may be influenced by several intervening variables. Finally, Adams notes that grouping subjects by sex places them into more homogeneous groups and that research findings are often not the same for both sexes.

Edwards and Klemmack (1973) present a study which examines some of the intervening variables Adams (1971) mentions. Their study attempted to discover relationships between sociologically relevant factors and life satisfaction, the extent to which these relationships are altered by the introduction of a control or mediating variable, and the contribution of each independent variable to the variance in life satisfaction. Life satisfaction was assessed by the LSIA as modified by Adams (1969). Twenty-two independent variables grouped into six categories were predictors of life satisfaction. The categories of variables were socioeconomic status, personal and social background characteristics, formal social interaction, informal interaction with kin, informal nonfamilial participation, and health status. An initial analysis revealed that of the six major categories only informal participation with kin was not related to life satisfaction. When socioeconomic status was introduced as a control variable, age, family size, and marital status were no longer related to life satisfaction. A multiple regression analysis was performed and significant predictors of life satisfaction were socioeconomic status, perceived health, and nonfamilial participation. Background factors had little effect on life
satisfaction and only certain types of activities were positively related to life satisfaction. Edwards and Klemmack conclude that socioeconomic status is important in accounting for life satisfaction. They urge that future theories and studies of life satisfaction include socioeconomic status, perceived health, and nonfamilial participation.

Bull and Aucoin (1975) performed a study similar to Edwards and Klemmack's (1973). In a replication of a study by Cutler (1973), 30 minute interviews with residents of Kansas City, 65 years of age and older, were conducted. The subjects also completed the LSIA and assessed their health. The results showed health and socioeconomic status to be significantly related to life satisfaction. When these two variables were controlled for, the relationship between voluntary association participation and life satisfaction found in Cutler's (1973) research, disappeared. From this Bull and Aucoin urge that further, more refined research be conducted on the relationship between voluntary association participation and life satisfaction. They suggest that longitudinal data which examines life satisfaction before and after joining a voluntary association as well as research into different types of voluntary associations is needed.

Not only background and demographic factors influence adjustment. The next studies look at some psychological, sociological, and environmental factors which also seem to influence life satisfaction in old age.

Phillips (1961) looked at the relationship of role change and subjective age to life satisfaction. He hypothesized that identifying oneself as "old" may lead to lowered adjustment due to negative cultural
evaluation of old age. He further proposed that role changes might lead people to seeing themselves as old. The subjects were 257 people aged 60 years and older. Five measures of subjective age and four adjustment measures were used. The adjustment measures were fantasy behavior, rigidity, and two morale measures. Change in role was measured by change in chronological age, perception of change in treatment by others due to age, and change in getting around as compared to age 50 (this consisted of two measures). The results showed a marked relationship between subjective age and adjustment. The subject's subjective age as measured on an absolute scale and also a relative scale, that is, compared to a referent, were related to adjustment. It seems that if one feels old, one's adjustment is poorer. Phillips suggests that it is not only being old but what it means to be old that is related to adjustment. The relationship between role change and adjustment generally supported the hypotheses but the results were not uniform. Thus role change does not always lead one to define oneself as old. Phillips states that the relationship between role change and subjective age is not clear. There seem to be many situations where role change and subjective age are related to adjustment but not to each other. More research is necessary to define the relationships of these variables.

Smith and Lipman (1972) explored the relationship of life satisfaction, physical and financial constraint, peer interaction, and residence longevity. The hypotheses tested were that unconstrained subjects would show higher life satisfaction than constrained subjects; that older project residents would have a higher rate of peer
interaction than newer project residents; that among unconstrained elderly there would be no relationship between frequency of peer interaction and life satisfaction; and that among constrained aged, high peer interactions would be positively related to life satisfaction. The subjects were sampled from two residences, one of which had been in operation 15 years and one of which had not been open one year. Constraint was measured in terms of self-assessed physical capacity and income, peer interaction was rated by the subjects, and life satisfaction was assessed by the LSIA. The results supported all the hypotheses. Constraint was found to be a major factor in life satisfaction with less constrained subjects expressing significantly more life satisfaction. Old project residents were more likely to interact with their peers than new project residents, although this was somewhat influenced by opportunity. For unconstrained residents there was no significant relationship between peer interaction and life satisfaction. For constrained residents, however, peer interaction was significantly related to life satisfaction.

Finally, Wolk and Telleen (1976) examined the relationship of residential constraint and life satisfaction. They hypothesized that the setting people live in may have an impact on their life satisfaction and that residential constraint may be more salient for the elderly because they are more easily restricted by it. These authors also wanted to know what influence setting had on other predictors of life satisfaction. Health, developmental task accomplishment, self-concept, activity level, and perceived autonomy were examined in relationship to life satisfaction in high and low constrained residential settings.
Life satisfaction was measured by the LSIA as modified by Adams (1969). The results showed that those in a lower constraint setting reported higher life satisfaction than those in a high constraint setting, even when the effects of health and education level were controlled. Using the stepwise linear multiple regression technique, significant predictors for life satisfaction for the high constraint setting were perceived health and developmental task accomplishment. For the low constraint setting, developmental task accomplishment, perceived autonomy, and self-acceptance were the best predictors. From these results Wolk and Tellen suggest that for high adjustment and satisfaction in old age, an environment that offers the potential for personal autonomy is necessary. Having a certain level of activity is not sufficient. People must be able to perceive the opportunity for initiative and experimentation. The authors believe that health is important to life satisfaction, although in a low constraint setting it seems it may be less the physical and more the psychological attributes which contribute to satisfaction. Based on this and other evidence, the authors conclude that activity is not a basic correlate of life satisfaction.

The studies reviewed above suggest that there is not a simple answer to what contributes to life satisfaction in old age. While the literature suggests that an activity level which continues the individual's activities from middle age is desirable, this relationship seems to be mediated by other variables such as physical health and socioeconomic status. Also, there is some evidence that certain types of activities are related to life satisfaction while others are not. Finally, it seems that the type of environment people are in and
the amount of freedom and initiative that environment allows is important. A setting which encourages freedom and initiative also allows its residents to accomplish developmental tasks, which may lead to higher life satisfaction.

The theories presented in the preceding section have suggested some of the results shown in these experimental studies. Hamlin's (1967) ideas about being useful and task oriented may explain why some activities are related to life satisfaction but not others. For instance, watching television may not lead to life satisfaction because it is not accomplishing anything in particular. Gubruim's (1972) mention of the importance of personal factors such as health and solvency have received support. Also, his and Bortner's (1967) emphasis on environmental factors was supported to the extent that environmental factors do seem to influence life satisfaction.

Adaptation

Adaptation has been cited by some authors as the most appropriate goal for treatment of the elderly (Gottesman, Quarterman, and Cohen, 1973; Neugarten, 1973). The potential importance of adaptation as an aid to or even a determinant of life satisfaction is a theme threaded through the life satisfaction literature. Havighurst's (1968) article proposing that successful aging is really successful adaptation has already been reviewed. Neugarten (1972) in her discussion of successful aging stresses coping as an important factor in life satisfaction. This section reviews literature on adaptation in general and on adaptation in old age. Literature describing the development of the Adaptive Behavior Scale is also presented.
Adaptation has often been described as mastery of the environment. White (1974) offers a different viewpoint, stating that adaptation is really a compromise between the individual and his or her environment. Life presents people with many situations in which mastery is impossible. In these cases adaptation occurs as a result of people interacting constantly with their environment. White believes that because people are rarely content with a homeostatic condition, they are always striving for adaptive compromises which allow them growth in autonomy. Certain conditions are necessary to permit adaptive behavior and growth: (1) Being able to obtain adequate information about the environment, (2) being able to maintain an internal balance which allows for adequate action and information processing, and (3) being able to maintain autonomy. To help people adapt effectively, White believes that more emphasis must be placed on what people do rather than what they feel. Counselors need to give more direct suggestions and to do more things to directly influence behavior to aid the adaptation process.

In an examination of personal adaptation and the social structure, Mechanic (1974) names three components as necessary to the adaptation process: (1) People must have the skills to deal with the social and environmental demands placed on them, (2) they must be motivated to meet the demands which face them, and (3) they must maintain an internal psychological equilibrium in order to deal with external demands. Mechanic sees a major determinant of successful adaptation as the fit between people's social structure and the environmental demands placed on them. The extent to which society prepares people to meet life's demands also determines successful adaptation. Mechanic criticizes
the view of stress as a single stimulus and sees it rather as an on-going, complex set of conditions. Adaptation also occurs over time and the more complex the stress situation the less likely it will be resolved by a single individual. Finally, Mechanic proposes that successful adaptation does not necessarily depend on an accurate perception of reality. People need to protect their self-respect and some defense processes may even facilitate coping.

Both the literature on successful aging and the ideas presented by White and Mechanic emphasize personal resources and environmental demands as important factors in adaptation and in successful aging. Mechanic mentions a good fit between the social structure and environmental demands as important to successful adaptation. This seems to be similar to Bortner's (1967) emphasis on maintaining congruence between one's self-concept, one's behavior, and the expectations of others as part of successful aging. Gubrium's (1972) idea of life satisfaction resulting from a fit between personal resources and environmental demands also seems analogous. This similarity of concepts leads to the question are successful aging and successful adaptation two different concepts or just different ways of approaching the same phenomena?

Other authors have written about adaptation specifically in regard to old age. Loeb (1975), in a discussion of adaptation in old age, sees adaptation and survival as revolving around two determinants. One is the external factors of physical environments and sociocultural contexts. The other is biological determinants derived from genetic, developmental, and traumatic sources. Loeb believes that the goal of adaptive behavior is survival first and the maintenance of a comfortable
existence second. Adaptation is different for the young and the old because energy diminishes over a lifetime. Thus, younger people have enough energy to be concerned with both personal and social adaptation while the old can only deal with the personal realm. Loeb believes that in new and stressful situations people must develop roles and find the resources to enact these roles. This is not always easy because people generally display decreased energy and elasticity in crises. To help the old adapt successfully, we must develop roles to meet the crises of old age as well as appropriate behavior for those roles.

Loeb suggests that roles are important in adaptation. Other evidence has been presented which supports the importance of role maintenance. Palmore (1969a) mentions it as a possible factor in longevity. Hamlin (1967) proposes that people need task orientation to organize their life and to have a reason to live. Loss of task orientation may mean the individual can no longer combat stress and death results when the individual succumbs to environmental forces. Role maintenance or the creating of roles as suggested by Loeb seems one way to enhance task orientation and therefore combat stress.

Lowenthal and Chiriboga (1973) discuss social stress and adaptation research with elderly people. These authors note that several apparent paradoxes accompany the aging process. One of the paradoxes is that males and females show a reversal of characteristics with advancing age. Retirement seems to be harder for women while widowhood is harder for men. Women become more instrumental later in life while men become more interpersonal. Research has shown that certain characteristics seem to aid the adaptive process. Stability of the
self-concept as well as a sense of continuity from one's younger days, particularly in one's value system, seems to be important. These authors propose that both continuity in values as well as a good fit between one's goals and values are critical to the adaptation process. Regarding stress, perceptions of oneself and of the stressor may be crucial mediators between adaptation and stress. Lowenthal and Chiriboga found that those with high stress exposure but low stress perception reported themselves as happier than those with low stress exposure. This latter finding gives support to Mechanic's (1974) proposal that successful adaptation does not necessarily depend on accurate perception of reality.

A review of experimental evidence on the information seeking and processing aspects of adaptive behavior comes from Hamburg and Adams (1967). Research on people in three different types of stressful situations were examined in this article. The stressful situations examined were severe illness or injury (severe burns and polio), being a parent to a fatally ill child (the children were leukemic), and the shift from high school to college for highly competent freshmen compared to those who required psychiatric hospitalization. From these studies Hamburg and Adams identified four common problem areas for all subjects under stress. All the subjects sought relief from the distress, to maintain their self-esteem, to maintain rewarding interpersonal relationships, and to accomplish the requirements of the stressful task. From this Hamburg and Adams define coping as the effectiveness with which the person accomplishes the task plus the cost of the task accomplishment to the person. This definition supports White's
idea that adaptation is compromise, and that it evolves through a constant interplay of the individual and the environment.

Lieberman (1975) in a large and complex study of crisis and adaptation in the elderly expands upon Loeb's idea of energy being biologically determined and diminishing over time. Lieberman tried to answer three questions with his research: (1) Why are some people better able to cope with the crises of old age than others? (2) What is adaptation? and (3) What is crisis? In answer to the last question, Lieberman names three elements crises involve. These elements are loss; accommodation, which demands that people relinquish older behavior patterns and adopt new ones; and the subjective meaning of an event to a given individual.

Lieberman applied his questions to four studies of relocation involving 870 elderly people. These people were studied before and after a dramatic change in their living situations. The relocation situations studied were the transfer of normal, healthy elderly women from a small, hotel-like setting to a large institution; the institutionalization of elderly people who voluntarily entered homes for the elderly because they were no longer able to care for themselves for either physical or social reasons; therapeutic transfer, which involved the release of geriatric mental patients to community and institutional settings; and mass transfer, which involved transferring state mental hospital patients at various degrees of readiness to various institutions.

Lieberman studied several variables in his research which he considered necessary to discriminate successful from unsuccessful adaptation. These were personal resources, the adequacy of the person's
current functioning, procedures for managing crises and threat, and the stressor intensity. Lieberman included cognitive functioning, health and the individual's energy level under the category of personal resources. Current functioning of the subjects was assessed through a Q-sort on psychological health, measures of anxiety and depression, quality of interpersonal relationships, level of happiness and self-esteem, social functioning, and maintenance of a consistent self-concept. Stress management was assessed through personality traits and knowledge of past crises behavior. Assessment of threat management involved examining how much threat and loss was involved to the subject. In addition, the procedures the person used to manage the threat and resolve the loss were examined. Stressor intensity was evaluated by the degree to which the person was required to make new adaptations associated with environmental change.

Three major results were found in this study. The first is that the central defining element of a crisis is the degree that the individual is required to change. Neither the subjective meaning of the event or the loss involved were as salient as the accommodation factor. The degree of environmental change was a crucial element in determining if the event was stressful for the individual. The second major finding was that adaptation was dependent upon the cognitive and physical resources of the person. Adequate adaptation could be predicted on the basis of the person's current functioning, specific personality characteristics, and the processes the person used for threat appraisal. Finally, Lieberman believes that coping mechanisms are life-stage specific. The adaptive behavior stills learned earlier in life may
simply be inappropriate in old age. This study found that those subjects who were least easy to get along with and who displayed characteristics of being demanding, irritable, aggressive, and self-centered were most likely to survive the crisis. Lieberman concludes that coping with crises earlier in life is not the same as coping with late-life crises.

Rubin (1977) in her doctoral dissertation examined the effect of stressful life changes on adaptation in elderly women. Adopting a stress typology proposed by Lowenthal, Thurnher, and Chiriboga (1975), Rubin hypothesized that subjects would fall into four stress categories: "lucky", which was defined by low objective and low perceived stress; "self-defeating", which was defined by low objective and high subjective stress; "challenged", which was defined by high objective and low subjective stress; and "overwhelmed", which was defined by high objective and subjective stress. The stress level of the subjects was assessed through the Recent Life Changes Inventory, which Rubin developed. This study also examined the relationship of life satisfaction, adaptive behavior, medical ratings, and subject demographics to objective and subjective stress.

In addition to the stress typology hypothesis, the following hypotheses were investigated: (1) High objective or perceived stress scores will be related to lower life satisfaction scores, (2) high objective and perceived stress scores will be related to higher medical ratings (more illness), (3) high objective and perceived stress will be associated with lower levels of adaptive behavior in general, (4) domains of adaptive behavior will be differentially related to
other variables, some being more predictable than others, (5) seven demographic variables will function as moderator variables, influencing the primary relationships in unknown directions and to an unknown extent, and (6) perceived stress will be a stronger overall predictor than objective stress scores.

The subjects for this study were 40 elderly women aged 65 years and older in two retirement communities. Life satisfaction of the subjects was measured by the LSIA, adaptive behavior was assessed by the ABS, and medical ratings by a physician assessed the subjects' health status.

The results indicated that although the Lowenthal et al. typology was found, a subsequent analysis indicated that two of the four stress groups did not fit two of the most important adaptive behavior domains. Thus Rubin states, "The status of the first hypothesis, then, is equivocal" (p. 119). An interesting finding connected with this hypothesis, however, was that self-defeaters had higher independent functioning on the ABS than the other three groups. Regarding this result, Rubin states, "This finding was considered highly significant, since it suggests that life-changes and other events may function as more positive stimulation in geriatric samples than in other developmental age groups" (p. 119). Neither life satisfaction nor medical ratings were found to correlate with objective or perceived stress. Regarding adaptive behavior, high objective stress scores were related to lower performance on the independent and physical functioning scales of the ABS. Some demographic variables were correlated with adaptive behavior but did not influence the relationship between stress and adaptation.
Finally, it was found that objective stress was a significantly better predictor of adaptive behavior than perceived stress. This finding was in the opposite direction from what was predicted. Limitations of Rubin's study which must be noted are the small number of subjects involved and all female sample used. However, the findings are provocative. Of particular interest is the result that self-defeaters performed better on the independent functioning scale of the ABS than the other three groups. This finding suggests that perhaps some stress is necessary to facilitate functioning in old age. Further research in this area seems warranted.

The preceding literature has presented theoretical and experimental research on adaptation. Many of the factors mentioned as significant determiners of successful adaptation were also mentioned in previous sections as important to life satisfaction and successful aging in the elderly. Personality, social and environmental circumstances, personal resources, and coping style are some of the elements emphasized in all three concepts. Perhaps old age can be conceptualized as presenting people with a long-term stress situation and those who adapt successfully to the stress are said to have aged successfully. Life satisfaction then becomes a by-product of successful adaptation (Havighurst, 1968). Certainly old age presents crisis situations such as retirement, relocation, physical disability, death of loved ones, and one's own death, that are unique to this time of life. The question of whether adaptation and successful aging are the same concept cannot be answered here. Only further research can clearly define the skills and circumstances necessary for successful adaptation and
discover if these are the same variables necessary to life satisfaction and successful aging.

**Adaptive Behavior Scale.** The Adaptive Behavior Scale (Nihira, Foster, Shellhaas, and Leland, 1974) was developed for the purpose of describing the behavior of mentally retarded, emotionally maladjusted, and developmentally disabled institutionalized people. Leland, Shellhaas, Nihira, and Foster (1967) present a review and discussion of mental retardation classification systems as well as the development of the Adaptive Behavior Scale. The concept of adaptive behavior was developed because the classification of retardates by IQ was felt to be insufficient. Adaptive behavior refers to people's ability to cope with the natural and social demands placed on them by their environment.

Leland et. al. describe the development of the ABS as resulting from a comprehensive review of all existing behavior scales in the United States and Great Britain plus the interviewing of ward personnel in institutions for the retarded. From this search 325 specific behaviors covering 10 domains were selected to form Part One of the ABS. Intensive item analyses were performed and items were selected on the basis of inter-rater reliability, effectiveness in discriminating among institutionalized retarded people who had been classified at different adaptive behavior levels by clinical judgment, and effectiveness in discriminating among different adaptive behavior levels when intelligence was controlled. Part Two items were developed from questioning institutional personnel and people in the community about their expectations of appropriate behavior for retardates. Thus maladaptive or particularly troublesome behaviors are defined by
Part Two.

Rubin (1977) in her discussion of Leland et al.'s paper notes that adaptive behavior has relevance to elderly people because it is a psycho-social concept which deals with both personal strategies and the surrounding social structure. Rubin believes that adaptive behavior fits quite well with Mechanic's suggestion that researchers on adaptation consider people's skills as well as their psychological attitudes. Rubin's study in itself lends support to the appropriateness of the ABS for assessing an elderly population.

The 1974 revision of the ABS was used in this research. Previous forms of the ABS were based on data from 4,000 residents of 68 facilities in the United States (ABS manual, 1975). Some of the research done in the development of the ABS is described by Nihira, Foster, and Spencer (1968) and Nihira and Shellhaas (1970).

Nihira, Foster, and Spencer (1968) describe research with 307 male and female retardates aged seven to 21 years old. These researchers attempted to answer the following questions: Do the ABS domains relate to the adaptive behavior classification presently used? (This system was developed by Leland and is described in Leland et al., 1967.) Are some of the 10 ABS domains more pertinent for identification of individual differences in the grossly rather than mildly retarded? Is age a significant factor in differential association with different domains? Which of the 10 ABS domains are most closely related to adaptive behavior independent of IQ? The results showed the ABS to be most useful in describing the behavior of retardates in the middle retardation range and that the ABS was not as useful for
describing the behavior of mildly retarded individuals. Differences in ratings were found due to age. Finally, it was found that the ABS items correlated highly with the adaptive behavior classification except at the upper and lower levels of intelligence.

Nihira and Shellhaas (1970) examined the construct validity of the scale through a factor analysis performed on data from 1,200 retardates ranging in age from eight to 55 years old at three midwest institutions. The analysis revealed three factors: personal independence, social maladaptation, and personal maladaptation. The personal independence factor is defined as representing the individual's skills and abilities in maintaining personal independence as well as behavior that represents personal autonomy and the motivation to manage one's own affairs. The social maladaptation factor represents extra-punitive, anti-social behavior. Finally, personal maladaptation represents intro-punitive maladaptation.

The above research is described to give the reader a brief idea of the validation research done on the ABS. Research has been conducted specifically on the 197½ revision of the scale. The ABS manual (1975 revision) describes this study as involving 133 residents ranging in age from four to 69 years old at three state training schools. The ABS was completed by two ward personnel. Reliabilities ranged from .71 to .93 for Part One and from .37 to .77 for Part Two. The mean reliability for Part One equals .86 and the mean reliability for Part Two equals .57.

Nihira (1976) has done a more recent factor analysis of the ABS based on a sample of 3,35½ mentally retarded children and adults, ranging in age from four to 69 years old. This analysis again produced
three factors which Nihira calls personal self-sufficiency, community self-sufficiency, and personal-social responsibility.

Counseling the Elderly

This section will review some of the counseling psychology literature on the elderly. The first part of this review looks at theoretical suggestions about the role counseling psychologists might play in helping the elderly. The second part reports experimental literature on counseling older people that is pertinent to the present research.

Blake (1975) criticizes counselors for neglecting the elderly as a potential treatment population and supports his arguments by pointing to the dearth of counseling literature on older persons. Blake believes counselors can provide useful and important services to the elderly, particularly in the areas of direct services and social influence. Aging is a developmental task which presents people with various problems. Counseling is one way to help people confront and solve these problems. For instance, a common concern is what to do after retirement. Life planning for older people which helps them decide the best way to use their time would be helpful. Other potential service areas Blake mentions are career changes, dealing with a changed role in one's family, facing the loss of loved ones, and facing one's own death. Another major impact area for counselors is in changing societal attitudes toward the old. Blake suggests the school system as a place where elderly people might become involved and where counselors can influence curriculum changes to allow the elderly to participate. Counselors can also fight currently held stereotypes
about the old. Finally, Blake warns that for counselors to work effectively with old people they must be aware of their own prejudices and attitudes about aging.

Buckley (1972) suggests using a sharing model in working with older clients to help reduce their feelings of isolation. She notes that many old people face an identity crisis after the age of 65 which is partially caused by difficult environmental circumstances and a changing life situation. In addition, the elderly suffer from the loss of old attachments and many are frightened of forming new ones. Buckley believes that these and other environmental circumstances may lead to feelings of separateness for the old person. However, because the older person may have a need to appear strong and competent, these problems may go unrecognized. While Buckley believes that it is easiest for the older client to share with a middle-aged or older person, she proposes that counselors of any age can help an elderly client most effectively by sharing feelings and thoughts with the client, by posing questions rather than by giving answers, and by supporting and emphasizing the client's strengths.

Gottesman, Quarterman, and Cohen (1973) present a model which conceptualizes the different elements to be considered in treating the elderly. These authors then suggest specific treatment approaches for various settings. Gottesman et al. name four elements a counselor may influence in working with a client: (1) The client's capacities, (2) societal demands, (3) the expectations of significant others in the client's life, and (4) the client's self-expectations. The behavior of an individual is a function of the interaction of these elements
over time. When incongruities exist between the elements, adjustment of the individual's behavior is necessary. Gottesman et al. suggest that adjustment behavior has to be considered in conjunction with the client's lifelong coping patterns and group membership.

The three potential treatment areas suggested for the elderly are the self, the social environment, and institutions. Treatment directed toward the self is aimed primarily at the individual's personality and the goal of treatment is to maximize the individual's adaptation. This can be best accomplished through maximizing the fit between the individual's personality, social environment, and physical capacities. Social treatment is a preventative measure and is aimed at reducing potentially negative environmental impact on elderly people. Finally, Gottesman et al. recommend using the two previously described treatments as well as traditional individual and group counseling in institutional settings. Here the goal of counseling is to aid adaptation to the institution because these people are not expected to return to the community.

In a discussion of psychological services to the elderly, Lawton and Gottesman (1974) delineate two major problem areas they see in counseling older clients. The first is the lack of training available for psychologists regarding counseling the elderly. Lawton and Gottesman propose that an effective helper of the old should have a basic knowledge of biological, sociological, and psychological changes that accompany old age. Second, these authors believe that traditional assessment instruments are not appropriate for this age group. Until appropriate instruments are available, assessment of client
functioning in areas such as self care, daily living activities, and social behavior seem to be the most crucial. These areas are of particular significance because elderly clients may be experiencing distress due to their inability to care for themselves and because social circumstances have control over many aspects of their living situation. The authors suggest behavior modification as a useful but as yet unexplored treatment method for this group.

Who is best qualified to counsel older people? Pressey and Pressey (1972) address this question as well as give information about helping the old based on their own experiences. The Presseys recommend that elderly people not continue in their own residences once they have become physically frail. A retirement community is a good new living arrangement because it allows social contacts and provides the services needed by those who can no longer completely care for themselves. While the Presseys note that people can become somewhat isolated in these facilities, they give specific suggestions for increasing interaction among residents. These include holding weekly meetings, having residents send notes to each other on birthdays and holidays, and providing extra help for sick residents. Finally, the Presseys recommend older people living in these facilities who possess counseling experience as the best qualified counselors of the elderly. They feel that older people are the best able to understand the problems the aged face and that research can be conducted on the needs of the elderly in such settings.

Pressey (1973) presents additional ideas for counseling services in retirement communities. He suggests that crisis counseling be
provided for those who have just experienced the death of a loved one, who are feeling particularly lonely, and so on. Counseling should also be available to help people with everyday needs and problems. Having older people keep diaries might be helpful in illuminating some of the typical problems experienced in these settings. Pressey again urges that this type of institution be used for research on the elderly.

Suggestions of specific treatment techniques appropriate to the elderly's needs are made by Hoyer (1973) and Meichenbaum (1974). Like Lawton and Gottesman (1974), Hoyer favors the use of operant conditioning with the elderly. Noting that the aging process is viewed by most people as a one-way move to uselessness and helplessness, Hoyer suggests that behavioral deficits in the elderly may be partially a function of environmental deficiencies which can be modified. Operant conditioning seems particularly useful because it focuses on helping people adapt to their environment. Research indicates that the environment has a large impact on the elderly and that discrepancies between self-regulatory and external regulatory systems are of special importance to the old. Thus, Hoyer suggests training elderly people in the use of operant conditioning so they can regulate their own behavior in regard to the environment. Finally, Hoyer suggests the use of operant conditioning to modify negative attitudes the elderly may have toward themselves and aging. This could help prevent behavioral deficits by helping people develop positive, realistic ideas about future roles, the fear of becoming old, and so on.

The use of self-instructional strategy training to improve the elderly's cognitive task performance is suggested by Meichenbaum (1974).
Although this article centers on cognitive tasks, the suggestions could be applied to other tasks as well. Elderly people have difficulty performing problem-solving tasks because they demonstrate deficiencies such as redundancy in information-seeking behavior and failure to use mediational devices. They also tend to emit negative self-statements which interfere with problem-solving behavior. Meichenbaum describes a five part self-instructional treatment problem designed to correct these problems. The subjects are first taught to ask themselves questions about the task they are trying to perform. Such questioning directs their attention to the task in a productive way. Answers to their questions cause cognitive rehearsal that aids memory and planning. Subjects use their answers to instruct themselves in task solutions. Responses to cope with failure and self-reinforcement for success comprise the final parts of the program. Meichenbaum hypothesizes that such a program would help the elderly in the areas of information organization, feedback evaluation, information rehearsal, and task orientation.

Hoyer's and Meichenbaum's suggestions are of special interest because they represent ways of helping the elderly to cope and to be self-sufficient. Once the principles of operant conditioning and self-instructional training have been learned, they can be applied to many other situations. Thus such instruction could help the elderly maintain their independence. Further, it seems that the principles suggested above could be used to develop training programs geared toward helping the elderly cope with specific crises such as relocation or retirement.
Partial support for Meichenbaum's and Hoyer's ideas comes from a study by Crovitz (1966). Research shows that elderly people seem to learn more slowly than younger people, that they are handicapped under speeded tests, and that they show more concrete rather than abstract reasoning. Crovitz hypothesized that the elderly may differ from younger people in the strategies they use, but that deficits could be compensated for with training. Subjects ranging in age from 66 to 80 years old and of comparable intelligence were given a visual discrimination task. One group of subjects received training in task performance by watching the experimenter sort the cards and then verbalizing the rule used to sort them. The other group of subjects received no training. Subjects who received the training learned the discrimination task while those without training did not. Questioning of the subjects after the completing of the experimental task showed that only those who could verbalize the rule for sorting learned the discrimination task. Crovitz concludes from these results that learning deficits in elderly people can be reversed.

Harris and Bodden (1978) present evidence for the usefulness of a group experience in treating the elderly. In an experimental test of activity theory, a group of disengaged elderly people who received the Meals on Wheels Program were identified. The subjects were randomly divided into experimental and control groups. Experimental subjects received a 12 hour Activity Group Experience which spanned six weeks. The subjects were pre- and posttested on the Chicago Activity Inventory, the LSIA, and the Sixteen Personality Factor Test. On the latter instrument the scales of ego strength, trust-
suspiciousness, anxiety, introversion-extroversion, and dependence-independence were examined. The results supported activity theory on six of the seven measures used, trust-suspiciousness being the only measure where the groups were not significantly different. The experimental group was more satisfied, had a higher activity level, was less anxious, had more ego-strength, was more independent, and was more extroverted than the control group. Harris and Bodden conclude that the use of an activity group experience can raise the psychological functioning of disengaged elderly people and they recommend the use of such groups in counseling the elderly.

Finally, Keller, Croake, and Brooking (1975) present evidence that Rational-emotive therapy is effective with elderly people. Noting the negative attitude our culture has toward aging, Keller et al. propose that work needs to be done with the elderly to change their negative views of themselves. The purpose of their research was to test the effectiveness of RET in reducing the elderly's anxiety about aging. The subjects were females 60 years of age and over who were divided into experimental and control groups. Subjects were pre- and posttested with the Adult Ideas Inventory (which is a measure of the subjects' irrational beliefs) and with the State Trait Anxiety Inventory. The experimental group was trained in Rational-emotive thinking in regard to aging two hours a week for four weeks. Group sessions included reading assignments, group discussions, and role plays. The results showed that at the end of the four week period experimental subjects had significantly reduced their irrational ideas and anxiety about aging in relationship to the control subjects. Thus, this study
provides evidence that RET is a helpful strategy in working with the elderly.

This literature review has presented research in the areas of myths about the elderly, successful aging, life satisfaction, adaptation, and counseling the elderly. Many interesting ideas and experimental research results have been presented and discussed. However, much work still needs to be done to understand the last phase of life. In particular, more counseling research is needed to clarify the role of counseling psychologists in helping the elderly.
The purpose of this research was to examine the relationship between life satisfaction, adaptive behavior, and irrational beliefs in elderly people. The influence of four demographic variables, age, sex, marital status, and perceived health, was also studied. Because research to suggest directional hypotheses was limited, none was postulated. The relationship between life satisfaction as the criterion variable and adaptive behavior, irrational beliefs, and the demographic variables as the predictor variables was analyzed. The relationship between adaptive behavior as the criterion variable and irrational beliefs and the demographic variables as the predictor variables was analyzed. Finally, the relationship between life satisfaction and adaptive behavior was examined.

Subjects

The subjects for this research were 142 men and women 60 years of age and older living in the Columbus, Ohio area. The subjects ranged in age from 60 to 92 years with a mean age of 77.6 years. The subjects represented the Catholic, Protestant, and Jewish faiths, with the majority of the subjects being Protestant. All subjects were Caucasian.

Subjects were obtained from various facilities for the elderly. Permission to conduct this research was first received from the staff
of the facilities. Residents were then asked to participate on a volunteer basis. The subject pool consisted of non-bedridden residents who had no known cognitive or intellectual deficits which might have interfered with their ability to respond to the questionnaires.

Institutions

Three types of facilities were contacted to obtain subjects: nursing homes, retirement communities, and a psychiatric hospital. The number of subjects drawn from each of these were, nursing homes, 45 subjects or 32% of the sample; retirement communities with dormitory-type living arrangements, 60 subjects or 42% of the sample; retirement communities where residents maintained their own apartments, 21 subjects or 15% of the sample; psychiatric hospital, 16 subjects or 11% of the sample. Brief descriptions of these institutions are given below.

Nursing Homes. The people in these facilities were generally in poorer physical health and required help in caring for themselves. Residents usually lived in a double room with another person. Meals were served in a common area or could also be served in the resident's room if he or she was unable to go to the dining room. A nursing staff was responsible for the majority of the care of the residents. Organized activities were available in which the residents were encouraged to participate.

Retirement Communities. Retirement communities with two different types of facilities were used. One type had independent living arrangements where residents maintained their own apartments and took care of their own needs for the most part. The other arrangement was a
dormitory-type setting where residents had their own rooms, meals were served in a common dining area, and maid service was available. Both these settings had activities and programs in which residents were encouraged to participate. Residents of these facilities differed from nursing home residents in that they were usually better able to care for themselves and less often physically disabled.

**Psychiatric Hospital.** This sample represented a less well-adjusted population of the elderly with residents requiring help caring for themselves due to mental and emotional problems. A full-time nursing staff was available as well as physicians, psychiatrists, and social workers. The residents often had a history of living in institutions like the psychiatric hospital and were not allowed to leave the grounds alone. The residents lived in double rooms with a roommate and meals were served in a common dining area. Activities and programs were available for the residents and they were encouraged to participate in them.

**Instruments**

**Determination of Life Satisfaction.** The life satisfaction of the subjects was assessed by the Life Satisfaction Index A (Neugarten, Havighurst, and Tobin, 1961). This instrument consists of 20 items which are designed to measure the individual's own evaluation of his or her life satisfaction. The respondent marks either "agree", "disagree", or "?" to each of the statements on the index. Scoring was done with the key provided by Neugarten et. al. (1961, p. 141). The range of scores possible is from 0 to 20, with a higher score indicating greater life satisfaction. Neugarten et. al. give a mean equal to 12.4
and a standard deviation equal to 4.4 for written responses to this
instrument.

The Life Satisfaction Index A (LSIA) was developed from the five-
year Kansas City Studies which were conducted on middle-aged and elderly
populations. The items of the index reflect five components which
Neugarten et al. considered to be associated with life satisfaction.
These components are zest versus apathy, resolution and fortitude,
congruence between desired and achieved goals, positive self-concept,
and mood tone. The LSIA was developed on an urban population. Further
research with the LSIA has shown it to be valid with rural (Wood, Wylie,
and Sheafer, 1966) and small town (Adams, 1969) elderly populations as
well.

Determination of Irrational Beliefs. The irrational belief
systems of the subjects were assessed by the Irrational Beliefs Test
(Jones, 1968). This instrument consists of 100 items divided into 10
scales. Each scale measures an irrational belief proposed by Ellis
(1962). The subject responds to each question on a five point,
likert-type scale which ranges from strongly disagree to strongly
agree. The irrational beliefs represented by each of the scales are
listed below (Ellis, 1962; Jones, 1968).

1. The idea that it is a dire necessity for an adult human
   being to be loved and approved by virtually every signifi-
   cant other person in the community.

2. The idea that one should be thoroughly competent, adequate,
   and achieving in all possible respects if one is to consider
   oneself worthwhile.
3. The idea that certain people are bad, wicked, or villainous and that they should be severely blamed and punished for their villainy.

4. The idea that it is awful and catastrophic when things are not the way one would very much like them to be.

5. The idea that human unhappiness is externally caused and that people have little or no control over their sorrows and disturbances.

6. The idea that if something is or may be dangerous or fearsome one should be terribly concerned about it and should keep dwelling on the possibility of its occurring.

7. The idea that it is easier to avoid than to face certain life difficulties and responsibilities.

8. The idea that one should be dependent on others and needs someone stronger than oneself on whom to rely.

9. The idea that one's past history is an all important determiner of one's present behavior and that because something once strongly affected one's life, it should indefinitely have a similar effect.

10. The idea that there is invariably a right, percise, and perfect solution to human problems and that it is catastrophic if this perfect solution is not found.

Initial items for the Irrational Beliefs Test (IBT) were selected by consensual validation of content with judges. These items were administered to a college student sample and their responses were factor analyzed using Ellis' irrational beliefs to define the factors.
Further item selection was based upon intercorrelational analysis and factor loadings. Cross validation of construct validity was conducted and the factor structure was satisfactorily replicated. Construct validities of the scales range from .561 to .824 with a mean of .699. The homogeneity reliability coefficients for the scales of the IBT range from .662 to .801 with a mean of .737. Test-retest reliability ranges from .675 to .872 for individual scales and is .921 for the entire instrument.

To establish concurrent validation of the IBT, subjects in the cross validation sample were also given a measure of common psychiatric complaints and the Sixteen Personality Factor Questionnaire (16PF). Scales 1, 2, 3, 4, 5, 6, 7, and 9 of the IBT correlated highly with the six 16PF factors common to all clinical groups. Irrational beliefs were not found to be correlated with age but differences in irrational beliefs due to sex and education level were found.

**Determination of Adaptive Behavior.** The overt behavior of the subjects was assessed by the Adaptive Behavior Scale (Nihira, Foster, Shellhaas, and Leland, 1974). The Adaptive Behavior Scale (ABS) consists of 110 items divided into two parts which cover 24 domains of behavior. The first part of the scale covers ten domains of developmentally ordered behavior that is "...considered important to the development of independence in daily living" (ABS manual, 1975, p. 6). The ten domains included in this part are independent functioning, physical development, economic activity, language development, numbers and time, domestic activity, vocational activity, self-direction, responsibility, and socialization. The second part of the ABS focuses
on more maladaptive behaviors. The domains represented in this section are violent and destructive behavior, antisocial behavior, rebellious behavior, untrustworthy behavior, withdrawal, stereotyped behavior and odd mannerisms, inappropriate interpersonal manners, unacceptable vocal habits, unacceptable or eccentric habits, self-abusive behavior, hyperactive tendencies, sexually aberrant behavior, psychological disturbances, and use of medications.

Three different methods are available for administering the ABS. First person assessment is used when the individual familiar with the subject being evaluated also has enough professional training to assess the relevance of the ABS items. With this method the ABS is completed item by item. Third party assessment is used when the individual with the most complete knowledge of the subject does not have the professional training necessary to fill out the scale. In this case someone professionally trained interviews the person familiar with the subject and the scale is completed item by item. Finally, the interview method is a faster, more efficient form of third party assessment. Like third part assessment, the scale is completed by a professionally trained individual who interviews the person familiar with the subject. With this method the scale is not completed item by item, as information gained in certain parts of the scale may be used to complete other parts.

Twenty-four scores are obtained from scoring the ABS which may be graphed on profile sheets and used with published norms. The norms presently available with the ABS were developed from institutionalized, mentally retarded, or developmentally disabled subjects ranging in age
from four to 69 years. The 1975 manual reports the mean reliability for all behavior domains in Part One to be .86 and the mean reliability for all behavior domains in Part Two to be .57. Factor analysis of the ABS has shown it to contain three main factors: Personal Independence, Social Maladaptation, and Personal Maladaptation (Nihira, 1970).

As may be noted from the samples on which the ABS was normed, it was originally developed for use with "...mentally retarded, emotionally maladjusted, and developmentally disabled individuals..." (ABS manual, 1975, p. 5). Recently, however, it has been used in an investigation with older subjects ranging in age from 68 to 93 years, with a mean age of 75 years (Rubin, 1977). Rubin's study showed the ABS to be a useful instrument in measuring the adaptive behavior of elderly women. As Rubin (1977) points out, the construct of adaptive behavior is pertinent to the elderly and, as measured by the ABS, emphasizes "both personal strategies as well as the surrounding social structure" (p. 25). Because the present investigation involved the study of adaptive behavior of the elderly and because of the success of the ABS with an elderly population in the Rubin investigation, the ABS was considered to be an appropriate instrument for this study.

Although the ABS was developed on a non-normal population, it was expected that some of the scales would provide interesting and pertinent information to this study. However, it was also expected that many of the scales would be inappropriate for a normally functioning elderly sample. Rubin (1977) eliminated 12 of the ABS Part Two scales from her analysis because subjects did not receive scores on those scales. The scales of Psychological Disturbances and Use
of Medications were retained by Rubin because many of her subjects did score on those scales. Since this study involved a population similar to the one used by Rubin, that is, elderly people who are not bedridden and who are without cognitive or intellectual deficits, a similar result was expected. Therefore only Part One of the ABS was used, plus the scales of Psychological Disturbances and Use of Medications from Part Two.

**Determination of Demographic Information.** The subjects were asked to supply information about their age, sex, marital status, and perceived health. This information was collected through a series of questions asked at the end of the Life Satisfaction Index A. Marital status was divided into four categories: single, married, divorced, or widowed. Also included in this question was the number of times the subject had been married, widowed, or divorced. Perceived health was assessed by asking the subjects to respond to the question, "Would you say, in general, that your health is excellent, good, fair, or poor?"

**Experimenters**

In addition to the primary investigator three experimenters were employed to explain the study to the subjects, to read the questions to the subjects if necessary, and to administer the Adaptive Behavior Scale to staff. Two females and one male were used. The male experimenter and one of the females were graduate students in counseling psychology. Both had had experience working with elderly people in nursing homes. The other female was an undergraduate student in her senior year who was majoring in psychology. This individual had also worked with the elderly in a nursing home.
The training of the experimenters was done in three sessions. The first session consisted of the primary investigator meeting individually with each of the experimenters to show him or her the questionnaires and the consent form to be used. What was expected of each experimenter and the general procedure to be followed was explained in this meeting.

The second part of the experimenters' training, which the primary investigator also received, involved a two-hour presentation and discussion on the administration of the Adaptive Behavior Scale. This was done by a graduate student who was well acquainted with the ABS. During this training session the experimenters were given copies of the ABS and the ABS manual. The three different types of items, how to administer each type of item, and how to score them were discussed. Problems which the experimenters might encounter and how to handle these problems were examined. All the experimenters read the manual and any further questions about the ABS were discussed in the group session which was held after the ABS training.

The third session consisted of a group meeting of the experimenters and the primary investigator. A detailed, written procedure was given to each experimenter and discussed (see Appendix F). Possible problems which the experimenters might encounter, such as a subject trying to elicit the experimenter's opinion on a question, and ways to handle these problems were discussed. Any other questions the experimenters had were answered.
**Procedure**

**Institution Involvement.** To obtain subjects, facilities for the elderly were contacted by telephone and the research was briefly explained to the appropriate staff person. The investigator identified herself as an Ohio State University graduate student in counseling psychology and stated she was conducting her doctoral research on the elderly. It was explained that residents of the facilities were needed to complete two questionnaires. It was also explained that staff time would be required to complete the Adaptive Behavior Scale. If the institution was willing to cooperate an appointment was scheduled so the staff person could see the questionnaires and could discuss the exact procedure to be used for data collection with the investigator.

At the meeting the questionnaires were shown to the staff person and the general procedure to be followed was outlined. The age and type of subject needed was discussed as well as the best way to obtain the residents' cooperation. How subjects were approached depended heavily on the preference of the staff person involved. Three different methods were used. At some institutions the staff person developed a list of residents who met the necessary criteria and got their agreement to participate before the experimenter met with them. Another method used was for the staff person to develop a list of potential subjects and the experimenters asked the people to cooperate themselves. At other facilities potential subjects were gathered as a group and the research was explained to them as a whole by the experimenters.

**Individual Questionnaire Administration.** When a list of potential subjects was provided, the experimenters approached the subjects on an
individual basis. The experimenter identified him or herself as a student from Ohio State University. Then he or she made a standardized statement to the subject explaining the purpose of the study and what would be involved if the person participated (see Appendix E). If the person agreed to participate, the consent form was read to the subject and the necessity of signing it explained. All the subjects signed the consent form. The confidentiality of the information given by the subjects was emphasized at this time also.

Two different procedures were followed for completing the questionnaires based on the subjects' ability to read the questions themselves. If the subject could read the questions, each questionnaire was shown to the subject and the directions for completing each was explained. After the experimenter was sure the subject understood the directions, a time was arranged to pick up the completed questionnaire. If the subject was unable to read the questions, the experimenter explained how to respond to each of the questionnaires, then read the questions to the subject, and recorded the subject's answers. Approximately half of the subjects required assistance in reading the questionnaires.

Group Questionnaire Administration. The same procedure was used here as with the individual subjects except that subjects were approached on a group basis. The experimenter identified him or herself as a student and explained the purpose of the research. The consent form was explained as well as how to respond to each of the questionnaires. At two of the retirement communities the questionnaires were left with the subjects and picked up at a later time. At the psychiatric
hospital, where a group approach was also used, the experimenters stayed while the subjects completed the questions and individual help was given to the subjects when needed.

**Adaptive Behavior Scale Administration.** After all the questionnaires had been collected at a particular institution, one experimenter arranged a time with the staff to complete the Adaptive Behavior Scale. The staff people who helped complete the ABS's were either a nurse, the activities director, or a social worker. The staff person selected was someone who knew the subjects well. The interview method was used to complete the ABS because it was considered the most appropriate for the purposes of this study and the least time-consuming for staff people.

**Statistical Analysis**

Stepwise linear multiple regression analysis was used to analyze the results of this research. Two regression analyses were performed. Life satisfaction constituted the criterion variable for one analysis and adaptive behavior was the criterion variable in the other analysis. For the analysis of life satisfaction the predictor variables were the demographic variables, the scales of the Irrational Beliefs Test, and the scales of the Adaptive Behavior Scale. The predictor variables for the analysis of adaptive behavior were the demographic variables and the scales of the Irrational Beliefs Test. The analyses were used to determine how much each of the predictor variables contributed to life satisfaction and how much each contributed to adaptive behavior. The relationship between life satisfaction and adaptive behavior was also analyzed through the use of a Pearson product-moment correlation.
CHAPTER FOUR

RESULTS

Some questionnaires were eliminated prior to the analysis of the data. Several subjects left one or two items on the Irrational Beliefs Test (IBT) blank. If a subject omitted more than three items on a scale, his or her questionnaire was discarded. Using this criterion, several questionnaires from the psychiatric hospital and two from retirement communities were unusable, leaving 142 usable questionnaires. The number of subjects from each type of setting is shown in Chapter Three (p. 59). Also, the Vocational Activity scale of the ABS was eliminated from the analysis because no subject received a score on this scale.

The data were prepared for analysis in the following manner. Life satisfaction scores were recorded as whole numbers. The range of scores on the LSIA in this study was from two to 20. Subjects received 10 scores for the IBT, one score per scale. Because some subjects skipped items on this instrument, an average score rather than a raw score was used for each scale. Raw scores were used for each of the 11 ABS scales and subjects received one score per scale. Numerical values were assigned to the various categories for each of the demographic variables: for sex, male = 1, female = 0; for health, excellent = 1, good = 2, fair = 3, poor = 4; for number of times
married, widowed, or divorced the scores ranged from zero to three. Marital status was handled slightly differently because it is not a continuous variable. For each subject a one was placed in the appropriate marital category and a zero in the others.

Demographic Information

A summary of the subjects' demographic information is shown in Table 1. As can be seen from the table, the subjects were mainly females. Over half the subjects were widowed and more than two-thirds had been married once. Half the subjects rated their health as good, about a third considered their health fair, approximately a tenth rated their health as excellent, and less than a tenth considered their health to be poor. One subject in the sample did not record a health rating and one subject fit into two of the marital categories.

Prediction of Life Satisfaction

Neugarten, Havighurst, and Tobin (1961) give a mean equal to 12.4 and a standard deviation equal to 4.4 for the Life Satisfaction Index A. Their subjects ranged in age from 50 to 90 years but Neugarten et. al. report the LSIA to be most useful with those 65 years of age and older. The present study found a mean equal to 12.15 and a standard deviation equal to 3.77 for the LSIA. Thus this sample of elderly people was less satisfied but more homogeneous than the Neugarten et. al. sample.

A stepwise linear multiple regression analysis was performed to test Hypotheses 1, 2, and 4. Hypothesis 1, which states that multiple correlations between life satisfaction and scores on the IET will be zero, was rejected. Irrational Belief four (IB4), the idea that it is
Table 1
Summary of Demographic Information

<table>
<thead>
<tr>
<th>Age</th>
<th>Range from 60 to 92 years old</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean = 77.6 years old</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sex</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Males = 27</td>
<td></td>
</tr>
<tr>
<td>Females = 115</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status(^b)</th>
<th>Single = 34</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Married = 14</td>
</tr>
<tr>
<td></td>
<td>Divorced = 10</td>
</tr>
<tr>
<td></td>
<td>Widowed = 85</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Times Married, Widowed, or Divorced</th>
<th>Zero = 34</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Once = 100</td>
</tr>
<tr>
<td></td>
<td>Twice = 7</td>
</tr>
<tr>
<td></td>
<td>Three times = 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perceived Health(^c)</th>
<th>Excellent = 17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Good = 70</td>
</tr>
<tr>
<td></td>
<td>Fair = 43</td>
</tr>
<tr>
<td></td>
<td>Poor = 11</td>
</tr>
</tbody>
</table>

\(^a_n = 142\)

\(^b\) One subject fit into two marital categories.

\(^c\) One subject failed to mark a rating.
awful and catastrophic when things are not the way one would very much like them to be, was selected as a significant predictor of life satisfaction by the stepwise technique ($p < .01$). The beta value for IB$_4$ was -.1666, indicating that this belief is negatively related to life satisfaction. In other words, the more strongly a person holds IB$_4$ the less likely he or she is to be life satisfied. Irrational Belief five (IB$5$), the idea that human unhappiness is externally caused and that people have little or no control over their sorrows and disturbances, was also selected as a significant predictor of life satisfaction ($p < .001$) and was negatively related to the criterion variable.

Hypothesis 2 which states that multiple correlations between life satisfaction and scores on the Adaptive Behavior Scale will be zero was also rejected. The scale of Domestic Activity was selected as a significant predictor of life satisfaction ($p < .01$). The beta value for Domestic Activity was .1236, indicating a positive relationship between it and life satisfaction.

Finally, Hypothesis 4, which states that the demographic variables will be associated with life satisfaction and adaptive behavior, was partially supported for life satisfaction. Perceived health was selected as a significant predictor of life satisfaction ($p < .0001$). The beta value for perceived health was $-1.4541$. Since a one represented excellent perceived health and a four represented poor perceived health, it can be seen that poorer health is associated with lower life satisfaction.

In summary, IB$_4$ and IB$5$ of the Irrational Beliefs Test, the Domestic Activity scale of the ABS, and perceived health were all selected
as significant predictors of life satisfaction by the stepwise technique. Taken together these variables accounted for approximately 31% of the variance in life satisfaction. These results are shown in Table 2.

Prior research has shown the demographic variables used in this study to be significantly related to life satisfaction. Because of this, two additional analyses were performed to assess the extent of the demographic variables' influence on life satisfaction in comparison with the other predictors. Thus another stepwise linear multiple regression analysis was performed with life satisfaction as the criterion variable. In this analysis the influence of all the demographic variables was accounted for before the IBT and ABS scales were entered into the regression equation. This analysis indicated that the influence of all the demographic variables accounted for approximately 17% of the variance in life satisfaction. The only demographic variable to reach statistical significance was perceived health ($p < .0001$). In this analysis IB5 was again selected as a significant predictor of life satisfaction ($p < .001$) and was negatively related to the criterion variable. Irrational Belief seven (IB7), the idea that it is easier to avoid than to face certain life difficulties and responsibilities, was selected as a negative predictor of life satisfaction ($p < .05$). Finally, the Socialization scale of the ABS was chosen as a positive predictor of life satisfaction ($p < .01$). All the demographic variables, IB5, IB7, and Socialization accounted for approximately 34% of the variance in life satisfaction. These results are shown in Table 3.
Table 2

Stepwise Regression for Life Satisfaction with Significant IET Scores, ABS Scores, and Demographic Variables as Predictors

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta Value</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>24.9887</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>-1.4541</td>
<td>19.00 **</td>
</tr>
<tr>
<td>IB4</td>
<td>-0.1666</td>
<td>6.35 *</td>
</tr>
<tr>
<td>IB5</td>
<td>-0.3273</td>
<td>11.91 **</td>
</tr>
<tr>
<td>AB6</td>
<td>0.1236</td>
<td>9.36</td>
</tr>
</tbody>
</table>

Overall F = 15.27 ***

$R^2 = .3083$

* $P < .01$
** $P < .001$
*** $P < .0001$
Table 3
Stepwise Regression for Life Satisfaction with IBT Scores and ABS Scores as Predictors, Demographic Variables Included

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta Value</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>26.2331</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.0599</td>
<td>2.44</td>
</tr>
<tr>
<td>Sex</td>
<td>-1.1309</td>
<td>2.50</td>
</tr>
<tr>
<td>Single</td>
<td>1.8732</td>
<td>1.25</td>
</tr>
<tr>
<td>Married</td>
<td>1.2387</td>
<td>.79</td>
</tr>
<tr>
<td>Widowed</td>
<td>1.0575</td>
<td>.77</td>
</tr>
<tr>
<td>Divorced</td>
<td>0.0000</td>
<td>.00</td>
</tr>
<tr>
<td>No. of Times Married</td>
<td>1.4962</td>
<td>2.18</td>
</tr>
<tr>
<td>Health</td>
<td>-1.4273</td>
<td>17.43 **</td>
</tr>
<tr>
<td>IB5</td>
<td>-0.3325</td>
<td>12.10 ***</td>
</tr>
<tr>
<td>IB7</td>
<td>-0.1485</td>
<td>4.76 *</td>
</tr>
<tr>
<td>AB9</td>
<td>0.2114</td>
<td>8.87 **</td>
</tr>
</tbody>
</table>

Overall F = 6.70 ****
R^2 = .3384

* P < .05
** P < .01
*** P < .001
**** P < .0001
A third stepwise linear multiple regression was performed with life satisfaction as the criterion variable in which the demographic variables were excluded from the analysis entirely. This analysis showed IB4, IB5, IB10, and Domestic Activity to be significant predictors of life satisfaction. IB4 and IB5 were negatively related to life satisfaction while Domestic Activity and IB10 were positively related to it. This analysis accounted for approximately 23% of the variance in life satisfaction. These results are shown in Table 4.

Which of these analyses presented the most useful information to a counselor working with elderly people? Comparing the analyses, it seems possible that perceived health may be more important in predicting life satisfaction than the other demographic variables. This is hypothesized because the first analysis which included perceived health accounted for about 8% more of the variance than the last analysis which excluded health. Including all the demographic variables, as in the second analysis, only increased the accounted-for variance by about 3% over the first analysis. To test the relation between life satisfaction and perceived health a Pearson product-moment correlation was performed. The resulting correlation was .3473 (p < .0001). Thus perceived health accounts for about 12% of the variance in life satisfaction. Because of this it seems that the first analysis is probably more informative to an individual who is counseling elderly people.

**Prediction of Adaptive Behavior**

Table 5 shows the means and standard deviations as well as the maximum possible scores for each of the 11 ABS scales. Profiling the
### Table 4

Stepwise Regression for Life Satisfaction with Significant IBT Scores and ABS Scores as Predictors

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta Value</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>22.7877</td>
<td></td>
</tr>
<tr>
<td>IB4</td>
<td>-0.2053</td>
<td>8.63**</td>
</tr>
<tr>
<td>IB5</td>
<td>-0.3894</td>
<td>15.10***</td>
</tr>
<tr>
<td>IB10</td>
<td>0.1514</td>
<td>3.87*</td>
</tr>
<tr>
<td>AB6</td>
<td>0.1171</td>
<td>7.58**</td>
</tr>
</tbody>
</table>

Overall $F = 10.47$ ****

$R^2 = 0.2340$

---

* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$
**** $p < 0.0001$
Table 5

Means, Standard Deviations, and Maximum Possible Scores
for the Adaptive Behavior Scale

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>S.D.</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Functioning</td>
<td>96.39</td>
<td>14.50</td>
<td>107.00</td>
</tr>
<tr>
<td>Physical Development</td>
<td>19.23</td>
<td>4.60</td>
<td>24.00</td>
</tr>
<tr>
<td>Economic Activity</td>
<td>13.79</td>
<td>4.71</td>
<td>17.00</td>
</tr>
<tr>
<td>Language Development</td>
<td>35.95</td>
<td>5.33</td>
<td>39.00</td>
</tr>
<tr>
<td>Numbers and Time</td>
<td>11.75</td>
<td>.89</td>
<td>12.00</td>
</tr>
<tr>
<td>Domestic Activity</td>
<td>11.98</td>
<td>6.67</td>
<td>18.00</td>
</tr>
<tr>
<td>Self-Direction</td>
<td>17.62</td>
<td>3.13</td>
<td>20.00</td>
</tr>
<tr>
<td>Responsibility</td>
<td>5.13</td>
<td>1.38</td>
<td>6.00</td>
</tr>
<tr>
<td>Socialization</td>
<td>22.26</td>
<td>4.00</td>
<td>26.00</td>
</tr>
<tr>
<td>Psychological Disturbances</td>
<td>4.30</td>
<td>6.62</td>
<td>31.00</td>
</tr>
<tr>
<td>Use of Medications</td>
<td>2.08</td>
<td>2.31</td>
<td>10.00</td>
</tr>
</tbody>
</table>
mean scores using the oldest norm group available for the ABS, 50-69 years old, gives an overall picture of the adaptive behavior of the sample (see Figure 2). The Physical Development score of the group is relatively low, falling at about the 31st percentile. This figure reflects the fact that several subjects had Parkinson's Disease, had suffered strokes, had broken hips, etc. Many of these problems, however, are quite common in older people so a low Physical Development score would not seem to be atypical of this population. The cognitive scores of Economic Activity, Numbers and Time, and Language Development are between the 85th and 95th percentiles, indicating a sample with normal rather than retarded intelligence according to the ABS manual (1975). The Independent Functioning and Domestic Activity scores are in the 76th and 84th percentiles respectively, which is lower than might be expected with the high cognitive scores. This indicates that the personal independence of the sample is probably lower than the subjects' capabilities. The Self-Direction score falls at the 50th percentile and shows a lack of personal motivation for the group. This score along with the Independent Functioning score may indicate that the group has given up to an extent. Physical problems may be related to this. The Responsibility and Socialization scores, at the 89th and 93rd percentiles respectively, indicate these people have high social motivation and enjoy interacting with others.

Stepwise linear multiple regression analyses were performed with each ABS scale serving as a criterion variable. Scores on the IBT and the demographic information were the predictor variables. These analyses tested Hypotheses 3 and 4. The results of these analyses
PLEASE NOTE:

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UNIVERSITY MICROFILMS.
### PROFILE SUMMARY

AAMD ADAPTIVE BEHAVIOR SCALE PART ONE

<table>
<thead>
<tr>
<th>Decile</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades</td>
<td>96.6</td>
<td>19.2</td>
<td>13.8</td>
<td>36.0</td>
<td>11.6</td>
<td>12.0</td>
<td>—</td>
<td>17.6</td>
<td>5.1</td>
<td>22.5</td>
</tr>
</tbody>
</table>

**FIGURE 2**: Profile of the Mean Part One AAS Scores for the Entire Sample.
are reported separately for each scale.

**Independent Functioning.** Irrational Belief nine (IB9), the idea that one's past history is an all important determiner of one's present behavior and that because something once strongly affected one's life, it should indefinitely have a similar effect, was selected as a significant predictor of Independent Functioning ($p < .05$). The results indicated IB9 to be a negative predictor of Independent Functioning. That is, the more strongly an individual holds IB9 the less likely he or she will receive a high score on Independent Functioning. Irrational Belief ten (IB10), the idea that there is invariably a right, precise, and perfect solution to human problems and it is catastrophic if this perfect solution is not found, was also a significant predictor of Independent Functioning in the negative direction ($p < .05$).

Of the demographic variables, age and sex were both found to be significant predictors of Independent Functioning ($p < .05$). A positive relationship was found between age and Independent Functioning, indicating that for this sample the older people had higher Independent Functioning. Sex was shown to be negatively related to Independent Functioning, indicating females to be higher on this scale than males. This latter result should be interpreted with caution, however, because of the small number of males in the sample. These variables, IB9, IB10, age, and sex, together accounted for approximately 12% of the variance in Independent Functioning.

**Physical Development.** For this ABS scale none of the IBT scales was selected as a significant predictor. Similarly none of the demographic variables was found to be a significant predictor of Physical
Development.

**Economic Activity.** For this ABS scale only one IBT scale was found to be a significant predictor. Irrational Belief two (IB2), the idea that one should be thoroughly competent, adequate, and achieving in all possible respects if one is to consider oneself worthwhile, was significantly related to Economic Activity in the negative direction \((p < .01)\). IB2 accounted for approximately 5% of the variance in Economic Activity.

**Language Development.** Three variables were selected as significant predictors of Language Development. IB2 and IB9 were both negative predictors of Language Development \((p < .05)\). Age was a positive predictor of this scale \((p < .0001)\), with older subjects scoring higher on this scale. These variables accounted for approximately 28% of the variance in Language Development.

**Numbers and Time.** Only one variable, IB2, was a significant predictor of the Numbers and Time scale \((p < .01)\). IB2 was negatively related to Numbers and Time and accounted for 5% of the variance in that scale.

**Domestic Activity.** The scale of Domestic Activity was found to be related to three of the predictor variables. IB9 was negatively related to Domestic Activity \((p < .01)\). The demographic variables of age and sex were also selected as significant predictors of this scale. Age was positively related to Domestic Activity \((p < .001)\). Sex was negatively related to the scale \((p < .05)\), indicating that females scored higher than males on Domestic Activity. Again it should be noted that this effect for sex should be interpreted with caution due
to the small number of male subjects. The variance accounted for in Domestic Activity by these three variables was approximately 15%.

Self-Direction. Irrational Belief s1x (IB6), the idea that if something is or may be dangerous or fearsome one should be terribly concerned about it and should keep dwelling on the possibility of its occurring, was selected as a significant predictor of Self-Direction ($p < .01$). IB6 was a negative predictor, indicating that those who believe IB6, are less likely to score highly on Self-Direction. Of the demographic variables, age was a positive predictor of this scale ($p < .001$). In this sample it seems that older subjects scored higher on Self-Direction than younger ones. These two variables accounted for approximately 16% of the variance in this scale.

Responsibility. This scale was found to be significantly related to two predictor variables. IB2 was a negative predictor of Responsibility ($p < .05$), while age was a positive predictor of it ($p < .05$). IB2 and age accounted for about 8% of the variance in Responsibility.

Socialization. Two variables were selected as significant and negative predictors of Socialization, IB2 and IB9 ($p < .05$). Age was again a significant predictor, being positively related to this scale ($p < .001$). The variance accounted for in Socialization by these variables was about 16%.

Psychological Disturbances. From the Irrational Beliefs Test, IB9, which concerns the importance of one's past history in determining present behavior, was a significant and positive predictor of Psychological Disturbances ($p < .01$). Sex was also found to be significantly and positively related to this scale ($p < .01$), indicating that
males scored higher on Psychological Disturbances than females. This finding should be viewed with caution because of the small number of males in the sample. The variance accounted for by IB9 and sex in Psychological Disturbances was about 9%.

**Use of Medications.** This scale was found to be positively related to IB8, \( p < .05 \), which is the idea that one should be dependent on others and needs someone stronger than oneself on whom to rely. Age was found to be a negative predictor of Use of Medications \( p < .01 \) with younger subjects apparently using fewer medications than older subjects. The variance in this scale accounted for by these two variables was approximately 8%.

In summary, all the ABS scales but one, Physical Development, were found to be significantly related to some of the predictor variables. The variance accounted for in each of the scales ranged from 5-28%. Thus for many scales very little of the variance was explained by the predictors. Domestic Activity, Language Development, Self-Direction, and Socialization were the scales which had the largest percent of variance explained (15%, 28%, 16%, and 16% respectively). However, even in these scales most of the variance is due to unknown factors.

Some of the predictors occurred fairly frequently while others appeared little or not at all. In particular, Irrational Beliefs 2 and 9 were related to several ABS scales. The demographic variable of age was significant in the prediction of all the scales except Physical Development. The results of these analyses are shown in Table 6.
Table 6
Stepwise Regression for ABS with Significant IBT Scores
and Demographic Variables as Predictors

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<td>Age</td>
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<td>IB10</td>
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<tr>
<td>$R^2$</td>
<td>.1185</td>
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### Numbers and Time

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Overall F = 6.88**

\[ R^2 = .0468 \]

### Domestic Activity

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Overall F = 8.04****

\[ R^2 = .1488 \]

### Self-Direction

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Overall F = 13.66****

\[ R^2 = .1634 \]

### Responsibility

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Overall F = 5.87**

\[ R^2 = .0778 \]
Table 6 (Cont.)

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<td>Age</td>
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<td>IB2</td>
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<td></td>
<td>IB9</td>
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<td></td>
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<td>= .1573</td>
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<table>
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<td>Sex</td>
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<td>5.81</td>
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<tr>
<td></td>
<td>IB9</td>
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<td>Overall F</td>
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<tr>
<td></td>
<td>R²</td>
<td>= .0940</td>
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<table>
<thead>
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<th>Variable</th>
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<td>4.0367</td>
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<td>Age</td>
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<td></td>
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<tr>
<td></td>
<td>R²</td>
<td>= .0807</td>
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* P < .05
** P < .01
*** P < .001
**** P < .0001
Stepwise linear multiple regression analyses were also done with all the ABS scales as the criterion variables but with the effects of the demographic variables taken into account before the other predictor variables were entered into the regression equation. These results do not differ from the first analyses except for the scales of Language Development, Numbers and Time, and Use of Medications. The results for those scales are reported below and are shown in Table 7.

For Language Development, the influence of all the demographic variables accounted for about 20% of the variance. Only age reached statistical significance as a predictor, however. Regarding the IBT variables, three were found to be significant predictors of this scale. IB2 and IB9 were both negative predictors of Language Development ($p < .01$). A positive predictor of the scale was IB8 ($p < .005$). The variance accounted for by all these variances together was approximately 32%, about 4% more than in the previous analysis.

This analysis of the Numbers and Time scale showed the demographic variables to account for about 7% of the variance with the variables of single ($p < .05$) and number of times married ($p < .01$) reaching statistical significance. IB9 was found to be a negative predictor of Numbers and Time ($p < .01$). Altogether this analysis accounted for about 13% of the variance in the scale.

Finally, for Use of Medications, the demographic variables taken together accounted for about 7% of the variance. The only demographic variable to reach statistical significance was age ($p < .01$). IB6 was found in this analysis to be a positive predictor of Use of Medications ($p < .05$). IB6 and the demographic variables accounted for
Table 7

Stepwise Regression for ABS with IBT Scores as Predictors and Demographic Variables Included

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<td>.00</td>
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<tr>
<td>No. of Times Married</td>
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<td>.06</td>
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<tr>
<td>Health</td>
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Overall F = 1.96*

R² = .0806

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<td>.00</td>
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<td>No. of Times Married</td>
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<tr>
<td>Health</td>
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<td>IB2</td>
<td>-0.2518</td>
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Overall F = 1.92*

R² = .1033
### Table 7 (Cont.)

#### Language Development

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<td>Divorced</td>
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<tr>
<td>No. of Times Married</td>
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<tr>
<td>Health</td>
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<td>IB9</td>
<td>-0.2992</td>
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**Overall F = 6.28****

\[ R^2 = 0.3242 \]

#### Numbers and Time

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<td>Divorced</td>
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<td>0.00**</td>
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**Overall F = 2.52**

\[ R^2 = 0.1315 \]
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Overall $F = 3.26^{**}$

$R^2 = .1637$

Self-Direction

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Overall $F = 3.45^{***}$

$R^2 = .1718$
Table 7 (Cont.)

### Responsibility

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<td>.00</td>
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<tr>
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Overall F = 2.07*
R² = .1107

### Socialization

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<tr>
<td>No. of Times Married</td>
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Overall F = 2.88**
R² = .1639
Table 7 (Cont.)

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<td>Sex</td>
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</tr>
<tr>
<td>No. of Times Married</td>
</tr>
<tr>
<td>Health</td>
</tr>
<tr>
<td>IB9</td>
</tr>
<tr>
<td><strong>Overall F = 2.68</strong></td>
</tr>
<tr>
<td><strong>R² = .1388</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Use of Medications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable</strong></td>
</tr>
<tr>
<td>Intercept</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Sex</td>
</tr>
<tr>
<td>Single</td>
</tr>
<tr>
<td>Married</td>
</tr>
<tr>
<td>Widowed</td>
</tr>
<tr>
<td>Divorced</td>
</tr>
<tr>
<td>No. of Times Married</td>
</tr>
<tr>
<td>Health</td>
</tr>
<tr>
<td>IB6</td>
</tr>
<tr>
<td><strong>Overall F = 1.89</strong></td>
</tr>
<tr>
<td><strong>R² = .1019</strong></td>
</tr>
</tbody>
</table>

* p < .05
** p < .01
*** p < .001
**** p < .0001
about 10% of the variance in this scale.

Accounting for the influence of the demographic variables first seems to increase the amount of variance explained but not substantially. Thus these latter analyses do not appear to add much new information to that gained from the first regression analyses of the ABS scales.

**Relationship between Life Satisfaction and Adaptive Behavior**

To assess the relationship between life satisfaction and adaptive behavior, Pearson product-moment correlations were performed between scores on the LSIA and scores on each of the ABS scales. The results of this analysis are shown in Table 8. Three ABS scales were significantly correlated with the LSIA. These scales were Domestic Activity, Self-Direction, and Socialization. The correlations are not large and the amount of variance accounted for in each of the relationships is about 11-12%. Thus, there seems to be some relationship between the LSIA and these ABS scales but it is not a strong one.

**Results of the Counseling Questions**

The results of the three questions asked to gain information about the elderly's attitudes toward receiving counseling are shown in Table 9. Regarding the question, "Have you ever consulted a counselor, psychologist, psychiatrist, or clergyman for assistance with a personal problem?" the majority of the subjects, approximately 73%, answered no. However, in response to the question, "Would you consult a counselor if you felt the need to do so?" the majority, approximately 76%, answered yes. Regarding what kind of person with whom the subjects would most like to talk, the response was mixed. Many people named a minister or a religious person. A greater portion
Table 8

Correlations Between LSIA Scores and ABS Scores

<table>
<thead>
<tr>
<th>ABS Scale</th>
<th>LSIA</th>
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<tbody>
<tr>
<td>Independent Functioning</td>
<td>.1313</td>
</tr>
<tr>
<td>Physical Development</td>
<td>.1479</td>
</tr>
<tr>
<td>Economic Activity</td>
<td>.1005</td>
</tr>
<tr>
<td>Language Development</td>
<td>.1417</td>
</tr>
<tr>
<td>Numbers and Time</td>
<td>-.0012</td>
</tr>
<tr>
<td>Domestic Activity</td>
<td>.2284*</td>
</tr>
<tr>
<td>Self-Direction</td>
<td>.2310*</td>
</tr>
<tr>
<td>Responsibility</td>
<td>.1240</td>
</tr>
<tr>
<td>Socialization</td>
<td>.2480*</td>
</tr>
<tr>
<td>Psychological Disturbances</td>
<td>-.0863</td>
</tr>
<tr>
<td>Use of Medications</td>
<td>-.1431</td>
</tr>
</tbody>
</table>

* P < .01
n = 142
Table 9
Summary of Counseling Questions Information

1. Have you ever consulted a counselor, psychologist, psychiatrist, or clergymen for assistance with a personal problem?
   - Yes = 38
   - No = 102

2. Would you consult a counselor if you felt the need to do so?
   - Yes = 107
   - No = 33

3. If you were to consult a counselor what sort of person would you prefer?
   - Left question blank = 41
   - Minister = 40
   - Don't know = 10
   - Understanding, patient, sympathetic = 8
   - Older = 7
   - Woman = 6
   - Religious = 4
   - Counselor = 4
   - Professionally trained and competent = 4
   - Psychologist = 3
   - Male = 3
   - Doctor = 3
   - Psychiatrist = 2
   - Relative = 2

n = 140
of the subjects either left this question blank or said they did not know. Some people stated someone who was understanding, patient, and sympathetic. Some indicated a preference for an older person and about an equal number stated a preference for a female.
CHAPTER FIVE
DISCUSSION

The results of this study indicate that there is some relationship between life satisfaction, adaptive behavior, and irrational beliefs. Hypotheses 1, 2, and 3, which postulated no relationships between these variables, were rejected. Adaptive behavior and irrational beliefs do seem to play some part in how life satisfied an individual is. Similarly, adaptive behavior has some relationship to irrational beliefs but these relationships were not particularly strong. Finally, Hypothesis 4, which stated that the demographic variables would be associated with life satisfaction and adaptive behavior, was supported.

Certain limitations of this study must be noted. First, the study's sample is not representative of all elderly people because only institutionalized people were used and the number of male subjects was limited. The results, therefore, are most representative of elderly women living in retirement communities. Second, the data are based upon self-report measures of the pencil and paper variety. How consistent the subjects' self-report is with their actual behavior is unknown. Third, some subjects had the questions read to them while others did not. Having someone read and record their responses may have had an unknown influence on some subjects' responses. Finally, socioeconomic status and the type of setting in which the subject
resided were not included in this research. Other investigators have considered these variables to be of importance (e.g., Edwards and Klemmack, 1973; Wolk and Telleen, 1976). Their influence on the present results is unknown.

Life Satisfaction

Irrational Beliefs. Two irrational beliefs were found to be negatively related to life satisfaction. These beliefs were IB4, which is the idea that it is awful and catastrophic when things are not the way one would very much like them to be, and IB5, the idea that human unhappiness is externally caused and that people have little or no control over their sorrows and disturbances.

How might holding these irrational beliefs interfere with life satisfaction of the elderly? Some suggestions come from the literature on successful aging. Secord and Backman's model, suggested by Bortner (1967), offers a possible explanation. This model views behavior as stemming from the relationship between the self-concept, one's own behavior, and the behavior of others. Incongruities between these three elements disrupt behavioral stability. Such challenges can be ignored, they can overwhelm people so they return to previous response modes, or the challenges can be met. It is suggested here that holding IB4 and IB5 may restrict the elderly's ability to meet challenges adequately and may contribute to their feeling overwhelmed. For example, believing that human unhappiness is externally caused may influence an individual to not try to cope with a changing life situation.
Along similar lines, Gottesman, Quarterman, and Cohen (1973) note that many environmental pressures, such as physical decline, lessened income, and inability to act against pressures, are placed on older people. They also suggest that elderly people may be overwhelmed by these forces and give up. Gottesman et. al. propose that treatment of the elderly take into account these environmental pressures. It also seems that a successful treatment program might include examination of people's beliefs about their ability to cope because belief systems may mediate perception of environmental forces. To become disturbed over one's situation and to feel that it is awful to be old may distract attention from positive changes and adaptations the individual could make.

Adaptive Behavior. The Domestic Activity Scale was found to be a significant positive predictor of life satisfaction. Thus an individual who scored high on Domestic Activity was more likely to score high on the LSIA. Domestic Activity covers a range of behaviors that people in institutions such as retirement communities and nursing homes can choose to do or which can be done for them by the institutional staff. This is an area where an individual can choose to have control or can relinquish control to others. Bortner (1967) mentions one response to a challenged individual is regression to previous response modes. The Domestic Activity scale may be an indicator of whether a person is trying to cope. A low score for an individual capable of accomplishing household tasks may show someone who is failing to meet a challenge of old age successfully.
No other ABS scales were selected as significant predictors of life satisfaction. The relationship of adaptive behavior as a contributor to life satisfaction is still unclear at this point. It is possible that the range of behaviors tapped by the ABS are perhaps not the most salient for the population used in this study.

Demographic Information. Perceived health was found to be an important contributor to life satisfaction. This result supports the findings of other investigators which have also shown health to be an important variable in life satisfaction (Adams, 1971; Edwards and Klemmack, 1973). Adams suggests that poor health is important because it may reduce one's mobility as well as restrict the peer group with which one can interact. It seems fairly certain that having poor health reduces one's capabilities and can prevent people from doing things they would like to do. On the other hand, the fact that this is perceived health and not an independent medical rating may be relevant. It may be important how the individual experiences and deals with a disability. Support for this view comes from Botwinick (1970) who notes that physical and psychiatric complaints in old age are related to poor mental and not physical health. This may be another area where the individual can learn to cope with the problem or can simply give up. For institutionalized people the giving up process may be an available one of allowing the nursing staff to take care of them. Encouraging the individual to do as much as possible for him or herself might be a useful approach.

The need for elderly people to acquire coping mechanisms for this time of life has been suggested by several authors (e.g., Havighurst,
The results of the present study suggest that one's way of thinking may enhance or distract from the coping process. It seems possible that elderly people who believe IB4 and IB5, who allow the institution they reside in to manage their lives, or who surrender to physical disability may have more difficulty coping with the stresses of old age. This lack of coping may result in lowered life satisfaction.

Adaptive Behavior

While irrational beliefs were found to be significant predictors for many of the ABS scales, little information regarding what contributes to adaptive behavior was gained. The variance accounted for by the results leaves many unanswered questions about adaptive behavior.

Irrational Beliefs. Two of the irrational beliefs were significant predictors for several of the ABS scales. IB2, the idea that one should be thoroughly competent, adequate, and achieving in all possible respects if one is to consider oneself worthwhile and IB9, the idea that one's past history is an all important determiner of one's present behavior, were either separately or collectively selected as significant predictors for all the ABS scales except Physical Development, Self-Direction, and Use of Medications.

As with life satisfaction it seems possible that holding these irrational beliefs might interfere with the learning of adaptive behavior appropriate to old age. Holding IB2 might restrict the range of behaviors which an individual attempts. Perhaps believing IB2 encourages people to avoid activities they can no longer do well and to think of themselves as not worthwhile. This could lead to restrictions
in their activities and contribute to a shrinking life space as mentioned by Adams (1971). IB9 might hinder the learning of new coping behaviors. It is suggested that old age requires different coping mechanisms than other life stages (Loeb, 1975). It seems likely that many elderly people are forced to make some lifestyle changes. Believing IB9 may hinder learning to cope with these new situations.

Demographic Variables. The only demographic variable which appeared as a frequent predictor of the ABS scales was age. It was a significant predictor for Independent Functioning, Language Development, Domestic Activity, Self-Direction, Responsibility, Socialization, and Use of Medications. For all scales except Use of Medications older subjects scored higher on the scales than younger subjects.

This result is somewhat surprising. It might be expected that older subjects would be doing less for themselves simply because of the physical decline which accompanies advancing age. One possible explanation for the results is that they are specific to this sample and are not representative of the elderly population as a whole. Another is that the older subjects have learned how to cope successfully with old age and they have lived longer as a result. Palmore (1969a) in research on longevity concluded that maintaining one's health, mental abilities, and satisfying social roles are the most important factors related to longevity. Perhaps the older have learned to maintain the factors mentioned by Palmore. It will be noted that the scales on which age was a significant predictor are scales which measure personal and social motivation as well as the ability of the individual to function independently.
It is interesting that age was not found to be a significant predictor of life satisfaction. In view of the above findings on age and the ABS, is it that the older subjects have learned some adaptive skills but are not satisfied with that adaptation? Further research is needed to elucidate the relationship between life satisfaction and adaptive behavior.

**Life Satisfaction and Adaptive Behavior**

Three of the ABS scales were found to be correlated significantly with life satisfaction. These were Domestic Activity, Self-Direction, and Socialization. Domestic Activity, which was also found to be a significant predictor of life satisfaction, has been discussed previously in this chapter. The relationship between life satisfaction and the other two scales will now be discussed.

The relationship between life satisfaction and Self-Direction, which is an indication of the individual’s willingness to take responsibility for him or herself, suggests that those who continue to be personally motivated are more likely to be life satisfied. Returning to Palmore’s (1969a) research on longevity, it seems likely that to maintain one’s mental abilities and satisfying social roles one probably also needs personal motivation. This seems particularly likely because environmental conditions may not be conducive to the continuation of such activity. Self-Direction seems to fit well with Havighurst’s (1968a) suggestion that a strong, flexible personality will aid the adaptation process since high personal motivation seems to be a likely component of such a personality.
The Socialization scale was also found to be positively correlated with life satisfaction. This scale reflects the individual's social motivation and desire to have contact with others. The importance of social activity and of a reference group has been mentioned by many authors (e.g., Adams, 1971; Havighurst, 1968b; Palmore, 1969b). The correlation between Socialization and life satisfaction adds support to the idea of the importance of social contacts. These results also argue for the activity theory of successful aging, which has recently received experimental support (Harris and Bodden, 1978).

The ideas presented above seem to be possible explanations for the results of this research. They are, however, only possibilities as the relationships between the ABS and the LSIA are not particularly strong. The variance accounted for was only 11-12%. There are, therefore, other unknown factors which influence both life satisfaction and adaptive behavior that were not revealed by this research.

Attitudes Toward Counseling

These questions were an initial attempt to collect information about the elderly's attitudes toward counseling. The responses to the questions indicated that while the majority of the subjects had never received counseling, they would do so if they felt the need. These findings seem to indicate a somewhat positive attitude as only about one-fourth of the subjects indicated they would not seek counseling.

Regarding the type of person to whom they would wish to talk, the subjects seemed to have few ideas. Many failed to give any response to this question. Another large portion stated that they would want to talk with a member of the clergy. Pastoral counseling seems to be a
acceptable form of help for this age group. There was some evidence that an older woman might be preferred. A few subjects also mentioned the importance of training and professional competence, as well as being understanding.

Implications for Counseling

From the results of this study it might be inferred that areas of belief and thinking may be relevant to both the life satisfaction and adaptive behavior of elderly people. Keller, Croake, and Brooking (1975) found that a four-week training program with the elderly involving rational thinking helped reduce their anxiety about aging. It seems likely, however, that a program based solely on RET is not adequate. A behavioral component which encourages the person to remain active and consideration of the subjects' environment also seems important. Research by Harris and Bodden (1978) supports the importance of remaining active. Gottesman, Quarterman, and Cohen (1973) suggest the environment has a large impact on the elderly and that many of the problems of aging are caused by externally-based stress. Havighurst (1968a) mentions the importance of the social environment in successful aging while Bortner (1967) talks about the behavior of others, which could be considered part of the social environment.

The environment for some elderly people is institutions like nursing homes and retirement communities. These may or may not be arranged to enhance the independent functioning and growth of the individual. Wolk and Telleen's study (1976) indicates that elderly people in a low constraint residential setting reported higher life satisfaction than those in a high constraint setting. These authors
suggest that a necessary component for adjustment in old age is a setting which offers the potential for personal autonomy. Thus institutions geared toward encouraging autonomy may help contribute toward the life satisfaction and adaptation of their residents.

Because the above findings suggest that residences for the elderly may play an important part in their life satisfaction, the client's environment should be taken into account by any counselor working with older people. Because of the importance of the environment, staff training and cooperation is probably a necessary component of helping elderly people be more life satisfied.

Future Research

More research needs to be done before the problems and the treatment of the elderly is fully understood. However, the existing body of literature on the aged points to many fruitful areas of investigation. Examining many factors known to be important to life satisfaction in a single study seems to be one useful approach. For instance, socioeconomic status and residential constraint have been shown to be important factors in life satisfaction (Edwards and Klemmack, 1973; and Wolk and Telleen, 1976, respectively). Educational level has been shown to influence irrational belief systems (Jones, 1968). Future investigations might examine these factors in conjunction with irrational belief systems of the elderly. It may be found, for instance, that a higher rate of irrational beliefs exist in high constraint residential settings. Such findings would allow counseling psychologists to develop specific treatment methods appropriate to specific settings and populations. Such treatments might be aimed as much at
staff attitudes and environmental conditions as at residents.

As is pointed out by Harris and Bodden (1978), more experimental research with the elderly is needed. Many treatments have been suggested as appropriate for the aged (e.g., Lawton and Gottesman, 1974; Meichenbaum, 1974) but these suggestions are not backed by experimental research. It is unknown, for example, if a training program in RET for the elderly could successfully reduce their irrational beliefs. Further, is reduction in irrational beliefs related to higher life satisfaction? Additional research is necessary to answer such questions.

Further longitudinal research also seems important. By examining people and settings over time much information might be obtained about how people cope with crises as well as settings that maximize the coping ability of their residents.

Finally, continued research into coping mechanisms to meet environmental stress seems important. Such research is indicated because environmental impact has been emphasized as an important factor in the life satisfaction and coping ability of the elderly (e.g., Gottesman, Quarterman, and Cohen, 1973). Studying the coping mechanisms of life satisfied elderly people in different settings would be one approach to this area.

Conclusion

It seems quite possible that counselors can do specific things which may increase the life satisfaction and adaptive behavior of elderly people. Certain irrational beliefs have been mentioned as being possible hinderances to life satisfaction and adaptive behavior. Perceived health is another area of importance to life satisfaction and it
seems likely that helping people learn to cope adequately with physical disabilities could do much to improve life satisfaction.

The present study did not by any means tap all the factors related to life satisfaction. Other fruitful areas of exploration which research has begun to examine are socioeconomic status, environmental stress, and the type of residence in which the elderly person lives. Possibly some combination of these factors as well as the ones explored in this study are the main components of life satisfaction. Further research is needed to answer the question of what contributes to life satisfaction in elderly people.

The progress made toward understanding adaptive behavior and its relationship to life satisfaction is less clear. Irrational beliefs seem to play some part in determining adaptive behavior but so do other as yet unidentified factors. Some ABS scales do correlate with life satisfaction but the exact nature of the relationship between the two is still unclear. The most outstanding result regarding adaptive behavior was that older subjects have higher ABS scores than younger subjects. This finding implies that perhaps the better adjusted elderly person lives longer. This result is interesting and deserves further investigation.
REFERENCES


Adams, D. Correlates of satisfaction among the elderly. The Gerontologist, 1971, Part II, 64-68.


LIFE SATISFACTION INDEX A -- ATTITUDE INVENTORY

Here are some statements about life in general that people feel different ways about. Would you read each statement on the list and if you agree with it, put a check mark in the space under "agree." If you do not agree with a statement, put a check mark in the space under "disagree." If you are not sure one way or the other, put a check mark in the space under "?." Please be sure to answer every question on the list.

<table>
<thead>
<tr>
<th></th>
<th>AGREE</th>
<th>DISAGREE</th>
<th>?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>AS I GROW OLDER, THINGS SEEM BETTER THAN I THOUGHT THEY WOULD BE.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>I HAVE GOTTEN MORE OF THE BREAKS IN LIFE THAN MOST OF THE PEOPLE I KNOW.</td>
<td></td>
<td></td>
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<tr>
<td>3.</td>
<td>THIS IS THE DREAMIEST TIME OF MY LIFE.</td>
<td></td>
<td></td>
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<tr>
<td>4.</td>
<td>I AM JUST AS HAPPY AS WHEN I WAS YOUNGER.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>MY LIFE COULD BE HAPPIER THAN IT IS NOW.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>THESE ARE THE BEST YEARS OF MY LIFE.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>MOST OF THE THINGS I DO ARE BORING OR MONOTONOUS.</td>
<td></td>
<td></td>
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<tr>
<td>8.</td>
<td>I EXPECT SOME INTERESTING AND PLEASANT THINGS TO HAPPEN TO ME IN THE FUTURE.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>THE THINGS I DO ARE AS INTERESTING TO ME AS THEY EVER WERE.</td>
<td></td>
<td></td>
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<tr>
<td>10.</td>
<td>I FEEL OLD AND SOMEWHAT TIRED.</td>
<td></td>
<td></td>
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<tr>
<td>11.</td>
<td>I FEEL MY AGE, BUT IT DOES NOT BOTHER ME.</td>
<td></td>
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<tr>
<td><strong>12.</strong> AS I LOOK BACK ON MY LIFE, I AM FAIRLY WELL SATISFIED.</td>
<td>12.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>13.</strong> I WOULD NOT CHANGE MY PAST LIFE EVEN IF I COULD.</td>
<td>13.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>14.</strong> COMPARED TO OTHER PEOPLE MY AGE, I'VE MADE A LOT OF FOOLISH DECISIONS IN MY LIFE.</td>
<td>14.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>15.</strong> COMPARED TO OTHER PEOPLE MY AGE, I MAKE A GOOD APPEARANCE.</td>
<td>15.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>16.</strong> I HAVE MADE PLANS FOR THINGS I'LL BE DOING A MONTH OR A YEAR FROM NOW.</td>
<td>16.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>17.</strong> WHEN I THINK BACK OVER MY LIFE, I DIDN'T GET MOST OF THE IMPORTANT THINGS I WANTED.</td>
<td>17.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>18.</strong> COMPARED TO OTHER PEOPLE, I GET DOWN IN THE DUMPS TOO OFTEN.</td>
<td>18.</td>
<td></td>
<td></td>
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<tr>
<td><strong>19.</strong> I'VE GOTTEN PRETTY MUCH WHAT I EXPECTED OUT OF LIFE.</td>
<td>19.</td>
<td></td>
<td></td>
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</tbody>
</table>
AS THE LAST PART OF THIS INVENTORY, A LITTLE MORE INFORMATION ABOUT YOU WOULD BE HELPFUL TO THIS RESEARCH.

(1) WHAT IS YOUR SEX?
   _______ MALE
   _______ FEMALE

(2) WHAT IS YOUR PRESENT AGE? _______

(3) WHAT IS YOUR MARITAL STATUS?
   _______ SINGLE
   _______ MARRIED
   _______ DIVORCED
   _______ WIDOWED
   _______ IF MARRIED, WIDOWED, OR DIVORCED, HOW MANY TIMES?

(4) WOULD YOU SAY, IN GENERAL, THAT YOUR HEALTH IS:
   _______ EXCELLENT
   _______ GOOD
   _______ FAIR
   _______ POOR

(5) HAVE YOU EVER CONSULTED A COUNSELOR, PSYCHOLOGIST, PSYCHIATRIST, OR CLERGYMAN FOR ASSISTANCE WITH A PERSONAL PROBLEM?
   _______ YES
   _______ NO

(6) WOULD YOU CONSULT A COUNSELOR IF YOU FELT THE NEED TO DO SO?
   _______ YES
   _______ NO

(7) IF YOU WERE TO CONSULT A COUNSELOR WHAT SORT OF PERSON WOULD YOU PREFER?
INSTRUCTIONS:

THIS IS AN INVENTORY OF YOUR BELIEFS OR REACTIONS ABOUT VARIOUS THINGS. THERE ARE A NUMBER OF STATEMENTS WITH WHICH YOU MAY AGREE OR DISAGREE. YOUR REACTION TO EACH CAN BE MARKED AS STRONGLY AGREE (SA), AGREE (A), NEITHER AGREE NOR DISAGREE (N), DISAGREE (D), AND STRONGLY DISAGREE (SD). READ EACH STATEMENT AND THEN MARK YOUR RESPONSE TO THAT STATEMENT BY PLACING AN "X" IN THE APPROPRIATE SPACE. FOR EXAMPLE, IF YOU AGREE WITH A STATEMENT, PLACE AN "X" IN THE SPACE IN THE "AGREE" (A) COLUMN. IF, ON THE OTHER HAND, YOU STRONGLY DISAGREE WITH THAT STATEMENT, PLACE AN "X" UNDER THE COLUMNヘADED "STRONGLY DISAGREE" (SD), AND SO ON.

YOUR FIRST REACTION TO EACH STATEMENT IS THE ONE YOU SHOULD MARK. IT IS NOT NECESSARY TO THINK ABOUT ANY STATEMENT VERY LONG. MARK YOUR FIRST REACTION AND GO ON TO THE NEXT STATEMENT.

ALSO, BE SURE TO MARK YOUR OWN REACTION TO EACH STATEMENT, NOT HOW YOU THINK YOU SHOULD REACT.

TRY TO AVOID MARKING "NEITHER AGREE NOR DISAGREE" (N) AS MUCH AS POSSIBLE. USE IT ONLY IF YOU REALLY CANNOT DECIDE WHETHER YOU EVEN AGREE OR DISAGREE SLIGHTLY WITH A STATEMENT.
1. IT IS IMPORTANT TO ME THAT OTHERS APPROVE OF ME.

2. I HATE TO FAIL AT ANYTHING.

3. PEOPLE WHO DO WRONG DESERVE WHAT THEY GET.

4. I USUALLY ACCEPT WHAT HAPPENS PHILOSOPHICALLY.

5. IF A PERSON WANTS TO, HE CAN BE HAPPY UNDER ALMOST ANY CIRCUMSTANCES.

6. I HAVE A FEAR OF SOME THINGS THAT OFTEN BOTHERS ME.

7. I USUALLY PUT OFF IMPORTANT DECISIONS.

8. EVERYONE NEEDS SOMEONE HE CAN DEPEND ON FOR HELP AND ADVICE.

9. "A ZEBRA CANNOT CHANGE HIS STRIPES."

10. THERE IS A RIGHT WAY TO DO EVERYTHING.

11. I LIKE THE RESPECT OF OTHERS, BUT I DON'T HAVE TO HAVE IT.

12. I AVOID THINGS I CANNOT DO WELL.

13. TOO MANY EVIL PERSONS ESCAPE THE PUNISHMENT THEY DESERVE.

14. FRUSTRATIONS DON'T UPSET ME.

15. PEOPLE ARE DISTURBED NOT BY SITUATIONS, BUT BY THE VIEW THEY TAKE OF THEM.

16. I FEEL LITTLE ANXIETY OVER UNEXPECTED DANGERS OR FUTURE EVENTS.

17. I TRY TO GO AHEAD AND GET IRKSOME TASKS BEHIND ME WHEN THEY COME UP.

18. I TRY TO CONSULT AN AUTHORITY ON IMPORTANT DECISIONS.
19. It is almost impossible to overcome the influences of the past.

20. There is no perfect solution to anything.

21. I want everyone to like me.

22. I don't mind competing in activities where others are better than I.

23. Those who do wrong deserve to be blamed.

24. Things should be different from the way they are.

25. I cause my own moods.

26. I often can't get my mind off some concern.

27. I avoid facing my problems.

28. People need a source of strength outside themselves.

29. Just because something once strongly affects your life doesn't mean it need do so in the future.

30. There is seldom an easy way out of life's difficulties.

31. I like myself even when many others don't.

32. I like to succeed at something but I don't feel I have to.

33. Immorality should be strongly punished.

34. I often get disturbed over situations I don't like.

35. People who are miserable have usually made themselves that way.
36. IF I CAN'T KEEP SOMETHING FROM HAPPENING, I DON'T WORRY ABOUT IT.

37. I USUALLY MAKE DECISIONS AS PROMPTLY AS I CAN.

38. THERE ARE CERTAIN PEOPLE THAT I DEPEND ON GREATLY.

39. PEOPLE OVERVALUE THE INFLUENCE OF THE PAST.

40. SOME PEOPLE WILL ALWAYS BE WITH US.

41. IF OTHERS DISLIKE ME, THAT'S THEIR PROBLEM, NOT MINE.

42. IT IS HIGHLY IMPORTANT TO ME TO BE SUCCESSFUL IN EVERYTHING I DO.

43. I Seldom blame people for their wrongdoing.

44. I usually accept things the way they are, even if I don't like them.

45. A person won't stay angry or blue long unless he keeps himself that way.

46. I can't stand to take chances.

47. LIFE IS TOO SHORT TO SPEND IT DOING UNPLEASANT TASKS.

48. I LIKE TO STAND ON MY OWN TWO FEET.

49. IF I HAD HAD DIFFERENT EXPERIENCES, I COULD BE MORE LIKE I WANT TO BE.

50. EVERY PROBLEM HAS A CORRECT SOLUTION.

51. I FIND IT HARD TO GO AGAINST WHAT OTHERS THINK.

52. I ENJOY ACTIVITIES FOR THEIR OWN SAKE, NO MATTER HOW GOOD I AM AT THEM.

53. THE FEAR OF PUNISHMENT HELPS PEOPLE BE GOOD.
54. IF THINGS ANNOY ME, I JUST IGNORE THEM.

55. THE MORE PROBLEMS A PERSON HAS, THE LESS HAPPY HE WILL BE.

56. I AM SELDOM ANXIOUS OVER THE FUTURE.

57. I SELDOM PUT THINGS OFF.

58. I AM THE ONLY ONE WHO CAN REALLY UNDERSTAND AND FACE MY PROBLEMS.

59. I SELDOM THINK OF PAST EXPERIENCES AS AFFECTING ME NOW.

60. WE LIVE IN A WORLD OF CHANCE AND PROBABILITY.

61. ALTHOUGH I LIKE APPROVAL, IT'S NOT A REAL NEED FOR ME.

62. IT BOTHERS ME WHEN OTHERS ARE BETTER THAN I AM AT SOMETHING.

63. EVERYONE IS BASICALLY GOOD.

64. I DO WHAT I CAN TO GET WHAT I WANT AND THEN DON'T WORRY ABOUT IT.

65. NOTHING IS UPSETTING IN ITSELF – ONLY THE WAY YOU INTERPRET IT.

66. I WORRY A LOT ABOUT CERTAIN THINGS IN THE FUTURE.

67. IT IS DIFFICULT FOR ME TO DO UNPLEASANT CHORES.

68. I DISLIKE FOR OTHERS TO MAKE MY DECISIONS FOR ME.

69. WE ARE SLAVES TO OUR PERSONAL HISTORIES.

70. THERE IS SELDOM AN IDEAL SOLUTION TO ANYTHING.

71. I OFTEN WORRY ABOUT HOW MUCH PEOPLE APPROVE OF AND ACCEPT ME.
72. It upsets me to make mistakes.
73. It's unfair that the "rain falls on the just and the unjust."
74. I am fairly easy going about life.
75. More people should face up to the unpleasantness of life.
76. Sometimes I can't get a fear off my mind.
77. A life of ease is seldom very rewarding.
78. I find it easy to seek advice.
79. Once something strongly affects your life, it always will.
80. It is better to look for a practical solution than a perfect one.
81. I have considerable concern with what people are feeling about me.
82. I often become quite annoyed over little things.
83. I usually give someone who has wronged me a second chance.
84. I dislike responsibility.
85. There is never any reason to remain sorrowful for very long.
86. I hardly ever think of such things as death or atomic war.
87. People are happiest when they have challenges and problems to overcome.
88. I dislike having to depend on others.
89. People never change basically.
90. I feel I must handle things in the right way.
91. IT IS ANNOYING BUT NOT UPSETTING TO BE CRITICIZED.
92. I'M NOT AFRAID TO DO THINGS WHICH I CANNOT DO WELL.
93. NO ONE IS EVIL, EVEN THOUGH HIS DEEDS MAY BE.
94. I SELDOM BECOME UPSET OVER THE MISTAKES OF OTHERS.
95. MAN MAKES HIS OWN HELL WITHIN HIMSELF.
96. I OFTEN FIND MYSELF PLANNING WHAT I'D DO IN DIFFERENT DANGEROUS CASES.
97. IF SOMETHING IS NECESSARY, I DO IT EVEN IF IT IS UNPLEASANT.
98. I'VE LEARNED NOT TO EXPECT SOMEONE ELSE TO BE VERY CONCERNED ABOUT MY WELFARE.
99. I DON'T LOOK UPON THE PAST WITH ANY REGRETS.
100. THERE IS NO SUCHThing AS AN IDEAL SET OF CIRCUMSTANCES.
PART ONE

1. INDEPENDENT FUNCTIONING

A. Eating

[1] Use of Table Utensils (Circle only ONE)
- Uses knife and fork correctly and eats
- Uses fork only for eating or spreading
- Uses spoon only for food served with it
- Eats with a spoon and fork
- Eats with a spoon - considerable spilling
- Eats with a spoon - needs help
- Eats with a spoon - considerable spilling
- Eats with a spoon - needs help
- Eats without help
- Eats without help

[2] Eating in Public (Circle only ONE)
- Orders complete meal at restaurant
- Orders soup or salad only
- Orders simple meal, like hamburgers or hot dogs
- Orders not at all

[3] Drinking (Circle only ONE)
- Drinks without spilling, holding glass in one hand
- Drinks from cup or glass unassisted - needs help
- Drinks from cup or glass unassisted - considerable spilling
- Drinks from cup or glass unassisted - needs help

[4] Table manners (Check ALL statements which apply)
- Swallows food without chewing
- Chews food with a mouth open
- Drinks food without chewing
- Drinks unspilled
- Drinks without assistance
- Drinks without assistance
- Drinks without assistance
- Drinks without assistance
- Drinks without assistance

B. Toilet Use

[1] Self-Care at Toilet (Check ALL statements which apply)
- Dresses gown at the toilet without help
- Dresses gown at the toilet after use
- Puts on gown without help
- Puts on gown after use

C. Cleanliness

[1] Washing Hands and Face
- Washes hands with soap
- Washes face with soap

[2] Bathing
- Washes hands with soap
- Washes face with soap

[3] Personal Hygiene
- Washes hands with soap
- Washes face with soap
- Washes hands with soap
- Washes face with soap

- Uses toothbrush
- Uses toothbrush
- Uses toothbrush
- Uses toothbrush
- Uses toothbrush
- Uses toothbrush
- Uses toothbrush
- Uses toothbrush
- Uses toothbrush
### F. Dressing and Undressing

<table>
<thead>
<tr>
<th>Statement</th>
<th>Yes</th>
<th>No</th>
<th>Number Checked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completely dresses self</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completely dresses self with verbal prompting only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dresses self by unlocking (unsnapping, unsnapping, unzipping, unbuttoning) clothes with help and pulling or taking them off with verbal prompting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dresses self with help in unlocking and pulling or taking off most clothes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooperates when dressed by extending arms or legs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Must be dressed completely</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### G. Travel

<table>
<thead>
<tr>
<th>Statement</th>
<th>Yes</th>
<th>No</th>
<th>Number Checked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can go two blocks from hospital or school ground in overall blocks from home without getting lost</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can go around hospital ground or two blocks from home without getting lost</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can go around cottage most of the way on own</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can go whenever leaving own living area</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
II. PHYSICAL DEVELOPMENT

A. Sensory Development
   (Observable functioning ability)

[22] Vision (with glasses if used)
   (Circle only ONE)

   - No difficulties in seeing
   - Some difficulties in seeing
   - Great difficulties in seeing
   - Vision at all

[23] Hearing (with hearing aid if used)
   (Circle only ONE)

   - No difficulties in hearing
   - Some difficulties in hearing
   - Great difficulties in hearing
   - No hearing at all

B. Motor Development

[24] Bodily Balance (Circle one ONLY)

   - Stands on same foot ten seconds if asked
   - Stands on either foot for ten seconds if asked
   - Stands without support
   - Stands with support
   - Sits without support
   - Can do none of the above

[25] Walking and Running
   (Check ALL statements which apply)

   - Walks alone
   - Walks with one hand
   - Walks with two hands
   - Walks with one hand
   - Walks with two hands
   - Walks without falling often
   - Hops, skips or jumps
   - Home of the above

[26] Control of Hands
   (Check ALL statements which apply)

   - Can hold a ball
   - Threw a softball
   - Licks thumb
   - Eats with spoon
   - Ties shoe laces
   - Cuts with thumb and index finger
   - Home of the above
[37] Limb Function

(1) Both arms and both legs
(2) Both arms and left leg
(3) Both arms and right leg
(4) Left arm and right leg
(5) None of the above

B. Motor Development

III PHYSICAL DEVELOPMENT

ADDITIONAL

TRIANGLES A-B

III ECONOMIC ACTIVITY

A. Money Handling and Budgeting

[38] Money Handling (Circle only one)

1. Uses banking facilities independently
2. Makes change correctly, but does not use banking facilities
3. Adds coins or various denominations up to one dollar
4. Uses money, but does not make change correctly
5. Does not use money

[39] Budgeting

(Check ALL statements which apply)

1. Uses money or tokens for a particular purpose
2. budget a train ticket, meals, etc.
3. spends money with some planning
4. controls and keeps expenditure
5. None of the above

A. Money Handling and Budgeting

B. Shopping Skills

[40] Extends it in only one

1. Uses several shops and compares different stores
2. Uses one shop and spends money in one store
3. Uses an amount to spend for simple purchasing without a note
4. Uses an amount for simple purchasing with a note
5. Cannot be done on extensions

[41] Purchasing

(1) Both arms and both legs
(2) Both arms and left leg
(3) Both arms and right leg
(4) Left arm and right leg
(5) None of the above

B. Shopping Skills

ADDITIONAL

TRIANGLES A-B

III ECONOMIC ACTIVITY

A. Money Handling and Budgeting

[42] Writing (Circle only one)

1. Wrote sentences and understandable letters
2. Wrote short notes and memos
3. Wrote or printed letters
4. Wrote or printed own name
5. Cannot write or print any words

[43] Proofreading

(Check ALL statements which apply)

1. Reads aloud or reads transparent happenings
2. Checks grammar
3. Spreads words by pointing or using arrows
4. Checks or looks at a visual memory
5. Spreads the pleasure or anger in visual memory
6. Able to use at least ten words
7. None of the above

[44] Articulation (Check ALL statements which apply)

1. Spout is low, weak, uneven or difficult to hear
2. Speech is slurred, indistinct or unclear
3. Speech is inaudible or inaudible
4. Speech is loud and deliberate or loud
5. Speech is stammered, stammered, or stammered
6. Speaks with broken, halting, or other
7. Speech is poor, speech is poor, or other
8. None of the above
139

[35] Sentence: (Circle only ONE)

Sometimes uses complex sentences containing

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2. 

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4. 

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B. Comprehension

[37] Reading (Circle only ONE)

Reads books suitable for children one year

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2. 

3. 

4. 

5. 

6. 

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8. 

9. 

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11. 

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[39] Complex Instructions

(Circle ALL statements which apply)

Understands instructions containing

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C. Social Language Development

[40] Conversation

1. Uses phrases such as please and thank you.

2. Talks to others about sports, family, group activities, etc.

3. None of the above

4. Miscellaneous Language Development

5. Can be read with

6. Requires assistance when talked to

7. Requires assistance when talked to

8. None of the above

9. Language Development

10. Understands words with little or no details

11. Fills in the missing or application form

12. None of the above

V. Numbers and Time

[43] Numbers (Circle only ONE)

1. Does simple addition and subtraction

2. Counts ten or more objects

3. Arranges objects in a line

4. Counts ten objects in using one ten

5. Denominates between one and four or six

6. Has no understanding of numbers

7. None of the above

8. None of the above

9. None of the above

10. None of the above

11. None of the above

12. None of the above

13. None of the above

14. None of the above

15. None of the above

16. None of the above

17. None of the above

18. None of the above

19. None of the above

20. None of the above

21. None of the above

22. None of the above

23. None of the above

24. None of the above

25. None of the above

26. None of the above

27. None of the above

28. None of the above

29. None of the above

30. None of the above

31. None of the above

32. None of the above

33. None of the above

34. None of the above

35. None of the above

36. None of the above

37. None of the above

38. None of the above

39. None of the above

40. None of the above

41. None of the above

42. None of the above

43. None of the above

44. None of the above

45. None of the above

46. None of the above

47. None of the above

48. None of the above

49. None of the above

50. None of the above
VI. DOMESTIC ACTIVITY

A. Cleaning

[44] Room Cleaning (Circle one only ONLy)

- Cleans room well, e.g., sweeping, choosing and washing
- Cleans room but not thoroughly
- Does not clean room at all

[45] Laundry (Circle all statements which apply)

- Washes clothing
- Folds clothing
- Irons clothing when appropriate
- None of the above

B. Kitchen

[46] Table Setting (Circle one only ONLy)

- Plans all eating utensils, as well as water, with pepper, sugar etc., in proper order
- Plans plain glasses and utensils in proper order
- Plans six place settings on top of the table
- Does not set table at all

[47] Food Preparation (Circle one only ONLy)

- Prepare an adequate, complete meal (main, entrée, vegetables, sauce) for proper family
- Prepare simple foods, measuring in ounces or cooking e.g., sandwich or tomato, etc.
- Does not prepare food at all

[48] Table Cleaning (Circle one only ONLy)

- Clears table of broken dishes, glasses, etc.
- Clears table of unbreakable dishes and silverware
- Does not clear table at all

C. Other Domestic Activities

[49] General Domestic Activities (Circle all statements which apply)

- Washes dishes well
- Valuable bed linens
- Helps with household chores as assigned
- Does household tasks routinely
- None of the above

VI. DOMESTIC ACTIVITY

VII. VOCATIONAL ACTIVITY

[50] Job Completeness (Circle one only ONLy)

- Performs a job requiring use of tools, e.g., welder, among others
- Performs simple work, e.g., simple gardening
- Does not require much
- Does not work at all
X. SOCIALIZATION

### General Responsibility (Circle only ONE)
1. Very conscientious and assumes much responsibility; makes a special effort; the assigned activities are always performed.
2. Usually dependable—makes an effort to carry out responsibilities, but one can be reasonably certain that the assigned activity will be performed.
3. Unreliable—makes little effort to carry out responsibilities, and one is uncertain that the assigned activity will be performed.
Not given responsibilities, or unable to carry out responsibilities at all.

### Responsibility

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Very conscientious and assumes much responsibility; makes a special effort; the assigned activities are always performed.</td>
</tr>
<tr>
<td>2</td>
<td>Usually dependable—makes an effort to carry out responsibilities, but one can be reasonably certain that the assigned activity will be performed.</td>
</tr>
<tr>
<td>1</td>
<td>Unreliable—makes little effort to carry out responsibilities, and one is uncertain that the assigned activity will be performed.</td>
</tr>
<tr>
<td>0</td>
<td>Not given responsibilities, or unable to carry out responsibilities at all.</td>
</tr>
</tbody>
</table>

### Interaction With Others (Circle only ONE)
1. Interacts with others in group games or activity.
2. Interacts with others for at least a short period at some time, e.g., sharing or drawing toys, playing with objects.
3. Interacts with others unsatisfactorily with little interaction.
4. Does not respond to others in a socially acceptable manner.

### Participation in Group Activities (Circle only ONE)
1. Initiates group activities (leader and organizer).
2. Participates in group activities spontaneously, and seeks active participation.
3. Participates in group activities if encouraged to do so; passive participant.
4. Does not participate in group activities.

### Selfishness (Check ALL statements which apply)
1. Refuses to take turns.
2. Does not share with others.
3. Gets mad if he does not get his way.
4. Interrupts aide or teacher who is helping another person.
5. Does not assist, e.g., because he or she has no social interaction or is socially withdrawn.

### Social Maturity (Check ALL statements which apply)
1. Is too familiar with strangers.
2. Is afraid of strangers.
3. Does anything to make friends.
4. Likes to hold hands with everyone.
5. Is at someone's elbow constantly.
6. Does not assist, e.g., because he or she has no social interaction or is socially withdrawn.

**SOCIALIZATION**

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Does any of the above.</td>
</tr>
<tr>
<td>4</td>
<td>None of the above.</td>
</tr>
<tr>
<td>3</td>
<td>Does any of the above.</td>
</tr>
<tr>
<td>2</td>
<td>None of the above.</td>
</tr>
<tr>
<td>1</td>
<td>Does not apply, e.g., because he or she has no social interaction or is socially withdrawn.</td>
</tr>
<tr>
<td>0</td>
<td>Does not apply, at all.</td>
</tr>
</tbody>
</table>
### XIII. Psychological Disturbances

<table>
<thead>
<tr>
<th>Question</th>
<th>Occasionally</th>
<th>Frequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tends to Overestimate Own Abilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does not recognize own limitations</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Has too high an opinion of self</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Talks about future plans that are unrealistic</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Reacts Poorly to Criticism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does not talk when corrected</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Withdraws or looks down when corrected</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Becomes quiet when criticized</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Screams and cries when corrected</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Reacts Poorly to Frustration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blames own mistakes on others</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Withdraws or looks down when thwarted</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Becomes quiet when thwarted</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Throws temper tantrums when does not get own way</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Reacts Poorly to Power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demands excessive attention or praise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Needs excessive praise</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Is a problem of attention given to others</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Demands excessive reassurance</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Acts sullen to gain attention</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Reacts Poorly to Power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demands excessive attention or praise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likes attention given from others</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Demands excessive reassurance</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Acts sullen to gain attention</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

### XIV. Use of Medications

<table>
<thead>
<tr>
<th>Question</th>
<th>Occasionally</th>
<th>Frequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has Hypochondriac Tendencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contributes to exaggerated physical ailments</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Pretends to be ill</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Acts sick after illness is over</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Shows Other Signs of Emotional Instabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes mood without apparent reason</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Complains or has dreams</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Cries out whole day</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Cries too for no apparent reason</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Seems to have no emotional control</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Sleeps when upset</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Appears anxious or frightened in daily activities</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Talks about people or things that cannot be heard</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Talks about suicide</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Shows an attempt suicide</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

### XIV. Use of Medications

<table>
<thead>
<tr>
<th>Question</th>
<th>Occasionally</th>
<th>Frequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of Prescribed Medications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses tranquilizers</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Uses stimulants</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Uses anxiolytic drugs</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Uses stimulants</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

### Notes

- Enter 44 for XIV. Use of Medications.
- Enter 37-43 for XIII. Psychological Disturbances.
I CONSENT TO SERVE AS A SUBJECT IN THE RESEARCH INVESTIGATION ENTITLED Beliefs, Adaptive Behavior, and Life Satisfaction in the Elderly.

THE NATURE AND GENERAL PURPOSE OF THE RESEARCH PROCEDURE HAVE BEEN EXPLAINED TO ME. THIS RESEARCH IS TO BE PERFORMED BY Helen Paul, WHO IS AUTHORIZED TO USE THE SERVICES OF OTHERS IN THE PERFORMANCE OF THE RESEARCH.

I UNDERSTAND THAT ANY FURTHER INQUIRIES I MAKE CONCERNING THIS PROCEDURE WILL BE ANSWERED. I UNDERSTAND THAT MY IDENTITY WILL NOT BE REVEALED IN ANY PUBLICATION, DOCUMENT, RECORDING, VIDEO-TAPE, PHOTOGRAPH, COMPUTER DATA STORAGE, OR IN ANY OTHER WAY WHICH RELATES TO THIS RESEARCH. FINALLY, I UNDERSTAND THAT I AM FREE TO WITHDRAW MY CONSENT AND DISCONTINUE PARTICIPATION AT ANY TIME FOLLOWING THE NOTIFICATION OF THE INVESTIGATOR.

SIGNED ________________________________
DATE __________________________________
TIME ________________________________

INVESTIGATOR
SUMMARY OF ORAL PRESENTATION TO SUBJECTS

I am a graduate student in counseling psychology at Ohio State University. I am conducting a research project and I would like your help with it. The purpose of the project is to try to learn about the beliefs and opinions of older people and how satisfied they are with their lives.

If you are willing to participate in this research you will be answering questions on two different questionnaires. In filling out these questionnaires either the questions will be read to you or you can read them to yourself, depending on which you prefer. It should not take longer than an hour to complete these questionnaires. It will probably take less time.

One other thing is involved if you participate in this project. It is to allow a staff member who knows you well to fill out a checklist of your daily routine. He/She will not have to ask you any more questions, he/she will simply be reporting how you're doing and getting along.

Would you be interested in helping me?
APPENDIX F
PROCEDURE GIVEN TO EXPERIMENTERS

The research will be presented to the subjects in the following manner:

I am a (graduate) student in (counseling) psychology at Ohio State University. I am conducting a research project and I would like your help with it. The purpose of the project is to try to learn about the beliefs and opinions of older people and how satisfied they are with their lives.

If you are willing to participate in this research you will be answering questions on two different questionnaires. In filling out these questionnaires either the questions will be read to you or you can read them to yourself, depending on which you prefer. It should not take longer than an hour to complete these questionnaires. It will probably take less time.

One other thing is involved if you participate in this project. It is to allow a staff member who knows you well to fill out a checklist of your daily routine. He/She will not have to ask you any more questions, he/she will simply be reporting how you’re doing and getting along.

Would you be interested in helping me?

If the subject agrees, say the following:

I would like you to know that all the information you give on these questionnaires is completely confidential. No names will be used. It is your right to refuse to continue to participate in the project at any time.
Before we begin, I have a consent form that I would like you to sign if you are willing to participate in this project. It also states that you understand that the information you give here will be confidential and that if you wish to stop participating in the project you may do so at any time. Please read the statement and sign if you agree.

At this point give the consent form to the subject and have him or her read and sign it. After this is completed, give the questionnaires to the subject. Begin with the Life Satisfaction Index A. Next go on to the demographic information and then the Irrational Beliefs Test. If the subject can read the questions without assistance, explain the instructions for answering each questionnaire. Leave the questionnaire with the subject and pick it up at a time on which both you and the subject have agreed. If the subject is unable to read the questions alone, read the instructions for responding to the Life Satisfaction Index A. Then read the subject each question and mark down his or her answer. Follow this same procedure for the demographic information and the Irrational Beliefs Test.