

A COMPARISON BETWEEN PERSONALITY FACTORS
AND REPORTED FEAR OF DEATH

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Previous research projects have studied the relationship between the fear of death and numerous demographic variables, but few of the studies cited have dealt with personality factors. The purpose of this study was to investigate the relationship that exists between personality traits and reported levels of death fear. An attempt was made to determine if certain typical personality traits are associated with the conscious expression of death fear.

The personality traits and reported levels of death fear of two hundred thirty-three volunteer college students were measured by the Sixteen Personality Factor questionnaire and the Death Anxiety Scale, respectively. Of this total, seventy-five subjects representing the high, moderate, and low fear of death categories were selected for the final analysis of data.

The results of a one-way between-subjects analysis of variance demonstrated that five of the sixteen personality variables measured were related to the fear of death at a statistically significant

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level. Specifically, those subjects who reported a high fear of death were significantly less mature than were those subjects who reported little fear of death. The subjects who reported high levels of death fear were also found to be more dogmatic and jealous than were those who reported little death fear. However, all of the scores for the trait measuring dogmatism reflected average scores. The subjects who reported little fear of death were found to be more concerned about their social reputation than were those subjects who feared death. High death fearing subjects were also found to be more susceptible to depression, impulsiveness, anxiety and concern for their health than were those who reported little fear of death. The final major conclusion drawn for the analysis of data was that both the moderate and the high death fearing individuals tend to be more frustrated than do individuals with little death fear. Thus, the results of this study indicate that there is a relationship between the fear of death and personality traits.

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CHAPTER 1

INTRODUCTION

This chapter is devoted to information concerning the relationship between personality factors and the level of death anxiety of college students. The significance of this study, the specific statement of the problem, the purpose, the null hypothesis and the assumptions of the study are discussed. The limitations imposed on this study by uncontrolled variables, as well as terms identified as needing further clarification are defined and included in this chapter.

THEORETICAL FORMULATION

Review of the literature indicated that the consideration of death is undoubtedly one of the foremost sources of anxiety or fear for man (Feifel, 1969). Zilboorg (1943) went so far as to state that the fear of death is behind all normal functioning in order to insure self-preservation.

The fear of the dead predominates among primitive people and is only occasionally manifested among civilized peoples. Fear of death is more common in civilized peoples, according to Lepp (1968). It would appear, in the Western world's culture at least, that this fear has led to a society that chooses to deny or avoid the topic of death rather than deal with it openly and honestly.

According to Kastenbaum and Aisenberg (1972),

In general, it appears that death is not only that-which-is-feared, but also, that-which-should-not-be-feared. This latter part sets thanatophobia apart from those fears which are regarded as more or less 'legitimate' in our society.

According to Toynbee (1968), and Gorer (1955), the word "death" itself has become almost unmentionable in the West, particularly in the United States. Whereas sex used to be a forbidden topic, today death is the taboo topic.

Kavanaugh (1972) stated cogently:

Death is now known as the new pornography and Americans as the new Victorians of prudery about death. . . We can self-righteously blanch at the crudeness of Victorians who expose their very young to raw and sordid details, filling their heads with verses about dead babies and the horrors of being buried alive. Is it any more enlightened or humane to leave children defenseless, poorly prepared to cope with one of life's most distressing problems?

Sick people are whisked out of the main population, out of the sight of others, and placed in hospitals. Those patients suffering from terminal illnesses are placed in wards separate from non-dying patients, many times with no friends or relatives to visit them when they most need visitors, leaving the impression, "out of sight, out of mind." In a classic study conducted by Worden and Proctor (1976) on responses to call bells in a hospital, it was found that the sicker and closer to death the patient was, the longer it took for the hospital staff to answer the signal. The many flowery euphemisms that are used for death (Toynbee, 1968) lend support to this attempt to avoid the unpleasant and frightening reality.

Although death has been occurring since the beginning of man, Kastenbaum (1972) stated that, ". . . no topic has been more neglected through the years." The actual study of death and the fear of death

is a relatively recent topic of investigation. This trend toward increasing man's knowledge of death and hopefully thereby understanding his fear of death is reflected in the increasing number of colleges and universities across the nation that now offer credited classes in the study of death (Feifel, 1977). The widely publicized works of Kubler-Ross, involving dying patients, has opened the eyes of the public and consequently opened the door for numerous studies. This recent surge in the number of articles and books published in the area of death has involved an extremely diverse sampling of variables. Some of the variables that have been investigated with respect to their influence on the fear of death have been: place of residence, religion, level of awareness, sex, age, amount of education, health, parental attitudes, recent experience with death, school phobia, intelligence, socioeconomic status, mental health, nearness to death, and in a few instances, personality variables.

A need for a better understanding of the relationship that exists between the fear of death and personality factors seems to be indicated. A better knowledge of this relationship could lead to methods, perhaps in childhood education or psychotherapy, that might allow an individual to control this fear.

THE PROBLEM

Since the study of death is a relatively recent topic, much contradictory evidence concerning the fear of death is found in the literature. The problem of studying the fear of death is compounded by the different techniques that have been used to study this phenomenon. Interviews, projective techniques, and questionnaires

have primarily been employed to assess this fear. Few of the studies cited reported the validity or the reliability of the instrument used to measure the fear (Templer, 1970).

Another area of special concern is the contradictory data that have been reported with respect to personality variables. Is there a difference between the personality factors of those individuals who have a high fear of death and those who have a low fear of death? Are individuals who fear death more immature than those who do not fear death? These are but a few of the questions that have caused concern and the need for further research in the area of the fear of death.

It has been reported by Worden and Proctor (1976) that those individuals who have trouble controlling anger, sadness, or depression are prime candidates for being fearful of death. Lester (1967) stated that age will obviously affect attitudes toward death until mental development is complete. Thereafter, he continued, ". . . it would seem that personality factors and life experiences are important determinants of the fear of death." It is on this basis that the personalities of those who have a high fear of death and those who have a low fear of death have been compared to determine if there is a significant difference between the personalities.

Statement of the Problem

Is there a significant difference between the personality factors of those who have a high fear of death and the personality factors of those who have a low fear of death in a college population sample?

Statement of the Hypotheses(Null Form)

There are no significant differences among the personality factors of those who have a high fear of death, the personality factors of those who have a medium fear of death, and the personality factors of those who have a low fear of death in a college population sample. Stated more specifically:

1. There are no significant differences among the mean sten scores of Factor A among the high, medium, and low death fearers.
2. There are no significant differences among the mean sten scores of Factor B among the high, medium, and low death fearers.
3. There are no significant differences among the mean sten scores of Factor C among the high, medium, and low death fearers.
4. There are no significant differences among the mean sten scores of Factor E among the high, medium, and low death fearers.
5. There are no significant differences among the mean sten scores of Factor F among the high, medium, and low death fearers.
6. There are no significant differences among the mean sten scores of Factor G among the high, medium, and low death fearers.
7. There are no significant differences among the mean sten scores of Factor H among the high, medium, and low death fearers.
8. There are no significant differences among the mean sten scores of Factor I among the high, medium, and low death fearers.
9. There are no significant differences among the mean sten scores of Factor L among the high, medium, and low death fearers.
10. There are no significant differences among the mean sten scores of Factor M among the high, medium, and low death fearers.

11. There are no significant differences among the mean sten scores of Factor N among the high, medium, and low death fearers.

12. There are no significant differences among the mean sten scores of Factor O among the high, medium, and low death fearers.

13. There are no significant differences among the mean sten scores of Factor Q_1 among the high, medium, and low death fearers.

14. There are no significant differences among the mean sten scores of Factor Q_2 among the high, medium, and low death fearers.

15. There are no significant differences among the mean sten scores of Factor Q_3 among the high, medium, and low death fearers.

16. There are no significant differences among the mean sten scores of Factor Q_4 among the high, medium, and low death fearers.

Assumptions of the Study

This study has been designed to investigate and ascertain whether the personality factors of college students are appreciably different, depending on whether one has a high, medium, or low fear of death. It has been assumed in this study that the subjects tested were adequate representatives of the normal college student population.

According to Worden and Proctor (1976), each of us has to keep that final appointment, and that is naturally a cause for some uncertainty, nervousness, and healthy fear. Heidegger contended that an awareness of one's own death and the resultant anxiety are equally natural to man. One can no more escape the fear of death than one can escape the human condition (Lepp, 1968). Based on these thoughts, it has been further assumed that the fear of death is a normal response

in a college population. A final assumption of this study was that the subjects answered the questionnaires truthfully and honestly.

Purpose of the Study

The primary purpose of this study was to investigate the relationship that existed between personality factors and the fear of death. A comparison among the mean sten scores of personality factors of high death fearers, personality factors of medium death fearers, and personality factors of low death fearers was computed. An attempt was made to determine if certain normal personality traits were associated with the conscious expression of a fear of death. Furthermore, it was attempted to identify certain personality patterns to determine whether there was a correlation with either a high fear of death, a medium fear of death, or a low fear of death.

Significance of the Study

Compared to other areas in psychology, very little knowledge is available on the topic of death. Answers are needed to questions such as, how do perceptions and cognitions of death influence our daily life? How do they influence our total development over the life-span? Is there one and only one mature conception of death? It is quite obvious that much more research needs to be conducted in the area of the study of the fear of death.

The purpose of this study has been to determine if there was a relationship between the conscious fear of death, and personality variables in a normal college population. A better understanding of this relationship could lead to the development of methods designed

to manipulate this fear in order to bring about a more psychologically well-adjusted individual.

DEFINITION OF TERMS

In a paper dealing with anxieties and other similar terms, certain words take on a variety of meanings for different people in psychology and outside the realm of psychology. Certain terms used in this study needed further clarification and definition. These terms have been specifically defined as follows:

Attitude

An attitude is a relatively enduring organization of inter-related beliefs that describe, evaluate, and advocate action with respect to an object or situation, with each belief having cognitive, affective, and behavioral components (Rokeach, 1968).

Beliefs

Beliefs, according to Rokeach (1968), refer to the mental acceptance of something as true.

Death

Death is the end of life, according to Moseley (1976). It is the cessation of corporeal functions.

Death Anxiety

The typical psychoanalytic usage seems to regard death anxiety as a synonym for the fear of death (Kastenbaum, 1972). Therefore, they have been used interchangeably throughout this paper, both meaning the same thing.

Death Fear

Death fear, or the fear of death, was defined as the score obtained on Templer's Death Anxiety Scale.

High Fear of Death

High fear of death was defined as those individuals with scores of 11, 12, 13, 14, and 15 on the Death Anxiety Scale.

Low Fear of Death

Low fear of death was defined as those individuals with scores of 0, 1, 2, and 3 on the Death Anxiety Scale.

Medium Fear of Death

Medium fear of death was defined as those individuals with scores of 6, 7, 8, and 9 on the Death Anxiety Scale.

Personality Variables

Personality variables were defined as those sixteen factors which were measured by Cattell's 16 PF test.

LIMITATIONS OF THE STUDY

This study was limited to a comparison among the mean sten scores of personality factors of those who had a high fear of death, the mean sten scores of personality factors of those who had a medium fear of death, and the mean sten scores of personality factors of those who had a low fear of death in a sample of normal undergraduate college students attending Emporia State University during the Fall Semester, 1978. The fear of death measured was limited to a conscious fear of death.

No attempt was made to control for variables such as place of residence, religious preference, health, parental attitudes, intelligence, and socioeconomic status. The subjects that were used in the study were volunteers.

CHAPTER 2

REVIEW OF RELATED LITERATURE

The purpose of this chapter is to review the literature written concerning the topic of anxiety and fear of death. This chapter will proceed in the following sequence: universality of the fear of death; techniques employed to measure this fear; the validity and reliability of the tests designed to measure the anxiety and fear; the various demographic variables that have been studied in conjunction with the fear of death; personal characteristics that may influence one's fear of death; possible causes for this fear; manifest symptoms which may lead one to infer that the fear of death is present; and finally, a summary and conclusion section.

UNIVERSALITY OF THE FEAR OF DEATH

There are two schools of thought on the fear of death. The "morbidly-minded" school agrees that rough early experiences may heighten natural anxieties and later fears, but nevertheless, the fear of death is natural and is present in everyone. No one is immune from the fear of death according to Becker (1973). Nowhere does the fear of death seem to be as universal and pronounced as in the United States (Lepp, 1968). Kubler-Ross (1969) concluded that ". . . death is still a fearful, frightening happening, and the fear of death is a universal fear even if we think we have mastered it on many levels."

Zilboorg (1943) made the following statement about the fear of death:

For behind the sense of insecurity in the face of danger, behind the sense of discouragement and depression, there always lurks the basic fear of death, a fear which undergoes most complex elaborations and manifests itself in many indirect ways. . . No one is free of the fear of death. . . The anxiety neurosis, the various phobic states, even a considerable number of depressive suicidal states and many schizophrenias amply demonstrate the ever present fear of death which becomes woven into the major conflicts of the given psychopathological conditions. . . We may take for granted that the fear of death is always present in our mental functioning.

Neurotic fear of death shows itself most often in the expression of a general anxiety whose real causes are unconscious and originate with traumas of adolescence, childhood, or birth, according to Lepp (1968). However, not all who fear death are neurotic, unless one considers the whole human race neurotic.

Until recently, the psychoanalytic view towards fear of death as derivative events was dominant. Sentiments about death were basically manifestations of a more ultimate reality, such as separation anxiety or conflicts about castration. Feifel (1969) agreed that clinical displacement does occur; death fears can be secondary phenomena. However, increasing knowledge in this area suggests that the reverse may be true; the depressed mood, fears of loss, diverse psychosomatic symptoms, and varying psychological disturbances all have shown relationships to anxieties concerning death. Feifel found in many populations that in spite of denial and other forms of defensive behavior, the fear of death is never hushed. Projection is one method of trying to rid oneself of this fear and it is evidenced in the violence of our times. Feifel (1977) later reaffirmed this contention and stated that violence can also be perceived as an active

response to unmastered dread of death. He explained that what occurs is that the dread is transformed from an internal inevitability against which one is helpless to an external threat over which one has some control.

Both Lepp (1968) and Kubler-Ross (1969) agreed that many "normal" people today are affected by a fear of collective death, or total world destruction. They stated that this fear is a partial explanation for the vandalism, free crime, eroticism, and accelerated pace of life. The bombs, gasses, and chemicals that science and technology have produced have also led to an increase in the fear of death.

The second school of thought on the fear of death, "healthy-minded" advocates, maintain that fear of death is not a natural thing for man, it is not innate. According to this theory, only those who had bad early experiences will suffer from a fear of death (Becker, 1973).

The very idea of the universality of the fear of death is a misconception, according to Weisman (1975). He mentioned as one of the fallacies commonly held, the fact that many people feel that the fear of death is the most natural and basic fear of man. The closer he comes to death, the more intense the fear becomes.

In a carefully conducted experimental study, Swenson (1962) investigated the attitudes toward death in an aged population. All the subjects in the study were sixty years of age or older, and all were residents of Minnesota. Two methods of evaluating attitudes were devised: (1) a checklist, and (2) a forced choice rating scale. The Minnesota Multiphasic Personality Inventory was used to obtain a

measure of devotion to religion. The results indicated that there was not a significant cluster of "fearful of death" responses; only ten percent of the 210 subjects feared death. Many of the respondents had positive or forward-looking attitudes toward death.

Further support for the argument against the universality of the fear of death was compiled by Middleton (1936). His study concerned certain thoughts, attitudes, and behavior reactions toward death that were found among college students in Depauw University and Butler University, both in Indiana. The manner in which this study was conducted was in the form of a questionnaire. A total of 825 students cooperated in the group study (488 women and 337 men). The women ranged in age from fifteen to twenty-two years; the men from seventeen to twenty-four years. Of the fourteen questions asked in the survey, only two concern this paper. On the first question, "How often do you think of your own death?" the great majority of the subjects (92.99 percent) reported that they thought of their own death very rarely or only occasionally. On question number thirteen, "Do you have a strong fear or horror of death; are you absolutely unafraid and resigned to your fate; or is your attitude toward death one of indifference?" only 12.48 percent of the subjects reported that they had a strong fear or horror of death; 25.23 percent answered that they were absolutely unafraid; 68.28 percent stated that their attitude toward death was one of indifference. There was little difference between male and female responses.

It is impossible to decide if the fear of death is universal or not. According to Chorán (1963) ". . . in matters as this, with

distinct camps, both studded with distinguished authorities, the most one can do is give an opinion based on authorities."

TECHNIQUES USED IN MEASURING THE FEAR OF DEATH

Three techniques have been employed to assess the fear of death, according to Templer (1970). They are the interview, the projective test, and the questionnaire. The interview entails a conversation conducted by a clinician with a person from whom information about the fear of death is sought. This procedure is a very time consuming one. The projective technique of evaluating the fear of death is also a very time consuming approach. It involves the administration of a test to a single subject by an experienced clinician and the subsequent interpretation by the same, or equally experienced clinician. The questionnaire method of measuring the fear of death is less time consuming and less susceptible to experimenter bias in its interpretation. Evidence has been compiled that showed that attitudes towards death can be measured by a structured psychometric device. The study conducted by Swenson (1962), using the checklist and the forced choice rating scale, support the contention that projective techniques are not the only way to measure specific attitudes towards death.

VALIDITY AND RELIABILITY OF TESTS MEASURING FEAR OF DEATH

Relatively few of the techniques that supposedly measure the fear of death mention either the validity or the reliability of the instrument employed. This may partially explain the lack of consistency among various studies.

Martin and Wrightsman (1965) used two measures of the fear of death; a Likert scale and a sentence completion test. The correlation between these two measures was .46.

The validity of a test will be lowered considerably if the test does not measure what it has been designed to measure. Collett and Lester's study (1969) was an attempt to devise separate measures of death fears, attempting to distinguish between the fear of death from the fear of the process of dying and to differentiate between these fears depending on whether they are for one's self or for another. A total of thirty-eight statements concerning the fears were composed, and twenty-five female undergraduates rated them according to their own agreement. The results showed low intercorrelations among the four fears. These fears were the fear of death of others, the fear of dying of others, the fear of death of self, and the fear of dying of self. The low intercorrelations indicated the probable usefulness of distinguishing among the four fears rather than grouping all items in the same scale indiscriminately. Becker and Bruner (1931) also suggested devising a classification system that distinguished among a fear of one's own death, a fear of death of others, and a fear of the effects of death.

The concurrent validity of four different psychometric scales that assess fears and anxieties about death was investigated by Durlak (1972). The death measures studied included the scale developed by Lester, the scale developed by Boyar, the scale developed by Sarnoff and Corwin, and the scale developed by Tolor. Durlak used forty-seven males and forty-seven females, all of whom were undergraduate psychology students at Vanderbilt University. He found evidence that supported

the concurrent validity of the four different measures of death anxiety currently in use. He also found that these tests seem to measure attitudes toward personal death and dying rather than generalized fears and feelings about death.

The purpose of Boyar's dissertation (1964) was to develop and partially validate a scale measuring intensity of fear of death. Boyar used one hundred subjects in his design. He divided his students into two groups and showed a film on traffic accidents to one group and a film on traffic congestion to the other. Before and after the showing of the film he administered a fear of death scale. The group that viewed the film on accidents showed a significantly greater increase in the fear of death than those who saw the film on congestion. To assess his test's consistency or reliability, Boyar conducted an item analysis and found its split-half reliability to be .89 and its test-retest reliability for a ten-day interval to be .79.

In constructing his Death Anxiety Scale (DAS), forty items were devised on a rational basis by Templer (1970). These items were then judged by a clinical psychologist, two graduate students in clinical psychology, and four chaplains in a state mental hospital. A total of thirty-one items were finally chosen. These thirty-one items were administered to students from three different colleges in Kentucky and Tennessee. Fifteen items of the thirty-one were kept. A comparison was run to the MMPI, which contains three measures of anxiety. The intercorrelation was low enough for the author to conclude that the DAS was indeed measuring death anxiety and not simply anxiety in general. The Death Anxiety Scale was also found to correlate with the Fear of Death Schedule for further support of validity. A comparison

between the psychiatric patients with reported high death anxiety and a control group of patients also supported the validity.

DEMOGRAPHIC VARIABLES

A review of the literature indicated that the demographic variable aspect of the fear of death was by far the most widely studied area. Some of the variables that have been investigated and that are mentioned in this section as possible factors affecting the fear of death include: age, sex, family resemblance, scholastic achievement, socioeconomic status, occupation, physical health, and marital status. Because of the fact that many of the studies included several demographic variables, the aforementioned order will not be strictly followed.

Is the fear of death in a subject related to the fears of death in the subject's parents? This was the topic of the research conducted by Lester (1970). The subjects were white day students, predominantly nonresident, at the State University College at Buffalo. The subjects were limited to those who were living with their parents. The subjects ranged in age from seventeen to twenty-two years old. The subjects and their parents both completed Collett and Lester's fear of death scale. The results showed that the daughters had significantly more fear of death of one's self than their mothers, but did not differ significantly for their fear of death of others, fear of dying of self, or fear of dying of others. The daughters did not differ significantly for any of the four fears from those of their fathers. Also found was the fact that the fears about death and dying of the daughters significantly resembled those of their mothers.

The purpose of Templer, Ruff, and Franks' experiment (1971) was to evaluate death anxiety as a function of age and sex in quite diverse populations, and also to determine the extent to which the death anxiety of adolescents resembled that of the parents. Fear of death was assessed by the DAS. One group of subjects included 283 residents of an upper-middle class apartment building, ranging in age from nineteen to eighty-five years, with an average age of 48.8 years. Another group of subjects was 125 low-income aides in a state hospital, the New Jersey Neuropsychiatric Institute, ranging in age from eighteen to sixty-one, with a mean of 33.2 years of age. The third group of subjects consisted of 137 heterogeneous psychiatric patients from seventeen to fifty-nine years of age, with an average age of 38.1, at Western State Hospital, Hopkinsville, Kentucky. The final group included 743 students ranging in age from thirteen to twenty-one years, with a mean of 15.8, from three high schools in Hopkinsville. The students' parents, 569 fathers and 702 mothers, ranging in age from thirty-one to seventy-four, with the average being 44.0, were given the DAS to compare adolescent's scores with middle aged persons. Templer, et al. found no significant correlations between DAS scores and any age group. For all groups, females scored significantly higher than males, apartment house residents, adolescents and parents of adolescents. The product-moment correlation coefficient between DAS scores of sons and fathers was .51; between sons and mothers, .39; between daughters and mothers, .41. The correlation coefficient between DAS scores in the combined male and female adolescent group and the scores of fathers and mothers was .40 in both instances. The correlation coefficient between the DAS scores of fathers and mothers

was .59. The DAS scores of both male and female adolescents correlated most highly with the scores of the parents of the same sex. The results suggested that explanations based on learning principles better account for the observed parent-child correlations than do explanations employing genetic similarities. The substantial correlation between DAS scores of parents further suggested that death anxiety is far from being totally dependent upon early childhood experiences and basic personality structure. It appears that death anxiety is not so much a fixed entity as a state that is sensitive to environmental events in general and to the impact of intimate interpersonal relationships, in particular.

Age has proven to be a very popular variable when investigating the fear of death. Hall (1897) reported the returns of 1,701 questionnaires pertaining to the topic of fear. The questionnaire was printed in several educational journals in this country and England. Many responses came in the form of essays or other methods. Most of the subjects were arbitrarily chosen because their teacher saw the article and assigned it to them. Most of the subjects were under twenty-three years of age; however, some returns had no age or sex identified, and some were volunteer. Hall recorded 6,456 fears from his 1,701 people. Of these fears, death was listed 299 times. From the answers, Hall reported that the young are more likely to fear death for themselves, the old for others. In nine of his cases religion removed the fear of death, but in far more of the returns, religion caused or increased the fear of death. He further reported that the fears of death appear to be most intense in the years just preceding adolescence.

In 1915, in a discussion of the fear of death, Hall (1915) seemed to reach a different conclusion. He based his thoughts on the same 299 returned questionnaires dealing with the topic of death that he received from students in England and America mentioned in his previous article. He stated that young children often seem to rejoice at death, rather than fear it. Also, in opposition to his previously mentioned article, Hall stated that young children fear the death of others far more than they fear their own death. Young children never fear death, per se, but only pain. A person who faces a narrow escape from death may either have an excessive fear and dread, or may, on the other hand, be robbed of all further fear of death.

In a study conducted in 1967, Gartley and Bernasconi (1967) interviewed sixty Roman Catholic school children ranging in age from five and one-half to fourteen years. During their interviews the authors attempted to work in thirteen questions upon which they had previously decided. From these interviews the authors concluded that the fear of death seemed so far off that it need not be a matter of concern.

Although it may have formerly been thought that children had little concern with, or fear of, death, present day experience does not altogether support this contention. According to Wahl (1959), thanatophobia is a frequently encountered fear in children, occurring as early as the third year.

Richards (1975) wrote that the fear experienced at the coming of one's own death is admittedly stronger in young people who have not yet lived full lives. He did not support his assertion with any data. Perhaps the adolescent has more built-in reason to fear death than

the elderly person; a longer future based upon a shorter past (Kastenbaum and Aisenberg, 1972).

In the August, 1970 issue of Psychology Today a seventy-five item questionnaire concerning attitudes toward death appeared. The questionnaire, which was devised by Shneidman (1970), netted more than 30,000 returns concerning fears that influence one's attitude toward death. Members of the twenty-five to twenty-nine age group were found to be more fearful than any other group; thirty percent said that fear was their response to thoughts of death. However, when the respondents were asked at what age they thought people were most afraid of death, their answers spread across the spectrum. Both men and women placed the time of least fear in the years over seventy. Also reported was the idea that as one grows older, he begins to feel that those younger than he are more fearful at the thought of death. Fourteen percent of the responding population were found to be death-fearers, compared to thirty-nine percent death-postponers and forty-two percent death-accepters. The remaining five percent were various other reactions. Since the questionnaire was one to be answered voluntarily, it is possible that more feared death but were too afraid to answer the questionnaire.

A somewhat different approach to the study of death was conducted by Maurer (1964). She evaluated essays pertaining to the topic: "What comes to your mind when you think of death?" This unstructured approach was used because the author felt that structured questionnaires often yield, simply by their very structure, the expected result. Another question dealing with love was used as a type of control essay. The subjects chosen were 172 senior high

school girls, ranging in age from seventeen to nineteen. They came from a variety of socioeconomic and religious backgrounds. Their scores on the American Council of Education test ranged from the first to the ninety-ninth percentile. In assessing the essays, Maurer classified the subjects into four groups, according to their scores on the American Council of Education test. The groups were: very high, above average, below average, and very low. She found that the term "fear" arose more often than any of the other categories she labeled. Awareness of fear appeared to increase as ability lessened, until the level of retardation was reached where less than a fourth wrote of any fear at all. The author found that the admission of fear followed the same trend; a steady rise from high to low with a sudden drop for the very lowest. Denial of fear was quite rare in all the groups, but significantly, none of the lowest group denied fear. Maurer concluded that poorer achievement was associated with greater fear of death and high achievement is associated with a greater sophistication in acknowledging inevitability. She suggested that ineffectiveness may be the result as well as the cause of inadequate defenses against death anxiety.

In his carefully conducted study, Swenson (1962) found a tendency for people who have finished college to express themselves more explicitly on the topic of death. This expression may entail either looking forward to the experience positively, or by fearing it. He also found more fear of death reported by those living alone than by those living with relatives or in homes for the aged.

The aim of Shrut's study (1958) was to investigate differences in attitudes toward death on the part of older persons. This study

compared attitudes toward death in ambulatory, currently unmarried, white females in two types of institutional living arrangements. Thirty persons residing in the apartment dwellings of the Home for Aged and Infirm Hebrews of New York were compared with a similar population from the same institution's central residential facility in which the supervision and regulations were more traditionally institutional. Both groups were given a battery of tests including a questionnaire on self-appraisal of health, a questionnaire for adjustment in the home, a sentence completion, a Thematic Apperception Test, and a questionnaire on claimed participation in activities. Attitude toward death was specifically studied by means of clinical impressions of responses from the sentence-completion test and the TAT, along with judgments from the other protocols. The significant results indicated that subjects living under conditions similar to their previous environment of living independently (apartment resident) showed less fear of death than did those persons in an environment grossly dissimilar to what they were once used to. The TAT appeared to be relatively more productive in judging attitudes of fear towards death than did the sentence-completion test. Both groups revealed at least mild anxiety with regard to fear of death.

A list of three different groups concerning dying was constructed by Chandler (1965): (1) individuals not ill and leading productive lives. He placed those in this group as behavior associated with the existence of death, the awareness that death does exist but is not yet personalized nor of vital concern for the individual; (2) patients who knew that they were going to die, but after an elapsed period of time, i.e. terminal cancer patients. Behavior associated

with the presence of death would include those in this group; (3) patients whose illnesses are of the nature to lead them to expect to die at any moment, i.e. chronic cardiovascular and cerebrovascular patients with histories of many crises. Behavior associated with the presentment of death would include those in this group. The author found that, contrary to previous ideas that fear of death referred to the inability to tolerate tension, those characterized by the presentment of death were the ones who showed signs of fear of death.

The relationship between the fear of death and occupation was studied by Frances (1974), using the DAS to measure the fear of death. The DAS returns from psychologists, psychiatrists, funeral directors, and suicidologists were compared. The results indicated that the four groups were not equally responsive, and this finding was statistically significant. The psychologists returned more of the DAS questionnaires. The hypotheses that psychiatrists would have significantly higher levels of death anxiety, that suicidologists would have significantly lower levels of death anxiety than psychiatrists and psychologists, and finally, that funeral directors would have the lowest level of anxiety were not borne out. There was a trend in that direction. Females scored higher than males and subjects who rated their mental or physical health as fair or poor had statistically higher DAS scores than those who rated their mental or physical health as good or excellent.

PERSONAL CHARACTERISTICS OF THOSE FEARING DEATH

Included in this section is a discussion of the various personal characteristics that may exert some influence upon an individual's fear of death. Generally speaking, the demographic variables, with

the exception of age, appeared to play a minimal role in the fear of death. The level of awareness of the fear, along with how near to death an individual has been are covered. Recent experience with death due to the loss of a friend or relative, religious beliefs, level of castration anxiety, mental health, intelligence, purpose and expectations in life and personality variables are also discussed in an effort to establish how heavily they influence the fear of death.

A study by Alexander, Colley, and Adlerstein (1957) was designed to assess concern or "affective involvement" with the concept of death by measuring the less conscious aspects of man's responses. The word association task was used, the response time, psychogalvanic response, and word response were recorded for a list of stimulus words. Thirty-one volunteer, male, Princeton undergraduates, known to represent a typical sample (and none having had psychiatric histories) were used. They were unaware of the purpose of the experiment; they were told that they were assisting in determining whether the psychogalvanic recording instrument was adequate. The subjects were instructed to say the first word that came to mind after presenting the stimulus word. It was found that this sample of college students took a significantly longer amount of time to respond and also the magnitude of the psychogalvanic response increased significantly when confronted with words of affect. This population of normal subjects, during the years while going to college, responded to words related to death with greater emotional intensity than to words drawn from the general language sample. The authors stated that two levels of functioning are probably involved: (1) overt consciously communicated attitudes, and; (2) less conscious processes that can be inferred from response time and PGR measurements. The

authors added that normals may show relative indifference in the United States culture to death and dying, since it is not a normal topic of conversation, and our cultural values are usually negative to expressions of fear and awe about death; whereas this may not be so in other cultures.

In an experimental study designed to deal with validating the defense mechanism model, and testing some implications arrived at through this model, Handal and Rychak (1971) contended that if repression served to alleviate consciously experienced death anxiety, then the measuring of a low degree of consciously expressed death anxiety, as measured by the Death Anxiety Scale, could simply mean a lack of anxiety. It could also be construed to indicate that death anxiety had been successfully displaced from the conscious realm. The unconscious concern over death anxiety was measured through recalled dream content. The dream recalled was classified as either positive, neutral, or negative, and the negative dream was subclassified according to whether or not death was involved. The results tended to support the validity of the Death Anxiety Scale. A high DAS score indicated high death anxiety. Also found was that a low DAS score, as measured at the conscious levels could indicate either that the subject could repress the anxiety (measured through dream recall) or that the subject had an unconscious anxiety (also measured through dream recall).

Do subjects show greater conscious worries about death in a direct proportion to the frequency of their nightmares? This was the topic of study conducted by Feldman and Hersen (1967). The subjects were volunteers from four large introductory psychology classes. They

were given a death scale questionnaire and also asked to designate whether they experienced nightmares frequently, sometimes, seldom, or never. These terms were operationally defined. In addition, the subjects were asked about certain aspects of their personal histories which could possibly have led to a heightened awareness of death. The results indicated quite conclusively that nightmare frequency is related to conscious worries about death. The relationship held strongly in both sexes, but even more so in women. The authors suggested that both nightmare and/or attitudes toward death might be rooted in concrete experiences. The more frequent nightmare subjects had a history of greater frequency of deaths of relatives and close friends, especially when the death occurred when the subject was under ten years of age. This finding was not statistically significant.

In designing their study, Spinetta, Rigler, and Karon (1973) attempted to clarify the issue of the frequency of overt expression of death concern. In the study, twenty-five children aged six through ten with a diagnosis of leukemia were matched in age, sex, race, grade in school, seriousness of condition, and amount of medical intervention with twenty-five children with chronic but nonfatal illnesses, such as diabetics, asthma, congenital heart disease, and renal problems. According to the parents, the twenty-five leukemic children did not know that their illnesses were fatal. The authors contended that there should be little difference in the level of anxiety that the two groups showed. The level of anxiety was obtained from the stories that the children told about four pictures of hospital scenes and about four hospital figurines placed in a three-dimensional replica of a hospital room. Each child was also given a brief anxiety

questionnaire sorting out hospital anxiety from home anxiety, based on the Children's State-Trait Anxiety Inventory. The results showed that there was a significant difference in the level of anxiety between the two groups, with the leukemic group being higher. The authors stated that despite the efforts of those around the child to keep the fatal prognosis from the child, he somehow picks it up, realizing the very serious nature of it. They concluded that even though this concern does not always express itself overtly, the subtle fears and anxieties are very real, painful, and related to the seriousness of the illness. They then labeled this phenomenon "death anxiety." The authors cautioned against the reliance on overt expressions of death anxiety, stating that easily observed anxiety can give a faulty or incomplete picture of the actual anxieties and concerns present in the individual. Although the fatally ill children were not told of the seriousness of their illnesses, one should question if those nonfatally ill children were told that they were not seriously ill.

After first making it clear that their article is nothing more than an hypothesis, thus relieving themselves of the responsibility of supporting what they say with data, Becker and Bruner (1931) proceeded. Of importance to this paper, the authors stated that Watson's experiments on fear in infants showed that the only stimuli that evoke what may be called a fear reaction are sudden loud noises and sudden falls, which may well have been the specific kinds of fear that would help the infant to survive. A later development seemed to be fear of a situation to which the organism cannot rapidly adjust; the inability to adjust due to strange and new stimuli. They stated that if fears that aid the organism in the struggle for existence can be called

fears of death, then the infant and the child have the fear of death without conscious knowledge of death.

The purpose of Tolor and Resnikoff's study (1967) was four-fold: to ascertain whether subjects who sensitize tend to be more insightful than those who repress; to ascertain whether subjects who expect internal controls tend to be more insightful than those who anticipate external controls; to ascertain whether subjects who sensitize tend to experience more overt death anxiety than those who repress; and, finally, to find out if subjects who believe in external controls tend to have more overt death anxiety than those who feel less subject to environmental forces. The authors used seventy-five introductory psychology students at Fairfield University, a men's liberal arts college. They ranged in age from eighteen to twenty-two years. They were given the Byrne Repression-Sensitization scale, the Rotter scale measuring generalized expectancies for internal or external control, the Tolor-Resnikoff Test of Insight, and a Death Anxiety Scale based on the work of Livingston and Zimet. It was found that the expectation of internal control of reinforcement was significantly and positively related to insight; the subjects with sensitization tendencies have significantly greater overt death anxiety than the subjects with repressing defenses; and the subjects with external expectancies have significantly greater overt death anxiety than do subjects with internal expectancies.

The relationship between conscious death concern and temporal experience was the main objective in the study by Dickenson and Blatt (1966). The subjects of this study were undergraduate students at Yale University in an undergraduate psychology course. A questionnaire was

given to twenty-six students to determine their concern or preoccupation with death. One month later the subjects scoring in the top and bottom twenty-five percent were given the WAIS Picture Arrangement subtest, a four story-completion roots, and the WAIS Vocabulary subtest. The vocabulary test was given as a general estimate of intelligence. It was found that the subjects with low death concern showed significantly greater extension into the future and scored significantly higher on the Picture Arrangement subtest than did the subjects with high death concern. The authors suggested some reasons for their findings. First, a person who anticipates the future transcends himself and may not worry about his own death. Another possibility is that a person who plans far into the future is not worried about death because it seems so remote. Also a possibility is the idea that a person who is worried about death may feel less rooted in the world and thus be unable to engage in practical planning for the future. One other possibility is that depression or despair, or some third factor is affecting the relationship.

The object of the study conducted by Feifel and Branscomb (1973) was to select the major variables which are associated with the fear of personal death. The sample consisted of 371 individuals who represented the normal population as well as the mentally ill and physically ill population. Ten predictor variables were used. They were age, education, intelligence, socioeconomic status, religious self-rating, recent experiences with death, nearness to death, sex, marital status, and children. The subject's responses to fear of personal death, which were considered synonymous with anxiety of death, were measured according to their conscious level, their fantasy level,

and their below-the-level-of-awareness. It was found that the dominant conscious response to fear of death was one of repudiation; that of the fantasy or imaginary level, one of ambivalence; and at the unconscious level, one of outright negativity. Of the variables, only age and religious self-rating seemed to play a sustaining role in influencing the dread of personal death. But even the older, religiously inclined person, at the unconscious level, falls prey to anxiety. Of the 371 subjects, only nineteen subjects were fearful at all three levels, and only six were uniformly not afraid of personal death. The authors suggested that in order to obtain a clear assessment of reaction to personal death, one must use a variety of measures to glean the different levels of awareness. Failure to do so may well explain the contradictory data to date.

The literature revealed a disagreement with regard to how heavily the religious belief of an individual played in influencing the fear of death. Some authors felt it played a vital role and others felt it did not.

Osarchuk and Tatz (1973) hypothesized that a belief in after-life (BA) served to moderate fear of death; and if this is indeed true, then a procedure that intensified this fear should strengthen the individual's professed BA. The authors selected twenty opinion statements that referred to the existence of an afterlife. These twenty were chosen from a total of fifty on the basis of how they were rated by a sample. Then these twenty were divided in half to form two alternate form tests. Each of 333 male and female introductory psychology students were given one of the two forms. Sixty students were chosen for further study, thirty scoring high in BA, and thirty

scoring low in BA. These two groups were then each divided into three groups consisting of three different types of treatment: death threat, shock threat, and control; thus yielding six groups. The death threat consisted of a tape and slides depicting exaggerated death details. After receiving their various forms of treatment, or lack of treatment, they were given the alternate belief in afterlife test. The results showed a significant increase in BA for the initially high BA groups which received the death threat treatment. The authors concluded that accepting BA results in a reinforcing fear reduction, so that the individual is likely to use BA in the future to produce the same effect. Also, since BA is so much more relative to death than to other fears, the generalization of fear does not take place.

According to Russell (1975), if one believed completely in an afterlife, one should cease fearing death. Although this statement offers for excellent philosophical discussion, it can hardly be taken as empirical evidence.

In Swenson's study (1962), fearful attitudes toward death were found in people with little religious activity. Along this same line of thought, Chorán (1963) stated that one may overcome the fear of death by deep religious convictions.

While some studies indicated that religious convictions and belief in afterlife lessened the fear of death, other studies indicated the opposite. Faunce and Fulton (1958) found that in the area of the fear of death, spiritually oriented individuals had more fear. This finding seems to contradict the notion that the conception of death as a transition to another form of existence serves to appease anxiety regarding death. The authors also found that individuals

whose incomes were reported as either below \$3,000 or above \$10,000 (this was in 1959) responded more consistently in terms of spiritual orientation than the middle-income group. The authors pointed out that their paper represented an attempt to call attention to the sociology of death as a neglected area, not as a definite statement of the social correlates of varying orientations toward death.

Similar results were reported by Melear (1973) in a study concerning ideas about death. Twenty-three males and eighteen females ranging in age from three to twelve years, and randomly selected from schools in Greeley, Colorado, were interviewed by Melear. An attempt was made to have each child comment upon or clarify the following concepts: death is temporary or final; is the cessation of biological functioning; is primarily caused by aggression; is considered a person; is the loss of someone; is universal; degrees of death; life after death; and death anxiety. The interviews were recorded and a panel of three judges evaluated them. The concepts expressed by the subjects were classified into four categories: (1) relative ignorance of the meaning of death. Six subjects between three and four years of age fell in this category; (2) death is a temporary state. Ten subjects ranging in age from four to seven were in this category; (3) death is final, but the dead function biologically. Four subjects varying in age from five to ten were categorized here; (4) death is final with the cessation of all biological functioning. There were twenty-one children in the last category. Two were between four and five years old, one was between five and six, and the remainder were six or older. Seventy-five percent of the children in the third and fourth groups showed some degree of anxiety compared to twelve percent in the

first two groups. All but one of the children who showed anxiety also expressed a belief in an afterlife. The author suggested that this belief is an effort to overcome anxiety produced by the realization that death is final and universal.

Feifel (1977) found that religious predisposition, per se, did not appear to be associated significantly with the strength of fear of death. Kavanaugh (1972) supported this position and contended that religious faith of itself does little to affect man's peace near death. He stated, ". . . Worry warts are worry warts no matter what their theology."

A study was conducted by Kalish (1963) to explore the relationships among the variables related to destroying life, belief in God and afterlife, and fear of death, to determine differences among religious groups for each variable (and to determine sex and age differences on each variable). A total of 210 students, in five advanced psychology classes at Los Angeles State College, ranging in age from eighteen to sixty-five constituted the sample. The subjects' attitudes towards birth control, abortion, euthanasia, wartime killing, capital punishment, fear of death, belief in after life, and belief in God were evaluated. The results, as far as this paper is concerned, indicated that those who express overt fear of death are opposed to abortion, significantly so. The author also found a lack of a significant difference between religious groups in fear of death. The author suggested that, of all the variables investigated, the fear of death seemed to be most contaminated by the use of defense mechanisms.

Castration anxiety and the fear of death after being exposed to sexually arousing stimuli was the topic of Sarnoff and Corwin's

study (1959). Their subjects were fifty-six undergraduates of Yale College. A five item fear of death scale was administered to distinguish a group consisting of high fear of death students from the low fearing students. A morality scale was also included to control for an increase in fear of death as a result of guilt following sexual arousal. The castration anxiety card of the Black Test was given next. Four weeks later the high and low castration anxiety groups were divided and half viewed nude women and the other half viewed fully clothed women. The subjects indicated their level of arousal on a questionnaire. The fear of death and morality scales were administered again. The results showed that the persons who had a high degree of castration anxiety showed a greater increase in fear of death after the arousal of their sexual feelings than the persons who had a low degree of castration anxiety did.

One area of the study of the fear of death that appears to influence a person's fear is that of personality factors. Surprisingly few of the studies cited have dealt with this area.

One study investigated the relationship of death concerns in a normal, aged group to various sociological, psychological, and health variables (Rhudick and Dibner, 1961). A total of fifty-eight subjects were taken from the research population of the Age Center of New England, which is located in Boston. The subjects were described as healthy, well-motivated individuals who lived independently in the community and who served as voluntary participants in various research projects. Each subject completed the MMPI and the Cornell Medical Index (CMI). These two questionnaires were used to assess personality factors and attitudes towards health. The Thematic

Apperception Test (TAT) was used to measure the concern of death in the subject. The age range was between sixty and eighty-six years of age, and the amount of education was between five and twenty years in school. The results given by Rhudick and Dibner indicated that higher death concerns were exhibited by subjects who scored significantly higher on the MMPI dimensions of Hypochondriasis, Hysteria, Dependency, and Impulsivity. A suggestive but not significant relationship appeared between concern of death and depression. No significantly sound relationship between death concern and any other scale on the MMPI resulted. High death concern seems to be related to certain neurotic tendencies, not psychotic tendencies, and no relationship to the tested demographic variables was reported by the authors.

After studying one hundred elderly Dutch, seventy years or older, Munnich (1966) concluded that the psychologically mature elder was most likely to acknowledge death in a positive manner. Negative attitudes, such as death fear, tended to be associated with an immature personality.

Bromberg and Schilder (1936) applied a psychoanalytically-oriented clinical technique to study death attitudes in a small sample of neurotics and other psychiatric patients. Compared to relatively normal adults, ". . . neither neurosis or psychosis produce an attitude towards death which cannot be found also in the so-called normal." If this is the case, one would have to wonder what types of attitudes can be found in so-called normal people, especially when viewed in light of Schilder's following study.

A questionnaire concerning death was presented orally by Schilder (1936) to thirty-one individuals in Bellevue Psychiatric

Hospital, pending their trial for murder in the first or second degree. Five other cases of severe assault were also studied by the author. Concerning the case studies of the individuals, Schilder stated:

Obviously, our cases were studied at a disadvantage, since the subjects had reasons for withholding material. One must also not forget that our cases are not representative of murder in general, the majority having been referred to us by psychiatric observation, and only a small percentage for physical illness.

He found that there are three groups of murderers: (1) those including the young slayer, the hold-up man, and the killer after an insignificant quarrel. Schilder found that the individual in this group had very little conscious relation to death; he did not think about his own death; death fears did not play an important part; (2) those in which the motives of the deed seemed understandable; and, (3) psychopathic and psychotic. In this group death ideas came prominently into the foreground. The fears and nightmares of being shot, of being run over, falling from a cliff, began to play a role. Schilder stated that when moving from group one to group two and on to group three, the views of death became less mechanical.

Not all authors agree with the idea that mental illness does not produce an attitude towards death that cannot be found in the normal population. Stacey and Reichen (1954) attempted to further the knowledge of individuals' thoughts, attitudes, and reactions toward death and their beliefs concerning an existence after death. The authors used a questionnaire consisting of thirty-six questions which were selected from Schilder and Wechsler's questionnaire. The questionnaire was administered to seventy-five normal adolescent high school girls and to seventy-five institutional abnormal adolescent girls.

The abnormal groups' intelligence ranged from average to superior, as measured by the Revised Stanford-Binet, Form L. Their results showed that the abnormal adolescent girls appeared to be significantly more emotional and fearful in their attitudes toward death, are more horrified by death, and they worry about a life after death.

Life expectancy and the amount of meaning that one gives his life may be two personal characteristics that have an influence on the fear of death. Handal (1969) primarily investigated some psychological correlates of death anxiety, thereby contributing to the determination of the construct validity of the death anxiety scale used. His study concentrated on the relationship between death anxiety and the subjects' expressed expectations of their own life spans. The subjects used in this study included sixty-six male and fifty female graduate students at a northeastern university. The average age of the males was 33.4 years; for females, 29.0. A questionnaire was given which requested information on projected life span, estimated life expectancy of one's own sex and of the opposite sex, death of family members, close friends, frequency of discussion of death, and frequency of church attendance. The subjects were then given the Zukerman Affective Adjective Check List of Anxiety and a modified version of Livingston and Zimet's Death Anxiety Scale. The results indicated a significant negative relationship between subjective life expectancy and death anxiety for females only. The lack of any significant relationship for men may suggest that men are more defensive about death than women.

The relationship between meaning and purpose in life and fear of death was the main theme of Durlak's study (1972). A total of 120

subjects were involved in the study; forty from Vanderbilt University, forty from Wisconsin State, and forty from a Chicago high school. Each subject was given Lester's Fear of Death Scale and the Purpose in Life Test, an attitude scale designed to measure the degree to which a subject experiences a sense of meaning and purpose in life. It was concluded that subjects having a high purpose and meaning in life tended to fear death less and to have a more positive and accepting attitude toward it. In comparison, the subjects who reported less purpose and meaning in life showed a higher fear of death and evaluated the concept of death negatively.

Lepp (1968) believed that logically speaking, those who live life most intensively and love life most passionately should fear death most. However, experience showed that this was not true. The apparent paradox is psychologically normal. Those who have no meaning in life cannot give any meaning to their death.

The intent behind Lester and Kam's study (1971) was to determine whether the personal factor of recent experience of the death of a close friend affected the individual's attitude toward death. They studied the questionnaires of one hundred female undergraduates at an Eastern girl's college. Fifty of the women had experienced the death of a close friend or relative in the last five years and fifty had not. The subjects were given Middleton's questionnaire on death attitudes. The authors found that those who had experienced a recent loss were more likely to fear death than those who had not experienced a recent loss. However, the effect was only a weak one. They concluded that a recent loss may only slightly modify the existing attitudes toward death.

CAUSES OF THE FEAR OF DEATH

Very little light has been thrown on the causes of the anxiety and fear of death. Part of the reason for this is due to the very nature of the problem. It would appear that some portion of this fear originates from internal experiences and, hence, creates problems in experimentally devising situations in which the variable can be manipulated. In many of the studies cited, it is difficult to determine whether the situation or variable caused the fear, or if the fear caused the person to react as he did.

According to Plank (1968), many young children's guilt over death is based on their fear that some aggressive thought of theirs brought about the death. She also stated that in dealing with the topic of death in children, one will have to recognize and respect defenses which some children surround themselves with to ward off death anxiety.

Formanek (1974) stated that ". . . a catastrophic emotional reaction is possible even in the absence of the intellectual capacity necessary to comprehend the experience of death." She suggested that this lack of intellectual comprehension may be responsible for the shattering impact of death on a young child. The child is unable to think about it, to allay his fears by means of denial, to assure himself, that despite the fact that one person has left him, others remain.

The responses to Scott's questionnaire (1896) which was published in several journals in England and America were evaluated. From the 106 dated reports that he received of the first impressions of death, mainly from high school students, he designed a graph. He

concluded that the first impression of death is generally at the age of five, and if delayed till much after this age, it is much more likely to be an unfavorable one, sometimes giving rise to a horror that is never overcome.

Several topics in relation to the youngster's understanding of death were discussed by Grollman (1974). He suggested that if any of the topics are approached by the parent in a wrong manner, the end result could be an enhancement of the fear or anxiety of death. Similarly, if the parent has anxieties concerning death, the children will feel anxious, too. The areas he considered rather touchy were religious convictions, fairy tales and death, death as a long journey, "Grandma died because she was so sick," Heaven as a new home, death as sleep, and the funeral. Children absorb many of their fears of death from the environment in which they live, according to Kavanaugh (1972).

In 1961, Diggory and Rothman (1961) developed a list of "consequences of one's own death." This list was included as a part of a larger questionnaire on various aspects of attitudes toward death. These questionnaires were handed out to groups or individuals wherever the authors had the opportunity. A total of 563 individuals were used to compile their results. Their results showed that women were significantly more afraid of what would happen to their bodies after death than were men. Married people feared not being able to care for dependents most, followed by engaged couples, and then singles. The older one was the more fear of not being able to care for dependents, and if one was male there was more fear. Roman Catholics feared inability to care for dependents least, and none of the religious people feared this the most, as far as religious groups were concerned.

Concerning whether death ends all experiences, the Jewish ranked this highest and Catholics said it did not end all. Dealing with whether the process of dying might be painful, this was least feared by Protestants and most feared by Jews. Women feared possible pain in dying more than men. Basically the authors found that the consequences of one's own death which a person fears most depend upon the role one has or expects to have, and on the goals one sets. Their study showed that "a person fears death because it eliminates his opportunity to pursue goals important to his self-esteem."

Fear of death is closely related to individuality according to Lepp (1968). The more a man is aware of himself as an individual rather than a member of a group, the greater is his fear of death. This fear is caused by the individual's imaginary anticipation of his own death. Increasing materialism is also causing an increase in fear of death. Hedonism has become a supreme existential goal of life for many; the prospect of having to renounce it is frightening.

It has been hypothesized that societies in which love-oriented techniques of punishment are predominant should have a greater fear of death than societies in which physical techniques of punishment are predominant. Lester (1975) also argued that societies with a high need to achieve would fear death more than societies with a low need to achieve. The author used a test designed to measure feelings regarding the attractiveness of life after death. He stated that the less attractive life after death was, the more likely it is for death to be feared. He compared ratings from twenty-one societies between love-oriented techniques of punishment and attractiveness of life after death. His results supported his first hypothesis, namely that

there is greater fear of death in societies where love-oriented punishment is used. He also compared the need to achieve in nonliterate societies, based upon McClelland's findings, with love-oriented techniques of punishment and concluded that societies which had a higher need to achieve feared death more. A problem with these findings is the fact that they are based on the assumption that fear of death is synonymous with finding life after death unattractive.

SYMPTOMS OF THE FEAR OF DEATH

According to the literature, certain authors and psychologists maintain that the fear of death is made apparent through certain symptoms. However, the writers are quite diverse in exactly what the symptoms are.

The symptom, fear of death, does not arise from a specific conflict according to Hoffman and Brody (1957). It refers to the ability to tolerate tension and the psychic mechanism employed to rid one's self of anxiety. The danger arising from the inner working of the fear of death is the first cause of anxiety. According to Klein (1948), this source of anxiety is never eliminated and undermines all anxiety situations.

Six case studies of school phobia occurring in adolescents ranging in age from eleven to fifteen were presented by Tietz (1970). In all the cases presented in this article, there was not only a school phobia, an active death or fear of death of the parent, but it was also always associated with a fear of the child's own death. From this, the authors concluded that death, or fear of death can be a precipitating event in the formation of a school phobia.

Instead of experiencing real death and real grief, many indulge in escape from reality, which only increases anxiety. Anxiety tends to express itself through characteristics related to age and experience. Children tend to express themselves through behavior, and youth through rebellion. An example of youth rebellion would be "playing chicken" with cars. Jackson (1969) explained the youths' thoughts by stating, ". . . Look, folks, we are so overwhelmed with anxiety about death that we are willing to make a plaything out of life in order to allay it." Middle aged people generally exhibit the symptom of dependency upon alcohol, while the aged escape through physical symptoms.

The symptoms listed by Rosenthal (1963) are: self-protection, castration anxiety, fear of the unknown, fear of punishment, loneliness, anger, fear of the hereafter, possessiveness, insomnia, and obesity.

SUMMARY AND CONCLUSIONS

In summarizing the available literature to date on the topic of fear of death, much contradictory data were found. One must keep in mind that the area is still rather new and as more studies are conducted, more light will be thrown on the subject.

A certain amount of the contradictory evidence is a direct result of the varying samples that have been employed. Templer (1970) assessed the personalities of a sample of normal individuals with the MMPI, which is designed to measure abnormality. He then compared the scores to the DAS and found no significant relationship between the personality factors and the fear of death. However, when an abnormal sample was used, he reported conclusive evidence that there was a definite correlation. It stands to reason, then, when dealing with a

normal population, use an index of personality that has been normed for a similar population.

Another problem seems to result from the types of techniques that are used, without any checking as to whether the test is measuring what it is designed to measure. Before using a test, the reliability and validity should be determined.

The evidence to date points in the direction that personality variables, rather than demographic variables, are related to the fear of death. Exactly which personality variables, however, remains to be determined.

CHAPTER 3

METHODS AND PROCEDURES

The relationship between fear of death and personality traits was investigated in this study. The procedures utilized in this study are discussed in this chapter. Specifically included in this chapter are the population and sampling, materials and instrumentation, and the design of the study.

POPULATION AND SAMPLING

Included in this section is a discussion of the subjects that constituted the sample for the study. Also included is a discussion of the population of which the sample is to be representative.

The Population

The population selected for this study was undergraduate college students. The generalizations made will be limited to volunteer subjects.

The Subjects

The subjects for this study were volunteer participants from psychology classes at Emporia State University. Arrangements were made with the instructors of the various classes to test the students. Two hundred thirty-three subjects were tested. Of those subjects reporting a high fear of death, twenty-five were randomly chosen for

this study by an assigned number and the use of a table of random numbers. In a similar fashion, twenty-five subjects representing the medium and twenty-five subjects representing the low fear of death groups were also selected for this study. The number of subjects used in the final analysis of data was seventy-five, twenty-five subjects in each of the three fear of death categories.

MATERIALS AND INSTRUMENTAION

The Death Anxiety Scale and the Sixteen Personality Factor Questionnaire Form A were utilized in this study. The following is a description of those tests.

The Death Anxiety Scale

The Death Anxiety Scale (DAS) is a fifteen item true-false questionnaire that requires about five minutes to complete. The DAS, developed by Templer in 1970, measures an individual's level of fear of death. Nine of the items are keyed "true" and six are keyed "false." The items on the test were devised on a rational basis and reflect a wide range of life experiences.

Reliability of the test. The reliability of the DAS was demonstrated by the administration of the test for the second time to thirty-one Hopkinsville (Kentucky) Community College students. The product-moment correlation coefficient of .83 between the two sets of scores demonstrated acceptable test-retest reliability. The Kuder-Richardson Formula 20 coefficient of .76 demonstrated reasonable internal consistency (Templer, 1970).

Response sets. To determine whether or not the DAS was appreciably related to agreement response set, it was correlated with the fifteen items that Couch and Keniston considered their best short scale measure of agreeing response set. Once again the subjects employed were from Hopkinsville Community College. The product-moment correlation coefficient was .23, which was not significant at the .05 level, indicating that the agreement response set accounted for little of the variance of the DAS.

As a further check, the DAS and the Marlowe-Crowne Social Desirability Scale were given to forty-six introductory psychology students at Western Kentucky University. The content of the Social Desirability Scale is independent of psychopathology and is used to measure the tendency to respond in a socially desirable direction. The product-moment correlation between the two scales was not significant, indicating that the response set of social desirability is not appreciably related to the death anxiety variable.

Validation procedures. In an effort to establish the construct validity of the DAS, two separate projects were undertaken. The first project compared the DAS scores of twenty-one presumably high death anxiety patients from Western State Hospital, a mental hospital, with twenty-one control patients from the same hospital. The high death anxiety patients were selected by referrals by hospital chaplains who had been told of death anxiety in counseling sessions, by a list of names obtained from the Director of Nursing by consulting her professional nursing staff, and by checking patients' records. The control subjects were matched for diagnosis, sex, and approximate age. The

twenty-one high death anxiety subjects had significantly higher scores on the DAS than did the control group, thus contributing to the establishment of validity.

The second procedure involved a comparison of the DAS scores of seventy-seven advanced undergraduate students at Murry State University. Comparisons were computed for Boyar's Fear of Death Scale (FODS), a sequential word association task, and the MMPI.

The correlation coefficient between the DAS and the FODS was .74. This high correlation is indicative of the fact that the DAS does indeed measure what it purports to measure.

The correlation of .25 between the DAS and number of emotional word associations was significant at the .05 level. The fact that a projective technique that apparently taps death anxiety correlated significantly with the DAS is another indication that the DAS does measure death anxiety.

The modest positive correlations with the scales of general anxiety of the MMPI with the DAS is contraindicative of the fact that the DAS measures general anxiety rather than death anxiety in particular. Thus, the scale appears to have discriminant validity.

The Sixteen Personality Factor Questionnaire Form A

The Sixteen Personality Factor Questionnaire Form A, or 16 PF, is a 187 item test designed to provide an objective assessment of the main dimensions of the normal personality (Cattell and Sprecht, 1969). The test was developed by Cattell and requires approximately fifty minutes to complete. The following are capsule descriptions of the sixteen personality factors.

Factor A (Sizothymia vs. Affectothymia). The person who scores low on this factor tends to be reserved, detached, skeptical, cool, and aloof. A high score indicates a person who is outgoing, easy-going, emotionally expressive, and ready to cooperate (Cattell and Eber, 1962).

Factor B (Low Intelligence vs. High Intelligence). Low scores on this factor are indicative of dull, slow to learn persons. High scores indicate a fast learner, an intelligent person.

Factor C (Emotional Instability vs. Higher Ego Strength). The person scoring low on Factor C is affected by feelings, he is emotionally less stable and is easily upset. A high score tends to reflect a calm, mature, emotionally stable individual.

Factor E (Submissiveness vs. Dominance or Ascendance). The person who scores low on this factor is characteristically humble, mild, accommodating, and conforming. High scores indicate an assertive, independent, aggressive, and stubborn person.

Factor F (Desurgency vs. Surgency). The person who scores low on Factor F tends to be sober, prudent, serious, and taciturn. The person who scores high on this factor tends to be happy-go-lucky, impulsively lively, and enthusiastic.

Factor G (Lack of Acceptance of Group Morale Standards vs. Character). A low score here is characteristic of persons who evade rules and feel few obligations. High scores tend to reflect conscientious, persevering, rulebound individuals.

Factor H (Threctia vs. Parmia). Factor H is designed to measure the level of inhibition. Individuals scoring low on this trait are characteristically restrained, timid, withdrawing, diffident and shy. On the other hand, high scoring individuals are venturesome, socially-bold, uninhibited, and spontaneous.

Factor I (Harria vs. Premsia). Individuals scoring high on Factor I are generally tough-minded, self-reliant, and realistic. Tender-minded, dependent, overprotected and sensitive depicts those scoring high on this factor.

Factor L (Alaxia vs. Protension). The person who scores low on this factor tends to be free of jealous tendencies, adaptable, cheerful, and easy to get along with. The person scoring high tends to be suspicious, mistrusting, self-opinionated and hard to fool.

Factor M (Praxernia vs. Autia). A low score here indicates a practical, careful, conventional person. High scores indicate imaginative persons who are careless of practical matters.

Factor N (Naivete vs. Shrewdness). The characteristics of the person who scores low on this factor are forthright, natural, unsophisticated, and simple. High scorers tend to be shrewd, calculating, worldly, and experienced.

Factor O (Untroubled Adequacy vs. Guilt Proneness). Low scoring individuals on Factor O tend to be placid, confident, self-assured, and serene. High scores denote apprehensive, worrying, depressive, troubled persons.

Factor Q₁ (Conservatism vs. Radicalism). Low scores on this trait reflect a conservative individual who respects established ideas and is tolerant of traditional difficulties. High scores represent the experimenting, critical, free-thinking liberal.

Factor Q₂ (Group Dependency vs. Self-Sufficiency). The person who scores low on this factor prefers to work and make decisions with other people, likes and depends on social approval and admiration. On the contrary, the person who scores high is temperamentally independent, accustomed to going his own way, making decisions and taking action on his own.

Factor Q₃ (Low Self-Sentiment Integration vs. High Strength of Self-Sentiment). Persons scoring low on Factor Q₃ generally have undisciplined self-conflict, are careless of protocol, and following their own urges. High scorers tend to have strong control of their emotions and general behavior.

Factor Q₄ (Low Ergic Tension vs. High Ergic Tension). The person who scores low on this factor tends to be relaxed, composed, and not frustrated. A high score indicates a tense, frustrated, overwrought individual.

Reliability of the test. The reliability of the 16 PF Form A was calculated by a test-retest procedure, allowing a four to seven day interval between the two testing sessions. A total of 146 American subjects were employed; seventy-nine employment counselors and sixty-seven undergraduate students. The reliability coefficients for the sixteen factors, A, B, C, E, F, G, H, I, L, M, N, O, Q₁, Q₂, Q₃, and

Q_4 were .81, .58, .78, .80, .79, .81, .83, .77, .75, .70, .61, .79, .73, .73, .62, and .81 respectively, indicating a moderate to marked relationship (Cattell, Eber, and Tatsuoka, 1957).

Validity of the test. Steps were taken in the construction of the test to determine the extent to which the 16 PF was measuring the trait that it was supposed to be measuring. The direct validity of the single forms for each factor was computed. The validity coefficients of the sixteen factors in order were .79, .35, .70, .63, .83, .67, .92, .70, .49, .44, .41, .71, .62, .70, .68, and .57. Judging from the validity coefficients the test was measuring what it purported to measure (Cattell, Eber, and Tatsuoka, 1957).

DESIGN OF THE STUDY

This study was designed to investigate the relationship between the fear of death and personality traits of college students. It was designed to determine whether or not the level of fear of death was related to personality patterns.

The independent variable in this study was the fear of death. Three levels of the independent variable were used. Those individuals with DAS scores of 11, 12, 13, 14, and 15 constituted the high fear of death group. Those individuals with DAS scores of 0, 1, 2, and 3 comprised the low fear of death group. Those DAS scores of 6, 7, 8, and 9 made up the control group, since their scores may be considered normal or average.

The dependent variable in this study was the mean 16 PF sten scores of the individuals tested. The relationship between the reported fear of death and sixteen personality traits was investigated.

The Procedure

The Sixteen Personality Factor Questionnaire Form A was administered to classes of college students in which the instructor was willing to allow his students to participate. The following set of instructions was given to the students by the examiner after the test booklets and answer sheets were passed out to them.

The reason you are taking this test today is to assist me in obtaining data for the completion of my master's thesis. Your participation in this experiment is on a voluntary basis; although I would appreciate your volunteering to complete the test.

Inside this booklet are some questions to see what attitudes and interests you have. There are no "right" and "wrong" answers because everyone has the right to his own views. To be able to get the best results from your answers, please answer the questions exactly and truly.

Write your student identification number, age, and sex at the top of the answer sheet. Please do not mark on the test booklets.

First, you should answer the four sample questions on the front page of the test booklet so that you can see whether you need to ask anything before starting. Although you are to read the questions in this booklet, you must record your answers on the answer sheet (alongside the same number as in the booklet).

There are three possible answers to each question. Read the following examples and mark your answers at the top of your answer sheet where it says "Examples". Put a mark, x, in the left-hand box if your answer choice is the "a" answer, in the middle box if your answer choice is the "b" answer, and in the right-hand box if you choose the "c" answer.

In the last example there is a right answer--kitten. But there are very few such reasoning items among the questions.

Ask now if anything is not clear. I will tell you in a moment to turn the page and start.

When you answer, keep these four points in mind:

1. You are asked not to spend time pondering. Give the first, natural answer as it comes to you. Of course, the questions are too short to give you all the particulars you would some times like to have. For instance, the example question asks you about "team games" and you might be fonder of football than basketball. But you are to reply "for the average game",

or to strike an average in situations of the kind stated. Give the best answer you can at a rate not slower than five or six a minute. You should finish in a little more than half an hour.

2. Try not to fall back on the middle, "uncertain" answers except when the answer at either end is really impossible for you.
3. Be sure not to skip anything, but answer every question, somehow. Some may not apply to you very well, but give your best guess. Some may seem personal; but remember that the answer sheets are kept confidential and cannot be scored without a special stencil key. Answers to particular questions are not inspected.
4. Answer as honestly as possible what is true of you. Do not merely mark what seems "the right thing to say" to impress the examiner.

The five minute Death Anxiety Scale was administered to the same group of subjects the next time the classes met. Because of the time factor involved, two separate testing sessions were required to complete the two tests. The following instructions were given to the students after the DAS test was handed out:

This test is the second part of my experiment. It is a true-false test and should take you less than five minutes to complete. Write your student identification number at the top of the test. Place a "T" in the appropriate space before the question if the question is true as applied to you. If false, place an "F" in the space. There are no "right" or "wrong" answers. Please answer the questions truthfully and honestly.

Statistical Treatment of the Data

The statistical tool used in analyzing the data collected was analysis of variance. This tool is discussed in this section.

In order to test whether the means of any three groups were significantly different, a one-way between-subjects analysis of variance (ANOVA) was used. The following diagram illustrates the design used:

FEAR OF DEATH

	High	Medium	Low
PERSONALITY FACTOR			

This technique is based on the relationship between the mean and the variance so that, by analyzing variances of two or more groups, conclusions can be drawn regarding the similarity of the means of two or more groups. Use of ANOVA reveals a primary interest in mean differences rather than variance differences.

In calculating ANOVA the sum of squares for within groups (ss_w) and between groups (ss_b) is determined along with the total sum of squares (ss_T). Between groups variance is a systematic variance that is always present when the means of two or more groups differ. Within groups variance, sometimes referred to as error variance, indicates the variability within the groups and is due to chance.

In addition to calculating the sum of squares, the degrees of freedom for between groups and within groups are determined. The total degrees of freedom are equal to the total number of subjects less one ($N - 1$). The between groups of freedom are obtained by subtracting the number of levels of the independent variable from the total number of subjects (Linton and Gallo, 1975).

The mean squares are found by dividing the corresponding sum of squares by the degrees of freedom. The mean square is frequently referred to as the variance estimate.

The value of F is then obtained by dividing the between mean square by the within mean square. The formula is as follows:

$$F = \frac{\text{Between groups mean square}}{\text{Within groups mean square}}$$

After computing the F ratio, this number is compared to a Table of F to determine if the ratio is sufficiently large to be significant at the .05 or .01 level. If the computed value of F is equal to or larger than the tabled value of F, then the computed F is considered to be statistically significant and the null hypothesis may be rejected.

In order to determine specifically which means differed from each other, Tukey's (a) Test for Unconfounded Means was computed for all means in which the ANOVA F - ratio was significantly large. The formula for obtaining the critical value in Tukey's test is as follows:

$$q_k' \sqrt{MS_{\text{Error}}/n}$$

In order to obtain the critical value, several steps must be taken. The number of unconfounded means must be determined. This number is found by multiplying the number of levels of the independent variable less one by the number of levels of the independent variable.

$$a(a-1)$$

This number is used to determine the tabled number of adjusted k' treatments. The tabled q_k value is determined by using the previously determined k' value, the degrees of freedom for MS_{Error} (found in the ANOVA Summary Table), and the level of significance being used. To determine the critical value, multiply q_k by the square root of MS_{Error} divided by n , where n equals the number of scores on which each means was based.

After finding the critical value, the value is compared to the difference between the means to determine if the ratio is sufficiently large to be significant at the .05 or .01 level. If the difference

between the means is equal to or larger than the critical value of $q_k' \sqrt{\frac{MS_{\text{Error}}}{n}}$ then the obtained difference is said to be statistically significant.

CHAPTER 4

ANALYSIS OF DATA

This chapter is devoted to the analysis of data. Included in this chapter are the results of the one-way ~~between-subjects~~ analysis of variance, the results of Tukey's (a) Test for Unconfounded Means, and a listing of the mean sten scores and standard deviations of the sixteen personality factors for the three fear of death groups. Also included are the sixteen ANOVA Summary Tables.

Response Analysis

As previously described, 233 subjects were given Cattell's Sixteen Personality Factor Test and Templer's Death Anxiety Scale. Of the 233 subjects who completed both tests, 75 DAS protocols and their corresponding 16 PF tests were used in the analysis of the data. The 16 PF sten scores of 25 subjects with reported high death fear were randomly chosen by an assigned number and the use of a table of random numbers from the aggregate group of reported high fear of death. Twenty-five subjects were randomly selected in a similar manner from the group of medium death fearers and their 16 PF sten scores represented the medium fear of death group. The third set of 16 PF sten scores belonged to the 25 randomly selected individuals who reported little fear of death.

Statistical Analysis

The data of all three groups, reported high fear of death, reported medium fear of death, and reported low fear of death, were compared by analysis of variance. The general null hypothesis, which stated that there would be no significant differences among the mean sten scores of the personality factors of those who have a high fear of death, and the mean sten scores of those who have a low death fear, was tested.

Listed in Table 1 are the mean sten scores and standard deviations for the sixteen personality factors. Also listed in separate tables are the sum of squares, degrees of freedom, mean squares, and computed F-ratios for the same sixteen personality variables.

The Tabled F values for the sixteen personality variables were all based on the same number of mean sten scores in each group and the same degrees of freedom; all based on an .01 level of significance. As a result, the Tabled F value of 4.94 was used to compare all computed F ratios in the study.

As noted in Table 2, no significant differences were found among the three groups for Factor A, which measures emotional expressiveness ($p > .05$). All of the mean sten scores fell within the average range as described by Cattell. Thus, there was no significant relationship between the fear of death and emotional expressiveness. Consequently, the first null hypothesis was accepted.

Table 3 indicates that there were no significant differences among the three groups for personality Factor B at the .01 level. Factor B is a measure of intelligence. The mean sten scores for the high, medium, and low fear of death categories were all within the

Table 1
16 PF Mean Sten Scores and SDs for
Fear of Death Categories

Factor	Low Fear		Medium Fear		High Fear	
	X	SD	X	SD	X	SD
A	5.52	2.61	4.56	1.63	4.68	1.93
B	4.88	1.85	4.76	1.92	4.92	1.91
C	6.36	2.30	4.92	1.99	4.04	1.42
E	5.56	1.91	5.60	1.73	5.12	1.71
F	5.24	2.04	5.44	2.12	5.60	1.93
G	6.00	2.21	5.80	1.47	5.52	1.58
H	5.76	2.27	4.96	1.92	4.92	2.25
I	5.52	1.82	5.76	1.69	4.76	1.92
L	4.48	1.85	5.84	1.67	6.20	2.19
M	5.52	1.73	4.84	1.77	4.40	1.41
N	7.00	1.73	5.64	2.28	6.60	1.87
O	5.16	2.35	6.08	1.91	7.36	1.55
Q ₁	5.12	1.87	5.28	2.15	4.60	1.60
Q ₂	5.48	2.25	6.20	1.70	5.08	2.39
Q ₃	6.68	2.07	5.32	1.70	5.36	1.25
Q ₄	5.32	2.03	6.60	1.84	7.16	1.79

Table 2

ANOVA Summary Table of Factor A
for Fear of Death Categories

Source	df	SS	MS	F	p
Level of Fear	2	13.68	6.84	1.55	NS
Error	72	317.84	4.41		
Total	74	331.52			

Table 3

ANOVA Summary Table of Factor B
for Fear of Death Categories

Source	df	SS	MS	F	p
Level of Fear	2	.35	.18	.05	NS
Error	72	259.04	3.60		
Total	74	259.39			

Table 4

ANOVA Summary Table of Factor C
for Fear of Death Categories

Source	df	SS	MS	F	p
Level of Fear	2	68.59	34.30	9.05	.01
Error	72	272.56	3.79		
Total	74	341.15			

average range. Thus, there was no significant relationship between the fear of death and intelligence. The second null hypothesis was accepted.

The computed F-ratio for Factor C was 9.05 (Table 4). In order to determine a more specific comparison of the mean sten scores, Tukey's (a) Test for Unconfounded Means was used. Tukey's test revealed that subjects who reported a high fear of death had significantly lower mean sten scores than did those subjects reporting either medium (Tukey A = 1.32; $p < .05$), or low levels of death fear (Tukey A = 1.66; $p < .01$), thus leading to the rejection of the third null hypothesis. Cattell (1970) stated that low C scores show generalized neurotic responses in the form of phobias, psychosomatic disturbances, sleep disturbances, and hysterical and obsessional behaviors. The person who scores low on Factor C is immature and impulsive and has a tendency to get into fights. It should be noted that Cattell's low score descriptions represent sten scores of one and his high score descriptions represent sten scores of ten. Nevertheless, it was found that those subjects reporting a high fear of death were significantly less mature than were those individuals reporting medium to low levels of death fear. The mean sten scores of both the medium and low fear of death groups were found to be representative of the average range while the mean sten score of the high fear of death group was below average.

The analysis of the data for Factor E (submissiveness vs. dominance) indicates that no significant differences among the groups exist for the three fear of death categories at the .05 level (Table 5). All of the mean sten scores reflected normal scores. Since there was

Table 5

ANOVA Summary Table of Factor E
for Fear of Death Categories

Source	df	SS	MS	F	p
Level of Fear	2	3.55	1.78	.35	NS
Error	72	230.80	3.21		
Total	74	234.35			

Table 6

ANOVA Summary Table of Factor F
for Fear of Death Categories

Source	df	SS	MS	F	p
Level of Fear	2	1.63	.82	.20	NS
Error	72	298.72	4.15		
Total	74	300.35			

Table 7

ANOVA Summary Table of Factor G
for Fear of Death Categories

Source	df	SS	MS	F	p
Level of Fear	2	2.91	1.46	.46	NS
Error	72	230.24	3.20		
Total	74	233.15			

no significant relationship between the fear of death and the level of submissiveness, the fourth null hypothesis was accepted.

Table 6 indicates that there were no significant differences among the three fear of death groups in relation to Factor F, which is a measure of enthusiasm ($p > .05$). All scores fell within the average range. As a result of the fact that there was no significant relationship between enthusiasm and the fear of death, the fifth null hypothesis was accepted.

The results of the analysis of variance computed for Factor G (evasion of rules vs. ruleboundness) led to the acceptance of the sixth null hypothesis (Table 7). No significant differences were found among the three fear of death groups ($p > .05$). All of the scores obtained were representative of the average range. No significant relationship is indicated between the fear of death and ruleboundness.

Table 8 indicates that there were no significant differences among the groups as measured by Factor H ($p > .05$). Factor H is designed to measure inhibition. Thus, there was no relationship between one's level of death fear and one's degree of inhibition. The recorded scores were all within the average range. The seventh null hypothesis was accepted.

The statistical analysis for Factor I, as illustrated by Table 9, indicates that no significant differences among the three fear of death groups exist at the .05 level. The mean sten scores used in computing the data were all within the average range. There was no relationship between reported fear of death and sensitivity, as measured by Factor I. Consequently, the eighth null hypothesis was accepted.

Table 8

ANOVA Summary Table of Factor H
for Fear of Death Categories

Source	df	SS	MS	F	p
Level of Fear	2	11.23	5.62	1.21	NS
Error	72	335.36	4.66		
Total	74	346.59			

Table 9

ANOVA Summary Table of Factor I
for Fear of Death Categories

Source	df	SS	MS	F	p
Level of Fear	2	13.63	6.82	2.07	NS
Error	72	237.36	3.30		
Total	74	250.99			

Table 10

ANOVA Summary Table of Factor L
for Fear of Death Categories

Source	df	SS	MS	F	p
Level of Fear	2	41.15	20.58	5.58	.01
Error	72	265.60	3.69		
Total	74	306.75			

Significant differences were found among the three fear of death groups in relation to Factor L ($p < .01$). This finding was based upon the computed F-ratio of 5.58 and the subsequent specific-comparisons test (Table 10). Factor L is a measure of one's level of trust. Although those subjects reporting a low fear of death were significantly more trusting than were those subjects reporting a high fear of death (Tukey A = 1.62; $p < .01$) and also more trusting than were those subjects who reported a medium fear of death (Tukey A = 1.29; $p < .05$), the mean sten scores for the three fear of death categories all fell within the average range for normal subjects. The ninth null hypothesis was rejected.

Table 11 demonstrates that no significant differences among the groups with regards to Factor M (practical vs. imaginative) exist at the .05 level. The high, medium, and low fear of death categories all revealed mean sten scores within the average range. Since no significant relationship between death fear and imagination was shown, the tenth null hypothesis was accepted.

The data analysis for Factor N, as seen in Table 12, indicates no significant differences among the fear of death groups ($p > .05$). Factor N measures an individual's alertness to social obligations and to the social reactions of others. It also appears to be related to insecure behavior. While those reporting moderate levels of death fear had mean sten scores within the average range, both high and low fearing groups scored above average. Thus, there was no significant relationship between the fear of death and alertness to social obligations. The eleventh null hypothesis was accepted.

Table 11

ANOVA Summary Table of Factor M
for Fear of Death Categories

Source	df	SS	MS	F	p
Level of Fear	2	15.92	7.96	2.93	NS
Error	72	195.60	2.72		
Total	74	211.52			

Table 12

ANOVA Summary Table of Factor N
for Fear of Death Categories

Source	df	SS	MS	F	p
Level of Fear	2	24.43	12.22	3.125	NS
Error	72	281.76	3.91		
Total	74	306.19			

Table 13

ANOVA Summary Table of Factor O
for Fear of Death Categories

Source	df	SS	MS	F	p
Level of Fear	2	61.04	30.52	7.89	.01
Error	72	278.96	3.87		
Total	74	340.00			

The results of the analysis of variance computed for Factor 0 led to the rejection of the twelfth null hypothesis (Table 13). The computed F-ratio of 7.89 and resultant Tukey test indicate a significant difference between the groups of those reporting high levels of death and those reporting low levels of death fear (Tukey A = 1.66 at the .01 level of significance). An above average mean sten score was recorded for those having a high fear while average scores were recorded for moderate to low levels of fear. Cattell's description of high 0 scores included terms such as depressed, anxious, worrying, hypochondrical, and exhibiting phobic symptoms. Thus, those reporting high levels of death fear are more anxious and depressed than are those reporting moderate to low levels of death fear.

Table 14 demonstrates that no significant differences among the three fear of death groups for Factor Q_1 (conservative vs. experimenting) exist at the .05 level of probability. All of the mean sten scores represent normal dimensions. Thus, no significant relationship between reported death fear and one's level of conservatism was demonstrated. Consequently, the thirteenth null hypothesis was accepted.

Concerning Factor Q_2 (group-dependent vs. self-sufficient), no significant differences are indicated among the three groups of reported fear of death at the .01 level (see Table 15). The mean sten scores of the three groups tested were all within the average range. Since no significant relationship between dependence and the fear of death was established, the fourteenth null hypothesis was accepted.

As is indicated in Table 16, the mean sten score of those subjects reporting little fear of death is significantly higher than are the mean sten scores of those reporting medium to high levels of death

Table 14

ANOVA Summary Table of Factor Q_1
for Fear of Death Categories

Source	df	SS	MS	F	p
Level of Fear	2	6.32	3.16	.88	NS
Error	72	257.68	3.58		
Total	74	264.00			

Table 15

ANOVA Summary Table of Factor Q_2
for Fear of Death Categories

Source	df	SS	MS	F	p
Level of Fear	2	16.11	8.06	1.76	NS
Error	72	330.08	4.58		
Total	74	346.19			

Table 16

ANOVA Summary Table of Factor Q_3
for Fear of Death Categories

Source	df	SS	MS	F	p
Level of Fear	2	29.95	14.98	5.11	.01
Error	72	210.64	2.93		
Total	74	240.59			

Table 17
ANOVA Summary Table of Factor Q_4
for Fear of Death Categories

Source	df	SS	MS	F	p
Level of Fear	2	44.48	22.24	6.19	.01
Error	72	258.80	3.59		
Total	74	303.28			

fear ($p < .01$). This finding was determined from the computed F-ratio of 5.11 and Tukey's critical value of 1.15; significant at the .05 level. Average mean sten scores for Factor Q_3 , which measures an individual's desire to display socially approved character responses, self-control, and regard for etiquette and social reputation, were found for the medium and high death fearing groups. The low fear of death group scored above average. This finding indicates that those reporting little fear of death are significantly more prone to social preciseness than are those who reported moderate to high levels of death fear. In light of these findings, the fifteenth null hypothesis was rejected.

Factor Q_4 may be described as measuring one's level of general frustration. A significant difference was found between the low and high fearing groups at the .01 level, with regards to this personality variable (see Table 17). This finding was based on the computed F-ratio of 6.19 and Tukey's critical value of 1.62 ($p < .01$). The mean sten scores of the medium and high fear of death groups were above average while the mean sten score of those reporting little fear of death reflected average scores. Thus, those subjects who reported moderate to high levels of death fear are significantly more tense, frustrated, driven, and overwrought than are those subjects who reported low levels of death fear. The sixteenth, and final, null hypothesis was rejected.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The relationship among the personality characteristics of individuals reporting different levels of death anxiety is studied in this chapter. The results of this study, in light of the literature reviewed, are examined in this chapter. Specifically included in this chapter are the following sections: summary, conclusions, and recommendations.

SUMMARY

The primary purpose of this study was to investigate the relationship that existed between personality factors and reported fear of death. Specifically, a comparison among the mean sten scores of the Sixteen Personality Factor Test was computed for the high, medium, and low fear of death groups as measured by the Death Anxiety Scale. An attempt was made to determine if certain personality traits are associated with the conscious expression of death anxiety. Two hundred thirty-three volunteer subjects, all college students, responded to the two tests. The twenty-five 16 PF tests from those reporting high death anxiety were randomly chosen by an assigned number and the use of a table of random numbers. In a similar fashion, twenty-five 16 PF protocols representing medium fear of death and twenty-five 16 PF protocols representing low death fear were chosen. These

seventy-five 16 PF protocols were subjected to a one-way between-subjects analysis of variance.

As noted in the summary section of Chapter 2, a sizeable number of attempts to measure the fear of death did so without checking the reliability and validity of the tests that were administered. This study measured the fear of death with a test of proven reliability and validity in an effort to safeguard against possible complicating factors of this nature. In addition, this paper studied recorded personality factors with a personality test that was specifically designed for the sample tested, a precaution that several previous studies failed to take. Specifically, this study measured normal college personality factors with a personality test that was standardized on a normal college population sample.

CONCLUSIONS

An analysis of the data revealed that five personality variables were related to the fear of death at a statistically significant level. Specifically, the significant findings indicate that those individuals who reported a high fear of death were emotionally less mature than were those individuals who reported a low level of death anxiety. In a previous study, Munnich (1966) found the psychologically immature individual more likely to fear death. Although the ages of the subjects Munnich used were dissimilar from the ages of the subjects in this study (Munnich studied elderly people), the findings of his study were in agreement with the results of this study.

Although this research revealed that those subjects who reported high death anxiety were more dogmatic and jealous than were

those subjects who reported little death fear, the significance is minimized when looking at the overall picture presented. Closer inspection of the data reveals that the mean sten scores of all three fear of death groups fell within the average range. The fact that all three scores were considered normal contraindicates any major finding.

It was interesting to note that, while no significant differences were established, both high and low fearing groups scored above average in their alertness to social obligations and to the social reactions of others. This pattern is motivated by social climbing and in all likelihood represents an acquired pattern. Since this pattern is related to insecure behavior, perhaps the above average score for the high fear of death group is a direct reflection of the insecurity created within themselves by their fear of death.

The results of this study further indicate that those subjects who reported little fear of death were significantly more concerned about putting up a good front as a result of being influenced by what others will think of them. Chapter 2 noted that the topic of death was, and still is, a socially unacceptable one. The possibility exists that this class of individuals may feel that any admission of death fear would lower their social standing, and therefore they deny having any fear whatsoever. This contention is supported by the findings of Handal and Rychak (1971). They found evidence that, although a high DAS score indicated high death anxiety, a low score could indicate a lack of anxiety or it could mean that the individual either repressed the anxiety or that it was at an unconscious level. Judging from Swenson's (1962) evidence, it seems likely that the fear is suppressed rather than unconscious. Swenson compiled evidence that

attitudes toward death could in fact be measured by structured psychometric devices (such as the DAS). Concisely stated, projective techniques, which are designed to measure unconscious levels, are not the only method of measuring attitudes toward death.

A previous study by Feifel (1969) linked the fear of death to depression and psychosomatic symptoms. Rhudick and Dibner (1961) found a relationship between high fear of death and the MMPI scales of Hypochondrias, Hysteria, and Impulsivity. The literature also revealed that persons who reported poorer mental and physical health had more death fear (Frances, 1974). The results of these studies support the findings of this research. Namely, this research found that those subjects who reported high death fears were more prone to be depressed, impulsive, anxious, and concerned about their health. If one pictures a person plagued with a constant nagging fear of death, it is relatively easy to understand how this could lead to anxiety, depression, and over-concern for one's health.

It is further indicated by the results of the analysis of data that both high and moderate death fearing groups tend to be more frustrated than do those individuals who reported little fear of death. Subjects who reported moderate to high death fear express the gamut of frustration responses, ranging from anxiety and depression to pugnacity and lashing out in anger. Lepp (1968), Kubler-Ross (1969), and Feifel (1977) all contended that a high fear of death may lead to violence. Hoffman and Brody (1957) stated that the fear of death refers to how well an individual can tolerate tension, with high fearing individuals being less able to handle the tension.

It appears then, that the source of much of the frustration that those who reported high fear of death suffer from is actually the fear of death itself. Because of the tension that this fear creates in them, they are forced to seek channels to release their pent up frustrations.

Explaining why moderate death fearers reported higher levels of frustration presents a difficult task. Cattell mentioned that high scores in normal people could be a function of the level of situational frustration and difficulty. Perhaps the fact that these individuals had to sit through a test which required, on the average, fifty minutes created more tension than they could handle.

Generally speaking, the findings of this study indicate that those subjects who reported little death fear may be more concerned about presenting themselves the way they feel society wants them to appear rather than to admit to any fear of death and risk ruining their social standing. On the other hand, those subjects who reported high levels of death fear appear to be somewhat tense and frustrated, with the outlets for their feelings being that of either over-concern for their health, anger, aggression, immature behavior, impulsiveness, phobias, anxiety, or depression.

RECOMMENDATIONS

In order to determine whether certain variables that are consistently related to the fear of death across all samplings, and thus provide the basis for formulating new hypotheses, previous studies need to be replicated. Templer, et. al. (1974) suggested that one's level of death fear may be a result of learning. Certainly this area

should be explored further. Consistency of findings would be beneficial to psychologists, educators, and laymen alike. It may provide avenues for controlling or manipulating the fear or for educating people in an effort to bring about a better adjusted individual.

Research to date has shown that a tremendous number of variables have the potential to affect one's fear of death. Possibly, one's fear of death has the potential to affect a vast number of variables. The contributions in this area have provided many stimulating questions, but relatively few "pat" answers.

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APPENDIX

APPENDIX A

Student I.D. Number _____ AGE _____ SEX _____

DEATH ANXIETY SCALE

Place a T in the appropriate space if the statement is true as applied to you. Place an F in the space if the statement is false.

- _____ 1. I am very much afraid to die.
- _____ 2. The thought of death seldom enters my mind.
- _____ 3. It doesn't make me nervous when people talk about death.
- _____ 4. I dread to think about having to have an operation.
- _____ 5. I am not at all afraid to die.
- _____ 6. I am not particularly afraid of getting cancer.
- _____ 7. The thought of death never bothers me.
- _____ 8. I am often distressed by the way time flies so very rapidly.
- _____ 9. I fear dying a painful death.
- _____ 10. The subject of life after death troubles me greatly.
- _____ 11. I am really scared of having a heart attack.
- _____ 12. I often think about how short life really is.
- _____ 13. I shudder when I hear people talking about a World War III.
- _____ 14. The sight of a dead body is horrifying to me.
- _____ 15. I feel that the future holds nothing for me to fear.