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An Empirical Investigation of an Existential Theory as it Appears to the Elderly: The Will to Live

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AN EMPIRICAL INVESTIGATION OF AN EXISTENTIAL THEORY
AS IT APPLIES TO THE ELDERLY:
THE WILL TO LIVE

BY

ANN M. VARNA GARIS

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
IN
PSYCHOLOGY

UNIVERSITY OF RHODE ISLAND

1977

ABSTRACT

The purpose of the present study was to investigate the Will to Live concept as it applies to the elderly. This was accomplished by exploring the relationship among the variables of Purpose in Life; Locus of Control; Depression; and a self-rating Will to Live scale. These are variables which, according to the literature, could be expected to be major components of the Will to Live concept.

The subjects for this study were 63 volunteers, ranging in age from 60 to 95, taken from different housing settings: nursing homes; apartments for the elderly; and private homes in the community. In order to study the Will to Live concept, four instruments were administered individually to the subjects: Crumbaugh's Purpose in Life Inventory; Beck's Depression Inventory; an adaptation of James' Locus of Control scale; and a self-rating Will to Live measure.

The results yielded four components, using a principle components analysis of the 53 items from the four measures. The components were: "mood state"; "locus of control"; "a level beyond"; and "energy level". Differences were found in the expected direction across the three housing groups on two of the measures and on one of the component scales. As hypothesized, a strong negative relationship was found to exist between Purpose in Life and Depression.

The results were discussed in terms of their theoretical and clinical implications.

Freedom lies not in our triumphing over objective nature...
Man is distinguished by his capacity to know that he is
determined and to choose his relationship to what determines
him...Nietzsche spoke often of "loving fate". He meant that
man can face fate directly, can know it, dare it, fondle
it, challenge it, quarrel with it, and love it...we are
saved from the need to be the victims of it...We are...
co-creators of our fate.

(May, 1969)

DEDICATION

I would like to dedicate this dissertation on the Will to Live to my grandmother, Loretta M. Sanders, a very special person who gave freely of herself, always living life to its fullest. Upon her death, I began questioning what it was that kept people alive in stressful situations. This dissertation has been a beginning of an answering of that question.

ACKNOWLEDGMENTS

I would like to express my sincere thanks to the people who had a part in the development of this dissertation. I am very grateful to the members of my dissertation committee: Dr. Al Pascale, Dr. Wayne Velicer, and Dr. Allan Berman. Their continual support and encouragement was more than helpful during the long difficult process.

In the long journey I am now completing, Dr. Allan Berman has been much more than a major professor. He has been a source of encouragement and support. He has been a friend. He has, too often to mention, gone beyond the call of duty and has kept up my momentum in this long, tedious process. Above everything, he has cared, about my dissertation, and about me. Thank you.

I would like to express special thanks to Dr. Wayne Velicer, who helped me transform a clinical hunch into a researchable study. His ready willingness to help, as well as the expertise with which he translated clinically-phrased questions into clinically-phrased methodology, goes far beyond the skills of a statistician. He is a teacher in the highest sense of the word.

I would also like to thank Dr. Alan Willoughby and Dr. Larry Grebstein, who, along with the other clinical faculty, gave me support and encouragement along the way. I have gained a great deal from knowing them as people and as clinicians.

I would like to extend my thanks to Kathi Wolf and Mrs. Dottie Maguire, who were most helpful in obtaining access to a nursing home population for this study ... no small feat in an era of nursing home investigations, and to Mrs. Sally Edgrin, a social worker serving the West Barrington, East Providence area, who provided access to a large population of senior citizens living in the community. I would also like to thank Mrs. Nancy Johnson of the Cranston RSVP Program, who provided helpful advice and interest, and access to many interesting senior volunteers, who very willingly agreed to participate in this study.

Most importantly, I would like to extend my thanks to all 63 of the senior citizens who agreed to participate in this study, graciously welcomed me into their homes, and shared themselves: their histories, opinions, and feelings, with me.

I would like to thank so many of my friends who gave me understanding and support, in generous doses, whenever it was needed.

And Bob, my husband and best friend, who kept his head when I was losing mine, you have endured dirty dishes, dust and clutter, and countless unironed shirts ... all to allow me to follow my star, providing hugs and much support along the way. Thank you for your love.

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An Empirical Investigation of an Existential Theory
As It Applies to the Elderly
The Will to Live

Ann M. Varna Garis
University of Rhode Island
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Statement of the Problem

The purpose of this study was to explore the feasibility of the Will to Live concept as a researchable topic worthy of study in psychology. Specifically, this study investigated Will to Live among the elderly; the relationships among Will to Live, purpose in life and locus of control; and further explored the relationship between depression and purpose in life. The major assumption underlying this study was that the Will to Live in the elderly was related to two measurable aspects of the Will to Live: purpose in life and locus of control.

Significance of the Study

Will to Live

The Will to Live, although commonly accepted as existing and as having an important role in peoples' lives (Hutschnecker, 1951; Eisdorfer, 1972; Gubrium, 1972; Curtin, 1972; Clark, 1974; Seligman, 1975; May, 1969), has been neither clearly defined nor empirically investigated. May has pointed to the tendency to interpret the concept of "Will" in less than "scientific" terms, an issue intimately related to the purpose of this study.

Toward the end of analysis the therapist may find himself wishing that the patient were capable of more "push", more "determination" ... this wish eventuates in remarks to the patient: "People must help themselves" ... "You have to try". Such interventions are seldom included in case reports, for it is assumed that they possess neither the dignity nor effectiveness of interpretation. Often an analyst feels uncomfortable about such appeals to volition as though he were using something he didn't believe in, and as though this would have been unnecessary had only he analyzed more skillfully (May, 1969, p. 197).

The alternate side of the Will to Live, a passive surrender to death, a syndrome much resembling that of depression, has been researched in the laboratory with various animal populations. These studies (Leftcourt, 1973; Seligman and Overmeir, 1967; Weiss, 1971; Richter, 1959) have looked primarily at the control - helpless dimension in studies of persistence under stress. In the human population, the area has been explored anecdotally and through medical and literary case histories (Leftcourt, 1973; Frankl, 1963; Hutschnecker, 1951; Schneidman, 1973).

Hutschnecker (1951) focused on the interaction between physical and emotional well being, and suggested that lack of emotional health can lead to a variety of physical ailments, including the ultimate ailment, death. Other investigators have suggested similar notions, such as Ginspag (1973), who concluded that heart attacks appear, at times, to be socially sanctioned suicides. Hutschnecker's understanding of the Will to Live appears to be an analytic one involving two instincts: eros, a positive-creative instinct,

and thanatos, a destructive or death instinct.

whether we call them attraction and repulsion, fusion and fission, friendship and strife, love and hate, peace and war, good and evil, the concept is the same: two forces pitted against each other in the vastness of the universe, in the miniature cosmos of the atom and in the inner world of every man....

(Hutschnecker, 1951, p. 27)

Will to Live As It Relates to Purpose in Life

Hutschnecker (1951) has also described the Will to Live in terms very similar to those which self-actualization theorists might use. He has suggested that each individual, throughout life, strives toward some goal, whether consciously or unconsciously. When that goal is achieved or when the individual becomes convinced that the goal cannot be reached, life ceases to have meaning, and he dies.

When the longing for peace outweighs the joy of struggle for achievement, when the determination to seek peace becomes irreversible and conclusive, then we die...

(Hutschnecker, 1951, p. 51)

May, an existential theorist, has also dealt with the issue of the consequences of loss of purpose in life.

...the human being cannot live in a condition of emptiness for very long; if he is not growing toward something, he does not merely stagnate; the pent up potentialities turn into morbidity and despair, and eventually into destructive activities.... (May, 1969, p. 28)

Maslow posited the existence of a will toward growth, a will toward the actualization of human potentialities (Hall and Lindzey, 1967); a force similar to this, toward a goal such as continued growth and development, is

one way in which the Will to Live could be conceptualized. This will has been described as:

...not strong and overpowering and unmistakable like the instincts of animals. It is weak and delicate and subtle and easily overcome by pressure... (Hall and Lindzey, 1967, p. 327)

Also, according to Maslow, these higher needs can be fulfilled only if more basic, survival needs are first fulfilled. On the other hand, it could be argued that it is the higher needs, the will toward growth or purpose in life, that in times of stress helps man to accomplish the more basic tasks necessary for survival ... in a concentration camp, in a hospital, in the retirement years. This position is, of course, consistent with Frankl's theory of purpose in life.

Frankl's Concept of Purpose in Life

Frankl's concept of purpose in life was developed during his captivity in a World War II concentration camp. In attempting to answer the question of what it is that keeps people from committing suicide in spite of highly aversive, stressful situations, he postulated the notion of purpose or meaning in life as being "...a basic human motivating force, best described as spiritual..." (Crumbaugh and Maholick, 1964). According to Frankl, there is an internal psychological force called purpose in life which makes life's difficulties endurable. In addition, it is through acceptance of unchangeable social and biological forced and situations that man is able to recognize the freedoms which do exist within a situation (Maddi, 1968). When purpose in life within a given

situation is not found, the individual can be expected to become existentially frustrated, which may in turn lead to psychopathology (Crumbaugh and Maholick, 1964). Frankl has described the reaction associated with the loss of purpose in life:

The prisoner who had lost faith in the future, his future was doomed. With his loss of belief, he also lost his spiritual hold; he let himself decline and became subject to mental and physical decay. Usually this happened quite suddenly...he simply gave up...there he remained, lying in his own excreta, and nothing bothered him anymore (Frankl, 1963, p. 118).

The Purpose in Life Instrument

An instrument to measure purpose in life was developed by Crumbaugh; its defined purpose was to measure the degree to which people experience a sense of meaning and purpose in their lives. Crumbaugh's PIL has been administered to various categories of normal and psychiatric populations. It was found to discriminate between normal and psychiatric populations with a high degree of accuracy (Crumbaugh, 1968). The PIL shows a significantly negative correlation with the Depression Scale of the MMPI ($r = -.65$); however, socioeconomic factors such as income and occupation showed no significant relationship to PIL scores. No consistent sex differences have been reported. Crumbaugh reported that the extremes of age have not been covered in the population samples and that a significant relationship may exist between PIL scores and old age (Crumbaugh and Maholick, 1964).

Specifically relating to the elderly sample used in this study, it should be noted that relationships have been found to exist in elderly samples between age, sex, socioeconomic status, and morale, a concept related to purpose in life (Palmore, 1969; Riley and Foner, 1968; Blau, 1973).

Will to Live As It Relates to Locus of Control

Hutschnecker and others have also discussed the loss of the Will to Live in terms of a reaction to powerlessness as a way of seeking escape from a situation which cannot be changed or endured. A notable example of this reaction is the recent illness of Richard Nixon.

Experts in psychosomatic medicine...believe there is ample evidence that a profound change in a person's life that leads to a sense of futility and helplessness can precipitate illness to which he is predisposed. Nixon seems to fit the picture.
(Clark, 1974, p. 28)

May, like Hutschnecker, also related the lack of Will to Live to man's sense of powerlessness in effecting changes in his life or in the world around him.

...when a person continually faces dangers he is powerless to overcome, the final line of defense is at last to avoid even feeling the dangers (May, 1969, p. 28).

Experimental work with rats, cockroaches, and other animals has given support to the notion that life is dependent upon control or perceived control that an organism has in a stress situation. Leftcourt (1963) reviewed the literature on perceived control in aversive situations including an anecdotal report about a chronic psychiatric patient, a report

about Richter's serendipitious discovery of a sudden death syndrome in rats, and Seligman's concept of depression as "learned helplessness".

Leftcourt's account of a chronic, hospitalized psychiatric patient reported that in response to being transferred from a more "hopeless unit" to a more open "exit ward", a patient became more socially outgoing, showing obvious improvement; when returned to the "hopeless unit" after redecoration of that unit had been completed, the patient died.

...an autopsy revealed no pathology of note, and it was whimsically suggested at the time that the patient had died of despair (Leftcourt, 1963, p. 422).

Curt Richter's experiment with rats (1959) noted that after various procedures a number of the animals demonstrated a series of unusual movements which culminated in death. The phenomenon was particularly striking in one of Richter's swimming endurance procedures. In this procedure Richter concluded that handling restraint was the primary cause of the unexpected sudden deaths.

...handling, while producing arousal among wild rats, also prevented any instrumental activity that could result in escape from the aversive experience. If rats were allowed to escape just once, the sudden death phenomenon was eliminated.
(Leftcourt, 1963, p. 421)

Richter has defined the resultant effect upon the rats as being "hopelessness".

The situation of these rats is not one that can be resolved by either fight or flight; it is rather one of hopelessness... they seem to literally give up.

(Richter, 1959, p. 308)

This helpless-hopeless-sudden death sequence was also observed by Seligman and Overmeir (1967) who placed dogs in a shuttle apparatus, some of which had and some of which had not been previously subjected to inescapable shock. There were marked differences between the two groups of animals. The dogs which had been inescapably shocked responded in a passive, maladaptive fashion. In further studies, Seligman et. al (1968) determined that animals can be "innoculated" against the effects of inescapable aversive stress by first exposing the organisms to similar aversive situations from which they are able to escape.

Most notable of the studies on the detrimental effects of helplessness in a stressful situation was the Weiss study (1971), a replication of the well-known Brady (1958) "executive monkey" study. Brady had concluded from his study that being in a decision-making position in an aversive situation was more stressful for an organism than being the passive recipient of aversive stimulation. His conclusions, based upon results in which "executive monkeys" developed severe gastric ulcers, were not, however, supported by Weiss' replication. Weiss suggested that the reason for the conflicting findings was the non-randomized subject selection of Brady's "executive" organisms. Weiss found the passive, impotent animal to be the one which suffered most,

physiologically, from the experimentally-induced stress. The conclusion which Leftcourt (1963) drew from a review of studies similar to these was that:

...the illusion of personal choice has a definite and positive role in sustaining life (Leftcourt, 1963, p. 424).

Choice, or the illusion of choice, is, then, an integral part of the ability to survive a stressful situation. It is suggested that survival, when studied from a human perspective, is appropriately understood to include purpose in life in addition to control, or the illusion of control. Frankl's concept of purpose in life, combined with a locus of control measure, provided a useful framework for this study.

The Locus of Control Instrument

The concept of locus of control developed by Rotter (1966) deals with an individual's perception of contingency relationships between his own behavior and the events which follow that behavior. If an individual interprets a consequence as being the result of luck, fate, under the control of others, or as being unpredictable in nature, that individual is said to have a belief in external control. If an individual interprets a consequence as being contingent upon his own behavior or personal characteristics, the individual is said to have a belief in internal control.

The locus of control instrument utilized in this study is a measurement of generalized sense of locus of control, rather than an instrument to measure a more personalized sense of locus of control.

The Subject Population - The Elderly

Psychological state has been found to be critically important to survival in a variety of stressful situations: concentration camps, prisons, natural disasters, life threatening illness, and old age. The Will to Live is frequently considered the key to survival in these situations. Although a continuum of Will to Live/lack of Will to Live is understandably present in all segments of the population, from reports of those who work with the elderly (Curtin, 1972; Levin, 1963; Wolfe, 1974) the extremes of the continuum are much more visible in the elderly population. Indeed the elderly are under a great many stresses: necessary housing readjustments, physical illness, financial stress, interpersonal losses of spouse and friends, etc. Neugarten (1964) has more generally described the degree of stress relating to old age as reflecting the degree of discontinuity with the individual's past, suggesting that to the extent that discontinuity with the past exists, stress exists. In light of the many stresses imposed upon the elderly, they were selected as the subject population for this study, judging them to be a key population worthy of study with regard to the concept of Will to Live.

Purpose in Life and the Elderly

The elderly population has not been previously studied with regard to the Purpose in Life variable, although Crumbaugh (1964) suggests this as a meaningful area of research (Huych, 1974; Curtin, 1972), and others have suggested that emphasis on maximizing human potential of the elderly is necessary for adjustment of the elderly. Dowd (1975) has suggested that

lack of power, related to the level of functioning, is the precursor to disengagement, withdrawal, and the related depression of the elderly.

Locus of Control and the Elderly

Palmore and Luikart (1972) found internal locus of control to be the second best predictor of life satisfaction among those over the age of 60.

Kuypers (1972) indicated that elderly internals generally cope better and are less defensive than elderly externals. Felton and Kahana (1974) in investigating locus of control among institutionalized aged found that in that population external rather than internal locus of control was found to relate to "good adjustment".

Depression and the Elderly

Levin (1963) reports that the incidence of depression and suicide increase with age. He questions whether many of the characteristics of "disengagement" in the elderly are, in fact, manifestations of depression.

Smith (1972) discusses the prevalence of depression and suicide in the elderly population.

The incidence of suicide is highest in the aged in our country. Twenty-five percent of all suicides occur in persons over 65 years of age (Smith, 1972, p. 21).

Summary of the Problem

The major hypothesis explored in this study was as follows: Two major measurable aspects of the Will to Live are

locus of control and purpose in life. Locus of control was operationally defined as that which is measured by an abbreviated form of the James' Internal-External Locus of Control Measure. Purpose in Life was operationally defined as that which is measured by Crumbaugh's Purpose in Life Inventory. The predictions were as follows:

1. Items from the Locus of Control measure and the Purpose in Life measure will together form a component identifiable as the hypothesized Will to Live component.
2. An inverse relationship exists between depression, as measured by the Beck Depression Inventory and Crumbaugh's Purpose in Life measure.
3. The Will to Live measures are related to differences in living conditions such that individuals more completely integrated into the community would possess a higher level of Will to Live, as measured by both the self-rating Will to Live measure and by the component Purpose in Life and Locus of Control measures.

METHOD

Subjects

Sixty-three ambulatory, male and female volunteers, ranging in age from 60 to 95 years, served as subjects. Subjects were obtained through community workers who had personal contact with groups of elderly people in Rhode Island. Included among these workers were the director of the Cranston RSVP Program, a community worker in East Providence who ran discussion groups for senior citizens, and the social director of a nursing home in Chepachet, Rhode Island. The community workers helped select subjects in the community who could carry on a conversation of some length and complete the necessary questionnaires. The community workers notified subjects that the experimenter would be contacting them.

Subjects living in the community were contacted by phone to make an appointment for an interview, usually held in the subject's home. Subjects were divided into three experimental groups on the basis of the degree of independence associated with their living conditions: nursing homes, apartments for the elderly, and private residences in the community.

The Settings

The nursing home was a large three-story frame building in a rural Rhode Island community. Rooms were double occupancy; halls and lobby areas were somewhat crowded with patients in wheelchairs. The atmosphere of the nursing

home seemed friendly and the morale of the patients reasonably good. Meals were served in the patients' rooms or on trays to wheelchair patients in the hall. There was no room in the facility suitable for social gatherings or as a daytime lounge for the patients. The grounds were pleasant and shady, with a large lawn.

The subjects in this group ranged in age from 60 to 95, with a mean age of 78.6 years. The mean number of Self-Report Physical Problems in this group was 2.05. The group was made up of thirteen females and seven males. The mean length of years at present residence was 2.1 years.

The apartment complexes for the elderly were either of the high-rise type or the smaller two- or three-story variety. They tended to be located very close to shopping areas, for example, on a residential street, one block from a major grocery store. The buildings themselves had long corridors, the doors of which were frequently left ajar, making the atmosphere much like that of a college dormitory, with a good deal of visible social interchange between the residents of a given section of the corridor. The apartments were 2½ rooms (living room-kitchen, bedroom, bath) with linoleum floors, frequently covered by the tenant with sections of carpeting. The tenants generally reported being content with their housing, frequently commenting on how lucky they had been to be able to get into the housing, about long waiting lists, political favoritism, etc. Among the complaints about the apartments were concerns about privacy and security

aspects of the facility, as well as occasional complaints about house rules and regulations.

Subjects in this group ranged in age from 65 to 83, with a mean age of 72.8 years. The mean number of Self-Reported Physical Problems was 2.4. This group was composed of 16 females and two males. The mean number of years at the present residence was 5.9 years.

Subjects in the third group lived in either private homes or apartments located around the community. The neighborhoods ranged from middle-middle class to lower-middle class. Apartments tended to be small, with a single bedroom, a small kitchen, and a small living room. Houses were of the bungalow type, and were well maintained in quiet residential neighborhoods.

Subjects in this group ranged in age from 60 to 91, with a mean age of 70.4 years. The mean number of Self-Reported Physical Problems was 2.4. This group was made up of 17 females and eight males. The mean number of years at present residence was 20.4 years.

Instruments

Five inventories were used to gather information from the subjects. The instruments are described in their order of presentation to the subjects.

1. Demographic Data Form: This included a checklist measure for self-rating of current physical status, as well as relevant background data such as age, sex, educational history, occupa-

tion, marital status, living situation, etc. In addition, several direct questions were included concerning the subjects' perception of a stressful situation at this stage of his/her life and a self-rated prediction of how he/she would handle such a situation.

2. Purpose in Life Inventory: This is a 20-item attitude scale designed by Crumbaugh (1968) to measure the "degree to which a person experiences a sense of meaning and purpose in life." The scale is presented in a Likert format, each item having a 7-point spread, providing a total possible point spread of 20 (low purpose) to 140 (high purpose). Average scores tend to skew toward the purposeful end of the scale, with average scores from various samples as follows: successful businessmen and professionals - 118.9; active Protestant parishioners - 114.3; college undergraduates - 108.5; indigent hospital patients - 106.4; outpatient neurotics - 93.3. Split half reliability obtained by Crumbaugh showed a correlation coefficient of .85 with an N=120. Criterion validity is demonstrated through a .47 correlation of PIL scores with minister ratings and a .38 correlation with therapist ratings for the respective parishioner and outpatient populations. Crumbaugh obtained a -.65 correlation between the PIL and the Depression Scale of the MMPI.

3. Depression Inventory: Beck et. al (1961) This is a 21-item inventory based upon 21 categories selected on the basis of systematic observations, representative of attitudes and symptoms characteristic of the depression syndrome. Each

item consists of a series of four to five statements relevant to that symptom category, ranked from neutral to maximum severity of that symptom. The item categories are as follows:

- a. Mood
- b. Pessimism
- c. Sense of Failure
- d. Lack of Satisfaction
- e. Guilty Feelings
- f. Sense of Punishment
- g. Self-Hate
- h. Self-Accusations
- i. Self-Punitive Wishes
- j. Crying Spells
- k. Irritability
- l. Social Withdrawal
- m. Somatic Preoccupation
- n. Indecisiveness
- o. Body Image
- p. Work Inhibition
- q. Sleep Disturbance
- r. Fatigability
- s. Loss of Appetite
- t. Loss of Libido
- u. Weight Loss

The instrument was developed utilizing the population of routine admissions to the psychiatric outpatient departments of a university hospital and a metropolitan hospital in the Philadelphia area. Within this population there was a predominance of white, lower socioeconomic (Hollingshead Index of Social Position, Classes IV and V) patients between the ages of 15 and 44. Patients with organic brain syndromes and mental deficiency were excluded from the study. External criterion, either immediately before or immediately after the administration of the inventory, the patient was seen by one of four experienced psychiatrists who participated in the study, and was rated on a 4-point scale as to depth of depression present. A Pearson Biserial r was used and obtained

significant correlations (.65 and .67) between scores on the depression inventory and clinical judgments as to depth of depression. Norms of the Depression Inventory, as associated with various degrees of depression, according to Depth of Depression Ratings by psychiatrists were as follows:

No depression - mean score = 10.9; Mild - mean score = 18.7; Moderate depression - mean score = 25.4; Severe depression - mean score = 30.0.

4. Locus of Control Scale: A 60-item scale was developed by James (1957; 1963) to measure internal-external locus of control as described by Rotter (1966). The 11-item adaptation of James' scale, utilized in this study, was suggested by MacDonald and Tseng (1974), in a factor analytic study of James' and Rotter's I-E scales. Factor analysis showed each scale to have one general factor which accounted for much of the variance; in the Rotter scale, accounting for 15% of the variance; in the James' scale, accounting for 23% of the variance. The data suggests that 11 items of James' scale may constitute a factorally pure, unidimensional short test of internal-external locus of control as a generalized expectancy of the subject. It is further suggested that this 11-item test may provide a more equivalent cross-sex measure of the dimension than either the Rotter or James' scales as they presently exist. Development of this short test will require further psychometric study. One area of possible concern which should be noted is the unidirectional way in which all the items of the James' scale are phrased, which may lead to

response bias. The norms for the James' scale, obtained with a college population, with a theoretical range of 0 to 90, were as follows: range 8-82, with a mean score of 37 and a standard deviation of 12. No normative data is available for the adaptation of the James' scale utilized in this study. The theoretical range of the adapted scale is from 0 to 33.

5. Will to Live Measure: This is a measure which was specifically developed for this research. The measure consists of a single item and was designed to be a self-rating measure of the Will to Live. The directions for the measure were:

The human will has been said to be a strong force in people's lives, helping them through very difficult situations, helping them accomplish goals which they ordinarily would not have been able to achieve.

With 100 being the most "will" anyone could have, and 0 being the least, how much "will" would you say that you have at the present time? Place an "X" at the appropriate spot on the line.

The format of the measure is an adaptation of the Wolpe Subjective Units of Disturbance Scale (SUDS) (1969), used to obtain state measures of anxiety. It was necessary to develop an instrument such as this because no measure had been previously constructed to measure the Will to Live. This measure, like the adaptation of the James' scale, will require further psychometric study. At present there is no established reliability data for this measure; development of this data is not within the scope of this study. The SUDS model has proven an efficient means of measuring anxiety in many studies (Lifrak,

1971; Prochaska, 1971) and is used here to investigate a new variable, the Will to Live. The scale itself consists of a line approximately ten inches in length with the numbers 0 and 100 marked under each end of the line. The subject was instructed to place an "X" on the spot on the line which he felt most closely represented his present level of "will". The inventory was scored with a ruler, measuring the distance from the 0 point to the X mark. That score was then converted into a percentage score, such that the highest possible score was 100 and the lowest was 0.

Procedure

The interviews and instruments were administered individually to the subjects in the following order: Demographic Data Form, Purpose in Life Scale, Depression Inventory, Locus of Control Measure, and Will to Live Measure. Subjects had been contacted by phone for an appointment. The interview was usually conducted in the home of the subject. Interviews lasted for varying lengths of time from one-half hour to an hour and one-half. The time differences in administration related to the extent to which the subjects and I extended the interview beyond the required information into a more personal, social visit. Frequently, after the necessary data had been gathered, tea or coffee was offered, and sharing of family photos and other personal mementoes seemed to naturally follow. In just one visit, I felt I had come to understand many of the subjects quite well: to share their

wit, their friendship, their loneliness, as well as their strengths in the face of adversity of many sorts.

RESULTS

The following variables; Purpose in Life, Locus of Control, Will to Live, and Depression were measured across three groups of elderly people: Group One living in a nursing home setting, Group Two living in apartment complexes for the elderly, and Group Three living in non-specialized housing in the community. Table 1 presents the means and standard deviations for three experimental groups on the four dependent measures.

Correlations Between Four Dependent Measures Across Three Groups

In order to determine the relationship among the four administered measures, both as a preliminary to the principle components analysis and to test the hypothesis regarding the relationship between Purpose in Life and Depression, a Pearson r correlation was performed on the scores for the four variables, combining the three groups ($N=63$). The correlation matrix is presented in Table 2. A correlation of $-.83$ was obtained between the Purpose in Life and the Depression measures. No other significant correlations were found.

Principle Components Analysis

In order to evaluate the hypothesized interrelationship among the components underlying the four measures, a principle components analysis was performed, using the 53 items of the four major measures, with one item from the Will to Live measure, 20 items from the Purpose in Life measure, 11

TABLE 1

Means and Standard Deviations for
Three groups on the Four Measures

		GROUPS		
		I	II	III
		NURSING HOME	APARTMENTS	PRIVATE HOMES
Will to Live	X	65.250	70.833	82.359
	S.D.	28.644	15.170	16.388
Purpose in Life	X	94.649	113.444	109.200
	S.D.	21.827	7.114	20.207
Locus of Control	X	22.149	20.722	18.480
	S.D.	4.997	6.124	4.528
Depression	X	8.850	4.055	6.240
	S.D.	8.125	3.244	5.974

* higher scores indicate more Will to Live; greater Purpose in Life; more external Locus of Control; and a higher degree of depression

TABLE 2

Correlation Matrix of Four Dependent
Measures across Three Groups (N=63)

	<u>Purpose</u>	<u>Depression</u>	<u>Locus</u>	<u>Will</u>
Purpose in Life	-			
Depression	-0.8291	-		
Locus of Control	-0.2725	0.1133	-	
Will to Live	-0.2664	-0.2327	-0.2487	-

items from the Locus of Control measure and 21 items from the Depression measure. The principle components analysis was performed on the 53 x 53 matrix of intercorrelations and four components were extracted. The number of components was determined by the partial correlation method (Velicer, 1976). A varimax rotation was performed on the component pattern; Table 4 contains the marker variables for each of the four components. The four components together account for 42.8% of the total variance.

Component 1 could be described as being bipolar in nature, containing within it items drawn from the Depression and Purpose in Life measures. The Depression items have the higher positive component loadings, and the Purpose in Life items have lower, negative loadings. This component centers around issues associated with the depression syndrome. An appropriate label for this component would be "mood state". This component accounted for 24% of the unrotated variance.

Component 2 contained items relating only to locus of control from the Locus of Control measure. These findings identify the Locus of Control measure as the only one of the a priori scales which held up in terms of its construct validity. The label given to this component was "locus of control". This component accounted for 7.4% of the unrotated variance.

Component 3 very closely approximated the hypothesized Will to Live component. It contained items relating to a sense of

TABLE 3

Varimax Rotated Component Structure for Will to Live Items,
Taken From Purpose in Life, Locus of Control, Will to Live
and Depression Measures

SCALE	1	2	3	4
WILL				
1 PIL				
2				0.7511
3				
4				0.5956
5				0.7180
6				0.5234
7				0.5957
8	-0.4043			0.5680
9			0.6495	
10	-0.4731		0.4508	
11	-0.6021			
12	-0.4343		0.4783	
13				
14				
15			0.5704	
16			0.6715	
17	-0.6257			
18			0.6248	
19				0.6040
20	-0.7495			
21			0.5284	
22 LOC			-0.4766	
23				
24				
25		0.7134		
26		0.7185		
27		0.7226		
28				
29		0.5148		
30		0.5357		
31		0.6430		
32		0.5727		
33 DEP	0.5196			
34	0.7342			
35	0.7898			
36	0.4536		-0.4701	
37				
38				
39	0.5888			
40	0.7527			
41	0.5932			
42			-0.4641	-0.4044
43				
44				
45				-0.4185
46	0.4424			

Table 3 (continued)

	1	2	3	4
47				-0.6883
48	0.4006			
49	0.6924			
50	0.6538			
51				
52	0.5064			
53				-0.4340

Eigen Values*	12.7448	3.9378	3.1703	2.8420
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% Variances Accounted for*	24%	7.4%	5.98%	5.35%
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*Unrotated

TABLE 4

Marker Variables for the Four Components

Component 1. "Mood State"

<u>Loading*</u>	<u>Measure</u>	<u>Item</u>
0.7898	Dep	I don't feel like a failure/ I feel I have failed more than the average person.
0.7527	Dep	I don't feel I am any worse than anyone else/ I am very critical of myself for my weaknesses or mistakes.
-0.7495	PIL	Facing my daily tasks is a source of pleasure and satisfaction/ a painful and boring experience
0.7342	Dep	I am not particularly pessimistic or discouraged about the future.
0.6924	Dep	I don't get any more tired than usual/ I get tired more easily than I used to.
0.6538	Dep	My appetite is no worse than usual/ My appetite is not as good as it used to be.
-0.6257	PIL	With regard to suicide, I have thought of it seriously as a way out/ Never given it a second thought.
-0.6021	PIL	If I should die today, I would feel that my life has been very worthwhile/ Completely worthless.
0.5932	Dep	I don't have any thoughts of harming myself/ I have thoughts of harming myself but would not carry them out.
0.5888	Dep	I don't feel disappointed in myself/ I am disappointed in myself.

Component 2. "Locus of Control"

0.7226	LOC	I have usually found that what is going to happen will happen regardless of my actions.
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Table 4 (continued)

<u>Loading</u>	<u>Measure</u>	<u>Item</u>
0.7185	LOC	When things are going well for me I consider it due to a run of good luck.
0.7134	LOC	It isn't wise to plan too far ahead because most things turn out to be a matter of good or bad fortune anyhow.
0.6430	LOC	I think that life is mostly a gamble.
0.5727	LOC	Many times I feel that I have little influence over the things that happen to me.
0.5357	LOC	Success in dealing with people seems to be more a matter of the other person's moods and feelings at the time rather than one's own actions.
0.5748	LOC	There is not much use in worrying about things, what will be will be.

Component 3. "A Level Beyond"

0.6715	PIL	With regard to death I am prepared and unafraid/ Unprepared and frightened.
0.6485	PIL	In achieving life goals, I have made no progress whatever/ Progressed to complete fulfillment.
0.6248	PIL	I regard my ability to find a meaning, mission or purpose in life as very great/ Practically none.
0.5704	PIL	Concerning man's freedom to make his own choices, I believe man is absolutely free to make all life choices/ Completely bound by limitations of heredity and environment.
0.5284	PIL	I have discovered no mission or purpose in life/ Clear cut goals and a satisfying life purpose.

Table 4 (continued)

<u>Loading</u>	<u>Measure</u>	<u>Item</u>
0.4783	PIL	In thinking of my life I often wonder why I exist/ Always see a reason for my being here.
Component 4. "Energy Level"		
0.7511	PIL	I am usually completely bored/ Exhuberent and enthusiastic.
0.7180	PIL	My personal existence is utterly meaningless and without purpose/ Very purposeful and meaningful.
-0.6883	Dep	I can work about as well as before/ It takes extra effort to get started at doing something.
0.6040	PIL	My life is in my hands and I am in control of it/ Out of my hands and controlled by external factors.
0.5957	PIL	After retiring I would do some of the exciting things I have always wanted to.
0.5956	PIL	In life I have no goals or aims at all/ Very clear goals and aims.
0.5680	PIL	If I could choose I would prefer never to have been born/ Like 9 more lives just like this one.

*from Varimax rotated pattern.

Purpose in Life and a sense of being in control of one's destiny, areas corresponding to the two hypothesized sectors of the Will to Live concept. In addition, it contained items reflecting a sense of accomplishment, of self-actualization, of satisfaction in goals already achieved. The label given to this component was "a level beyond" referring to the relationship between the component and Erickson's final stage of development. This component accounted for 5.9% of the unrotated variance.

Component 4 contains items which reflect the presence of energy and enthusiasm, as well as a sense of purpose. The label given to this component was "energy level". This component accounted for 5.3% of the unrotated variance.

Group Differences on Component Scales (One, Three, Four)

The following components: "mood state", "a level beyond" and "energy level" were measured across the three groups: Group One living in a nursing home setting; Group Two living in apartment complexes for the elderly; and Group Three living in non-specialized housing in the community. The individual scores were computed by including items on each given component with a loading of .50 or above, with negatively weighted items reflected before summation. Scores were then summed across each group. (Table #5 presents the means and standard deviations for the three experimental groups on the three component scales.)

F max values for the three components were as follows: Component I-34.92; Component III-6.33; Component IV-10.57 (df 2,20). Due to possible violation of the homogeneity of variance assumption, Kruskal-Wallis analyses were performed. The rank totals and H values for the three groups for each of the components is presented in Table 6. An H value of 13.8, $p < .001$ was obtained for Component IV "energy level". No other significant differences were found.

Group Differences on Will to Live Measure

F max values calculated for the Will to Live measures were as follows: Purpose in Life-9.41; Will to Live-3.56; Locus of Control-1.83 (df 2,20). Due to possible violation of the homogeneity of variance assumption, a Kruskal-Wallis analysis was performed on the Purpose in Life data. The other two measures, the Self-Rating Will to Live measure and the Locus of Control measure, were judged to be not in possible violation of the homogeneity of variance assumption, therefore, one-way analyses of variance were performed on this data.

Purpose in Life

Significant group differences were obtained on the Purpose in Life measure ($H=19.4$; $p < .001$; $df=2$). The rank totals for the three groups on the Purpose in Life measure were 434.5; .688.5 and 893, with the community group showing the highest Purpose in Life, the apartment home group the next, and the nursing home group showing the lowest Purpose

TABLE 6

Kruskal-Wallis Analysis for
Components I, III, and IV

	Group I	Group II	Group III
Part 1. Component I			
Rank Totals	718.5	465.5	832
	N=20	N=18	N=25
	H=3.05186	p < .30	df=2
Part 2. Component III			
Rank Totals	564.5	534	917.5
	N=20	N=18	N=25
	H=2.77	p < .30	df=2
Part 3. Component IV			
Rank Totals	408	712	895.5
	N=20	N=18	N=25
	H=13.8	p < .001	df=2

in Life. The Kruskal-Wallis analysis results are presented in Table 7.

Will to Live

Significant group differences were obtained on the Self-Rating Will to Live measures ($F=3.99$, $p < .02$; $df=2,60$). The Analysis of Variance for the Will to Live data is presented in Table 8. The means of the Will to Live measure were 65.2, 70.8, and 82.4, with the nursing home group showing the lowest Will to Live, the apartment group with the next highest Will to Live, and the group living in the community showing the highest Will to Live. The Neuman-Keuls results are presented in Table 9. Statistical analyses indicated that the nursing home group had significantly lower Will to Live than did the private home group. No other differences were found.

Locus of Control

Analysis of variance results, presented in Table 10, indicate that a significant difference between groups does not exist on this variable ($F=2.9$, $p < .06$, $df=2,60$), although the results approach significance. The means on the Locus of Control measure for the three groups are as follows: 22.2, 20.7, 18.5, with the nursing home group showing the most external locus of control, and the private homes showing the most internal locus of control.

TABLE 7

Kruskal-Wallis Analysis
PIL Data

	Group I	Group II	Group III
Rank Totals	434.5	688.5	893
	N=20	N=18	N=25
	H=19.4	p < .001	df=2

TABLE 8

One Way Analysis of Variance
for Three Groups on Will to Live

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>Prob F</u>
Group	3450.558	2	1725.279	3.989	>.024
Error	25947.925	60	432.465		

TABLE 9

The three groups ordered according to means on the
 Will to Live Scale
 Newman Keuls comparisons Indicated

	Group I	Group II	Group III
	65.250	70.833	82.359
<hr/>			
I-III	q=6.5301**		
I-II	q=2.1309n.s.		
II-III	q=4.3992**		

TABLE 10

One Way Analysis of Variance for
Three groups on Locus of Control

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>Prob F</u>
Group	154.454	2	77.227	2.888	>.063
Error	1604.393	60	26.739		

Age and Physical Condition

Careful inspection of the data revealed no consistent relationships between reported physical condition and the dependent measures. There appeared to be somewhat of a positive relationship between age and both Purpose in Life and Will to Live, such that the older subjects had greater associated levels of Purpose in Life and Will to Live. Because of between group differences, it was not possible to investigate these relationships in a more systematic fashion, utilizing a combined group format; small within group size made it impossible to obtain meaningful correlational data, thus, inspection of the data appeared to be the best available method of obtaining an indication as to the relationship between these variables and the dependent measures. A larger sample size should be utilized to verify this observational data. See Table 11.

TABLE 11

Demographic Differences Across Three Groups

	Group I	Group II	Group III
	<u>Nursing Home</u>	<u>Apartment Elderly</u>	<u>Private Residences</u>
Age Range	60-95	65-83	60-91
Mean Age	78.6	72.8	70.4
Male/Female	7/13	2/16	8/17
Mean number of physical com- plaints	2.05	2.4	2.4
Mean number of years in resi- dence	2.1	5.9	20.4

DISCUSSION

This study sought to begin the process of operationalization of the concept of Will to Live. It was hypothesized that Will to Live was composed of elements of purpose in life and locus of control. There was in fact a component such as this, Component III "A Level Beyond", suggesting that the hypothesis, based on data both experimental and experiential, drawn from human and animal literature, was essentially correct. The secondary hypothesis regarding the relationship between the Purpose in Life measure and depression was strongly supported. Further, the hypothesis regarding group differences on the various Will to Live measures was supported for two of the three scales.

Principle Components Analysis

The principle components analysis yielded four components: mood state, locus of control, a level beyond, and energy level. Especially evident in the mood state and energy level Components was the strong inverse relationship between the Purpose in Life measure and the Depression measure, these two variables jointly contributing to these two Components.

Most interesting of all the obtained components was Component III "A Level Beyond". This Component closely approximated the hypothesized Will to Live Component and correlated .36 with the single item self-rating Will to Live measure. It included items relating to purpose in life,

locus of control and self-actualization, a factor not included as a primary element in the Will to Live concept.

The inclusion of self-actualization items suggests a Component approximating Erickson's final developmental stage, stage eight, oriented toward satisfaction or despair about one's past. However, this Component goes beyond involvement with the past; Included, as well, are items relating to future goals. This finding could be interpreted in several ways: it could suggest that there is a sizeable segment of the elderly population, which, contrary to Erickson's formulation, relate to future goals, as much as do sectors of the non-elderly population. This notion provides support for the Activity proponents' approach to the elderly - an approach which suggests that the elderly are not substantially different from the non-elderly adult population in their need for activities and goals. A second interpretation of this finding might be that Erickson's final stage of development oriented only toward the past, if it does indeed occur, occurs immediately preceding death.

One implication derived from the results of the principle components analysis regards the multi-dimensional nature of Crumbaugh's Purpose in Life measure. This was suggested by the way in which Purpose in Life items divided roughly into thirds, spread over three of the four components, suggesting that purpose in life, as conceived by Crumbaugh, is a complex concept. Further principle components analyses or factor analyses of Crumbaugh's scale are suggested to

examine more closely the complexities of the Purpose in Life concept.

Group Differences

Group analyses showed the community group to have significantly higher Will to Live, significantly higher Purpose in Life, and significantly greater energy level than did the nursing home group. These results are consistent with hypotheses which would predict higher performances on Will to Live measures to be associated with living situations which support and promote a sense of personal autonomy and self-direction.

Although the locus of control results were not significant, they were in the expected direction and approached significance. The locus of control measure used in this study was a generalized measure. It may well be that if a more personally-oriented locus of control measure were used, group differences on that measure would become much more apparent.

Of most interest in reviewing the group data was the pattern of differences between the community and apartment groups on the various Will to Live measures. With the community group showing higher self-rated Will to Live than the apartment dwellers, the apartment group showed higher purpose in life and the community group showed higher internal locus of control. If one begins with the hypothesis that purpose in life and locus of control are component parts of Will to Live, it could be suggested that of these two

parts, locus of control, rather than purpose in life, was the part more likely to be associated with and co-vary with the self-rating Will to Live measure. At the present stage of investigation, however, such statements must be considered to be highly speculative in nature.

Institutionalization of the Elderly

Above and beyond the issue of available autonomy in the various group settings, there exists another issue - that being the issue of institutionalization, relating primarily to the nursing home group. Institutionalization carries with it special problems for the elderly and is an area which has received special study on its own. Strnad (1973) has discussed the loss of independence and freedom of action as one of five major problem areas for the institutionalized elderly. Wolk and Reingold (1975) have discussed the loss of previous life style as being a serious problem area for the institutionalized elderly.

Among other differences reported among institutionalized elderly is a study on locus of control among institutionalized elderly, which concluded that, as opposed to non-institutionalized populations, in the institutionalized, external locus of control is associated with "adjustment". Results from the present study suggest the opposite - that although having more external levels of locus of control than non-institutionalized groups, the institutionalized elderly also demonstrate lower Purpose in Life and self-rated Will to Live and higher levels of depression, all associated

with lower rather than higher levels of adjustment, although the levels of depression obtained reached only those associated with low or mild degrees of depression.

Range of Depression

This finding - the low level of depression obtained for Group I in the present study - was also surprising, given the reports of the prevalence of depression in the elderly. The selection of subjects - of only those able and willing to carry on a rather lengthy interview procedure - undoubtedly had an influence on restricting the range of depression obtained in the present study.

Purpose in Life and Depression - The Relationship

It was hypothesized that the purpose in life measure of the Will to Live measures would show a negative relationship to Depression since experientially, the loss of Will to Live so closely resembles a severely depressed state. That did, in fact, occur with the obtained correlation between Purpose in Life and depression ($-.83$). The strength of the negative correlation between Purpose in Life and depression suggests that these are not merely related variables, but rather that they represent the bipolarity of a single variable. Although Crumbaugh (1964) obtained similar results which found the Depression Scale of the MMPI significantly inversely correlated with the Purpose in Life Scale, he disputed the notion that the Purpose in Life measure "was an indirect measure of depression". He discussed the complexity

of the interrelationship between the variables and that lack of Purpose in Life may be both cause and effect of depression. Further, he described lack of purpose in life as being both a more generic term than depression and a more specific, inadequate technique of adjustment to conflict. Despite Crumbaugh's explanations, another depression measure, the Beck Depression Inventory, has been shown to have a strong negative correlation with the Purpose in Life measure. These findings provide a strong basis for the thesis that depression is a bipolar rather than a unipolar dimension, with Purpose in Life at one end of the continuum and depression at the other.

Earlier in this paper there were several descriptions of incidents in which an individual who had been coping adequately suddenly gave up any attempt at survival in a difficult situation. It appears that there are many situations in which lack of Purpose in Life is intimately related to a syndrome closely resembling deep depression which is, in some cases, an immediate precursor to death. It is in no way necessary to suggest that a lack of Purpose in Life is always related to depression. Or, said another way, not all depressions are related to lack of Purpose in Life. It is an interesting notion, however, to consider a certain proportion of depressed individuals as having, instead, a low Purpose in Life. This is especially relevant to the elderly population, since it is the elderly who are frequently deprived of their autonomy and of many of the goals they directed themselves toward all their lives.

The notion of lack of Purpose in Life as being related to depression in the elderly is, it appears, in opposition to the position of the disengagement theorists (Neugarten, 1972, Cumming and Henry, 1961). These theorists suggest that an elderly person naturally goes through the process of disengagement from his surroundings as a natural and adaptive reaction to the aging process. The alternative to this, supported by the results of this research, is that the elderly are no different from people at other ages and have a need for purposes and goals in their lives; when these goals are not present, depression is likely to be.

Practical Implications

Practical implications for the elderly, related to these findings about Purpose in Life, encompass a wide-range of possibilities. One of these possibilities may include establishment of intergenerational housing programs, as they have in Norway (Mortensen, 1976). This sort of housing program would allow for the natural intergenerational dependencies and role functions, providing the elderly with a non-contrived purpose in life.

Another possibility is suggested by the Soviet theory of treatment of the elderly (Polk, 1976) which involves provision of opportunity for work in old age homes. For their work, which is not mandatory, they receive a share in the earnings of whatever they help manufacture. In addi-

tion, Soviets are encouraged to delay their retirement and to continue to work as long as they are able.

With relation to those individuals no longer capable of physical work, Butler (1974) speaks of the elderly years as an opportunity for reflection, for integration of a lifetime of learning and life experience. Part of this function could be fulfilled within the family. Finally, Kurtz and Wolk (1975), in stating that continued growth is the key to continued life satisfaction in the elderly, imply perhaps one of the areas of possible aid for the elderly may be through the educational system, by providing educational opportunities for the elderly.

Further Implications of the Will to Live Concept

Given the structure of Will to Live as has been suggested in this research, if we knew what a person's locus of control history had been, and we knew what degree of purpose in life existed, theoretically we should be able to predict with a degree of accuracy the segment of the population least likely to survive an ordeal situation as well as that most likely to survive it. There are practical implications which follow from this. If we were able to identify "at risk" populations of the elderly (or for that matter for other groups under stress), we would perhaps be better able to advise with regards to some very critical life decisions for the elderly: elective surgery, change of living situation, etc., with more knowledge than is now available as to how stress may affect the individual in question.

Limitations of Current Findings

This research has been an initial venture into a new area, attempting a new integration of concepts and as such doesn't allow for the degree of rigor possible at later stages of development of an area. Further investigations into this area will allow for greater refinement of measures and concepts.

Some of the areas not dealt with in the present study included consideration of effects of: medication, ethnic background, and degree of family involvement of the subject populations. All of these variables could be reasonably expected to have potential impact upon the Will to Live.

The interrelationship between age and sex and Will to Live was examined in a non-statistical fashion in this study - due to constraints associated with sample size.

Physical condition was examined through a self-report device. No objective measure of physical state was utilized in this study.

In general, the limitations of this study reflect the as yet undeveloped state of Will to Live as a researchable area and the exploratory status of this study as a first venture into that area.

Implications for Future Research

Will to Live has shown heuristic possibilities as a researchable area. The significant results obtained using

an undeveloped self-rating measuring device has suggested that further investigations in this area may well promise to be very rewarding. In order to further develop the instrument, it may be most expedient to utilize the very accessible college sophomore before returning to the real world to study less available, more interesting populations such as the physically ill, psychiatric populations, and a wider sample of the elderly population. Further studies could as well provide an evaluation of sex differences on the Will to Live measures, another area which was beyond the scope of this study.

Further studies should consider an assortment of variables not included in this study because of their potential influence upon and relationship to the Will to Live. Included among these are: medication, ethnic background, family involvement, activity level, and objective measurements of physical condition. Larger sample sizes in future research would allow for close examination of age and sex and their relationship to Will to Live.

The concept of depression and purpose in life as a bipolar measure is a very provocative one. The relationship should be further explored with other populations to obtain a clearer sense of the range of applicability as well as to explore the possibility of utilization of the purpose in life scale as an alternative to existing depression measures. No existing measures are well suited to the elderly because of their inability to separate the physical and performance

limitations associated with the aging process from those generally associated with the psychological syndrome of depression.

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APPENDIX

General Information

No. _____

1. Age _____
2. Sex _____
3. Marital Status _____
4. Living Situation _____
Room in home _____
Apartment in complex _____
Non-specialized (specify) _____
5. Length of time at present residence _____
6. Rated degree of privacy/autonomy in living quarters
0 25 50 75 100
7. Last grade of school completed _____
8. Are you now, or were you at one time employed? _____
9. What sort of work did you do? _____
10. How long has it been since you held a job? _____
11. If you are or have been married, what sort of work did your spouse do? _____
12. What was your father's occupation? _____
13. How old were your parents when they died?
Mother _____ Father _____
14. What was the most difficult time in your life so far? _____
15. What made it especially difficult? _____
16. How did you handle it? _____
17. What would be a difficult situation for you to handle at this point in your life? _____
18. How do you think you'd handle it? _____
19. Do you have any physical problems at the present time?
eye sight _____ high blood pressure _____
hearing _____ diabetic _____
arthritis _____ other _____
heart trouble _____
stomach trouble _____

20. As you look back on your life, in general would you say
it has been:

Very happy____ Moderately happy____ Average____ Unhappy____

Crumbaugh's Scale

For each of the following statements, circle the number that would be most nearly true for you. Note that the numbers always extend from one extreme feeling to its opposite kind of feeling. "Neutral" implies no judgment either way.

Try to use this rating as little as possible.

1. I am usually:

1	2	3	4	5	6	7
completely			(neutral)			exuberant
bored						enthusiastic
2. Life to me seems:

7	6	5	4	3	2	1
always exciting			(neutral)			completely routine
3. In life I have:

1	2	3	4	5	6	7
no goals or aims at all			(neutral)			very clear goals & aims
4. My personal existence is:

1	2	3	4	5	6	7
utterly meaningless,			(neutral)			very purposeful &
without purpose						meaningful
5. Every day is:

7	6	5	4	3	2	1
constantly new & dif-			(neutral)			exactly the same
ferent						
6. After retiring I would:

7	6	5	4	3	2	1
do some of the exciting			(neutral)			lead completely the
things I have always wanted						rest of my life
to						
7. If I could choose, I would:

1	2	3	4	5	6	7
prefer never to have			(neutral)			like nine more lives
been born						just like this one
8. In achieving life goals I have:

1	2	3	4	5	6	7
made no progress whatever			(neutral)			progressed to complete
						fulfillment

9. My life is:
 1 2 3 4 5 6 7
 empty, filled only (neutral) running over with
 with despair exciting good things
10. If I should die today, I would feel that my life has been:
 7 6 5 4 3 2 1
 very worthwhile (neutral) completely worthless
11. In thinking of my life, I:
 1 2 3 4 5 6 7
 often wonder why I exist (neutral) always see a reason
 for my being here
12. As I view the world in relation to my life, the world:
 1 2 3 4 5 6 7
 completely confuses me (neutral) fits meaningfully
 with my life
13. I am a:
 1 2 3 4 5 6 7
 very irresponsible person (neutral) very responsible person
14. Concerning man's freedom to make his own choices, I believe
 man is:
 7 6 5 4 3 2 1
 absolutely free to make (neutral) completely bound by
 all life choices limitations of heredity
 and environment
15. With regard to death, I am:
 7 6 5 4 3 2 1
 prepared and unafraid (neutral) unprepared and frightened
16. With regard to suicide, I have:
 1 2 3 4 5 6 7
 thought of it seriously (neutral) never given it a
 as a way out second thought
17. I regard my ability to find a meaning, purpose, or mission
 in life as:
 7 6 5 4 3 2 1
 very great (neutral) practically none
18. My life is:
 7 6 5 4 3 2 1
 in my hands, and I am (neutral) out of my hands & con-
 in control of it trolled by external
 factors
19. Facing my daily tasks is:
 7 6 5 4 3 2 1
 a source of pleasure (neutral) a painful and boring
 and satisfaction experience

20. I have discovered:

1 2 3
no mission or purpose
in life

4
(neutral)

5 6 7
clear cut goals and a
satisfying life purpose

Beck Inventory

Please select the statement in each group of statements that seems to fit you best at the present time. Circle the number in front of that statement.

A.

- 0. I do not feel sad
- 1 I feel blue or sad
- 2a I am blue or sad all the time and I can't snap out of it
- 2b I am so sad or unhappy that it is very painful
- 3 I am so sad or unhappy that I can't stand it

B.

- 0 I am not particularly pessimistic or discouraged about the future
- 1 I feel discouraged about the future
- 2a I feel I have nothing to look forward to
- 2b I feel that I won't ever get over my troubles
- 3 I feel that the future is hopeless and that things cannot improve

C.

- 0 I do not feel like a failure
- 1 I feel I have failed more than the average person
- 2a I feel I have accomplished very little that is worthwhile or that means anything
- 2b As I look back on my life, all I can see is a lot of failures
- 3 I feel I am a complete failure as a person (Parent, husband, wife)

D.

- 0 I am not particularly dissatisfied
- 1a I feel bored most of the time
- 1b I don't enjoy things the way I used to
- 2 I don't get satisfaction out of anything anymore
- 3 I am dissatisfied with everything

E.

- 0 I don't feel particularly guilty
- 1 I feel bad or unworthy a good part of the time
- 2a I feel quite guilty
- 2b I feel bad or unworthy practically all the time now
- 3 I feel as though I am very bad or worthless

F.

- 0 I don't feel I am being punished
- 1 I have a feeling that something bad may happen to me
- 2 I feel I am being punished or will be punished
- 3a I feel I deserve to be punished
- 3b I want to be punished

G.

- 0 I don't feel disappointed in myself
- 1a I am disappointed in myself
- 1b I don't like myself
- 2 I am disgusted with myself
- 3 I hate myself

H.

- 0 I don't feel I am any worse than anybody else
- 1 I am very critical of myself for my weaknesses or mistakes
- 2a I blame myself for everything that goes wrong
- 2b I feel I have many bad faults

I.

- 0 I don't have any thoughts of harming myself
- 1 I have thoughts of harming myself but I would not carry them out
- 2a I feel I would be better off dead
- 2b I have definite plans about committing suicide
- 2c I feel my family would be better off if I were dead
- 3 I would kill myself if I could

J.

- 0 I don't cry any more than usual
- 1 I cry more now than I used to
- 2 I cry all the time now. I can't stop it
- 3 I used to be able to cry but now I can't cry at all, even though I want to

K.

- 0 I am no more irritated now than I ever am
- 1 I get annoyed or irritated more easily than I used to
- 2 I feel irritated all the time
- 3 I don't get irritated at all the things that used to irritate me

L.

- 0 I have not lost interest in other people
- 1 I am less interested in other people now than I used to be
- 2 I have lost most of my interest in other people and have little feeling for them
- 3 I have lost all my interest in other people and don't care about them at all

M.

- 0 I make decisions about as well as ever
- 1 I am less sure of myself now and try to put off making decisions
- 2 I can't make decisions any more without help
- 3 I can't make decisions at all anymore

N.

- 0 I don't feel I look any worse than I used to
- 1 I am worried that I am looking old or unattractive
- 2 I feel that there are permanent changes in my appearance and they make me look unattractive
- 3 I feel that I am ugly or repulsive looking

S.

- 0 I haven't lost much weight, if any, lately
- 1 I have lost more than 5 pounds
- 2 I have lost more than 10 pounds
- 3 I have lost more than 15 pounds

O.

- 0 I can work about as well as before
- 1a It takes extra effort to get started at doing something
- 1b I don't work as well as I used to
- 2 I have to push myself very hard to do anything
- 3 I can't do any work at all

T.

- 0 I am no more concerned about my health than usual
- 1 I am concerned about aches and pains or upset stomach or constipation or other unpleasant feelings in my body
- 2 I am so concerned with how I feel or what I feel that it's hard to think of much else
- 3 I am completely absorbed in what I feel

P.

- 0 I can sleep as well as usual
- 1 I wake up more tired in the morning than I used to
- 2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep
- 3 I wake up early every day and can't get more than 5 hours sleep

U.

- 0 I have not noticed any recent change in my interest in sex
- 1 I am less interested in sex than I used to be
- 2 I am much less interested in sex now
- 3 I have lost interest in sex completely

Q.

- 0 I don't get any more tired than usual
- 1 I get tired more easily than I used to
- 2 I get tired from doing anything
- 3 I get too tired to do anything

R.

- 0 My appetite is no worse than usual
- 1 My appetite is not as good as it used to be
- 2 My appetite is much worse now
- 3 I have no appetite at all anymore

Locus of Control Measure

Below are a number of statements about various topics. They have been collected from different groups of people and represent a variety of opinions. There are no right or wrong answers to this questionnaire: for every statement there are large numbers of people who agree and disagree. Please indicate whether you agree or disagree with each statement as follows:

Circle SA if you strongly agree
 Circle A if you agree
 Circle D if you disagree
 Circle SD if you strongly disagree

Please read each item carefully and be sure that you indicate the response which most closely corresponds with the way you personally feel.

1. Many times I feel that we might just as well make many of our decisions by flipping a coin.
 SA A D SD
2. Getting a good job seems to be largely a matter of being lucky enough to be in the right place at the right time.
 SA A D SD
3. It is difficult for ordinary people to have much control over what politicians do in office.
 SA A D SD
4. It isn't wise to plan too far ahead because most things turn out to be a matter of good or bad fortune anyhow.
 SA A D SD
5. When things are going well for me I consider it due to a run of good luck.
 SA A D SD
6. I have usually found that what is going to happen will happen regardless of my actions.
 SA A D SD

7. Success is mostly a matter of getting good breaks.
SA A D SD
8. There's not much use in worrying about things...what
will be will be.
SA A D SD
9. Success in dealing with people seems to be more a matter
of the other person's moods and feelings at the time
rather than one's own actions.
SA A D SD
10. I think that life is mostly a gamble.
SA A D SD
11. Many times I feel that I have little influence over the
things that happen to me.
SA A D SD

Will Scale

The human will has been said to be a strong force in peoples' lives: helping them through very difficult situations; helping them accomplish goals which they ordinarily would not have been able to achieve.

With "100" being the most "will" anyone could have, and "0" being the least, how much "will" would you say that you have at the present time? Place an "x" at the appropriate spot.

0

100