THE FEAR OF DEATH AND RESPONSES TO OTHERS' CONCERNS ABOUT DEATH

Dissertation for the degree of Ph.D.

MICHIGAN STATE UNIVERSITY

SUSAN MARGARETHA PARRY

1977

This is to certify that the

thesis entitled
The Fear of Death and
Responses to Other's Concerns about Death

presented by

Susan Margaretha Parry

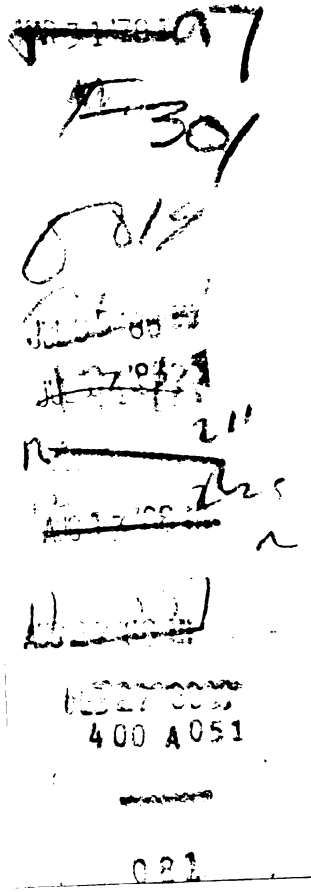
has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Counseling

William W. Farquhar
Major professor

Date 2-11-77

O-7639



ABSTRACT

THE FEAR OF DEATH AND
RESPONSES TO OTHERS' CONCERNS ABOUT DEATH

By

Susan Margaretha Parry

A 67-item Death Experience Questionnaire was constructed, containing demographic items, questions about experiences with death, and the scales of Collett and Lester's[1] Fear of Death Inventory (fear of death of self, death of others, dying of self, and dying of others). Only the death of self scale achieved satisfactory reliability on this sample. Undergraduates, graduate students in education, and first and second year medical students were compared in fear of death. Scale scores were correlated with demographic variables.

Medical students, who were predicted to fear the death and dying of others more than the other groups, scored lower in fear of dying of self and others. There were no differences in fear of death of self or others.

Females scored higher than males in fear of death of others and dying of self. Less religious people showed more fear of death and dying of self than the more religious. Belief in afterlife was positively related to fear of death of others and negatively to fear of death of self. Medical students who had suffered a recent loss feared death of self more than those who had not. There was a positive correlation between direct admission of fear of death and scores on the fear of death of self and others scale.

Fifty-six medical students who had completed the DEQ responded to six taped simulated dying patients, imagining themselves as the patients'

physician. Those who scored high in fear of death and dying of others were expected to show a greater response lag and more emotional responses, to report more anxiety while responding, and to make less direct references to death than those with less fear. These hypotheses were generally not supported. No significant correlations were found between fear of death and response lag or directness of death response. Emotionality was significantly correlated only with fear of dying of others. There was a negative correlation between response lag and both emotionality of response and directness of death reference. Subjects who scored high in fear of dying of self gave lower anxiety ratings to the episodes than those with lower fear.

All subjects said they would want to know if they themselves were dying, so that they could change their lifestyles, put their affairs in order, or feel in control. Most indicated that some patients should not be told they were dying, usually for psychological reasons. The majority believed that the physician, alone or in consultation with others, should both decide whether to tell patients of their impending death and break the news to them.

These results must be interpreted with caution; the development of fear of death scales of greater reliability is needed. Assumptions about the influence of physicians' fears of death on their ability to help dying patients need to be re-examined. Physicians were expected to differ from other groups particularly in fear of death and dying of others, but it appears that it is in their attitudes about dying, rather than about death, that differences are likely to occur.

---

[1]Lora-Jean Collett and David Lester, "The fear of death and the fear of dying," The Journal of Psychology 72, 1969, 179-181.

THE FEAR OF DEATH
AND RESPONSES TO OTHERS' CONCERNS ABOUT DEATH

BY

SUSAN MARGARETHA PARRY

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Counseling, Personnel Services, and Educational Psychology

1977

To Doug and Imogen

ACKNOWLEDGMENTS

I would like to thank my chairman, Dr. William W. Farquhar, for his assistance and encouragement in the completion of this research, and for his willingness to be available when needed. His constructive criticism and his help in developing the ideas behind the research have made it a much more pleasant and valuable task than it might otherwise have been.

Dr. Sam Plyler was of great assistance during the planning stage of the dissertation. I particularly value discussions with him which aided in formulating and clarifying the concepts behind the research.

Dr. John Schneider and Dr. Robert Zucker were of assistance with questions of design and methodology.

Dr. Robert Wilson gave valuable and expert statistical and computer advice, and taught me a great deal in the process. Dr. Douglas Miller was an extremely valuable consultant in planning the design of the research; I particularly appreciate his critical reading of the proposal and the many valuable suggestions he made at that time, as well as his help with statistical questions which arose.

Other individuals gave generously of their time to assist in this research. Diane Plyler, Jean Schwartz, Peg Geggie, and Mary Nowak spent many hours interviewing subjects. Jean Schwartz, Carol Weinberg, Dr. David Inman, Nancy Stockton, Sharon Robinson, and James Novosel all assisted in rating of tapes and collation of the data.

I would like to thank the subjects who participated in the research, the instructors who volunteered their classes as potential subjects, and the large number of individuals who were willing to spend time in discussion with me during the course of the research.

Finally, I must acknowledge the support, love and confidence of the Newton Street Ladies Gang, Jean Schwartz and Joan Stieber, who lived with me through this whole project.

TABLE OF CONTENTS

LIST OF TABLES

Table

CHAPTER I

With social and technological changes during this century have come changes in what individuals can expect to face during the time they are dying and in the problems which arise for those who come into contact with dying patients. People no longer usually die at home with family, but in the hospital, in which their primary contacts are with medical personnel. Advances in medical technology have made it possible for dying to be prolonged, and death may even be postponed indefinitely at the will of family, doctor, or judge, as the Quinlan case illustrated.[1] Decisions regarding the management of the patient are made by the physician rather than by the family.

Perhaps the major change is that dying, once a private affair, is now a matter handled almost entirely by professionals. While physicians have always attended those among the dying who could afford their services, not until recently has attendance upon the dying and regulation of the last days of life fallen so entirely within the sphere of professional, rather than private, relationships. This change has created stresses in institutions which deal with the sick (both curable and incurable) and in the legal profession, and new demands upon individual physicians and other medical personnel, and upon members of the dying patient's family, who often are able to exercise little or no control over what happens to that patient. As a result, research

---

[1] _____, "Ideas and Trends," New York Times, November 2, 1975.

interest in the treatment of the dying, in the kinds of problems faced by their families during the period of bereavement, and in the psychological processes of dying patients has grown considerably in the past ten or fifteen years. Attention is also beginning to be paid to the attitudes and feelings of those who work directly with the dying in a professional capacity: medical personnel, mental health professionals, clergy, and students of any of these fields. Some of the recent work in this area has been of a sociological nature,[2, 3, 4] focusing on institutions which deal with the dying, and other studies have examined the feelings and attitudes of individual professionals. The latter focus is taken in this study.

Need For the Study

It is particularly important that the attitudes of medical professionals be understood. Responsibility for dealing directly with the dying patient is incurred or assumed by the physician most directly responsible for his or her care, and by the nurses who have daily patient contact. In addition, the physician often must respond to the needs of the patient's family and the rest of the medical staff, all of whom are under stress when a person is dying. (The attitudes and behavior of the individual physician influence also the way in which

---

[2]Arnold Toynbee, et al., Man's Concern With Death, London, Hodder and Stoughton, 1968.

[3]William A. Faunce and Robert L. Fulton, "The sociology of death: a neglected area of research," Social Forces, 1958, 36-205-09.

[4]Renee Fox, Experiment Perilous (Glencoe, Ill.: Free Press, 1959).

the institution within which s/he works responds to the dying patient, but such considerations are beyond the scope of this study.)

Cramond[5] points out that the patient is an important object for the physician, and that interaction with him or her may tap into both consciously held attitudes and unconscious processes of the physician. He argues that physicians in training, as well as other medical personnel, need opportunities to explore their feelings so that they do not hinder their future interactions with their patients. Bouton[6] concludes, from informal discussions with medical students, that some of the concerns they themselves feel a need to discuss include: personal experiences of death in the past; viewing the dead body as both person and thing, and the feelings that arouses; and what to tell the patient who is dying.

It is assumed for purposes of this research that interaction with the dying patient is always, to some degree, stressful for the physician involved. Medical students may receive better training in coping with this stress and in being helpful to such patients if it is known what attitudes and feelings of theirs influence how they interact with those patients. While there exists a substantial body of research on correlates of attitudes toward death, little of it is focused directly on characteristics of physician or medical students.

---

[5]W. A. Cramond, "Psychotherapy of the dying patient," British Medical Journal, 3 (5719), 1970, 389-393.

[6]David Bouton, "The need for including instruction on death and dying in the medical curriculum," Journal of Medical Education 47 (3), 1972, 169-175.

Purpose of the Study

There are two main purposes of this study:

1. To cross-validate a widely-used fear of death inventory, that of Collett and Lester,[7] on a large group of undergraduates, graduate students, and medical students. This self-report questionnaire contains four separate subscales, measuring the fear of death of self, dying of self, death of others, and dying of others. It is intended to learn whether these scales are well constructed and reliable, and whether there are differences among the three subject populations in scores, and to discover whether demographic and personal experience variables have any relationship to these various kinds of fear of death. This study will be focused on attitudes towards the deaths of others as well as on feelings about one's own death, since its main concern is with how physicians respond to the concerns of others.

2. The second purpose is to examine more closely the attitudes and feelings of medical students in the preclinical years of training, most of whom have had little or no contact with patients. The focus is on consciously held attitudes, those which may be most directly affected by training programs administered in an academic setting. Relationships between scores on the fear of death scales and responses to demographic items, and responses to a series of simulated patients are examined.

---

[7]Lora-Jean Collett and David Lester, "The fear of death and the fear of dying," The Journal of Psychology 72, 1969, 179-181.

Two main questions are addressed in this study: whether medical students are different in their attitudes than their peers in other areas of study, and whether there are identifiable attitudes or feelings about death which influence how they would respond to a dying patient. While it is not the intent of this study to investigate unconsciously held feelings, it is still insufficient to simply ask subjects how they think they would respond to dying patients. Therefore, subjects are asked to respond directly to a taped simulation of a dying patient, imagining that he is a real patient.

Since the focus of medical education is on working with patients, subjects are asked to respond to simulated patients, in an initial attempt to investigate those factors which may influence responses they might make to real patients. Hopefully, the relationship between previously held attitudes and the way a student may be expected to function in a clinical setting may begin to be clarified.

Feifel et al.[8] found that medical students were intermediate in their attitudes towards death, between the general public and doctors who have already completed medical school. The attitudes of medical students approached those of doctors more closely the nearer the student was to the end of his or her training, suggesting that a process or socialization occurs. Thus, changes in a student's attitudes may not be explainable totally in terms of his or her experiences with the dying. While it is outside the scope of this study to explain changes in attitudes toward death, it will be assumed that experience with the

---

[8]Herman Feifel, et al, "Physicians consider death," Proceedings, 75th Annual Convention of the American Psychological Association, 1967, 201-202.

dying, and with others in the medical field, contributes to the formation of a student's attitudes. Thus, it was decided to limit the population studied to students in the early years of their training, when exposure to both patients and other medical professionals is more limited than in succeeding years. Knowledge of students' attitudes at the beginning of their medical school career may or may not enable one to predict the attitudes they will have once they are actually practicing medicine.

In the past few years, particularly with the advent of affirmative action programs, medical schools have admitted more women, older students, and members of minority groups. Although there is conflicting evidence on the influence of demographic variables on attitudes toward death, the question must be raised whether these changes in the composition of a student's peer group will have an effect on the socialization process and on the attitudes students will express by the end of their training. In addition, it may be the case that different kinds of students are being attracted to medical schools. In addition, there have been social changes in the past 15 years (during which time most of the research on death attitudes has been done) which make it necessary to be cautious in making comparisons between past and present studies. Some of these changes include: new attention given by both scholars and the media to issues of death and dying, liberation movements, leading to new systems of power relations among various groups (women, blacks, etc.), new emphasis on training in human relations for professionals.

Much previous research in the area of attitudes of medical personnel has asked specifically about the doctor's perception of his or her role and relationships with patients. It appears that it is also

useful to ask the same questions of medical people which are asked of others. This procedure will not only facilitate comparison with other groups, but will also tend to elicit attitudes which are not expressed in medical language, and which may therefore be less contaminated by medical training than would responses to questions about how they see themselves functioning as doctors. Therefore, in the questionnaire portion of the study, the same questions about the fear of death are asked of all groups, while in the interview, the medical students are asked specifically about their attitudes, perceptions, and opinions which focus on themselves as physicians.

Research Hypotheses

1. Previous research on the Collett-Lester inventory has shown that people differ, not only in total fear of death, but in their fears of different deaths; thus, they achieve different scores on the subscales of the inventory. This result will be replicated here, and the fear of death will be shown not to be a unitary phenomenon, but to have separate, although related, components.

2. There will be differences in fear of death based on sexual and religious characteristics. Females will score higher than males. Highly religious subjects will score lower in fear of death of self.

3. Medical students will score higher on all subscales than either undergraduate or other graduate students, and particularly on fear of death and dying of others. While there may be other differences across or between groups, previous research is too conflicting in results to allow for specific predictions of the nature and direction of differences.

4. There will be a negative relationship between the medical student's fear of death (as expressed on the Collett-Lester inventory particularly on the fear of death and dying of others scales) and the quality of his or her responses to simulated dying patients. Those who score high on those scales will take a longer time before responding to the patient, and will express the most anxiety over having to do so. They will respond with less direct references, or no references, to death. They will give emotionally laden responses.

5. Those patients which are rated as arousing more anxiety will be responded to with fewer direct death references and with a longer time lag before response by all subjects, regardless of their reported fear of death.

Theory

The fear of death, like other fears, results from the person's experiences in life, and his or her interactions with significant others in the environment. There is not, however, enough evidence to allow one to specify exactly what features of a person's experience contribute to a high or low fear of death; what evidence exists is reviewed in Chapter II. However, at the most general level, there are several conditions which influence the fear of death.

The physical environment, to the extent that it is experienced as dangerous to the well-being, or even the survival, of the organism must play a role,[9, 10] if only to determine the amount of attention the

---

[9]Gene Lester and David Lester, "The fear of death, the fear of dying, and threshold differences for death words and neutral words," Omega 1, 1970, 175-179.

[10]John Bowlby, Attachment and Loss, Vol. II, Separation, London, Hogarth Press, 1973.

threat of death must be given on a daily basis. However:

> . . . knowledge of the 'external' degree of threat along seems to be an insufficient basis on which to predict with any certainty how a person will react to it. The person's character structure--the type of person he is--may sometimes be more important than the death-threat stimulus itself in determining reactions.[11]

There are those, of course,[12, 13] who argue that it is features of the psychological make-up common to everyone which accounts for the existence of the fear of death.

> Until recently, the psychoanalytic coneptualization of attitudes toward and fear of death as derivative events was dominant. Sentiments about death were essentially manifestations of a more ultimate reality, that is, separation anxiety or conflicts about castration. Doubtless, such clinical displacement does occur. Death fears can be secondary phenomena. Nevertheless, incoming data increasingly suggests that the reverse may be more to the point. Apprehensiveness over bodily annihilation and concerns about finitude themselves assume dissembling guises. The depressed mood, fears of loss, sundry psychosomatic symptoms, and varying psychological disturbances all have evidenced afinity to anxieties concerning death.[14]

The fear of death thus need not be seen as a derivative phenomenon, to be explained in terms of more basic psychological functioning, but may fruitfully be regarded as existing in its own right.

---

[11]Herman Feifel, "Attitudes toward death in some normal and mentally ill populations," in H. Feifel, ed., The Meaning of Death, (New York: McGraw-Hill, 1959), 114-130.

[12]Sigmund Freud, Beyond the Pleasure Principle, (New York: Liveright, 1961), (Tr. by James Strackey).

[13]Melanie Klein, "A contribution to the theory of anxiety and guilt," International Journal of Psychoanalysis, 29, 1948, 114-123.

[14]Herman Feifel, "Attitudes toward death: A psychological perspective," Journal of Consulting and Clinical Psychology 33 (3), 1969, 292-295.

While there are psychological factors that undoubtedly contribute to high or low fear of death, it appears more fruitful to focus on those characteristics of the individual which are more clearly measurable, and more clearly may be tied to specific aspects of his or her upbringing, such as religion, the presence or absence of specific others in the family, socioeconomic status. To do so will allow prediction of fear based on general kinds of experiences available within the society, rather than necessitating focusing on individual intrapsychic processes.

Finally, there may be specific kinds of life experiences, occurring at specific times in the life of the individual, which are influential in producing fear of death, and in producing different kinds of fear in different individuals. For instance, the individual who has had a close escape from death should be expected to attend to thoughts and feelings about his or her own death, while one whose most impactful experiences have been of the loss of highly significant others (particularly ones which whom s/he had strong but ambivalent relationships) may be expected to show more affect regarding the death of others. Similarly, there should be identifiable experiences in the life of the individual which contribute to a focus of fear either on being dead, or on the process of dying.

The cultural milieu in which a person grows up, to the extent that it determines the kind of experiences available to the individual, must also have an effect.[15] It should make a difference, for instance, what role the dead are expected to play in the life of the society,

---

[15]David Lester, "Antecedents of the fear of the dead," Psychological Reports 19, 1966, 741-742.

what is expected of individuals and families which have experienced a loss, and how much actual contact with death one normally experiences. In addition to general cultural factors, the more intimate social environment of the individual (family relationships, the presence or absence of certain significant others, the experiences of being sheltered or abandoned, the kind of interaction experienced with significant others, and the extent and timing of the person's exposure to the deaths of others) should all be of relevance. The assumption is made in this study that some such factors contribute to making the individual afraid of death to a greater or lesser degree.

If attitudes toward death and dying are learned through a combination of various kinds of experiences, they should influence the behavior of the individual faced with a situation in which death may occur. One's attitudes should also influence the readiness of the individual to place him or herself in situations in which there is the possibility of his or her own death or that of others. It is possible that a high fear of death would incline a person to avoid such situations altogether. On the other hand, a counter-phobic response may be elicited, in which the individual seeks out such situations or environments so as to conquer that which s/he fears.

One such situation, which involves the constant possibility of the death of others, is the practice of medicine.

> Weisman . . . suggests that since most medical personnel have not truly accepted their own mortality, they have difficulty facing rationally the death and dying of others, which remind them not only of their own mortality, but also of their powerlessness in saving lives. Weisman states further that because of the conflicts and pressures of caring for critically ill patients, medical staff members deny the realities and problems of dying and encourage patients to deny the gravity of

> their situation and to behave so as not to disrupt the staff's denial.[16]

If this is true, then medical personnel may be expected to be more afraid of death than people in other professions, but, because of their own anxiety, to interact with their patients in such a way as to inhibit the patient from facing the physician with the reality of the patient's impending death. Livingston and Zimet[17] portray the physician as experiencing each patient's death as a personal failure; it may be that physicians become more afraid of death as they experience the deaths of more patients, and that the fear of death is, in that case, a reflection of a deeper fear of failure. However, if the physician's entry into the practice of medicine was already partially determined by a high fear of death, the experience of more deaths of patients could serve to decondition the physician somewhat to that fear. For this reason, this study is focused upon students, who have made the choice of a career in medicine, but have not yet experienced contact with patients which could, during their professional life, influence their fear of death.

Medical students, if they experience a higher fear of death and students in other fields, may be expected to respond to simulated patients with some of the same characteristic responses as physicians would make to real patients. They may respond in such a way as to

---

[16]Lisa R. Shusterman, and Lee Sechrest, "Attitudes of registered nurses toward death in a general hospital," Psychiatry in Medicine 4 (4), 1973, 411-425.

[17]Peter B. Livingston, and Carl N. Zimet, "Death anxiety, authoritarianism, and choice of specialty in medical students," Journal of Nervous and Mental Diseases 140 (3), 1965, 222-230.

attempt to stop them from talking about death; this may be accomplished in many cases, simply by not mentioning the topic, especially in response to a patient's explicit reference to it. The impression of unwillingness to discuss the topic may also be given by taking a longer time to respond to the patient, by appearing hesitant. It is not necessary that these behaviors be conscious or intentional, only that, when they occur, the impression be given that the patient's impending death is not an acceptable topic of discussion.

There should, therefore, even in medical students who have not yet had contact with actual patients, be an association between their expressed fear of death and the amount of time it takes them to respond to simulated patients, and a negative association between fear of death and the direct mention of death in response to the patient's presented concern about it. In addition, if the respondent is experiencing anxiety during the interaction with the supposed dying patient, the amount of emotion, either expressed or denied, in what s/he says, should be higher than when there is no felt anxiety.

CHAPTER II

In the literature on correlates of attitudes toward death, results reported by one researcher are often not duplicated by others. This fact motivates the use of an extensive questionnaire in the current study. It also accounts for the general lack of clear directional hypotheses about the nature of relationships to be found between demographic variables and fear of death. On the general theory that attitudes toward death are learned, the task becomes to specify how they are learned, and this may vary a great deal from one individual to another. It will be clear from this review that sex, religion, and the attitudes of parents are likely to be related to attitudes toward death; other relationships are even less clear.

This chapter is organized into sections describing separately the major demographic and experiential variables which have been investigated for relevance to attitudes toward death, the attitudes of physicians and other medical personnel, and the instruments which have been most commonly used in such research.

Many studies investigate only one or two variables in death attitudes, or focus on limited populations, or investigate variables which stand in no clear theoretical relationship to each other. Chasin[1] argues that single-variable approaches to the understanding of

---

[1] Barbara Chasin, "Neglected variables in the study of death attitudes," Sociological Quarterly 12, 1971, 107-113.

death attitudes leave out too much potential information, and that it is the interaction among variables which must be understood. This principle has guided the design of the current research. Caution must be used in interpreting reports of difference or lack of difference based on investigation of a single variable.

Evidence bearing on the relevance of each particular variable to attitudes toward death will be summarized separately. The main ones to be considered are sex, religious preference, religiosity, age, and resemblance to parental attitudes.

Sex Differences

Several kinds of attitudes towards death are considered in the literature, including amount of thought about death (preoccupation with death), the nature of the thoughts expressed, and the amount of fear attached to those thoughts. In regard to sex differences, each of these is considered separately. Some differences may be related to sex roles and gender identity rather than to biological gender.

Preoccupation with death. Feifel,[2] cautioning that frequency of thought about death has no necessary relationship to the fear of death, reported that women, in both normal and mentally ill populations, admitted thinking more frequently about death than did men. Lester,[3,4]

---

[2]Herman Feifel, "Attitudes toward death in some normal and mentally ill populations," in Herman Feifel, ed., The Meaning of Death (New York: McGraw-Hill, 1959), 114-130.

[3]David Lester, "Re-examination of Middleton's data: Sex differences in death attitudes," Psychological Reports 27, 1970, 136.

[4]David Lester, "Sex differences in attitudes toward death: A replication," Psychological Reports 28, 1971, 754.

on the other hand, found that male college students thought about their own death and pictured themselves as dead or dying more often than females. Selvey[5] found no sex differences in reported preoccupation with death, although in her study, scores on Dickstein and Blatt's preoccupation with death scale were significantly correlated with scores on Boyar's Fear of Death Scale in both sexes. This is a particularly clear example of the conflicting evidence on sex differences in death attitudes.

Durlak[6] found no relationship between fear of death and subjects' estimates of the frequency with which they thought about their own death, nor with whether the individual had thought about his or her own death within the last two days. Cameron[7] found that those who had thought of their own death within the last two days gave a significantly larger estimate of the probability of their own death within the next year than did those who had not thought about it. Tolor and Murphy[8] found that males see themselves individually living longer than they think the average man will live; this did not happen among females.

---

[5]Carole L. Selvey, "Concerns about death in relation to sex, dependency, guilt about hostility, and feelings of powerlessness," Omega 4 (3), 209-219.

[6]Joseph A. Durlak, "Relationship between various measures of death concern and fear of death," Journal of Consulting and Clinical Psychology 41 (1), 1973, 162.

[7]Paul Cameron, "The imminency of death," Journal of Consulting and Clinical Psychology 32 (4), 1968, 479-481.

[8]Alexander Tolor and Vincent M. Murphy, "Some psychological correlates of subjective life expectancy," Journal of Clinical Psychology 23, 1967, 21-26.

Content of thoughts about death. Lester[9] reported that men were less likely than women to say they were depressed by funerals, cemeteries, and stories about death, and also[10] that they less often reported ever having wished that they were dead. In both studies, he found men more often wanting to know for sure whether there was a life after death, but less likely to believe in one, and[11] that men more often said they would change their manner of living if they knew for sure that there was a life after death. On a variety of other questions about their thoughts about death, there were no sex differences. Lester's conclusion from these studies is that males think more about death, but are less likely to have or express a negative affective reaction to it.

Several studies of the content of thoughts about death have yielded results which might reflect differences associated with learned sex roles. Diggory and Rothman hypothesize that:

> To the extent that the goals a person values highly depend on his social status, his fear of various consequences of his own death should vary with his status or role, whether defined by age, sex, social class, religion, or marital condition.[12]

They asked a varied group of subjects which of several consequences of their own death they feared most. Women, significantly more than men, feared both what would happen to their bodies after death and the possible pain involved in dying. Women's higher level of concern for

---

[9]David Lester, 1970, op. cit.

[10]David Lester, 1971, op. cit.

[11]David Lester, 1970, op. cit.

[12]James C. Diggory and Dorreen Z. Rothman, "Values destroyed by death," Journal of Abnormal and Social Psychology 63 (1), 1961, 205.

the fate of their bodies may reflect the extent to which the condition of their bodies is seen as being of importance in the performance of their traditional sex role. Men were concerned significantly more than women that they could no longer care for their dependents once they were dead, possibly a reflection of the male's traditional role as having dependents, contrasted with the woman's role as being dependent.

Similarly, Schneidman[13] found that undergraduate (mostly single) women expressed a preference to die with or before their putative spouse significantly more often than men, who preferred to die after their spouse. He suggests that women wished to avoid grief and loneliness and men to spare their partner that suffering, and that this finding may be the result of social expectations that the man will be the caretaker and the woman the recipient of caretaking.

Lowry[14] and Selvey[15] asked men and women to construct stories about death to TAT cards, including one specially constructed for the study. In men's stories, the person who died was usually a male, and the theme was one of violence and mutilation. In women's stories, usually a male died also, but the theme was more often one of loss. These results may reflect another aspect of the same phenomenon: that males' thoughts about death tended to be self-oriented, active, and independent, or to reflect the male's assumption of responsibility for

---

[13]Edwin S. Schneidman, "On the deromanticization of death," American Journal of Psychotherapy 25 (1), 1971, 4-17.

[14]Richard J. Lowry, Male-Female Differences in Attitudes Toward Death, Ph.D. Dissertation, Brandeis University, 1965.

[15]Carole L. Selvey, op. cit.

providing for his dependents, while women think of losing their source of support and are concerned with the condition of that which, at least in part, gains them that support--their bodies.

Kahana and Kahana[16] found, however, that women gave practical, interpersonal, and caretaking (other-directed) reasons for wanting to know ahead of time if they were going to die, while men's reasons for wanting that information had to do with mastery, facing reality, and personal need for awareness. Here, it is the caretaking role of the woman, rather than of the man, which is reflected in attitudes towards death. It may be that this reflects the traditional expectation that the woman will think of the needs of others before her own, while men might think first of their own abilities and capacities, which only secondarily will be used for meeting the needs of others. It may also be that the kinds of stimuli given in the two experiments elicited different facets of attitudes towards death, related to different perceptions of sex roles.

In research which relies entirely on self-report, differences may appear which result from certain attitudes or feelings being more acceptably expressed by one sex than the other. Thus, the expression of thoughts about death related to one's role as a caretaker appears to be equally socially desirable for both men and women, although it may take different forms. But a fear of loss, for instance, may be thought more acceptable when expressed by a woman, and less so when a man feels it.

---

[16]Boaz Kahana and Eva Kahana, "Attitudes of young men and women toward awareness of death," Omega 3, 1972, 37-44.

Fear of death. Several researchers have found sex differences in amount and content of fear of death, using various measures developed for the purpose of measuring fear of death.

Templer and Ruff[17, 18] found that females scored significantly higher than males on Templer's[19] Death Anxiety Scale, in populations of adolescents, their parents, and a group of residents of an upper-middle-class apartment house. In groups of psychiatric patients and low-income psychiatric aides, the difference was in the same direction, but was not significant. (They do not address the question of whether sex difference are influenced by differences in socioeconomic status.) Ray and Najman[20] found a slight but significant tendency for female undergraduates to be more death anxious than males, using the same instrument, but the sexes did not differ on a measure of death acceptance which was negatively correlated with the Death Anxiety Scale.

Selvey[21] reported that women scored significantly higher than men on Boyar's[22] Fear of Death Scale. In males, fear of death was

---

[17]Donald I. Templer and Carol F. Ruff, "Death anxiety: age, sex, and parental resemblance in diverse populations," Developmental Psychology 4 (1), 1971, 108.

[18]Donald I. and Carol F. Ruff, "Death Anxiety Scale means, standard deviations, and embedding," Psychological Reports 29 (1), 1971, 173.

[19]Donald I. Templer, The Construction and Validation of a Death Anxiety Scale, Ph.D. Dissertation, University of Kentucky, 1967.

[20]J. J. Ray and J. Najman, "Death anxiety and death acceptance: A preliminary approach," Omega 5 (4), 1974, 311-315.

[21]Carole L. Selvey, op. cit.

[22]Jerome I. Boyar, The Construction and Partial Validation of a Scale for the Measurement of the Fear of Death, Ph.D. Dissertation, University of Rochester, 1963.

correlated with scores on the Fordyce Dependency Scale, and preoccupation with death with guilt about hostility on the Mosher Guilt Scale, but there were no such correlations among females.

Lester,[23] using the scale of Collett and Lester (which is used in this study also), found that women had a higher fear of dying of self, death of self, and death of others, but there was no difference between the sexes in fear of dying of others, consistency of death attitudes, or semantic differential rating of the concept of death. (Evaluative ratings were significantly related to the fear of death.)

Handal[24] found that females with an unrealistically low subjective life expectancy (the age they expected to live to, compared with the actuarial life expectancy for their age and sex) had significantly higher death anxiety scores on a revision of Livingston and Zimet's scale[25] than did those with realistic or unrealistically high subjective life expectancy. There were no significant differences among males in this respect.

Feldman and Hersen[26] found that women expressed more conscious death concern than men.

---

[23]David Lester, "Studies in death attitudes: Part two," Psychological Reports 30, 1972, 440.

[24]Paul J. Handal, "The relationship between subjective life expectancy, death anxiety, and general anxiety," Journal of Clinical Psychology 25 (1), 1969, 39-42.

[25]Peter B. Livingston and Carl N. Zimet, "Death anxiety, authoritarianism, and choice of specialty in medical students," Journal of Nervous and Mental Disease 140 (3), 1965, 222-230.

[26]Marvin J. Feldman and Michel Hersen, "Attitudes toward death in nightmare subjects," Journal of Abnormal Psychology 72 (5), 1967, 421-425.

In several studies, no sex differences have been shown. None were found by Pandey and Templer[27] in a group of college students, Lucas[28] in a sample of surgical and dialysis patients and their wives, Templer and Dotson[29] in a study of people of different religious persuasions, or by Feifel and Branscomb[30] in a group of both healthy and ill people. Rhudick and Dibner[31] found no sex differences among the elderly in the number of references to death given in stories told to TAT cards (taken as a measure of unconscious death concern). Swenson[32] found no differences in a sample of normal aged people, nor did Reynolds and Kalish[33] in a group of young, middle-aged and elderly people. Dickstein[34] found no significant differences in responses to his

---

[27]R. E. Pandey and Donald I. Templer, "Use of the Death Anxiety Scale in an inter-racial setting," Omega 3 (2), 1972, 127-130.

[28]Richard A. Lucas, "A comparative study of measures of general anxiety and death anxiety among three medical groups including patient and wife," Omega 5 (3), 1974, 233-243.

[29]Donald I. Templer and Elsie Dotson, "Religious correlates and death anxiety, Psychological Reports 26, 1970, 895-897.

[30]Herman Feifel and Allan B. Branscomb, "Who's afraid of death?" Journal of Abnormal Psychology 81 (3), 1973, 282-288.

[31]Paul J. Rhudick and Andrew S. Dibner, "Age personality, and health correlates of death concerns in normal aged individuals," Journal of Gerontology 16 (1), 1961, 44-49.

[32]Wendell M. Swenson, A Study of Death Attitudes in the Gerontic Population and Their Relationship to Certain Measurable Physical and Social Characteristics, Ph.D. Dissertation, University of Minnesota, 1958.

[33]David K. Reynolds and Richard A. Kalish, "Anticipation of futurity as a function of ethnicity and age," Journal of Gerontology 29 (2), 1974, 224-231.

[34]Louis S. Dickstein, "Death concern: Measurement and correlates," Psychological Reports 20, 1972, 563-571.

death concern scale, and found differing correlations between death concern and personality variables among males and females. Hooper and Spilka[35] found no relationship between sex and positive or negative perception of death in a group of college students.

In conclusion, it appears that sex differences may be related to other variables, which may explain the fact that some researchers have found differences while others have not. In those studies in which sex differences have been found, in all cases the difference has been in the direction of women being more afraid of death than men, a finding which remains unexplained. In the current study, it is hoped that, should such differences be found, they may be explainable, at least partly, in terms of other differences between groups.

Religious Differences

Denominational preference. Martin and Wrightsman[36, 37] criticize existing studies of religious differences in death attitudes for not focusing on a broad enough spectrum of churchgoers. However, they recommend limiting such research to church-going adults, who they expect to exhibit more differences among themselves than populations of college students (the people most often used as subjects in such

---

[35]Thornton Hooper and Barnard Spilka, "Future time and death among college students," Omega 1, 1970, 49-56.

[36]David Martin and Lawrence S. Wrightsman, Religion and fears about death: A critical review of research," Religious Education 59 (2), 1964, 174-176.

[37]David Martin and Lawrence S. Wrightsman, "The relationship between religious behavior and concern about death," Journal of Social Psychology 65, 1965, 317-323.

studies). Vernon[38] argues to the contrary that to use 'none' as a unitary category in asking about religious affiliation is to obscure differences which may exist among those who are not members of established religious denominations. He suggests that that category be further divided into such subcategories as 'religious independent' or 'no religion at all,' or whatever categories appear relevant to the question at hand. By implication, he contends that a population of church-going adults is too limited to display the full range of possible differences in attitude, since they may be more like each other than like those who do not belong to churches. In this study, an attempt is made to ask about a full range of possible religious preferences, in order not to obscure real differences.

Most studies of death attitudes do focus on people who are members of major American religious groups, a fact which might account for the minimal differences often found. Templer and Dotson[39] found no relationship between religious belief or religious behavior and scores on Templer's Death Anxiety Scale--but only one Jew and two nonbelievers were included in the predominantly Catholic and Protestant sample. They theorize that, rather than being an over-all determinant of death anxiety, religious upbringing may interact with other personality variables to result in an abnormally high or low fear of death. It may, however, be the case that their sample consisted of people who were too much like each other in religious conviction for real differences to emerge.

---

[38]Glenn M. Vernon, "The religious 'nones:' A neglected category," Journal for the Scientific Study of Religion 7, 1968, 219-229.

[39]Donald I. Templer and Elsie Dotson, op. cit.

In a sample of college students, such as is used in the current study, it is likely that there will be a fair amount of diversity of religious conviction and membership. Many subjects may have changed their religious membership or beliefs during adolescence or young adulthood, or may have given up religion entirely, either temporarily or permanently. On the hypothesis that there may be small differences among people which are relevant to their attitudes toward death, and that changes in religious conviction may also influence (or be the result of) attitudes toward death, it is attempted here to ask about religious membership in enough detail so that differences may emerge. Respondents are asked what religion, if any, they were brought up in, what their current religious persuasion is, how religious they consider themselves to be, and whether they believe in an afterlife.

Faunce and Fulton[40] gave college students a sentence completion questionnaire about death, and arrived at a measure of the consistency of each respondent's answers. Among high consistency scorers, there were two general orientations: temporal (concerned with what happens to the body, funeral customs, the finality of death, disbelief in an afterlife, concern for the bereaved, separation from family and friends, and emphasis on this life as having been satisfying) and spiritual (death as a transition to another life, an end to one's

---

[40]William A. Faunce and Robert L. Fulton, "The sociology of death: A neglected area of research," Social Forces 36, 1958, 205-209.

troubles, or a prelude to judgment). (Feifel[41, 42] and Shrut[43] arrived at these same general categories of attitudes.) Catholics had a significantly higher mean consistency score than non-Catholics, accounted for by a higher proportion of Catholics with a consistently spiritual orientation. The orientation of fundamentalist Protestants was more like that of Catholics than like that of more liberal Protestants, a result which suggests that denominational differences, although a convenient a priori way to categorize people, may not be very relevant in looking for religious differences in attitudes toward death.

Some studies have found denominational differences however. In interviewing Catholic and non-Catholic nursing home personnel (a group which, working in a setting in which death is a regular occurrence, may be expected to have faced the necessity of finding some way of coping with uncomfortable feelings about it), Pearlman et al.[44] found that Catholics viewed death in a positive light, as the beginning of another life, and found their religion comforting in dealing with the eventuality of their own death more often than non-Catholics, who viewed death negatively, as the end of life, and did not find comfort from their religion in confronting the idea of death. Non-Catholics said they would deal with difficult feelings about death by avoiding

---

[41]Herman Feifel, "Attitudes of mentally ill patients toward death," Journal of Nervous and Mental Diseases 122, 1955, 375-380.

[42]Herman Feifel, "Older persons look at death," Geriatrics 1956, 127-130.

[43]Samuel D. Shrut, "Attitudes toward old age and death," Mental Hygiene 42, 1958, 259-266.

[44]Joel Pearlman, et al., "Attitudes toward death among nursing home personnel," Journal of Genetic Psychology 114, 1969, 63-75.

thinking about it, keeping busy, and crying, while Catholics said they would remain composed, talk about it, and pray.

Diggory and Rothman,[45] examining the extent to which different consequences of their own death were feared by members of different groups, found that no longer being able to have any experiences, and the ending of all one's plans and projects, was near the top of what was feared in all groups, but ranked lower for Catholics than for others. They suggest that Catholics regard death less as a termination of experiences than do non-Catholics. Fear of what might happen to the body after death was least in the Other-None religious group, and most among Catholics, which they suggest might reflect Catholics' concreteness of belief about an afterlife (and therefore concreteness of possible bad things that might happen after death). The possible pain involved in dying was feared most by Protestants, least by Jews, with Catholics a middle group. Again, the consistently more spiritual orientation of Catholics is suggested.

In a group of college students, Golburgh et al.[46] found that Jews reported belief in an afterlife significantly less often than either Catholics or Protestants, but significantly more often said that their belief in an afterlife (or lack thereof) influenced their feelings about personal death. Jews were also less often willing to say they would die for a cause than the other two groups.

---

[45] James C. Diggory and Dorreen Z. Rothman, op. cit.

[46] Stephen L. Golburgh et al., "Attitudes of college students toward personal death," Adolescence 2 (6), 1967, 212-229.

In the only study in which specifically fear of death was examined in different denominational groups, Lester[47] found no differences among Catholics, Protestants, and Jews in fear of death of self, dying of self, death of others, or dying of others.

Religiosity. 'Religiosity' is defined by Williams and Cole as "the magnitude of religious activity reported by the subjects."[48] Several studies have examined this variable, generally conceived of as the extent of religious activity, or number of religious activities, people report involvement in. The term is also sometimes used to refer to the extent of commitment a person expresses to a religious belief system, or to the importance of that belief or commitment to him or her. These two dimensions of religious behavior overlap, and since the term 'religiosity' is variously operationalized, they will be treated together here, all definitions of 'religiosity' may be treated as referring to a dimension of religious involvement.

Williams and Cole[49] found that religiosity was not related to GSR reactivity to death-related words. Subjects of all levels of religiosity showed greater reactivity to death words than to affectively neutral words.

Lester[50] found a conflicting relationship between religiosity and fear of death. Less religious subjects scored significantly higher

---

[47]David Leter, "Religious behavior and the fear of death," Omega 1, 1970, 181-188.

[48]Robert L. Williams and Spurgeon Cole, "Religiosity, generalized anxiety, and apprehension concerning death," Journal of Social Psychology 75, 1968, 111-117 (quote page 111).

[49]Ibid.

[50]Lester, op. cit.

on his fear of death scale than did more religious people. On Collett and Lester's scale (which contains most of the items of Lester's scale), less religious subjects scored significantly higher on fear of dying of self, but not on the other subscales (this would be consistent with a more temporal orientation towards death). Less religious subjects had greater fear for self than for others, while in more religious subjects that relationship was reversed. Less religious subjects were also less inconsistent in their attitudes toward death.

Faunce and Fulton found that those who attended church more frequently had more consistent attitudes towards death, and more often a spiritual atitutde than a temporal one. The relationship between fear of death and consistency of orientation remains to be further investigated, but emotionally oriented responses to the sentence-completion task given to subjects in this study, suggesting higher fear of death, were more common among spiritually-oriented people. In addition, people with incomes over $10,000 and under $3,000 were more consistently spiritual in orientation than were middle income groups.

> . . . it would appear to be consistent with Veblen's suggestion that the general orientation toward life of the middle class is temporal, means-oriented, and secular, while that of the upper and lower classes is more apt to be trans-temporal and fate or luck oriented.[51]

Templer[52] found that college students who had a strong attachment to their religious belief system, attended religious functions more frequently, were certain of the existence of an afterlife, believed in a

---

[51] Faunce and Fulton, op. cit., p. 208.

[52] Donald I. Templer, "Death anxiety in religiously very involved persons," Psychological Reports 31, 1972, 361-362.

literal interpretation of the Bible, and considered themselves strong in religious conviction compared with others, had lower scores on his Death Anxiety Scale. Scale means in this religiously very involved group were lower than in any other group to which the instrument had been given. No relationship was found between Death Anxiety Scale score and denominational affiliation, whether the person was still in the religion s/he had been brought up in, or whether the main reason given for being religious was so as to have the possibility of a life after death. Templer suggests that even those college students who are religiously very involved may not be especially religious compared with the general population rather than with other college students, and that the college period is one in which religion plays a small part in a person's life, so that more differences would be found between very religious and nonreligious people in the general population than were found in this group. However, it may also be that college students who do define themselves as very religious are likely to be even more so than those in the general population who so define themselves, since people in this environment and of this age frequently form fairly intense attachment to belief systems.

Several studies have compared self-defined religious and non-religious people. Usually this means that relatively more or less religious people have been compared with each other, not that a special effort has been made to seek out genuinely non- or antireligious people. Often, the effect is that people of relatively different degrees of religious involvement from within a given religious group are compared with each other.

Alexander and Adlerstein[53] divided middle-class, male, Protestant undergraduates into religious and nonreligious groups. They found that eighty percent of the religious subjects reported having become aware of the existence of death before age six, compared with only thirty percent of the nonreligious subjects, and the religious subject tended to report clearer (although earlier) memories of their experiences with death, and more feelings about death and burial. At the end of the experiment, manifest anxiety levels in the two groups were approximately equal, but there was some indication that general anxiety was aroused more easily by death-related stimuli in the nonreligious subjects.

Adlerstein [54] found, contrary to expectation, that in a group of male undergraduates, the religious group showed a significantly greater increase in manifest anxiety as a result of completing a questionnaire and interview on death attitudes. Religious and nonreligious people did not differ in their semantic differential ratings of death words, judging the concept bad and potent.

Feifel[55] found religious people to be personally more afraid of death, especially in an older population, in which religious people held a more negative orientation toward the later years of life than did the nonreligious. Swenson[56] found that elderly people with more fundamentalist

---

[53]Irving E. Alexander and Arthur M. Adlerstein, "Death and Religion," in H. Feifel, ed., The Meaning of Death (New York: McGraw-Hill, 1959).

[54]Arthur M. Adlerstein, The Relationship between Religious Belief and Death Affect, Ph.D. Dissertation, Princeton University, 1958.

[55]Herman Feifel, "Attitudes toward death in some normal and mentally ill populations," in H. Feifel, ed., The Meaning of Death, (New York: McGraw-Hill, 1959), 114-130.

[56]Swenson, op. cit.

religious beliefs and habits looked forward to death more than those with less fundamentalist beliefs. Ray and Najman[57] found that religious unbelievers were more acceptant of death than believers, in a group of undergraduates, but there was no significant correlation between religious belief and death anxiety.

Feifel and Branscomb[58] found that those who indicated that they did not fear death "because it is God's will" rated themselves more religious. The more religious subjects also had more positive fantasy imagery about death, and more often rated their own death as "clean," "fair," "kind," and "sociable" than less religious subjects.

Studies by Blake,[59] Kalish,[60] and Feifel[61] have shown no differences between believers and unbelievers. However, Blake notes that attitudes toward death expressed in religious language did not correlate with the same attitudes expressed in secular language, and suggests that the use of religious language may confuse the interpretation of the expressed attitudes. He contends that religious belief may offer the opportunity for the individual to deny the reality of death. Similarly Adlerstein suggests that the evidence does not support the hypothesis that strong religious belief effectively reduces negative affect toward death:

---

[57]Ray and Najman, op. cit.

[58]Feifel and Branscomb, op. cit.

[59]Robert R. Blake, Attitudes Toward Death as a Function of Developmental Stages, Ph.D. Dissertation, Northwestern University, 1969.

[60]Richard A. Kalish, "Some variables in death attitudes," Journal of Social Psychology 59, 1963, 137-145.

[61]Herman Feifel, "Religious conviction and fear of death among the healthy and the terminally ill," Journal for the Scientific Study of Religion 13, 1974, 535-560.

> The evidence that does emerge suggests that religious and nonreligious people use different methods for binding their negative affect and anxiety toward death. The nonreligious subjects handle their affect by suppressing memories and feelings about death. The religious subjects handle their affect by denying the reality of physical death, focusing instead on the afterlife.[62]

Belief in afterlife. Belief in an afterlife is a particular content of religious belief which is often thought to serve the purpose of reducing fear of death. Middleton[63] in 1936, in one of the earliest studies of death attitudes, reported that sixty-six percent of his college student subjects believed in an afterlife. Lester[64, 65] found that males (in Middleton's 1936 sample and a similar one studied in 1970) more often than females reported wanting to know for sure whether there is an afterlife, and said that they would change their manner of living if they knew for sure that there was one, but that they were less likely to believe in one. Lester[66] found that students in 1970 were less likely to express a wish to live after death, more likely to want to know for sure whether there is a life after death, and less likely to believe in one, than were students in 1936.

---

[62] Adlerstein, op cit., abstract.

[63] Warren C. Middleton, "Some reactions toward death among college students," Journal of Abnormal and Social Psychology 31, 1936, 165-173.

[64] David Lester, "Re-examination of Middleton's data: Sex differences in death attitudes," Psychological Reports 27, 1970, 136.

[65] David Lester, "Sex differences in attitudes toward death: A replication," Psychological Reports 28, 1971, 754.

[66] David Lester, "Attitudes toward death today and thirty-five years ago," Omega 2, 1971, 168-173.

Jeffers et al.[67] found that, in people over 60, fear of death was associated with less belief in an afterlife, as well as with less frequent reading of the Bible. Osarchuk and Tatz[68] administered stimuli which intensified fear of death temporarily, and found that belief in afterlife increased in those in whom it was already high, but not in those whose initial belief was low. Belief in afterlife, they conclude, is reinforcing as a means of fear reduction in some people.

Berman[69] found no association between a subject having experienced a life-threatening situation and whether s/he believed in an afterlife, but significantly more religiously inactive subjects reported at least one life-threatening experience than religiously inactive subjects. Kalish[70] found no significant correlation between fear of death and belief in an afterlife or belief in God.

In summary, the evidence appears to suggest that there is some religious influence on the fear of death and other attitudes toward death, or some influence of those feelings on a person's religious convictions, but the nature of the relationship is far from clear. Evidence has been found that religious affiliation, religiosity, and belief in an afterlife both are and are not related to the fear of death. It is

---

[67]Frances C. Jeffers, et al., "Attitudes of older persons toward death: A preliminary study," Journal of Gerontology 16 (1), 1961, 53-56.

[68]Michael Osarchuk and Sherman J. Tatz, "Effect of induced fear of death on belief in afterlife," Journal of Personality and Social Psychology 27 (2), 1973, 256-260.

[69]Alan L. Berman, "Belief in afterlife, religion, religiosity, and life-threatening experiences," Omega 5 (2), 1974, 127-135.

[70]Kalish, op. cit.

probable, therefore that some combination of variables will predict fear of death better than any single variable, at least of a religious nature.[71]

Age Differences

Studies which have examined relationships between age and the fear of death have produced conflicting evidence.

Golburgh et al.[72] and Hooper and Spilka[73] found no relationship between the age of college students and whether they held positive or negative attitudes toward death. Rhudick and Dibner[74] found that the number of death references given in stories told to TAT cards (a measure of unconscious death concern) by elderly people did not vary with age, and Swenson[75] also found no differences among the elderly. Templer and Ruff[76, 77] found no age differences in fear of death in a sample which ranged in age from 19 to 85 years, and similar results are reported by Lester.[78]

Only in three studies have clear age-related differences in the fear of death been shown. Blake[79] found that older people reported less

---

[71] Chasin, op. cit.

[72] Golburgh, et al., op. cit.

[73] Hooper and Spilka, op. cit.

[74] Rhudick and Dibner, op. cit.

[75] Swenson, op. cit.

[76] Templer and Ruff, Developmental Psychology 4(1), op. cit.

[77] Templer and Ruff, Psychological Reports 29 (1), op. cit.

[78] Lester, 1972, op. cit.

[79] Blake, op. cit.

fear than adolescents. Reynolds and Kalish[80] found that the elderly reported less fear than either the middle aged or the young, although there was no relationship found between fear of death and the expectation of or wish for a long life. Feifel and Branscomb[81] found that those who admitted fear of death were significantly younger than those who denied it, and that subjects in the 59 to 70 year old group denied fear of death more often than those in other age groups. Older people more often rated their own death as "clean," "fair," "kind," and "sociable" than did younger subjects, and, on a word association task, took longer to react to death-related words than younger people. This suggests that, while the elderly were less afraid at a conscious level (or less willing to express fear), they feared death at an unconscious level more than younger persons did.

Cameron[82] found that people tend to grossly over-estimate the probability of their own death within the next year, but that older people more closely approximate the actuarial probability of their own death than do younger ones. But Tolor and Murphy[83] found that people under 30 were more realistic in estimating their life expectancy than were people over 30. Diggory and Rothman[84] found that older (40-54 years of age) people were more concerned with their inability to provide

---

[80]Reynolds and Kalish, op. cit.

[81]Feifel and Branscomb, op. cit.

[82]Cameron, op. cit.

[83]Alexander Tolor and Vincent M. Murphy, "Some psychological correlates of subjective life expectancy," Journal of Clinical Psychology 23, 1967, 21-26.

[84]Diggory and Rothman, op. cit.

for their dependents as a result of their death than were those in the 15-19 year old group, a predictable result since the younger age group is unlikely to have had any experience of having and caring for dependents.

Alexander and Adlerstein[85] found lowered skin resistance (GSR) to death-related words on a word-association task in a group of five to 16 year old boys, but this effect was least in the nine to twelve year old group. The authors suggest that the latency period is less stressful to the ego than other ages, and that therefore people in this age group respond to stressful stimuli with less anxiety.

Bromberg and Shilder[86] contend that subjectively held attitudes usually are similar to the attitudes the person attributes to others. Feifel[87] asked mentally ill patients at what times of life they thought people most feared death. Many chose childhood and old age as the times during which people were either most or least afraid of death. There were no differences in responses from people under or over thirty years old. Feifel[88] found that patients and older people saw old age as the time of life when people most fear death, while younger normals saw the forties and fifties as the times when people are most afraid.

---

[85]Irving E. Alexander and Arthur M. Adlerstein, "Affective responses to the concept of death in a population of children and early adolescents," Journal of Genetic Psychology 93, 1958, 167-177.

[86]W. Bromberg and P. Shilder, "The attitudes of psychoneurotics toward death," Psychoanalytic Review 20, 1933, 133-185.

[87]Herman Feifel, "Attitudes of mentally ill patients toward death," Journal of Nervous and Mental Diseases 122, 1955, 375-380.

[88]Herman Feifel, "Attitudes toward death in some normal and mentally ill populations," in H. Feifel, ed., The Meaning of Death (New York: McGraw-Hill, 1959), 114-130.

However, evidence from other studies suggests that, if there are age differences, they are in the direction of younger people being more fearful of death. Since the evidence is scant, it is difficult to tell whether this discrepancy indicates that there really are no general age differences in fear of death, or that the attribution of attitudes to others is not a good method of assessing the respondent's own attitudes. Peripherally, patients ranked childhood as second to the seventies as the age in which people most fear death, while normal groups said that childhood is the time when death is feared least. Feifel suggests that childhood ideas of death have to do with deprivation, and that the difference may be accounted for if one assumes that the patient group came from more deprived childhood environments.

Health and Personality

Several conditions of mental and physical health have been examined for relevance to feelings about death, and psychiatric and medical patients have often served as subjects for such research. In this section, research which has a bearing on mental and physical health, and personality variables, is summarized.

Mental and physical health. Feifel[89] found that psychiatric patients chose old age or childhood as the times in which people most or least feared death, with the tendency to select old age more often. He also suggests that they see childhood as a less secure time than nonpatients. Some saw death as occurring violently, although most said they saw it as the natural end of the life process, and some found it so anxiety-arousing that they denied having any thoughts about it at all.

---

[89] Ibid.

> The conjecture is that a violent conception of death mirrors self-held feelings of aggressiveness toward others as well as toward oneself.[90]

Asked what they would do if faced with imminent death, patients tended to choose social and religious activities, in contrast to normal groups who emphasized personal pleasures and gratifications. The degree of mental illness had little effect on attitudes toward death.

> Neither neurosis nor psychosis produces attitudes toward death which cannot also be found in normal subjects.[91]

Lester[92] found no significant differences in fear of death between high and low scorers on the neuroticism scale of the Maudsley Personality Inventory. Templer and Ruff[93] summarize research on the Death Anxiety Scale which shows that psychiatric patients score consistently higher than nonpatients. Thus, the nature and direction of differences between patients and nonpatients are far from clear.

Research on the effect of physical health and illness on death anxiety has also produced conflicting results. Templer[94] sent the Death Anxiety Scale, the D scale of the MMPI, and the Cornell Medical Inventory (a report of one's own opinions of the physical and psychiatric symptoms from which one suffers) to a group of 250 retired persons, of which 75 were returned. He found that death anxiety was positively

---

[90] Ibid.

[91] Ibid.

[92] David Lester, "Religious behavior and the fear of death," Omega 1, 1970, 181-188.

[93] Templer and Ruff, op. cit.

[94] Donald I. Templer, "Death anxiety as related to depression and health of older persons," Journal of Gerontology 26 (4), 1971, 521-523.

related to depression, and to self-report of a high number of psychiatric symptoms. Removing the influence of the psychiatric scale on the somatic scale, death anxiety was negatively related to a high number of somatic symptoms. Templer contends that death anxiety is part of a depressive syndrome in the elderly, and may be treated in part by treating depression, but that death anxiety should not be regarded as a cause of depression in the elderly. A negative relationship is suggested between ill health and death anxiety; when psychiatric disturbance was controlled for, physically healthy people had more death anxiety than sicker ones. Swenson[95] found that older people in poor health tended to have positive attitudes towards death, while those in good health tended to avoid the idea of death. (He found no relationship between death anxiety and any MMPI scales.)

Rhudick and Dibner[96] gave the MMPI, the Cornell Medical Inventory, and a set of TAT cards to elderly men and women. High death concern was associated with high scores on Hypochondriasis, Hysteria, Dependency (Navran) and Impulsivity (Gough), but there were no significant correlations with any other scales. Individuals who reported a higher number of physical and/or psychiatric complaints showed higher death concern than those who reported fewer symptoms. In this study, it is the sicker individuals who show greater death concern. The measure of death concern used in this study is intended to reflect unconscious death concern, in contrast to Templer's Death Anxiety Scale, which measures consciously held attitudes. It may be that sickness and

---

[95]Swenson, op. cit.

[96]Rhudick and Dibner, op. cit.

health bear a different relationship to death anxiety at different levels of awareness.

> The lack of relationship of high death concern to anxiety and psychasthenia suggests that those who have preconscious death concern do not have anxiety of the free-floating or obsessive variety; rather, the anxiety tends to be attached to bodily symptoms. This statement seems to be partly corroborated by the finding on the CMI data, i.e., the more frequent the reporting of physical symptoms, the higher the death concern. It is important to note that the CMI elicits attitude toward health, not necessarily the actual physical status of the respondent. The strongest relationships are suggested by the subjects who admit to many physical symptoms on the CMI and also score high on the Hypochondriasis scale of the MMPI.[97]

Christ[98] found that elderly psychiatric patients in better health were less afraid of death than those with poorer health.

Lucas[99] found no differences in either general anxiety or death anxiety among groups of dialysis and surgical patients and their respective wives, and found that they scored very similarly to normal groups on Templer's Death Anxiety Scale, suggesting that serious physical illness does not heighten death anxiety.

Munro[100] and Hopkinson and Reed[101] found no differences between depressed psychiatric patients and normals in the rate at which they had lost a parent or a sibling by age 16. Munro, however, found that twice

---

[97] Ibid.

[98] Adolph E. Christ, "Attitudes toward death among a group of acute geriatric psychiatric patients," Journal of Gerontology 16 (1), 1961, 56-59.

[99] Lucas, op. cit.

[100] Alistair Munro, "Parental deprivation in depressive patients," British Journal of Psychiatry 112, 1966, 443-457.

[101] G. Hopkinson and G. F. Reed, "Bereavement in childhood and depressive psychosis," British Journal of Psychiatry 112, 1966, 459-463.

as many severe as moderate depressives had lost a parent in childhood, usually their mother. Greer[102] found that psychiatric patients who had attempted suicide had lost both parents significantly more often than patients of the same age who had not made suicide attempts. There was no significant difference between the two groups in the sex of the parent lost when only one had been lost, or in the cause of loss, whether separation or death. Cash and Kooker[103] found that patients who had attempted suicide were more inconsistent in their attitudes toward death than either patients who had not made attempts or graduate and undergraduate students. These results may mean that the suicidal patients were more ambivalent in their attitudes towards death.

The relationship between death anxiety and general anxiety is positive, but general anxiety measures correlate more highly among themselves than they do with measures of death anxiety, suggesting that death anxiety, while increased by general anxiety level, also has other components. Templer[104, 105] found moderate correlations between scores on his Death Anxiety Scale and scores on three MMPI scales of general anxiety, correlations which were lower than those among the MMPI scales themselves. Dickstein[106] found that, in females,

---

[102]S. Greer, "Parental loss and attempted suicide, a further report," British Journal of Psychiatry 112, 1966, 465-470.

[103]Larry M. Cash and Earl W. Kooker, "Attitudes toward death of neuropsychiatric patients who have attempted suicide," Psychological Reports 26, 1970, 879-882.

[104]Donald I. Templer, The Construction and Validation of a Death Anxiety Scale, Ph.D. Dissertation, University of Kentucky, 1967.

[105]Donald I. Templer, "The construction and validation of a death anxiety scale," Journal of General Psychology 82, 1970, 165-177.

[106]Dickstein, op. cit.

death concern was positively correlated with state anxiety and train anxiety, and with manifest anxiety in both males and females. He reports about 13 percent common variance between death concern and manifest anxiety. Nogas et al.[107] found that general anxiety accounted for about 16 percent of the variance of death anxiety, and Handal[108] obtained low but significant correlations between the Livingston and Zimet fear of death scale and a measure of general anxiety. Only Williams and Cole[109] obtained results which indicated no relationship between death anxiety and general anxiety.

Tolor and Reznikoff[110] gave subjects a revision of Livingston and Zimet's scale, Byrne's repression-sensitization scale, and Rotter's scale of internal and external locus of control. Sensitizers and internals were significantly more death-anxious than repressors and externals. While the first difference was in the predicted direction, the finding that internals were more death-anxious than externals was contrary to expectations. The reasoning behind the prediction was as follows:

---

[107]Catherine Nogas, et al., "An investigation of death anxiety, sense of competence, and need for achievement," Omega 5 (3), 1974, 245-255.

[108]Paul J. Handal, "The relationship between subjective life expectancy, death anxiety, and general anxiety," Journal of Clinical Psychology 25 (1), 1969, 39-42.

[109]Williams and Cole, op. cit.

[110]Alexander Tolor and Marvin Reznikoff, "Relation between insight, repression-sensitization, internal-external control, and death anxiety," Journal of Nervous and Mental Diseases 140, 1965, 222-230.

> Since the concept of death and the process of dying represent in our society phenomena that are potentially threatening to many individuals, the degree of overt anxiety experienced in this area may be regarded as one indication of a characteristic response to extremely threatening stimuli. Sensitization should therefore be related to a heightened degree of overt death anxiety as compared to repression. Similarly, since the person with an external orientation believes that factors beyond his control determine his failures, external expectancies should be more associated with overt death anxiety than the belief in internal control of reinforcement.[111]

It may be supposed, however, that the person who believes in internal control of reinforcement, when faced with a situation like death in which that control is not there, would suffer more anxiety than one who already believes that what happens is under the control of external forces. In another study, Templer[112] found that sensitizers scored significantly higher on his Death Anxiety Scale. There were low but significant correlations between Death Anxiety Scale scores and GSR readings taken as subjects gave associations to death-related words, but there was no correlation between GSR readings and repression-sensitization. He concludes that autonomically measured death anxiety is independent of repression-sensitization, while consciously reported death anxiety may not be.

The research on the relationship between death anxiety and other personality variables is peripheral to the current study. Many studies show no such relationships to exist, particularly among females. No relationships have been found, for either sex, between death anxiety

---

[111] Ibid., p. 223.

[112] Donald I. Templer, "The relationship between verbalized and nonverbalized death anxiety," Journal of Genetic Psychology 119, 1971, 211-214.

and need for achievement,[113, 114] external locus of control,[115, 116] (as noted above, Tolor and Reznikoff[117] found contrary results), fear of failure,[118] or denial.[119]

Fear of death has been found to be correlated with needs for heterosexuality and succorance on the Edwards Personal Preference Schedule,[120] with dependency and guilt about hostility (in males only),[121] with lower sense of purpose and meaning in life,[122] and with present- as opposed to future orientation.[123] Jeffers et al.[124] reported that fear of death, in people over 60 years of age, was correlated with feelings of rejection and depression, lower full-scale IQ, lower performance IQ, and fewer Rorshach responses; and Paris and

---

[113]Nogas et al. op. cit.

[114]Ray and Najman, op. cit.

[115]Selvey, op. cit.

[116]Dickstein, op. cit.

[117]Tolor and Reznikoff, op. cit.

[118]Ronald J. Cohen and Christian Parker, "Fear of failure and death," Psychological Reports 34, 1974, 54.

[119]Ray and Najman, op. cit.

[120]Dickstein, op. cit.

[121]Selvey, op. cit.

[122]Joseph A. Durlak, "Relationship between individual attitudes toward life and death," Journal of Consulting and Clinical Psychology 38 (3), 1972, 463.

[123]Kahana and Kahana, op. cit.

[124]Jeffers et al., op. cit.

Goodstein[125] obtained tentative results indicating that women felt some sexual arousal upon reading death-related literary material.

Several researchers have investigated dreams with themes of death, and have looked for connections between dreaming and the fear of death. Handal and Rychlak[126] found that college students who scored either high or low on Handal's Death Anxiety Scale[127] reported more unpleasant dreams and more dreams of death than those who scored in the middle range, possibly indicating that that scale measures repression, at least in part. Feldman and Hersen theorize that nightmares "mirror . . . areas of conflict with which the dreamer feels especially helpless and unable to cope,"[128] and that death may be this kind of conflict for some people. Undergraduates who reported more frequent nightmares scored higher on their scale of conscious death concern. Women reported more nightmares and death concern than men. Those who had more nightmares had lost an important other before the age of nine significantly more often, and those who experienced fewer nightmares reported fewer and later losses of significant others. Lester[129,130]

---

[125]Joyce Paris and Leonard D. Goodstein, "Responses to death and sex stimulus materials as a function of repression-sensitization," Psychological Reports 19, 1966, 1283-1291.

[126]Paul J. Handal and Joseph F. Rychlak, "Curvilinearity between dream content and death anxiety, and the relationship of death anxiety to repression-sensitization," Journal of Abnormal Psychology 77 (1), 1971, 11-16.

[127]Handal, op. cit.

[128]Feldman and Hersen, op. cit., p. 421.

[129]David Lester, "Fear of death and nightmare experiences," Psychological Reports 25, 1969, 437-438.

[130]David Lester, "The fear of death of those who have nightmares," Journal of Psychology 69, 1968, 245-247.

failed to replicate that study, finding no association between frequency of dreams or nightmares with fear of death measured on a variety of scales, although there was an association between poor memory of dreams and lower fear of death, contrary to prediction.

Roll et al.[131] studied the dreams of death of Mexican-American and Anglo-American students. Mexican women reported more dreams of death than Mexican men, while among Anglo students that relationship was reversed. Clearly this implies that caution must be exercised in generalizing findings about death attitudes and other variables outside the cultural milieu in which they were obtained.

Learning of death anxiety. Death anxiety may be determined by personality variables and intrapsychic dynamics, may be determined by early unresolved conflicts, may be instinctual, may be a survival device for the species as a whole, or may be a learned phenomenon which is amenable to change. If it is subject to change, the question arises of how resistant to change it is, whether it is learned in early childhood and remains fairly stable thereafter, or whether it is susceptible of influence by current events in the life of the individual. Finally, there is the question of what, if any, experiences and life situations contribute to the fear of death. The question to be discussed in this section is the more general one of how stable or changeable death attitudes are. This is a question of both theoretical and practical importance, since it is the

---

[131] Samuel Roll, et al., "Dreams of death: Mexican-Americans vs. Anglo-Americans," Revista Interamericana de Psicologia 8 (1-2), 1974, 111-115.

overall aim of this study to produce information which may be useful in the designing of training programs for medical students which may make impacts on their attitudes which will be useful to them in improving their interactions with their patients.

Freud[132] believed that the unconscious did not have the idea of death, and could not contain the conception of its own extinction. Klein[133] argues to the contrary that anxiety of all kinds originates in the fear of death, rather than the fear of death being, as Freud believed, a conscious reflection of some other unconscious fear (such as fear of castration). Klein argues that the unconscious does have the idea of death, the death instinct, and hence has the fear of its own annihilation. The struggle between life and death instincts continues throughout life and contributes to all anxiety situations, because it is the basis for anxiety.

However, the research which is reviewed in this chapter suggests that different life experiences affect the feelings an individual has about death, and while a purely correlational study will not explain the origin of death anxiety, it will perhaps allow a picture to be drawn of the kind of individual who is likely to experience a heightened level of fear of death.

Research in the area of parent-child resemblances in death attitudes is relevant to the general theoretical question of how death attitudes are learned and from whom, and how stable they are.

---

[132]Sigmund Freud, Beyond the Pleasure Principle, in Standard Edition, Vol. XVIII (London: Hogarth Press, 1955) (Original, 1920).

[133]Melanie Klein, "A contribution to the theory of anxiety and guilt," International Journal of Psychoanalysis, 1948, 29.

Lester and Templer[134] compared the fear of death of males and females aged 13 through 19 with that of their parents. The magnitude of the correlation between mother and daughter, and between father and daughter, decreased with the age of the child. The mother/daughter correlation in the 13-14 year old group was significantly higher than in any other age group. The mother/son and father/son correlations increased with the age of the son, with those for the 18-19 year old group being significantly higher than all others.

Lester[135] found a significant correlation between scores of mothers and those of their undergraduate daughters on the Collett and Lester scale. Daughters reported significantly more fear of death of self than their mothers but did not differ from them in fear of dying of self, death of others, or dying of others. There were no significant differences on any of these scales between fathers and daughters.

Templer and Ruff found positive correlations, ranging from .34 to .51 between Death Anxiety Scale scores of parents and their male and female children. Scores of the adolescents correlated most highly with those of the same sex parent, and scores of the parents were also significantly correlated with each other, .59.

> These data suggest that explanations based upon principles of learning account better for the observed parent-child correlations than explanations invoking genetic similarities. The substantial correlations between Death Anxiety Scale scores of parents further suggests that death anxiety is far from being dependent largely upon early childhood experiences and basic personality structure. It appears

---

[134]David Lester and Donald I. Templer, "Resemblance of parent-child death anxiety as a function of age and sex of child," Psychological Reports 31, 1972, 750.

[135]David Lester, "Relation of fear of death in subjects to fear of death in their parents," Psychological Record 20, 1970, 541-543.

> 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.[136]

An alternate hypothesis is expressed by Golburgh et al., who asked college students about their relationships with their parents and the extent to which they had discussed death with them. Those who were uncertain whether their parents had ever discussed personal death with them were significantly less afraid of death than those who knew for sure that their parents either had or had not done so. Those who had had no discussion of death with their parents tended to discuss it less with others, possibly indicating that they had learned to deny its reality. Those who had discussed it with their parents had more feelings that they could die comfortably under some conditions. Many of those who did not fear death described their current relationship with their parents as "very poor." The number of contacts with death were about equal in those who said they fear, do not fear, or do not think about death.

> Contacts with the deaths of others did not significantly influence attitudes toward death. While close contact with the death of another undoubtedly influences one's feelings about death on a temporary basis, long-term changes in attitudes appear to be unlikely. An equilibrium seems to be re-established and the original attitudes remain intact. This might support the authors' hypothesis that attitudes toward death are developed at early stages in development and external influences thereafter do not significantly influence them.[137]

---

[136]Donald I. Templer and Carol F. Ruff, "Death anxiety: age, sex and parental resemblance in diverse populations," Developmental Psychology 4 (1), 1971 p. 108.

[137]Stephen L. Golburgh, et al., "Attitudes of college students toward personal death," Adolescence 2 (6), 1967, 212-229.

The question is how much an individual's attitudes toward death are subject to change--how much they are influenced by early experiences and how much by current events in the person's life. A few studies of the effects of recent loss or recent contact with death are relevant here.

Bruhn et al.[138] had nurses in a coronary care unit periodically rate patient's levels of anxiety, unaware that those ratings of concern were the ones made close to the time of the death of a fellow patient. Ratings of anxiety made by the nurses, and systolic blood pressure levels as well, were higher than normal immediately following the death of a patient with whom the individual had shared a room.

Lester and Kam questioned female undergraduates, half of whom had experienced the death of a close friend or relative in the past five years and half of whom had not, about their thoughts about death. Those who had experienced a recent loss thought of their own death more frequently, were more inclined to entertain thoughts of dying from some specific disease, more likely to picture death as horribly painful, and reported more often being depressed by cemeteries. Those who had experienced a recent loss were generally more preoccupied with thoughts about death and more depressed and fearful.

> The existence of a weak, but nonetheless consistent, effect from experiences of a recent loss suggests that recent loss serves only to modify very slightly already existing attitudes toward death. It is more probable, therefore, that the determinants of attitudes toward death must be sought in earlier experiences.[139]

---

[138]John G. Bruhn, et al., "Patients reactions to death in a coronary care unit," Journal of Psychosomatic Research 14 (1), 1970, 65-70.

[139]David Lester and Elizabeth G. Kam, "Effect of a friend dying upon attitudes toward death," Journal of Social Psychology 83, 1971, 149-150, p. 150.

However, what one chooses to count as "recent" is somewhat arbitrary. Selvey[140] found that women who had lost someone in the last two years reported more fear of death than those who had not, but this relationship was not found among men. Boyar[141] found that both males and females who had experienced a death in their family had significantly higher fear of death than those who had not, and the recency of the death was not taken into account at all. Tolor and Murphy[142] found more unrealistic subjective life expectancy in subjects who had experienced the death of a spouse, close friend, or relative.

On the other hand, Durlak[143] found no relationship between scores on Lester's fear of death scale and whether the individual had ever experienced the death of a close friend or family member, or had ever been in a situation in which s/he had thought that his or her own death was imminent. Feifel and Branscomb[144] found that fear of death was not related to having had the recent experience of the death of a close person. None of these studies have considered the nature of the death that was experienced, whether it was premature or not, whether

---

[140]Carole L. Selvey, "Concerns about death in relation to sex, dependency, guilt about hostility, and feelings of powerlessness," Omega 4 (3), 1973, 209-219.

[141]Jerome I. Boyar, The Construction and Partial Validation of a Scale for the Measurement of the Fear of Death, Ph.D. Dissertation University of Rochester, 1963.

[142]Alexander Tolor and Vincent M. Murphy, "Some psychological correlates of subjective life expectancy," Journal of Clinical Psychology 23, 1967, 21-26.

[143]Joseph A. Durlak, "Relationship between various measures of death concern and fear of death," Journal of Consulting and Clinical Psychology 41 (1), 1973, 162.

[144]Herman Feifel and Allan B. Branscomb, "Who's afraid of death?" Journal of Abnormal Psychology 81 (3), 1973, 282-288.

it was sudden, unexpected, or long-awaited, or how close the subject felt to the person who died. Weisman[145] and Reynolds and Kalish[146] argue that the problems of adjusting to different sorts of deaths may be different, and that there is no reason to expect that different experiences of death will have the same kind of impact.

Feifel[147] points out that knowledge of the external degree of threat of a death-related stimulus is insufficient to allow prediction of how a person will react to it. It is necessary to know about the person, to make an accurate prediction. Feifel contends that it is the person's character structure that must be known; it should be clear from the above that many factors must be considered.

However, the work situation of a physician, except in certain specialties like psychiatry, must be considered a continual situation of threat of death of another, and of recent loss of persons whose significance to the physician may or may not be great personally, but into whose well being s/he has invested effort and perhaps some self-esteem.

In this context, a passage from Diggory and Rothman is relevant:

> . . . utility of the self corresponds to the probability that a person, by his own efforts, can achieve objectives that are important to him. The larger the number of important objectives for which one's probability of achievement is high, the greater his self-esteem. Loss of ability or skill reduces probability of achievement, and with it, self-esteem. Elimination of

---

[145]Avery D. Weisman, "Coping with untimely death," Psychiatry 36 (4), 1973, 366-378.

[146]David K. Reynolds and Richard A. Kalish, "Work roles in death-related occupations," Journal of Vocational Behavior 4, 1974, 223-235.

[147]Herman Feifel, "Attitudes toward death in some normal and mentally ill populations," in H. Feifel, ed., The Meaning of Death (New York: McGraw-Hill, 1959), 114-130.

> opportunity for the exercise of skills or abilities makes them, in effect, worthless, even though they are undamaged. We try to preserve or extend objects we value highly, but those of low value are treated with indifference or destroyed. Thus, a person who values himself highly should be more afraid of death than one whose self-esteem is low, because death is the limiting case of loss or destruction of the self. . . . To the extent that the goals a person values highly depend on his social status, his fear of various consequences of his own death should vary with his status or role, whether defined by age, sex, social class, religion, or marital condition.[148]

The physician is in the position of investing self-esteem in the exercise of his or her skill at keeping people alive and healthy, so that the death of a patient may also represent the loss of self-esteem due to the loss of both an opportunity for the exercise of a skill and of the evidence of the worth of that skill. A death is a failure, an evidence of the inevitable failure of the physician's skill; it should then be the case that physicians, over the course of their careers, would develop different attitudes toward death than those held by the general population, since death has additional professional meaning for them over and above the personal meaning it has. It may also be asked whether those who choose such a profession in the first place come into it with different attitudes than students who enter other fields, that is, whether there is a reason connected with their attitudes toward death which inclined them to enter a profession in which much of their self-esteem revolves about successful battles against it.

To summarize the issues involved, it is a matter of dispute whether death attitudes are formed by early childhood experiences and

---

[148]James C. Diggory and Dorreen Z. Rothman, "Values destroyed by death," Journal of Abnormal and Social Psychology 63 (1), 1961, 205-210, p. 205.

are relatively stable, of whether they are susceptible to influence by later experiences and, if so, whether the resulting change is permanent or necessarily only temporary. Finally, what kinds of later experiences influence a person's attitudes towards death, or could this differ for different people? The results of the few studies which have addressed this issue are conflicting, suggesting that the nature of the death that was experienced and the nature of the individual's relationship to the deceased, and the emotional meaning of that death to the individual, influence whether than particular death has a lasting impact on his or her attitudes and fears.

It appears, on the basis of scant evidence, that recent loss may have a greater impact on females than on males, and that stable personality traits have a greater influence on the attitudes and fears of males. Perhaps the development of fears of death takes a different course in males and females. The attitudes of females resemble those of their parents less as they pass through adolescence, while those of males come to resemble those of their parents more over the same period. Perhaps this indicates that recent experiences have more impact on women, while males become more firmly set in attitudes to which they have been exposed all their lives.

In this study, then, it is expected that differences will be found between the sexes, and among people in different fields depending on the amount of contact with death they have. And differences may be related to the recency of contact with death.

Other Demographic Variables

Race. Pandey and Templer[149] and Reynolds and Kalish[150] found no significant correlations between race and fear of death.

Occupation. Rhudick and Dibner[151] found no significant association between death concern and occupational status, marital status, or educational level. Ford et al.[152] looked for differences among policemen, mail carriers, and undergraduates, predicting that job stress (assumed to be highest for patrolmen) would be positively associated with fear of death; there were no differences among the three groups.

Lester[153] compared staff members of a suicide prevention center with members of the same occupational groups working in a different setting. There were no differences in fear of death between the two groups, but the center staff were more consistent in their death attitudes. Lester suggests that such consistency is to be expected from people who work in a setting in which the possibility of death is a regular occurrence.

Magni[154] found some indicating that theology students who planned to be parish priests identified tachistoscopically presented

---

[149]Pandey and Templer, op. cit.

[150]Reynolds and Kalish, op. cit.

[151]Rhudick and Dibner, op. cit.

[152]Robert E. Ford, et al., "Fear of death of those in a high stress occupation," Psychological Reports 29, 1971, 502.

[153]David Lester, "Attitudes toward death held by staff of a suicide prevention center," Psychological Reports 28, 1971, 650.

[154]Klas G. Magni, "Reactions to death stimuli among theology students," Journal for the Scientific Study of Religion 9 (3), 1970, 247-248.

pictures of corpses faster than those who did not plan on serving a parish. Eliot[155] classified the attitudes of soldiers in training during World War II and of men in battle; these ranged from realistic estimates of the chances of survival, to fatalistic acceptance of the probability that one will die, to various magical attempts to control fate.

Reynolds and Kalish,[156] in an important study, examined the problems and coping strategies of people in death-related occupations: funeral directors, deputy coroners, and terminal ward personnel. They discuss the roles these people fulfill, the role conflicts they experience, the attractions of that type of job, and the differences between public and intra-professional presentations of job and self. Attitudes reported by subjects include: the perception that death is an ordinary and expected event, fatalism about one's own death, humor and cynicism serving a defensive purpose, and a view of self as more realistic and objective about death than one's customers. The extent to which a given death is upsetting to people in these fields seems to have to do with whether there has been a prior nonprofessional relationship with the deceased, the cause of death, whether death was sudden or expected, the life situation of the deceased (age, social status) and other prior experiences of the person involved. They illustrate the complexity of the task of determining what factors are related to death attitudes:

---

[155]Thomas D. Eliot, ". . . of the shadow of death," Annals of the American Academy of Political and Social Science 229, 1943, 87-99.

[156]David K. Reynolds and Richard A. Kalish, "Work roles in death-related occupations," Journal of Vocational Behavior 4, 1974, 223-235.

> These persons carry with them not only characteristic psychological dilemmas (revolving around role conflicts and the anxiety associated with reminders of one's own mortality), but also incorporate unique social problems of stigmatizations, and the difficulties of interacting with emotionally upset clients.[157]

Living situation. Three researchers have examined the relationship between the kind of place an elderly person lives in that his or her attitudes toward death. Shrut[158] looked at residents of an old-age home which contained both an institutional set-up, and facilities for apartment living. Those who lived in apartments were less afraid of death than those who lived in the institutional facility, who were more dependent on the institution for everything they needed and who lived in an environment which was quite dissimilar to that of their previous place of residence. The apartment dwellers retained more independence and lived in a more familiar environment.

Swenson[159,160] found that positive, forward-looking attitudes toward death were associated with living in an old-age home, rather than some other environment. Fear of death was associated with living alone. Roberts et al.[161] interviewed 57 nursing home inmates, and found that only nine reported any fear of death, while eleven said they looked forward to dying. Thirty-five percent said they never or almost never think about death and dying, 23 percent said they often do, and 5 percent

---

[157] Ibid., p. 224.

[158] Samuel D. Shrut, "Attitudes toward old age and death," Mental Hygiene 42, 1958, 259-266.

[159] Swenson, op. cit., 1958.

[160] Swenson, op. cit., 1961.

[161] Jean Roberts et al., "How aged in nursing homes view dying and death," Geriatrics 25 (4), 1970, 115-119.

said they think about death all the time. Feifel and Branscomb[162] found no relationship between fear of death and whether the individual resided in an institution, but in a study by Templer and Ruff[163] institutionalized psychiatric patients scored higher in death anxiety than noninstitutionalized normals. It may be that living in an institution, particularly an unpleasant one, inclines one to look more positively at anything, even death, which would take one out of that setting.

Miscellaneous. Hooper and Spilka[164] found no relationship between positive or negative attitudes towards death, and marital status, whether the person was employed or not, age, sex, parental income, political preference, dogmatism, college grade point average, or tendency to respond in a socially desirable manner. Feifel and Branscomb[165] found no relationship between conscious fear of death and educational level, socioeconomic status, personal nearness to death, sex, marital status, number of children, or institutionalization. In a study by Swenson,[166,167] active avoidance of the idea of death, in a group of elderly people, was associated with lower educational level, engagement in a large number of activities, and good health. No relationship was found between death attitudes and age, sex, socioeconomic status, or living in a rural vs. an urban environment.

---

[162] Feifel and Branscomb, op. cit.

[163] Templer and Ruff, op. cit.

[165] Hooper and Spilka, op. cit.

[166] Swenson, op. cit., 1958.

[167] Swenson, op. cit., 1961.

Kalish and Reynolds[168] found no differences between widows and nonwidows in death attitudes, and Lester[169] found that place in a sibship had no influence on fear of death. Blatt and Quinlan[170] reported that students who were punctual in fulfilling a course requirement had significantly higher death concern scores than those who fulfilled it late. Alexander and Lester[171] looked for differences among parachute jumpers, and found only that the less experienced jumpers showed a greater fear of death. Shilder[172] examined the death attitudes of convicted murders, but drew no general conclusions.

In two studies, the relationship between death attitudes and other attitudes has been examined. Lester[173] reported no association, in a population of college students, between attitudes towards suicide and towards death. Kalish[174] found that the fear of death was correlated significantly negatively with approval of abortion (in 1963, before safe abortions became available). There was no signficant association with

---

[168]Richard A. Kalish and David K. Reynolds, "Widows view death: A brief research note," Omega 5 (2), 1974, 187-192.

[169]David Lester, "Studies on death-attitude scales," Psychological Reports 24, 1969, 182.

[170]Sidney J. Blatt and Paul Quinlan, "Punctual and procrastinating students: A study of temporal parameters," Journal of Consulting Psychology 31 (2), 1967, 169-174.

[171]Michelle Alexander and David Lester, "Fear of death in parachute jumpers," Perceptual and Motor Skills 34 (1), 1972, 338.

[172]Paul Shilder, "The attitudes of murderers towards death," Journal of Abnormal and Social Psychology 31, 1936, 348-363.

[173]David Lester, "Attitudes toward death and suicide in a nondisturbed population," Psychological Reports 29, 1971, 386.

[174]Richard A. Kalish, "Some variables in death attitudes," Journal of Social Psychology 59, 1963, 137-145.

approval of birth control, euthanasia, war-time killing, or capital punishment.

Attitudes of Medical Personnel

Although there is no reason to assume a priori that medical professionals will be different in their attitudes towards death than the general public, it is relevant to review separately those studies which have focused on people in the medical field, since they form the subject population of interest in the current study. It is conventionally thought that physicians enter the medical profession partly because they are more afraid of death than most people, or because they cannot accept the reality of death. This point of view is well-expressed by Livingston and Zimet:

> (The almost dead) . . . are particularly disturbing for the physician; despite his sophisticated understanding of the gross limitations of modern medicine, each dying patient represents a failure and a disappointment. The physician would like to believe himself omnipotent, an intrepid healer with access to many life-sustaining techniques, fluids, powders, and pills.[175]

The research evidence supporting or contradicting this conventional wisdom is reviewed here, and in this study an attempt is made to compare the attitudes of medical students with those of students in other fields.

Caldwell and Mishara approached 73 hospital doctors for a brief interview on their attitudes towards death, and were only able to complete interviews with thirteen of them. Many others originally consented to be interviewed, but refused upon learning the subject of it, while others refused an interview on any subject.

---

[175]Livingston and Zimet, op. cit.

> The most typical reason for not consenting to the interview was that the S felt he would be a less effective doctor if he concerned himself with feelings involved in this area, since he felt his own emotional response would interfere with his effective practice of medicine.[176]

Cramond[177] points out that the patient is an important object for the physicians, and that interaction with the patient may tap into the physician's unconscious narcissism or omnipotent fantasies. Feelings which the doctor has may interfere with his or her interaction with patients, or may be overly-controlled by the individual out of the fear that those feelings may make him or her a less effective practitioner.

It must not, however, be assumed that the physician's beliefs or attitudes toward death make him or her either more or less effective in interactions with patients, without evidence to support this. Degner[178] found that whether a doctor believed in God or in an afterlife made no differences in whether s/he would elect to use life-prolonging measures in simulated situations. The majority favored withdrawing life support from terminally ill patients in two out of three cases presented; there was no difference in treatment proposed for patients of differing presumed social status. It may be that while <u>medical</u> treatment of patients would not differ in physicians with differing attitudes about death, <u>interactions</u> with the patient might differ considerably. It is this possibility that this study is designed to examine.

---

[176]Diane Caldwell and Brian L. Mishara, "Research on attitudes of medical doctors toward the dying patient: A methodological problem," <u>Omega</u> 3 (4), 1972, 341-346.

[177]W. A. Cramond, "Psychotherapy of the dying patient," <u>British Medical Journal</u> 3 (5719), 1970, 389-393.

[178]Leslie Degner, "The relationship between some beliefs held by physicians and their life-prolonging decisions," <u>Omega</u> 5 (3), 1974, 223-232.

Kram and Caldwell[179] compared psychiatrists, other physicians, Jewish and Protestant clergymen, and attorneys in respect of their views on the treatment of dying patients. Large majorities of all groups said that they would want to know if they themselves were dying, that the patient should be told of his or her impending death, and that it is primarily the physician's responsibility to tell the patient that s/he is dying. The majority also believed that it was possible that the patient might deny the reality of approaching death, and that s/he would do that mainly for his or her own comfort, then for the comfort of the family, and only lastly to protect the physician from uncomfortable feelings. (This result might indicate a lack of knowledge on the part of these professionals who deal with the dying of the social realities the patient has to face or of the force of intimate and professional relations on the behavior and feelings of the patient.)

Feifel et al.[180] compared groups of internists, surgeons, and psychiatrists, with medical students, seriously and terminally ill patients, and healthy normal individuals, on a variety of attitudes towards death. (In all groups, subjects were above average in intelligence and socioeconomic status; most were male, Protestant, and married with children.)

Significantly more physicians said they first became aware of the existence of death between the ages of 1 and 5, although in all

---

[179]Charles Kram and John M. Caldwell, "The dying patient," Psychosomatics 10 (5), 1969, 293-295.

[180]Herman Feifel et al., "Physicians consider death," Proceedings, 75th Annual Convention of the American Psychological Association, 1967, pp. 201-202.

groups, most individuals said this first happened to them between the ages of 6 and 12. Physicians showed significantly more negative verbal death imagery than patients, and were unable to come up with any imagery in this area more often than the normal group. Physicians were less religious and had a less religious orientation toward personal fate after death than either patients or normals. The overwhelming majority of physicians said they would want to be informed if they had an incurable disease, but indicated significantly less willingness than patients to provide that information to someone else in that situation. Psychiatrists expressed more anxiety about having to tell a patient s/he was dying than other physicians. Surgeons said they less often thought about death than the other two groups--rarely, as opposed to occasionally. Medical students generally were a middle group: they were more afraid of death than patients and healthy normals, but less so than physicians. They were more religious than physicians, less so than others. They admitted to thinking about death significantly less often than all other groups, and significantly more medical students than patients said they would prefer to die at night, so as to be unaware that it was happening.

In the only other study of medical student attitudes, male students who scored high on the California F Scale (authoritarianism) were compared with nonauthoritarian students by Livingston and Zimet.[181] Those who indicated a preference for specialization in psychiatry were significantly lower in authoritarianism and higher in death anxiety than those who chose surgery, medicine, or pediatrics. Future surgeons were

---

[181] Livingston and Zimet, op. cit.

less death-anxious than the other three groups. There was in all groups a significant negative correlation between death anxiety and authoritarianism. The theory was that authoritarian medical students are better defended against unconscious processes in general and therefore against unconscious fear of death. Less authoritarian students should have fewer or less rigid defenses against unconscious death anxiety and would therefore be likely to choose a specialty in which their contact with death would be less, such as psychiatry. This prediction was born out by the results.

Death anxiety was significantly higher in third and fourth year students, although authoritarianism did not change over time, thus indicating that experience has some influence on the fear of death independent of this personality characteristic. Psychiatry (low authoritarianism/high death anxiety) and surgery (high authoritarianism/low death anxiety) were seldom chosen as second-choice specialties; both were either the person's top choice or very low on their rank ordering of preferences, additional evidence that fear of death may influence the choices a medical student makes of specialties.

Studies of the attitudes of nurses and nursing students are also relevant. Although future nurses and physicians are being prepared for very different roles in medical institutions, there is sufficient overlap in the kinds of problems they have to face, since both will have to interact face to face with dying patients, that, while it is not desirable to generalize too freely from one group to the other, there may be some similarities.

Snyder et al.[182] asked freshman and senior nursing students about the frequency with which they had various thoughts about death. The freshmen were at the beginning of their training, while the seniors had completed a course of study which included lecture, group experiences, and clinical experience of death. Seniors reported significantly less frequent thoughts and dreams about, and wishes for, death of self, friends, or relatives. There was no difference in the reported frequency of reading death-related material or in the frequency with which they experienced a strong fear of death. Subjects in this group were almost all female, working class, Catholic, urban, and single, and ranged in age from 18 to 24. This description of the subject population points up another reason for being careful of generalizing from one group of medical personnel to another: the characteristics of this group of nursing students are very different from those of a typical group of medical students, which is more likely to be predominantly male, with more members from upper classes, of greater religious diversity, and older.

Lester et al.[183] found that, in a group of nursing undergraduate and graduate students and faculty, fear of death decreased with educational level (and thus with age). The only exception to this general trend was that first year graduate students (who had spent a number of years in the nursing field before returning to school) scored higher than senior students. The intervening years of clinical

---

[182]M. Snyder, et al., "Changes in nursing students attitudes toward death and dying: a measurement of curriculum integration effectiveness," International Journal of Social Psychiatry 19 (3-4), 1973, 294-298.

[183]David Lester, et al., "Attitudes of nursing students and nursing faculty toward death," Nursing Research 23 (1), 1974, 50-53.

experience, away from the academic environment, may have led to increased fears of death due to increased contact with dying patients. All groups indicated no fear of the dying of others, and the extent to which it was not feared increased with the level of experience. Although psychiatric nurses tended overall to have higher scores than those in other specialties, there were no significant differences on any measures used, among those in different nursing specialties.

These two studies indicate a tendency for nurses to become less preoccupied and/or less fearful of death with years of training, a tendency opposed to that found among medical students. It is not clear whether there is a difference in attitudes towards death which those in the two groups bring with them to their training, in how they handle their feelings about death, or in their training which increases fear in medical students and decreases it in nursing students. There are a number of differences between students in the two fields which would make comparison in this area harder.

Golub and Reznikoff[184] examined differences between nursing students and graduate nurses, in attitudes related to the care of dying patients, which did not differ among various nursing specialties even though those specialties differed in their amount of contact with death. Student nurses more often said that all possible efforts should be made to keep a seriously ill person alive, although in both groups the most popular response was that "reasonable effort" should be made. Graduates were more often approving of an autopsy being

---

[184]Sharon Golub and Marvin Reznikoff, "Attitudes toward death: a comparison of nursing students and graduate nurses," Nursing Research 20 (6), 1971, 503-508.

performed on themselves, while students more often said they did not care whether one was done or not. Graduate nurses more often said that they believed that psychological factors could influence or cause death than students, but it was mainly the younger and less experienced nurses who held that opinion. Students most often said they did not know whether this could happen or not.

This is the extent of research into attitudes of medical professionals and students about death. There is very little in the way of clear results indicating who fears or does not fear death. This facet of death attitudes has not been examined, except in a few sociological studies of institutions which deal with dying patients.

Fear of Death Measures

The fear of death, both conscious and unconscious, has been measured in a variety of ways. The most commonly used measures are summarized in this section, and those which are most similar to the one used here are described in detail.

One approach to below-conscious fear of death has to do with perceptual sensitization or defense. Magni[185] showed subjects tachistoscopically presented pictures of corpses, but found that they were not identified consistently more rapidly or more slowly than neutral pictures. Golding et al.[186] found that subjects took longer to identify death-words than neutral words, but there was no relationship to

---

[185]Klas G. Magni, "Reactions to death stimuli among theology students," Journal for the Scientific Study of Religion 9 (3), 1970, 247-248.

[186]Stephen L. Golding, George E. Atwood, and Richard A. Goodman, "Anxiety and two cognitive forms of resistance to the idea of death," Psychological Reports 18, 1966, 359-364.

self-reported fear of death. Lester and Lester[187] gave carbon copies, in varying degrees of clarity, of the same lists of words, and found that subjects identified death-words at a lesser level of clarity than neutral words, suggesting that it is in the survival interest of the organism to recognize such potentially dangerous stimuli as rapidly as possible. Alexander and Adlerstein,[188] and Alexander, Colley, and Adlerstein,[189] on the other hand, found that subjects took longer to associate to death-words than to neutral words, but not longer than to other affectively laden words. Both they and Williams and Cole[190] found greater GSR reactivity to death than to neutral words in an association task.

In the use of word association tasks, Alexander and Adlerstein,[191] Alexander, Colley and Adlerstein[192] and Feifel et al.[193] looked at the length of time it takes subjects to respond to death words and neutral words. The latter authors also used the Color Word

---

[187]Gene Lester and David Lester, "The fear of death, the fear of dying, and threshold differences for death words and neutral words," Omega 1, 1970, 175-179.

[188]Irving E. Alexander, and Arthur M. Adlerstein, "Affective responses to the concept of death in a population of children and early adolescents," Journal of Genetic Psychology 93, 1958, 167-177.

[189]Irving E. Alexander, Randolph S. Colley, and Arthur M. Adlerstein, "Is death a matter of indifference?", Journal of Psychology 43, 1957, 277-283.

[190]Robert L. Williams, and Spurgeon Cole, "Religiosity, generalized anxiety, and apprehension concerning death," Journal of Social Psychology 75, 1968, 111-117.

[191]Alexander and Adlerstein, op. cit.

[192]Alexander, Colley and Adlerstein, op. cit.

[193]Herman Feifel, Jeffrey Frelich, and Lawrence J. Hermann, "Death fear in dying heart and cancer patients," Journal of Psychosomatic Research 17, 1973, 161-166.

Interference Test, and found that subjects took longer to identify the color words were printed in, when the word was a death-related word, than when it was a neutral word.

In an attempt to find a projective test of unconscious death attitudes, Lowry[194] and Rhudick and Dibner[195] asked subjects to make up stories about death to TAT cards, and examined the themes in those stories. Bruhn et al.[196] measured systolic blood pressure in patients whose hospital roommate had just died.

Most research in the area of fear of death has consisted of construction and administration of self-report questionnaires, and of interviews. Jeffers et al.[197] asked the direct question: are you afraid to die, which is also used in this current study.

Questionnaires covering a broad range of death attitudes have been used by Adlerstein,[198] Faunce and Fulton,[199] Diggory and Rothman,[200]

---

[194]Richard J. Lowry, Male-Female Differences in Attitudes towards Death, Ph.D. Dissertation, Brandeis University, 1965.

[195]Paul J. Rhudick, and Andrew S. Dibner, "Age, personality, and health correlates of death concerns in normal aged individuals," Journal of Gerontology 16 (1), 1961, 44-49.

[196]John G. Bruhn, A. Eugene Thurman, Betty C. Chandler, and Thomas A. Bruce, "Patients' reactions to death in a coronary care unit," Journal of Psychosomatic Research 14 (1), 1970, 65-70.

[197]Frances C. Jeffers, Claude R. Nichols, and Carl Eisdorfer, "Attitudes of older persons toward death: a preliminary study," Journal of Gerontology 16 (1), 1961, 53-56.

[198]Arthur M. Adlerstein, The relationship between religious belief and death affect, Ph.D. Dissertation, Princeton University, 1958.

[199]Faunce and Fulton, op. cit.

[200]Diggory and Rothman, op. cit.

Feifel et al.,[201] Lester,[202, 203] Lester and Kam,[204] and Middleton.[205] Feifel[206] asked subjects about the attitudes they thought others held, on the assumption that the attitudes people attribute to others are likely to be similar to their own. Adlerstein[207] and Lester[208] used a semantic differential technique. Maurer[209] asked adolescent subjects to write essays on the subject of death.

Open-ended interviews have been employed by Reynolds and Kalish,[210] with a population of death professionals, Bouton[211] with medical students, Eliot[212] with soldiers during World War II,

---

[201] Feifel, Frelich and Hermann, op. cit.

[202] David Lester, "Attitudes toward death today and thirty-five years ago," Omega 2, 1971, 168-173.

[203] David Lester, "Sex differences in attitudes toward death: a replication," Psychological Reports 28, 1971, 754.

[204] Lester and Kam, op. cit.

[205] Warren C. Middleton, "Some reactions toward death among college students," Journal of Abnormal and Social Psychology 31, 1936, 165-173.

[206] Herman Feifel, "Attitudes of mentally ill patients toward death," Journal of Nervous and Mental Disease 122, 1955, 375-380.

[207] Adlerstein, op. cit.

[208] David Lester, "Studies in death attitudes: Part two," Psychological Reports 30, 1972, 440.

[209] Adah Maurer, "Adolescent attitudes toward death," Journal of Genetic Psychology 105, 1964, 75-90.

[210] David K. Reynolds, and Richard A. Kalish, "Work roles in death-related occupations," Journal of Vocational Behavior 4, 1974, 223-235.

[211] David Bouton, "The need for including instruction on death and dying in the medical curriculum, Journal of Medical Education 47 (3), 1972, 169-175.

[212] Thomas D. Eliot, ". . . of the shadow of death," Annals of the American Academy of Political and Social Science 229, 1943, 87-99.

Caldwell and Mishara,[213] Feifel,[214] Pearlman et al.,[215] Roberts et al.,[216] and Shilder.[217]

Fear of Death Inventories

Several fear of death inventories which have not been widely used by other than their authors will only be mentioned here; their findings have already been reviewed. Dickstein and Blatt[218] developed a death concern and preoccupation scale, which has been used by Dickstein,[219] Blatt and Quinlan,[220] and Selvey.[221] Sarnoff and Corwin[222]

---

[213]Diane Caldwell and Brian L. Mishara, "Research on attitudes of medical doctors toward the dying patient: a methodological problem," Omega 3 (4), 1972, 341-346.

[214]Herman Feifel, "Attitudes toward death in some normal and mentally ill populations," in Herman Feifel, ed., The Meaning of Death (New York: McGraw-Hill, 1959), 114-130.

[215]Joel Pearlman, Bernard A. Stotsky, and Joan R. Dominick, "Attitudes toward death among nursing home personnel," Journal of Genetic Psychology 114, 1969, 63-75.

[216]Jean L. Roberts, Larry R. Kimsey, Daniel L. Logan and Gordon Shaw, "How aged in nursing homes view dying and death," Geriatrics 25 (4), 1970, 115-119.

[217]Paul Shilder, "The attitudes of murderers towards death," Journal of Abnormal and Social Psychology 31, 1936, 348-363.

[218]Louis S. Dickstein and Sidney J. Blatt, "Death concern, futurity, and anticipation," Journal of Consulting Psychology 30, 1966, 11-17.

[219]Louis S. Dickstein, "Death concern: measurement and correlates," Psychological Reports, 1972, 563-571.

[220]Sidney J. Blatt and Paul Quinlan, "Punctual and procrastinating sutdents: a study of temporal parameters," Journal of Consulting Psychology 31 (2), 1967, 169-174.

[221]Selvey, op. cit.

[222]Irving Sarnoff and Seth M. Corwin, "Castration anxiety and the fear of death," Journal of Personality 27, 1959, 374-385.

developed a scale based on the theoretical notion that death anxiety stems from unconscious castration anxiety. Golding et al.[223] used this scale in looking for a relationship to tachistoscopically presented death stimuli.

Livingston and Zimet[224] developed a scale for use with medical students, investigating the relationship of fear of death to authoritarianism. This scale was also used by Tolor and Reznikoff[225] with the result that sensitizers and externals scored higher than repressors and internals. Handal and Rychlak[226] used a scale developed by Handal.[227] Boyar,[228] on the theory that the fear of death is not unitary in nature, developed a multi-factor fear of death scale. There were no significant correlations between scores on this instrument and demographic variables, although subjects who had experienced a death in their family had significantly higher scores than those who had not. There were low but significant correlations between fear of death and scores on the K, At, and Pt scales of the MMPI. Attempting to use this instrument to measure change in the fear of death after presentation of a fear-arousing stimulus, Boyar found that the scale failed to retain internal consistency, and he speculates that there are aspects

---

[223]Golding, Atwood and Goodman, op. cit.

[224]Livingston and Zimet, op. cit.

[225]Tolor and Reznikoff, op. cit.

[226]Handal and Rychlak, op. cit.

[227]Paul J. Handal, "The relationship between subjective life expectancy, death anxiety, and general anxiety," Journal of Clinical Psychology 25 (1), 1969, 39-42.

[228]Boyar, op. cit.

of fear of death which are not tapped by that scale. Selvey[229] found that females scored significantly higher than males on Boyar's scale, a difference not found in Boyar's original research. Lester[230] found no association between high frequency of dreams or nightmares with scores on Boyar's scale.

Templer[231] developed a widely used Death Anxiety Scale, which correlates .74 with Boyar's Fear of Death Scale. This 15-item scale was validated on populations of college students and psychiatric patients. Death Anxiety Scale scores were not correlated with responses to the Marlowe-Crowne Social Desirability Scale, nor with the Couch-Keniston scale of agreeing response tendency, but were significantly correlated with scores on the Manifest Anxiety Scale and the Welsh Anxiety Scale (but not as highly as those MMPI scales of general anxiety correlated among themselves). In addition, among the psychiatric patients tested, there was a significant correlation with the Sc, Pt, and D scales of the MMPI, but none with any other MMPI scales.

Templer asked his college student subjects to give ten associations to both 'death' and nondeath-related words. Those with higher scores on the Death Anxiety Scale gave significantly more words descriptive of emotions in association to 'death.' Templer hypothesizes that the appearance of emotionally-laden words is an indicator of death anxiety. This construct is further discussed in Chapter III.

---

[229] Selvey, op. cit.

[230] David Lester, "The fear of death of those who have nightmares," Journal of Psychology 69, 1968, 245-247.

[231] Donald I. Templer, The construction and validation of a death anxiety scale, Ph.D. Dissertation, University of Kentucky, 1967.

In other research on the Death Anxiety Scale, Templer and Ruff[232] found that psychiatric patients scored higher than nonpatients, and women scored higher than men. Ray and Najman[233] and Templer and Ruff[234] also found that women scored higher than men, and in the latter study, a significant correlation was found between scores of parents and their children, and between spouses. Templer[235] found that very religious subjects scored lower on the average than those who saw themselves as less religious, although there was no relationship between fear of death score and either religious affiliation or change in affiliation. Templer[236] found a positive relationship between DAS scores and GSR ratings of anxiety during a death-related experiment, and found that sensitizers scored higher than repressors.

Templer[237] found that persons who reported a large number of psychiatric symptoms scored higher, while those who reported a larger number of physical symptoms tended to have lower scores; however, Lucas[238] found no relationship between health and DAS score, and no sex

---

[232]Donald I. Templer and Carol F. Ruff, "Death Anxiety Scale means, standard deviations, and embedding," Psychological Reports 29 (1), 1971, 173.

[233]Ray and Najman, op. cit.

[234]Templer and Ruff, op. cit.

[235]Donald I. Templer, "Death Anxiety in religiously very involved persons," Psychological Reports 31, 1972, 361-362.

[236]Donald I. Templer, "The relationship between verbalized and nonverbalized death anxiety," Journal of Genetic Psychology 119, 1971, 211-214.

[237]Donald I. Templer, Death anxiety as related to depression and health of older persons," Journal of Gerontology 26 (4), 1971, 521-523.

[238]Lucas, op. cit.

differences in scores. Templer and Dotson[239] found no relationship with either sex or religion, and Ray and Najman[240] found no relationship with authoritarianism (denial) or achievement motivation.

The items of the Death Anxiety Scale are embedded in items of the MMPI, facilitating investigation of relationships with various MMPI scales. Templer[241] found a positive correlation with the D scale, and Templer and Lester[242] found significant relationships between DAS scales and individual MMPI items related to health and introversion.

Lester[243] developed a questionnaire scored on a six-point scale from Strongly Disagree to Strongly Agree. Although this instrument itself has not been extensively studied, much of the research on the instrument devised by Collett and Lester (which is discussed in the next section) is relevant to the Lester scale, since both scales are comprised of essentially the same items. Lester[244] found that responses to this scale which were returned incomplete were not significantly different than those which were returned completely filled out. Also, there was no significant association between consistency of attitude

---

[239]Templer and Dotson, op. cit.

[240]Ray and Najman, op. cit.

[241]Templer, op. cit.

[242]Donald I. Templer and David Lester, "An MMPI scale for assessing death anxiety," Psychological Reports 34, 1974, 238.

[243]David Lester "The construction of a fear of death scale: its consistency, validity and use," unpublished manuscript, Brandeis University, 1966.

[244]David Lester, "Studies on death attitude scales," Psychological Reports 24, 1969, 182.

and strength of fear. Durlak[245] found no relationship between scores on the Lester scale and the social desirability rating of the response.

Scores on the Lester scale have not been found to be related to whether the subject had ever experienced the possibility of imminent death, the death of a close other, or the recent thought of his or her own death, nor to the subject's estimate of either the probability of her or his own death in the next year or of the frequency with which s/he thinks about death.[246] Lester[247] found no association of scores with frequency of dreams or nightmares, nor with occupation.[248] Durlak[249] found that those who expressed a high sense of meaning and purpose in their lives scored lower on the Lester scale, while Lester[250] found that those who were less religious were more consistent in their attitudes towards death, though expressing more fear.

Collett and Lester Scale. The scale used in this study, devised by Collett and Lester[251] is a derivative of Lester's scale. Items of

---

[245]Joseph A. Durlak, "Relationship between various measures of death concern and fear of death," Journal of Consulting and Clinical Psychology 41 (1), 1973, 162.

[246]Joseph Durlak, Ibid.

[247]David Lester, "The fear of death of those who have nightmares," op. cit.

[248]David Lester, "Attitudes toward death held by staff of a suicide prevention center," Psychological Reports 28, 1971, 650.

[249]Joseph A. Durlak, "Relationship between individual attitudes toward life and death," Journal of Consulting and Clinical Psychology 38 (3), 1972, 463.

[250]David Lester, "Religious behavior and the fear of death," Omega 1, 1970, 181-188.

[251]Lora-Jean Collett, and David Lester, "The fear of death and the fear of dying," The Journal of Psychology 72, 1969, 179-181.

the Lester scale were categorized into subscales on the basis of inter-item correlations. The theoretical construct underlying this method of construction is that, while different kinds of fear of death are related, the fear of death is not a unitary phenomenon. The scales are constructed to measure fear of death of self, death of others, dying of self, and dying of others. Items of the Lester scale which did not achieve a satisfactory level of correlation with any subscale were dropped from the final version of the test. (Items of the Collett-Lester inventory are found in Appendix A.)

Durlak investigated the concurrent validity of the fear of death scales developed by Sarnoff and Corwin, Boyar, Tolor, and Lester. The correlations between these four tests ranged from .40 to .65, ($p \leq .01$). Each test was also correlated with each of the four subscales of the Collett-Lester inventory. All of the above inventories correlated most highly (range: .47-.78) with the Death of Self (DS) subscale. Ranges of correlations with the other three subscales were: Dying of Self (DyS), .46 to .58; Death of Others (DO), .31 to .46; and Dying of Others (DyO), .36 to .40. The results for males and females were similar. Durlak concludes from these data that the inventories under examination "measure attitudes toward personal death and dying, rather than generalized fears and feelings about death."[252] The DO and DyO subscales of the Collett-Lester, he believes, measure this general fear of death, even though all the correlations between these subscales

---

[252]Joseph A. Durlak, "Measurement of the fear of death: an examination of some existing scales," Journal of Clinical Psychology 28 (4), 1972, 545-547, p. 547.

and the other inventories were significant. He concludes that:

> If C-L is accepted on a face validity basis, the data indicate that the death scales are relatively stronger and better measures of personal fears and anxieties about death and dying (i.e., when the self is the referent) than they are measures of generalized fears or anxieties about death (i.e., when the other is the referent).[253]

Collett and Lester[254] found low correlations between the four subscales (in 2 samples of 25 undergraduate women each) ranging from .03 between DyS and DO, to .58 (in one sample) between DS and DyO. Subscale intercorrelations are shown in Table 2.1.

Table 2.1

Intercorrelations Between Collett-Lester Subscales

Subscale Comparisons	Sample 1 (n = 25)	Sample 2 (n = 25)
Death of Self - Death of Others	.22	.26
Death of Self - Dying of Self	.24	.41*
Death of Self - Dying of Others	.09	.58*
Death of Others - Dying of Self	.03	-.07
Death of Others - Dying of Others	.46*	.40*
Death of Self - Dying of Others	.28	.40*

* = significant at .05 level (two-tailed test)

Source: Collett and Lester, 1969, p. 180.

All but 6 items of Lester's scale correlated at least .26 ($p \leq .10$) with the test as a whole. Those six items were dropped from the Collett-Lester version of the test in order to improve the internal consistency of the instrument.

---

[253] Ibid., p. 547.

[254] Collett and Lester, op. cit.

The table above reveals discrepancies between the two samples in the correlations between DyO and Ds, DyO and DyS, and between DS and DyS, and no information is given about the samples which might explain the differences. Collett and Lester take the low to moderate inter-scale correlations as evidence that the four kinds of fear are distinguishable, but they do not attempt to account for the significant correlations which were found. There are several possible explanations for the differences in result between the samples:

1. Demographic differences between the samples. Although the evidence on the effects of demographic variables on the fear of death is conflicting, the studies which are reviewed in this chapter indicate at least that such differences cannot be discounted in attempting to explain differences among groups in amount and kind of fear of death.

2. Other affect which is stronger than fear. Studies discussed in this chapter have shown that recent loss may have an effect on the fear of death. One possible explanation of this phenomenon is that the effect of a recent loss is to create feelings about death which are different from fear, and which are experienced more strongly than fear, to that whatever fear does exist does not get expressed as readily.

3. The stimulus value of the questions comprising the inventory may not be high enough to elicit what fear does exist, or may elicit it from some individuals and not others. Collett and Lester report that subjects showed a significantly greater fear when the self was the referent than when the other was ($p < .01$). In view

of the correlations with other fear of death measures reported by Durlak, it may be that this difference reflects a real difference in the strength of the fear. However, it may also mean that the questions asked are not an adequate stimulus for eliciting real fear of death and dying of others.

Shusterman and Sechrest[255] used the Collett and Lester inventory with a group of registered nurses, to examine the relationship of measured fear of death and dying of others to nurses expressed satisfaction and comfort with their role in caring for dying patients. As in this current study, they selected this inventory because it looks at the relationship between fear of death and dying of self and that of others, even though the reliability and validity of some other scales are better established. They found no significant differences in mean scores on each subscale, between nurses working on different hospital services. Age and amount of experience as a nurse were negatively correlated with fear of death of others; there were no correlations between scores on any of the subscales and any personality variables. Nurses' satisfaction with the standard care given to dying patients was unrelated to any aspect of fear of death.

Correlations between the subscales were computed, and only four significant inter-scale correlations were found. Death of self and death of others correlated .42; death of self and dying of self, .24; death of others and dying of self, .25; and dying of others and dying of self, .24 (all p's less than .05). There were no other

---

[255]Lisa Shusterman, and Lee Sechrest, "Attitudes of registered nurses toward death in a general hospital," Psychiatry in Medicine 4 (4), 1973, 411-425.

significant intercorrelations among the scales, suggesting that the nursing sample was more inconsistent in their attitudes, or that different fears were better differentiated in the nursing sample than in the college student samples on which the inventory had previously been used. In addition, many items of the fear of dying of self scale did not correlate well with that subscale when used with this sample.

Lester[256] found no significant differences in any subscale scores among Catholics, Protestants and Jews. Less religious subjects showed a greater fear for self than for others, while more religious subjects feared significantly more for others than for self. Less religious subjects showed a higher fear of dying of self than the more religious.

Lester[257] found that scores bore no relationship to the subject's age. There were no sex differences in fear of dying of others or overall fear of death, but females scored higher than males in fear of death of self, dying of others, and death of others. Lester[258] also found that scores on the inventory decreased with educational level in a group of nurses and nursing students, the same result found by Shusterman and Sechrest.

Other studies which have used this inventory have either focused on populations very different from the one used in this study, or have examined variables which are not of interest here. Those studies are reviewed in other sections of this chapter.

---

[256]Lester, op. cit.

[257]David Lester, "Studies in death attitudes: part two," op. cit.

[258]David Lester, Cathleen Getty, and Carol Ren Kneisl, "Attitudes of nursing students and nursing faculty toward death," Nursing Research 23 (1), 1974, 50-53.

The present research is designed to investigate more fully the reliability of the scales of this instrument, and to look for associations of scores with a variety of demographic variables (sex, age, religious preference, religiosity, etc.) with which previous research indicates relationships may exist. A much larger sample is used than has been used in any previous study, and students in different fields at different levels are compared, particularly for the purpose of looking for differences between medical students and those in nonmedical fields.

CHAPTER III

In this chapter, the three different samples are described, followed by a description of the construction and administration of the questionnaire, and the procedures involved in the simulation study and interview. Reliability data on the Collett-Lester fear of death instrument are given.

Collection of Questionnaire Data

Sample size of at least 100 was desired in each of the three groups studied: undergraduates, graduate students in education, and medical students. Since this sample size was achieved with ease, only those questionnaires which were completely filled out were included in the analysis. Lester[1] showed that responses to the Collett-Lester inventory which were received incomplete did not differ significantly from those which were entirely completed; to facilitate analysis of the data, incomplete questionnaires were eliminated from the sample. Ten unusable questionnaires were received from undergraduates, six from graduate students, and two from medical students; in addition, 14 non-undergraduates were eliminated from the undergraduate sample (probably discussion section instructors who also filled out questionnaires) and one undergraduate was eliminated from the graduate student sample. One exception to the rule of eliminating incomplete responses was made: it was discovered,

---

[1]David Lester, "Studies on death-attitude scales," Psychological Reports, 1969, 24, 182.

after the interview had been done, that the questionnaire returned from one interviewee had omitted a response to one demographic item. Rather than lose a whole interview, it was decided to include that subject even though an item had been omitted, since it did not appear that this omission would greatly affect the characteristics of the sample as a whole.

Since the questionnaire data was collected in slightly different manner in each of the three samples, the description of the manner in which the data was collected is included in the description of the characteristics of each sample.

The Samples

Undergraduates. The undergraduate sample consisted of 172 undergraduates enrolled in Education 200 (a class of several hundred students, meeting in small discussion sections) at Michigan State University, during fall quarter, 1975. All discussion section instructors were asked to distribute the questionnaire in class; enough agreed so that the desired sample size (100 or more) was achieved. There was no evidence that students whose instructors were unwilling to distribute the questionnaire differed in any way from those whose instructors agreed to do so. Some students completed the questionnaire during class; others took it home and returned it to their instructor. It was stressed to all potential subjects that participation was entirely voluntary.

In the undergraduate group, there were 45 males (26.2%) and 127 females (73.8%), probably a reflection of the fact that female students predominate in education classes. The majority (65.7%) were under twenty years old, to be expected in a class taken primarily by sophomores, and 83.1% were single. A complete account of the marital status of the group

is shown in Table 3.1. (To facilitate comparison among the three groups, characteristics of all three groups are shown together in each table.)

Table 3.1

Marital Status of the Three Samples

Marital Status	Groups					
	Undergraduates		Graduate Students		Medical Students	
	n	%	n	%	n	%
Never Married	143	83.1	21	21.0	64	49.2
Married	13	7.6	67	67.0	48	36.9
Separated or Divorced	2	1.2	6	6.0	10	7.7
Cohabiting (same or opposite sex partner)	14	8.1	5	5.0	8	6.2

Most (82.1%) had no children. Twenty of them (11.6%) still lived with their family of origin, 25 (14.5%) with their spouse or partner and/or children, five (2.9%) lived alone, and 122 (70.9%) with roommates.

Reflecting the fact that the course in which they were enrolled at the time is oriented particularly toward education majors and people earning a teaching certificate, the majority (59.3%) were social science majors, a category which specifically included education. Other categories of academic major represented by sizeable groups were natural sciences (14%) and arts and letters (19.2%). In Table 3.2, the distribution of academic majors is shown.

Table 3.2

Academic Major

Major	Groups					
	Under-graduates		Graduate Students		Medical Students	
	n	%	n	%	n	%
Medicine	4	2.3			129	99.2
Natural Sciences	24	14.0	1	1.0	1	0.8
Social Sciences (including education)	102	59.3	84	84.0		
Arts and Letters	33	19.2	4	4.0		
Business	6	3.5	4	4.0		
Technical (including agriculture and engineering)	2	1.2	5	5.0		
No Preference	1	0.6	2	2.0		

An account of the religious upbringing and current religious preference of the groups studied is shown in Tables 3.3 and 3.4. Among the undergraduates, the majority were brought up in either a major Protestant denomination (not including Baptists or other fundamentalist groups) (34.9%) or in the Roman Catholic or Orthodox Church (36.6%). Fewer subjects currently belonged to either of these groups than were brought up in them, but they were still the largest groups, with 20.3% currently preferring membership in a major Protestant denomination, and 26.7% Catholic or Orthodox. Subjects were also asked how religious they considered themselves, using any definition of 'religious' they felt applied to them personally. The majority rated themselves as "about average (42.4%) or "not very religious." Table 3.5 contains a summary of these religious self-ratings.

Table 3.3

Religion of Origin

Religion	Groups					
	Undergraduates		Graduate Students		Medical Students	
	n	%	n	%	n	%
Roman Catholic or Orthodox	63	36.6	34	35.0	40	30.8
Major Protestant	60	34.9	40	40.0	42	32.3
Fundamentalist Protestant	16	9.3	11	11.0	16	12.3
Jewish	9	5.2	5	5.0	22	16.9
Eastern or Moslem	0	0.0	0	0.0	0	0.0
No Formal Affiliation	9	5.2	3	3.0	1	0.8
No Religious Upbringing	7	4.1	5	5.0	5	3.8
Anti-religious Upbringing	1	0.6	0	0.0	0	0.0
Other	7	4.1	1	1.0	4	3.1

Table 3.4

Current Religious Preference

Religion	Groups					
	Undergraduates		Graduate Students		Medical Students	
	n	%	n	%	n	%
Roman Catholic or Orthodox	46	26.7	21	21.0	20	15.4
Major Protestant	35	20.3	23	23.0	17	13.1
Fundamentalist Protestant	13	7.6	14	14.0	9	6.9
Jewish	8	4.7	4	4.0	19	14.6
Eastern or Moslem	0	0.0	0	0.0	0	0.0
No Formal Affiliation	29	16.9	18	18.0	21	16.2
Agnostic	19	11.0	13	13.0	22	16.9
Atheist	6	3.5	4	4.0	7	5.3
Other	16	9.3	3	3.0	15	11.5

Table 3.5

Religious Self-rating

Defining 'religious" in any way you feel applies to you, how religious would you say you are?

Rating	Groups					
	Under-graduates		Graduate Students		Medical Students	
	n	%	n	%	n	%
Very Religious	31	18.0	20	20.0	28	21.5
About Average	73	42.4	37	37.0	52	40.0
Not Very Religious	48	27.9	22	22.0	22	16.9
Non-religious	18	10.5	21	21.0	24	18.5
Anti-religious	2	1.2	0	0.0	4	3.1

In this group, all had grown up with a mother, or mother-substitute, in the home, and in about half the cases (45.3%) she had never worked outside the home, or had done so only briefly. In 49.4% of the cases, the mother was currently or usually employed outside the home. The largest numbers of those who worked were employed in a professional or business capacity. (See Table 3.6.)

All but two subjects in this group had grown up with a father or father-substitute in the home. Most (85.4%) reported that their fathers were currently or usually employed outside the home, in numbers about

Table 3.6

Mothers' Employment

	Groups					
	Under-graduates		Graduate Students		Medical Students	
Mother Employed	n	%	n	%	n	%
Never or Only Briefly	78	45.3	48	48.0	54	41.5
Currently Employed	73	42.4	31	31.0	57	43.8
Usually Employed, Currently Unemployed	12	7.0	2	2.0	3	2.3
Incapacitated	1	0.6	2	2.0	3	2.3
Retired	4	2.3	11	11.0	5	3.8
Deceased	4	2.3	6	6.0	7	5.4
(No Response)					1	0.7
Level of Employment						
Professional	35	20.3	13	13.0	31	24.2
Business	28	16.3	17	17.0	21	16.4
Skilled Worker	19	11.0	10	10.0	14	10.9
Unskilled Worker	16	9.3	17	17.0	10	7.8
Total Employed	98	56.9	57	57.0	76	59.3

equally divided among professional, business, and skilled labor positions, and a smaller group of unskilled laborers. (See Table 3.7.)

Table 3.7

Fathers' Employment

Father Employed	Groups					
	Under-graduates		Graduate Students		Medical Students	
	n	%	n	%	n	%
Never or Only Briefly	3	1.7	0	0.0	1	0.7
Currently Employed	143	83.1	53	53.0	93	71.5
Usually Employed, Currently Unemployed	4	2.3	2	2.0	2	1.5
Incapacitated	3	1.7	2	2.0	2	1.5
Retired	10	5.8	23	23.0	12	9.2
Deceased	7	4.1	17	17.0	16	12.3
No Father in Home	2	1.2	3	3.0	4	3.1
Level of Employment						
Professional	55	32.0	26	26.0	51	39.8
Business	54	31.4	26	26.0	35	27.3
Skilled Worker	50	29.1	36	36.0	27	21.1
Unskilled Worker	11	6.4	11	11.0	12	9.4
Total Employed	170	98.9	99	99.0	125	97.5

Respondents were also asked about their experiences with the deaths of others, particularly close family and friends, and whether, to their knowledge, they were suffering from a terminal illness themselves. Nine said that they were. It is possible that some or all of those who responded positively to that question did so considering "life" as a terminal illness. This cannot be assessed, since respondents were not asked the specific nature of their illness.

Four members of this group had lost their mother to death, nine their father, seventeen had lost one or more siblings, and one person had lost more than one child. None had been widowed. Twenty-seven (15.7%)

had lost a significant relative within the past year, 12 (7.0%) a friend, and 11 (6.4%) had lost more than one significant person within the year. Only seven (4.1%) said that that person's death had ever been mentioned in conversation between them, although in most cases death had been sudden, affording no chance to talk about it. Twenty-six subjects said there was a relative important to them who was expected to die soon, five had a friend who was dying, and one person expected soon to lose more than one important person. Twenty said they had talked with that person about their impending death, while thirteen had not.

Thirteen of the undergraduates (7.6%) had never attended a funeral, while 24 (14.0%) had been to nine or more. Fourteen (8.1%) said they had been with a person at the moment of his or her death, while 96 (55.8%) had never been with a person who was terminally ill, even one who was not very close to death. Fourteen reported having talked about death with a person whom they knew to be dying.

Finally, they were asked directly whether they were afraid of their own death. A summary of those responses is shown in Table 3.8. Discussion of that question is deferred to another section of this chapter, since it is directly related to the question of the reliability of the fear of death scales.

Graduate students. The second sample consisted of 100 graduate students enrolled in graduate level courses in educational administration, counseling, and teaching, at Michigan State University, during the 1975-76 academic year. They received the questionnaire during their class meeting. Some filled it out during class; others took it home and returned it at the next class meeting. It was described to them, as to all subjects, as a questionnaire about their experiences with and attitudes

Table 3.8

Fear of Death

Attitude	Groups					
	Under-graduates		Graduate Students		Medical Students	
	n	%	n	%	n	%
Afraid	13	7.6	6	6.0	16	12.3
Sometimes Afraid	100	58.1	57	57.0	79	60.8
Not Afraid	52	30.2	25	25.0	33	25.4
Don't Think About It	7	4.1	12	12.0	2	1.5

about death. It was stressed that their responses would be anonymous and that participation was voluntary. In all cases, good cooperation was received from those who were approached, and no one was pressured in any way to participate.

Forty-eight subjects in this group were male, and 52 female. (Since sample size was exactly 100, it is not necessary to report both frequencies and percentages.) In age, 26 were between 21 and 25 years old, 42 between 26 and 30, 25 between 31 and 40, and 7 were 41 or older. There were 21 single people, 67 who were married, 6 who were separated or divorced, and 5 cohabiting with a partner of the same or opposite sex. Forty-two had children. Only 6 lived with their family of origin, while 70 lived with their spouse or partner and/or children, 11 with roommates, and 13 alone. Since this group was limited to students enrolled in graduate courses in education, the majority (84%) reported a major in the social sciences (including education). (See Table 3.2.)

The religious upbringing and current religious preference of members of this group are shown in Tables 3.3 and 3.4. The distribution of

membership is approximately the same as in the undergraduate group. The majority were brought up in either a major Protestant denomination (40%) or in the Roman Catholic or Orthodox church (35%). In current preference, these two religious categories still held the largest number of members (23% and 21% respectively), but a sizeable group (18%) reported no current affiliation with any religious group. In religious self-rating, the largest number rated themselves as "about average" (37%) (see Table 3.5), while no one described him or herself as "anti-religious."

In Table 3.6 the employment level of the mothers of these subjects is shown and in Table 3.7 that of their fathers. All the graduate students grew up with a mother or mother-substitute in the home, while three said they had had no father present during their childhood.

Five subjects in this group reported currently suffering from a terminal illness. Within their families, eight had lost their mother and eighteen their father. Eight had lost one or more siblings, one had lost a child, and none had been widowed. Twenty had lost a relative who was important to them within the past year, five a friend, and seven had suffered more than one loss. Nine said that they had talked with that person about his or her impending death, while in 17 cases death had been sudden. Six people in this group reported that they expected a relative to die soon, and four of them had talked about this person's impending death with him or her.

Only four people had never attended a funeral, 31 had been to between one and four funerals, 30 to between five and eight, and 35 had attended nine or more--the largest single group. The increase in the proportion of subjects who had attended a larger number of funerals may be attributable to the greater age of members of this group. Fifteen

said they had been with a person at the moment of her or his death, while 41 had never had contact with a terminally ill person. Subjects' attitudes toward their own deaths are summarized in Table 3.8; the largest number indicated that they are sometimes afraid and sometimes not afraid of their own death.

Medical students. The third sample consisted of 72 first year and 58 second year medical students in the College of Human Medicine at Michigan State University, a total of 130. All were in the pre-clinical phase of their training, although some had experienced contact with patients in other positions they had held before entering medical school.

All 200 students in the first and second year classes were contacted by a letter requesting their participation in the study, and informing them that they would receive the questionnaire through their office mail boxes in the medical school (Appendix B). Since, in the second part of the study, only medical students were used as subjects, and it was doubtful whether they would be willing to participate, the additional contact was intended to increase their awareness of the existence of the study and hopefully their inclination to participate. This may not have been necessary; responses to the questionnaire from medical students far exceeded expectations. Within a week after they received the first letter, the questionnaire was distributed, and they were asked to return it through campus mail. At the end of the questionnaire, they were asked to indicate whether they would be willing to participate in the second part of the study, for which they would be paid $3.00. A total of 130 usable responses were received.

Among the medical students there were 73 males (56.2%) and 57 females (43.8%). Only one was under 20 years of age, while 117 (90%)

were between 21 and 30 years old, and 12 were between 31 and 40 (9.2%). There were 64 single students (49.2%), 48 who were married (36.9%), 10 (7.7%) separated or divorced, and 8 (6.2%) cohabiting with a partner of the same or opposite sex. Thirty-three (25.4%) had children. Three (2.3%) lived with their family of origin, 53 (41.4%) with their spouse or partner and/or children, 50 with roommates (39.1%) and 23 (17.7%) alone. One subject listed as academic major the field of natural sciences; all others named medicine, but all were enrolled in the medical school.

As in the other two groups, the majority were brought up either in a major Protestant denomination (32.3%) or in the Roman Catholic or Orthodox church (30.8%). Unlike the other groups, a sizable proportion (16.9%) had been raised Jewish. (See Table 3.3.) In current religious persuasion, this group differed from the others in that the largest numbers listed themselves as either agnostic (16.2%) or as religious, but with no formal affiliation (16.2%). Those groups which held the largest numbers in the undergraduate and graduate student groups, the Roman Catholic and major Protestant denominations, attracted 15.4% and 13.1% of the medical students respectively. (See Table 3.4.) Table 3.5 shows the religious self-ratings of this group; the largest number rated themselves as "about average" in religiosity.

All subjects in this group had grown up with a mother or mother-substitute present in the home, but four reported having had no father during their childhood. The employment status and levels of the parents of these students are reported in Tables 3.6 and 3.7. A slightly larger percentage of students in this group reported that their fathers had been employed as professionals than in the other two groups.

No one in this group reported being terminally ill. Eight had

lost their mother (6.2%), and 17 (13.1%) their father. In all groups, fathers had died more often than mothers. This result is to be expected, due to the fact that men are generally older than their wives, and have a lower life span, and are also more likely to be involved in a hazardous occupation or military combat. Six subjects had lost one or more siblings, one had lost more than one child; none were widows. Nineteen (14.6%) had lost an important relative in the past year, nine (6.9%) a friend, and three had lost more than one important person recently. Seventeen of these said that they had discussed with that person their impending death, while in ten cases there had been no opportunity to do so due to the suddenness of death. Sixteen had a relative who was expected to die soon, one a friend, and two had more than one person they expected to lose soon. Twelve said they had talked with that person about his or her impending death.

Eight of the medical students had never attended a funeral. Twenty-seven (20.8%) had attended nine or more; the remainder had been to between one and eight. Thirty-seven (28.5%) said they had been with a person at the moment of his or her death, while 36 had had no contact at all with any terminally ill person. Twenty-eight (21.5%) said they had talked about death with a dying person. Their attitudes towards their own death are summarized in Table 3.8; the majority (60.8%) said they were sometimes afraid and sometimes not afraid of death.

Experimental sample. Thirty-one male and twenty-five female members of the group of medical students who completed the questionnaire served as the experimental sample. They responded to the simulation tapes, and were interviewed extensively about their experiences with death and their attitudes about death and the role of the physician in

working with the dying patient. All but nine of those who completed the questionnaire indicated a willingness to participate in this part of the study as well. Those who had returned an incomplete questionnaire were eliminated from the potential subject pool. The remainder were called by telephone, and asked to participate in the 45 minute experiment and interview. A few refused to participate further due to lack of time or illness, a few could not be scheduled due to conflicts between their schedules and those of the interviewers, and many could not be contacted by phone at all. Fifty-eight subjects were interviewed, of which 56 produced usable material. Of the two which could not be used, one became upset early in the experiment and asked not to complete it. The interviewer spent the remaining time talking with him about his distress, rather than following the interview schedule. One other subject's responses were lost due to the failure of the tape recorder to function.

Subjects were offered $3.00 for their participation. About half of those interviewed said, at the instigation of two of the subjects, that they wanted their payment donated to the Multiple Sclerosis Association for research purposes. The others either were paid or refused money altogether, saying that they were glad to help, or that they had participated out of interest and the hope that they might learn something. Many, when offered money at the end of the interview, indicated that they had entirely forgotten that payment had been offered for participation. Money, therefore, appears not to have been a major factor motivating subject's participation.

There were 36 first year students and 20 second year students in this group. No effort was made to contact an even number of first and second year students, and they were treated as a single group. While

there is some evidence[2,3,4,5] that attitudes towards death change over the course of medical training, it appears unlikely that measurable changes would occur while a student was still in the pre-clinical phase of training. For most of these students, the issue of how they will handle dying patients is one with which they have not yet been faced in their professional life.

In the experimental group of medical students, 31 were male (55%) and 25 female (45%). One was under 20, 28 (50%) were between 21 and 25 years old, 19 (34%) were between 26 and 30, and eight (14%) between 31 and 40. Thirty-two (57%) were single, 20 (36%) married or cohabiting, and four (7%) were separated or divorced. Twelve (21%) had children.

Two subjects lived with their family of origin, eighteen (32%) with spouse or partner and/or children, 27 (48%) with friends, and nine lived alone (16%). Fourteen (25%) said that their mothers never or almost never worked outside the home; 34 had mothers who currently or usually were employed (62%) and seven (13%) said that their mothers were incapacitated, retired, or deceased. Among the mothers who worked, twenty (36%) were professionals, six (11%) were in business, and sixteen (29%) were skilled or unskilled workers. Forty-one (73%) said that their fathers

---

[2]Herman Feifel, et al., "Physicians consider death," Proceedings, 75th Annual Convention of the American Psychological Association, 1967, 201-202.

[3]Sharon Golub and Marvin Reznikoff, "Attitudes toward death: a comparison of nursing students and graduate nurses," Nursing Research, 1971, 20 (6), 503-508.

[4]David Lester, et al., "Attitudes of nursing students and nursing faculty toward death," Nursing Research, 1974, 23 (1), 50-53.

[5]Peter B. Livingston and Carl N. Zimet, "Death anxiety, authoritarianism, and choice of specialty in medical students," Journal of Nervous and Mental Disease, 1965, 140 (3), 222-230.

usually or currently were employed, two said they had grown up without a father in the home, and thirteen said that their fathers either never were employed outside the home, or were retired, incapacitated or deceased. Among those fathers who were currently or previously employed, twenty-five (45%) were professionals, fourteen were in business (25%), eleven (20%) were skilled workers, and five (9%) unskilled workers.

Eighteen of these subjects were brought up in the Roman Catholic or Orthodox church (32%). Twenty-one (38%) were raised in a major Protestant denomination, and seven (13%) in a fundamentalist Protestant church. Seven (13%) were raised Jewish, and three in some other religious group. In current religious preference, eleven (20%) were Catholic or Orthodox, seven Protestant (13%), five (9%) fundamentalist Protestant, eight (14%) Jewish, thirteen (23%) said they were pro-religion with no formal affiliation or members of some other religious group, and twelve (21%) were atheists or agnostics. Ten (18%) rated themselves as "very religious," 21 (38%) as "about average," twelve (21%) as "not very religious," and 13 (23%) as "non-religious" or "anti-religious." Thirty-five (62%) expressed some degree of belief in an afterlife, eighteen (32%) strongly believed in an afterlife while eleven (20%) strongly disbelieved in one.

No one in this group was widowed, and none had ever lost a child. Forty-two (75%) said that they had not experienced the death of a significant other person within the past year. Five had lost a grandparent, one a parent, five another close relative or friend, and three had suffered more than one loss. Seventeen (30%) said that they had been with some person at the moment of his or her death, fourteen (25%) had been with a person close to the moment of death, eleven (20%) had been with a person

who was terminally ill, but not close to death, and fourteen (25%) had never had any contact with a terminally ill person at all. Eleven (20%) said they had experienced a conversation about death with a person who was dying.

The students were asked what their first and second choice medical specialty would be if they had to choose today. The most popular first choice speciality was family practice, specified by 25 students, followed by internal medicine, chosen by 11. Five people chose pediatrics; psychiatry and emergency medicine were each chosen by three. Other specialties named, each by only one person, were oncology, anaesthesiology, neurology, physiatry (work with the chronically disabled), ob/gyn, radiology, surgery, and hematology. One person was unable to give a preference. Most indicated that they really did not know what specialty they would eventually choose, and would not have expressed a preference except that they were urged to do so.

They were also asked what their second choice would be at the current time. Family practice was again the top choice, given by 16 students, followed by internal medicine and pediatrics, each chosen by eight, ob-gyn by six, psychiatry by three, and emergency and public health/preventative medicine by two each. Others, mentioned by only one person, were surgery, cardiology, neurology, radiology, anaesthesiology, geriatrics, endocrinology, and health center work. Three students refused to specify a second choice. Again, most students stressed that their choices were very much open to change.

Subjects were asked to describe in detail their attitudes about telling a patient that s/he is dying, whether they themselves would want to know if they were dying, and why. These topics are discussed in Chapter 4.

Construction of the Death Experience Questionnaire

In the description of the various samples, the manner in which the questionnaire data was collected is described. In this section, the construction of the questionnaire used in this study is described, along with the results of reliability studies on the Collett-Lester subscales, which comprise part of the Death Experience Questionnaire (which will be referred to, for convenience sake, as the DEQ). (Appendix C.)

Demographic Items. Research reviewed in Chapter II has produced conflicting results on the relevance of various demographic characteristics to the development of fear of death. A comprehensive set of demographic items is included in the DEQ in order to determine what results of previous studies might be borne out in the present one. The content of the demographic items is drawn from previous research, and includes questions on sex, age, marital status, employment history of parents (socio-economic status), academic major, religion, and previous experience with death. Only those items which were scalable were examined for possible correlations with fear of death scale scores; the remainder are used in describing the samples in the first section of this chapter.

Fear of Death Items. The remainder of the DEQ is composed of the items of the Collett-Lester fear of death inventory, which they have subdivided into four scales measuring fear of death of self (DS), death of others (DO), dying of self (DyS), and dying of others (DyO). The items of this scale are all from Lester's[6] scale; those items of Lester's original scale which did not show clear correlations with one subscale and low or zero correlations with others were deleted by Collett and

---

[6]David Lester, unpublished Ph.D. Dissertation, 1967.

Lester from the final form of the inventory. In this questionnaire, the items are all included in the order in which they appear in Collett and Lester's scale; all appear after the demographic items. The scoring of these items was changed to conform with that of other items of the DEQ. The original scoring was on a six-point scale from -3 (strong disagreement) to +3 (strong agreement). Here, possible scores on each item run from 0 (strong disagreement) to 5 (strong agreement). No neutral choice is allowed. Half the items are worded so that a high score indicates high fear, while the other half are worded so that a high score indicates low fear. Scoring on the negatively worded items was reversed in analysis so that high scores consistently indicate higher fear.

Reliability of the Fear of Death Scales

The four scales of the Collett-Lester inventory consist of 10 items each, with the exception of Scale 3, Fear of Dying of Self, which has eight items. Using data from the combined sample of undergraduates, graduate students, and medical students (n = 402), item and scale means and standard deviations were computed, along with inter-item correlations, and an estimate, by analysis of variance, of the reliability of the scale. (See Appendix A for items.)

Scale 1., Fear of death of self. Scale 1 contains items which measure the individual's fear of his/her own death. As on all scales, half the items are positively and half negatively worded. Item content has to do with knowing what happens on earth after one's death, the shortness of life, death as the end of what one experiences, and knowing what being dead is like. Item means for this sample run from a low of 2.02 on Item 108 (Not knowing what it feels like to be dead does not

bother me) to a high of 4.09 on Item 103 (I would not mind dying young). Scale mean was 27.21, standard deviation 10.15, possible range from 0-50. Reliability of Scale 1, calculated by analysis of variance, was .796.

The poorest item on the scale was Item 105 (I view death as a relief from earthly suffering). Inter-item correlations were the lowest for this item (the highest only .25, with Item 103). Reliability of the scale could be improved to .803 if Item 105 were deleted. This item is the only one deletion of which would improve the reliability of the scale. (Inter-item correlation matrices are found in Appendix D.)

Scale 2., Fear of death of others. Scale 2 contains items measuring the individual's fear of the death of other people. Item content has to do with loss, accepting the death of another as the end of his/her life on earth, communication with the dead, and sadness about what the dead person would be missing.

For the current sample, item means ranged from a high of 4.69 for Items 201 and 209 (I would experience a great loss if someone close to me died; If someone close to me died, I would miss him/her very much), to a low of 1.13 for Item 202 (I accept the death of others as the end of their life on earth.) Mean score on Scale 2 was 28.75, standard deviation 6.60, possible range 0-50. Reliability of Scale 2 was .52, which could have been appreciably improved by the deletion of Item 208 (I do not think of dead people as having an existence of some kind). Reliability without this item would have been .58.

Scale 3., Fear of dying of self. Scale 3 measured the individual's fear of going through the process of dying, in contrast to Scale 1 which measures the fear of being dead. Item content has to do with deterioration, pain, the limitation of one's experiences during dying, talking

about death, knowing one is dying, and preference for a sudden death. Item means ranged from a low of .43 for Item 306 (If I had a fatal disease, I would like to be told) to a high of 3.82 for Item 301 (I am disturbed by the physical degeneration involved in a slow death).

Scale mean was 18.26, standard deviation 4.54, possible range 0-40. As in all previous studies which have used this scale, Scale 3 was the least homogeneous; reliability here was only .20. However, reliability could have been greatly increased, to .40 with the deletion of Item 307 (I would rather die suddenly than of a slow death).

It is possible to speculate as to the reasons for the lack of homogeneity in Scale 3. The fear of physical and intellectual deterioration may have little to do with fear of dying, and may vary independently of it. Thus, individuals who scored high on one kind of item may score low on the other. In fact, the only inter-item correlations in this scale which are greater than .30 are between Items 301, 305, and 308, the three items whose content has clearly to do with deterioration. All other inter-item correlations are low and many are close to zero, even among items which appear on the face of it to be related to fear of dying.

Scale 4., Fear of dying of others. Scale 4 measures fear of the process of dying of other people, rather than of the consequences of others being dead. Item content has to do with spending time with a dying person, anxiety in their presence, being willing to talk about death with a dying person, preference that a friend die suddenly rather than slowly. Item means ranged from a low of .67 for Item 410 (If a friend were dying, I would not want to be told) to 3.83 for Item 402 (I would prefer that someone close to me died a sudden death rather than a slow death).

Scale mean for this scale was 15.64, standard deviation was 6.15, possible range 0-50. Reliability was .58. The best reliability that could have been achieved would have been through deletion of Item 402 (I would prefer that someone close to me died a sudden death rather than a slow death), which would have resulted in a reliability of .60.

Reliability of total Scale. Reliability of the total scale was also calculated to be .77. The total scale is an addition of the four subscales.

Relationships among Scales. There were significant correlations among all subscales, a result which has also been found in previous research. (See Table 3.9.) Highest correlations were between Death of Self and Dying of Self (.35), Death of Self and Death of Others (.38), and Dying of Self and Dying of Others (.35).

Table 3.9

Intercorrelations between Collett-Lester Subscales

	S2	S3	S4
S1	.38 s = .001	.35 s = .001	.16 s = .001
S2		.22 s = .001	.12 s = .008
S3			.35 s = .001

Inter-scale correlations were computed for each group (undergraduates, graduate students, and medical students) separately as well. As in the total group, all correlations were significant at the .05

level or better, with the exception of the correlation between Scales 2 and 4 in the graduate students group. The lowest correlations were between Scales 1 and 4, and Scales 2 and 4. (The correlations between all scales were significantly different from zero, but the correlations are so low that the percent of common variance among the scales is not very large.) While fear of death of self and dying of others might not be expected to be very highly correlated, it is more difficult to explain the low correlations between fear of death of others and dying of others. Most of the intercorrelations are not very high, the strongest being less than .40, which suggests that, while these fears overlap somewhat, different constructs actually are being measured by the four subscales. Either the constructs are not very clearly distinct, or the scales do not measure them very well, or both. The last interpretation seems the most likely.

Reliabilities of each scale, computed for each group separately, are shown in Table 3.10, showing that the instrument functions similarly in the different populations.

Table 3.10

Subscale Reliabilities
in Three Different Populations

	Undergraduates n = 172	Graduate Students n = 100	Medical Students n = 130
Scale 1	.80	.78	.81
Scale 2	.50	.57	.51
Scale 3	.28	.09	.12
Scale 4	.56	.56	.54

It is worth noting that Scale 3, which consistently functions least well, worked better in the undergraduate population than in the others. This finding may reflect the fact that the instrument was originally developed on an undergraduate population, and may indicate that its generalizability is limited. It is not clear what causes this limitation of its usefulness, but even at best the scale functions poorly. Aside from this exception, the reliabilities are fairly consistent across populations.

Factor Analysis of Scale Items

Although the scale of Collett and Lester was not constructed by factor analysis, such an analysis was performed to test the extent to which the scales would empirically factor as written, and to determine whether any additional factors representative of clear constructs would emerge. Using Guttman's lower bound theorem, twelve factors emerged. An additional factor analysis was performed to force the items into four factors, since there were four scales on the original inventory. In the original twelve-factor analysis, seven of the ten items of Scale 1 (Fear of death of self) loaded on Factor 1, along with one item each from Scales 2 and 3. Four of the eight items of Scale 3 loaded on Factor 2, along with one item from Scale 4. No more than three items of any one scale loaded together on the same factor in any other case. (See Appendix E for items and factor loadings.)

In the four-factor analysis, a Varimax rotation with Kaiser normalization was performed, and it is that rotation which is discussed here. Items of the four-factor analysis were examined for comparisons with the grouping of items in the original subscales, and also for any

constructs they might exhibit which did not correspond with the constructs used in the CL scale. Each factor is discussed individually here.

Factor 1. All items of Scale 1, Fear of death of self, loaded on the first factor (Appendix E), along with two items from Scale 2, Fear of death of others. Examining those items with loadings higher than .40, it appears that most of them have to do with wanting to know what it is like to be dead. The exceptions are Items 104 (I am disturbed by the shortness of life) and 205 (If someone close to me died, I would miss him/her very much) and 106 (I would not mind dying young). Three items (103, 205, and 208) appear to be ones which could easily be answered in the same way by either high or low fear individuals, and it is difficult to interpret the meaning of these items in the context of fear of death.

Factor 2. Factor 2 is composed primarily of items from the two scales which purport to measure fear of the process of dying, as opposed to the state of being dead. The better items have to do with avoidance of the pain of dying or of the experience of dying, either one's own or that of others, and avoidance therefore of dying persons and even of the knowledge that someone else is dying. (Items having to do with knowledge of one's own impending death do not appear in this factor.) It would appear from the make-up of the factor, that avoidance of the experience of dying is not divided cleanly into fear of dying of self and fear of dying of others, as Collett and Lester believed, but rather that the common factor is avoidance of that pain that either another's or one's own dying causes for oneself.

One possible explanation for the instability of this factor is that this is a period of cultural change, in which attitudes toward death and the dying are changing. Previously, people often had intimate contact

with the dying in their homes, but in recent years that has not been the case. The element of experience with the dying must color one's attitudes toward being with them, and social developments in that area may be causing changes in those attitudes which are tapped by this factor.

Factor 3. Factor 3 contains six of the ten items of the fear of death of others scale (Scale 2), and most of these are the items with the higher factor loadings. Those items with lower loadings do not appear to fit into any one single construct. There are items on this factor also which seem to stand in no clear relationship to fear of death, particularly Items 201, 203, and 304. It appears that the area of fear was not clearly enough delimited in construction of the original items, and that their content includes other aspects of attitudes towards death, particularly feelings about loss, which need not have much to do with fear.

Factor 4. The items of Factor 4 come mostly from the two subscales having to do with dying, and appear to be related mostly to knowledge of approaching death (either one's own or that of another) and fear of physical deterioration. Juding from the fact that items about fear of deterioration and those about fear of pain do not load on the same factor, it appears that these are two different aspects of attitudes toward death, which ought not be combined into a single construct called fear of the process of dying. Individual concepts of dying appear to be different from those which were assumed, by the test designers, to have construct validity.

Summary. The sorting of items by factor analysis does not match very well the division of items into scales done by Collett and Lester, with the one exception that all items of Scale 1, fear of death of self,

are loaded on Factor 1. This result may be taken as evidence that fear of death of self is a clear and valid construct, which Scale 1 measures fairly well. The other three factors contain items from Scales 2, 3, and 4, in combinations different from those used by Collett and Lester. Factor 2 is composed of items related to the process of dying, but the combination items from both Scales 3 and 4 suggests that people do not have clearly separate attitudes toward their own dying and that of others. The majority of items of Factor 3 come from Scale 2, suggesting that fear of death of others is a separate and identifiable fear, a finding which is corroborated by the fact that Scale 2 is the second most reliable of the four. Finally, the items of Factor 4, while mainly coming from the two scales having to do with dying, do not show any clear unifying theme in their content. It appears, in summary, that the division of fear of death into four distinct types, while having considerable face validity, does not entirely hold up under an empirical analysis.

Construction and Format of Stimulus Tapes

The literature of death research abounds in examples of interactions between dying patients and the professionals with whom they come into contact. From these examples, a large number of brief situations was created, which were shown to three staff members of the MSU Counseling Center, who were asked to rank order the situations on the basis of how anxious they would be if they had to respond to those individuals. On the basis of the judges' rankings, and suggestions they made for other possible situations, some episodes were eliminated and new ones created. Informal discussions with other psychologists and physicians led to the final set of six episodes. (See Appendix F.)

An attempt was made to create episodes which could elicit varying levels of anxiety, with the intention of submitting them to a group of medical student judges, and selecting for use in the final study only those episodes rated clearly high or low in anxiety-arousing potential. However, a group of eight raters was unable to agree at all on which episodes aroused the most and least anxiety. Therefore, it was decided that every subject would respond to all six episodes, and then make ratings of the anxiety s/he had experienced in doing so.

Several considerations dictated the format in which the episodes were presented. First, to minimize the possibility that subjects might give the responses they believed the interviewer wanted to hear, it was necessary that they be able to complete that portion of the study without assistance, so that the interviewer could leave the room. Therefore, two tapes were used, one containing the episodes spaced about 40 seconds apart, and the other to record both the episode and the response. Secondly, since the length of time it took subjects to begin to respond to each episode was of interest, approximately the same amount of time was made available for each response, long enough so that there was no pressure to respond immediately, but short enough so that there was not an unlimited time in which to respond. Subjects were told that each episode was followed by a period of silence long enough for them to respond, but were not told exactly how much time they would have. The amount of pressure to respond created in this way was felt to be analogous to the demand for response which is created in actual conversation (the situation subjects were told to imagine themselves in), in which a response cannot be too long delayed without disrupting the conversation, but in which a participant need not respond instantly.

Conduct of the Experiment and Interview

Medical students who responded to the Death Experience Questionnaire were contacted as described in the first section of this chapter. Those who agreed to participate were interviewed at the Counseling Center office; a few who could be scheduled in no other way were interviewed at the medical school or in their homes.

Five women served as interviewers: a graduate student in social work, one who holds a master's degree in psychology, and three doctoral students in counseling. Care was taken to select interviewers who would be capable of responding helpfully should any subject become distressed by the content of the interview.

Each interviewer received complete instructions for conducting the experiment, along with a set of instructions to be read to subjects and questions to be asked. (See Appendix G.) Interviewers were instructed to tape record all interviews, as well as writing down responses to some items. All questions were to be asked as written. The interviewers were sufficiently familiar with the purpose of the study so that they could evaluate whether a topic mentioned by a subject was worth further exploration, but generally they tended to stay fairly close to the written questions. Only information gathered from the prepared questions was evaluated, and the experimental portion of the session was conducted identically by each interviewer.

It was explained to subjects that they were to listen to a tape of several simulated medical patients (all male). They were to imagine that they were physicians, and that the person on tape was a patient of theirs, who expected a response to his concern. Subjects were to respond directly to the person on tape. The instructions were read to them, and

they were asked to respond to a practice episode, unrelated to the subject of the study, in order to make sure that they had clearly understood the instructions. The interviewer made sure that the response given to the practice episode was worded so that the subject was speaking as if directly to the patient, rather than saying something like, "I would tell her . . ." If subjects talked about what they would say, rather than saying it directly, they were asked to rephrase the response into a direct one.

Subjects were told that the episodes were spaced on the tape so that they would have enough time to respond without stopping and starting the tape. They were to use as much or as little of the available time as they wished, and to stop talking when the next episode began. If they had not responded by then, they were to go on to the next episode. The interviewer instructed the subjects to respond to each episode directly, not to stop the tape, and to call her back to the room when they had responded to all six episodes. She then started both tape recorders (one to play the stimulus tape and one to record) and left the room. A few subjects had difficulty understanding the tape, usually a matter of adjusting the volume and tone. When this happened, the tape was started again from the beginning.

The interviewer returned when the subject had finished responding to all six episodes. The same episodes were played again, and the subject was asked to rate each one on a scale of one to five, according to how anxious s/he had felt while responding to it. (Appendix H.) Subjects were told that what was of interest was how the various episodes had affected them differently. The interview began with a discussion of the subject's reasons for the ratings given to the various episodes.

The remainder of the interview dealt with the subject's responses to the vignettes; his or her experiences with dying patients, family members, or friends; their opinions on the matter of telling patients of their impending death and who should be responsible for doing so; and whether they themselves would want to be informed of their impending death, and why.

At the end of the interview, subjects were asked how they had felt about participating in it. The most common response was that it had been interesting and a learning experience. Some commented that they had been forced to think about issues they had not previously considered. A few said that it was slightly depressing to talk about death, but for only two subjects was it a really distressing experience.

These two became upset and were unable to complete all or part of the task. One stopped responding after half the episodes, saying he was unable to respond to them because his own attitudes and feelings about death were in such a state of transition that he did not know what to say. The interviewer talked with him for the better part of an hour, but the content was lost due to the interviewer's hesitancy to ask permission to tape a conversation with a subject who was upset. This interview is not included in the analysis.

Another subject responded to all the vignettes, but became upset at the start of the interview. She indicated that she was willing to go through with it, and that she thought she might learn something even though she was upset. She appeared less distressed at the end of the interview. However, through subjects interviewed later, it was learned that she had discussed the experience with several other medical students, and that some potential subjects had been discouraged from participating because she had presented it as a depressing experience. Since this interview was completed, it is included in the analysis.

One other subject, interviewed at the end of what was evidently a long, hard day for her, stated at the outset that she hated simulation studies, and did not want to participate, but then agreed to go through with it although she was aware of the option of not participating. She quit halfway through the simulation portion of the study, and left quite angry. All other interviews were completed with no difficulty.

Hypotheses

Two groups of hypotheses were tested in this study, one having to do with the results of the fear of death survey, and the other with medical students responses to the simulated patients. Hypotheses about the results of the survey data are drawn directly from previous research, and are an attempt to confirm or disprove previous findings that certain groups fear death more than others. The experimental hypotheses are more exploratory in nature, since there is no previous research directly into responses to dying patients. No hypotheses were formed about the data to be obtained from the interviews, since they were done primarily for the purpose of collecting background and supportive information.

Survey Hypotheses

1. Medical students will have a higher mean score on the four fear of death scales (fear of death of self, death of others, dying of self, and dying of others) than will undergraduates or other graduate students.
2. Females will score higher on the fear of death scales than males.
3. More religious people will score higher on the fear of death and dying of others scale than will less religious people.
4. Less religious people will score higher on the fear of death and dying of self scales than will more religious people.

5. People who believe in an afterlife will score higher on the fear of death and dying of others scales than will people who do not.
6. People who do not believe in an afterlife will score higher on the fear of death and dying of self scales than people who do.
7. People who have suffered a recent loss (within the past year) will score higher on the fear of death scales than those who have not.
8. People who directly admit to fear of death will score higher on the fear of death scales than those who deny fear of death.

Experimental Hypotheses

1. Subjects who score high on fear of death subscales, particularly fear of death and dying of others, will show more emotionality in responding to simulated patients.
2. There will be a negative relationship between fear of death and directness of references to death in the response to the simulated patients. Subjects who score high on death directness should score lower on fear of death, particularly on fear of death and dying of others.
3. There will be a positive relationship between fear of death, particularly of death and dying of others, and the anxiety ratings given to the vignettes.
4. Subjects who score higher on the fear of death scales, particularly fear of death and dying of others, will take longer to begin to respond to the simulated patients.
5. There will be a positive relationship between the anxiety rating given a particular vignette and the time taken by the subject to respond to it; i.e., subjects will take longer to begin to respond to those vignettes which make them more anxious.

6. There will be a positive relationship between fear of death, especially fear of death and dying of others, and the emotionality rating given to the response.

Dependent Measures

Four measures were used of the anxiety level of subjects responding to the simulation tapes. These were: the length of time it took the subject to begin to respond to the episode (response lag), the anxiety rating given by the subject to the vignette, the directness of reference to death in the response, and the emotionality level of the subject's response. The rationale for the use of each variable, and the reliability of that variable are discussed in this section.

Response lag. The amount of time it takes an individual to respond to a death-related stimulus, as opposed to an affectively neutral stimulus, has been examined by several investigators. A variety of tasks have been presented to subjects in these studies. Alexander and Adlerstein[7] and Alexander, Colley and Adlerstein[8] found longer response lags when subjects were presented with death words than when they were given neutral words, on a word association task. Subjects responded similarly to death words and to other affectively laden words. Golding et al[9] found that subjects took more trials to identify tachistoscopically

---

[7]Irving E. Alexander and Arthur M. Adlerstein, "Affective responses to the concept of death in a population of children and early adolescents," Journal of Genetic Psychology, 1958, 93, 167-177.

[8]Irving E. Alexander, Randolph S. Colley, and Arthur M. Adlerstein, "Is death a matter of indifference?", The Journal of Psychology, 1957, 43, 277-283.

[9]Stephen L. Golding, George E. Atwood, and Richard A. Goodman, "Anxiety and two cognitive forms of resistence to the idea of death," Psychological Reports, 1966, 18, 359-364.

presented death words than neutral words, but found no significant relationship between the number of trials to recognition and fear of death. Feifel et al[10] found that dying patients took longer than healthy people on both word association and the Color Word Interference Test. Feifel and Branscomb[11] found that all subjects took longer to react, on a word association task, to death words than to neutral words, and longer to identify death words on the Color Word Interference Test. In a conflicting study, Lester and Lester[12] found that subjects identified death words at a lower level of legibility than neutral words, suggesting perceptual sensitization to a threatening stimulus, rather than perceptual defense, the model which the other studies suggest is appropriate.

It appears, although some of the evidence is conflicting, that people defend against the perception of stimuli related to death, at least in experimental situations in which no actual death threat is present. (It is not to be assumed that the same process would operate if a person were actually in a life-threatening situation.)

The interaction of the physician with the dying patient is not a life-threatening situation for the physician. Stimuli are presented which, while death is the content, do not pose a physical threat to the person responding to them. Threat may be experienced for any of several other reasons, for instance: previous feelings about death, insecurity

---

[10]Herman Feifel, Jeffrey Frelich, and Lawrence J. Hermann, "Death fear in dying heart and cancer patients," Journal of Psychosomatic Research,]973, 17, 161-166.

[11]Herman Feifel and Allan B. Branscomb, "Who's afraid of death?", Journal of Abnormal Psychology, 1973, 81 (3), 282-288.

[12]Gene Lester and David Lester, "The fear of death, the fear of dying, and threshhold differences for death words and neutral words," Omega, 1970, 1, 1975-1979.

about competency, or loss of control. It was the hypothesis of this study that individuals responding to other people who present death-related material will experience that material as threatening, defend against it, and require longer to respond to that person the more anxiety-arousing they find the stimulus to be. In this respect this study differs from previous ones, which do not require the subject to respond to anyone else, but only to give a response to a stimulus. Death stimuli were not compared to neutral stimuli but to each other, in this study, on the assumption that individuals will vary in the extent to which they are threatened by a particular stimulus. People will take longer to respond to stimuli which make them, individually, more anxious.

Subjects were presented with six vignettes, with approximately a 40-second time gap after each one in which to respond. This procedure gave them enough time to respond, while somewhat limiting the length of the response. Subjects were instructed to stop speaking when the next vignette began, if they had not already finished responding, and to go on to the next one if they had not responded when the available time ran out.

It was also hypothesized that individuals with higher fear of death, particularly of death and dying of others, would take longer to respond to all the vignettes than those with lower fear.

Subjects' responses were timed with a Meylan #204BD stopwatch, measuring response lag in 1/100's of a minute. All timing was done by one person, and it is assumed that errors caused by delayed reaction time in pressing the stopwatch button would even out by being approximately the same at the beginning and end of the response.

Directness of death reference. It is a common observation that

physicians often avoid direct discussion of death with their dying patients, because of their own discomfort with the topic. One variable of interest in this study is the extent to which, in responding to a simulated dying patient, the medical students are willing to directly mention the subject of death--which is directly referred to by all the simulated patients.

Martin and Wrightsman[13] found that individuals from the general population who reported a greater fear of death tended to respond to death cues with more death-related responses rather than fewer. However, in this study, it is expected that subjects with higher fear of death will give fewer direct death-related responses, for several reasons. First, as Glaser and Strauss[14] imply, the legitimacy of a situation of one-sided or mutual pretense is often assumed in contacts between physicians and dying patients. An individual judging that a given situation required such an approach would be less likely to make direct references to death, and it is likely that an individual with a higher fear of death would be more likely to perceive an interaction with a dying patient as requiring pretense for the sake of the patient, if not directly for the physician's own comfort. Secondly, medical students, even in the first and second year, are likely to have experienced training which often teaches them (however indirectly) that they ought not be too direct with a dying patient. Third, it is possible that needs of control of the situation would make the medical student back off from direct

---

[13]David Martin and Lawrence S. Wrightman, Jr., "The relationship between religious behavior and concern about death," Journal of Social Psychology, 1965, 65, 317-323.

[14]Barney Glaser and Anselm Strauss, Awareness of Dying, Chicago, Aldine, 1965.

confrontation of an emotionally charged issue, which might remove control of the interaction from his/her hands.

In this study, three levels of directness or reference to death are examined: none at all (scored 0), indirect (scored 1), and direct (scored 2). All references to death were culled from the total set of responses, and the list presented to 10 psychologists who were asked to rate each phrase or word for directness of reference to death. Agreement among the raters was very high. The complete list of references to death, the number of people rating each direct or indirect, and the score that reference was assigned are presented in Table 3.11.

Table 3.11

References to Death

Reference	# Direct Ratings	# Indirect Ratings	Assigned Score
Death Dying Kill Taking Your Own Life	10	0	2
End Your Life Die Suicide	9	1	2
Terminally Ill	7	3	2
Go Gone	0	10	1
The End Put You Out of It Pass On	1	9	1
Succumb	2	8	1
Life Is Ending End It	3	7	1
Last Days of Your Life	4	6	1
Terminal	5	5	1.5
No Death References			0

If a response contained more than one reference to death, the assigned score was the average of all references. Thus, a response in which only one direct reference to death was made would score higher than one which contained a direct and indirect reference. It was felt that the presence of any indirect references was indicative of avoidance even though the total number of references might actually be greater.

Emotionality

Lowry's[15] research indicated that although subjects expressed indifference toward death when directly asked about their attitudes, their stories about death constructed to TAT cards contained the highly emotional themes of violence, mutilation, and loss. Lowry takes this as an indication that below conscious death anxiety is expressed in unobtrusive ways even when the subject denies conscious death anxiety. Templer[16] found that subjects who scored higher on his DAS gave significantly more words judged descriptive of emotions on a word association task to 'death.' He hypothesizes that the appearance of emotional responses is an indicator of death anxiety (in this case, in subjects who did not deny conscious death anxiety). Martin and Wrightsman[17] also found that subjects who responded to death cues with emotional responses reported greater fear of death.

It was hypothesized that subjects who score higher on the CL

---

[15]Richard J. Lowry, Male-Female Differences in Attitudes Toward Death, Ph.D. dissertation, Brandeis University, 1965.

[16]Donald I. Templer, "The construction and validation of a death anxiety scale," Journal of General Psychology, 1970, 82, 165-177.

[17]David Martin and Lawrence S. Wrightsman, Jr., "The relationship between religious behavior and concern about death," Journal of Social Psychology, 1965, 65, 317-323.

scales of fear of death will give more affectively laden responses to the death concerns of others, as they would to a word association task. It is assumed that whatever feelings, whether acknowledged or denied, an individual has about death will be triggered by the need to respond to another person's concern about death. This should be true particularly of those who score higher on the DO-DyO scales, for whom the stimulus (a person who is dying) should be more anxiety producing than it would be for people who scored lower on that subscale.

Faunce and Fulton[18] found more emotionally laden responses among spiritually oriented than among temporally oriented people. While this dimension of death attitudes is not directly considered in this study, it raises the question whether religious people (whose orientation may be assumed to be spiritual) may give more emotional responses than those of less religious people to the dying patient stimulus. Evidence bearing on this question is examined.

An attempt was made to ask raters to simply count the number of words they judged expressive of emotion in each response. However, the three raters who performed this task, while they agreed very highly in the initial training session, were unable to agree on what words in the actual responses (other than explicit emotional labels) were indicative of emotional involvement, often to the extent of giving entirely different lists of words for the same response, probably because very few subjects gave any direct expressions of emotion. Therefore, a five-point scale of emotional arousal was developed, and three new raters, all graduate students in counseling and guidance at Indiana University, were trained

---

[18]William A. Faunce and Robert L. Fulton, "The sociology of death: a neglected area of research," Social Forces, 1958, 36, 205-209.

in its use. (See Appendix I for scale.) Reliability of average ratings, using Ebel's[19] formula, was .80.

Reliability of dependent measures. Analyses of variance were performed on scores of directness of death references, response lag, emotionality and anxiety ratings, to see whether there were differences in how subjects responded to the six vignettes, or whether scores could be combined across all episodes. Reliabilities of the scaled dependent variables are in Table 3.12.

Table 3.12

Reliability of Dependent Measures

Variable	Alpha
Directness of Death Reference	.41
Response Lag	.74
Emotionality	.60
Anxiety Rating	.61

On the response lag scale, there was no significant difference among responses to the six vignettes. This was not true of death directness and anxiety. The anxiety rating is discussed at length in Chapter IV.

Design and Analysis

There are two separate parts to this study, one primarily descriptive and one predictive. In the descriptive portion of the study, questionnaire data and fear of death scores are intercorrelated, and three groups are compared in their responses to fear of death scales,

---

[19]Robert L. Ebel, "Estimation of the reliability of ratings," Psychometrika, 1951, 16 (4), 407-424.

by analysis of variance. Due to conflicting evidence of the relevance of demographic variables to fear of death, few predictions are made about the direction and size of correlations expected.

In the predictive study, a canonical correlation technique is used to discover patterns of correlations in demographic, fear of death, and dependent variables (emotionality, response lag, death references, and anxiety ratings). Not all demographic variables are used in predicting to these variables; those which are not are used only for description of the sample.

Summary

Three groups of students (undergraduates, graduate students in education and medical students) completed the Death Experience Questionnaire, containing demographic items, questions about their experiences with death, and the items of the Collett-Lester Fear of Death scale. Fear of death scores were compared across groups, and were correlated with demographic variables. The reliabilities of the fear of death scales were calculated, and a factor analysis of the fear of death items was performed.

A sub-group of the medical students who responded to the questionnaire participated in the experimental study, in which they were asked to respond to a series of six simulated dying patients, imagining themselves to be the patient's physician. Responses were evaluated for response lags, emotionality, directness of death reference, and the anxiety rating the subject assigned to that vignette. A canonical correlation technique was used in the analysis of this data.

Experimental subjects were interviewed upon completion of the

experimental task. Interview data are used in description of the sample, and in discussion of medical students' attitudes toward dealing with the dying and of their subjective responses to the vignettes.

CHAPTER IV

Introduction

Results in this chapter are given in the same order in which the collection of data was described in Chapter III. In the first section, the results of the Death Experience Questionnaire are discussed, giving differences among the groups studied, relationships between fear of death and the various demographic variables, and the results of testing of the survey hypotheses. Particular attention is given to the sub-group of medical students who participated in the experimental study.

In the second section, the ratings of anxiety arousal given to the stimulus tapes are discussed, and correlations with demographic variables and fear of death scores are given. Since subjects were asked during the interview to give the reasons for the highest and lowest anxiety ratings they gave, these reasons are discussed in this section.

In section three, the dependent measures are discussed: response lag, emotionality and directness of death reference. Intercorrelations with fear of death and demographic variables are discussed, as well as the relationships discovered among the dependent measures themselves. Results of hypothesis testing are also discussed.

In the final section, data obtained during the interview are presented with particular attention to attitudes expressed by medical students toward knowledge of their own death, and toward telling patients that they are dying.

Death Experience Questionnaire Results

Sample Difference in Fear of Death

Undergraduates, medical students, and graduate students completed the Death Experience Questionnaire. Mean scores of these groups on the four subscales of the Collett-Lester items were compared, using a one-way analysis of variance and Tukey's multiple range test. These results are shown in Table 4.1.

Table 4.1

Analyses of Variance
Fear of Death Scales by Samples
(Medical Students, Graduate Students, Undergraduates)

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Fear of Death of Self by Three Groups					
Between Groups	2	76.1427	38.0713	.368	.692
Within Groups	399	41282.8847	103.4659		
Total	401	41359.0274			
Fear of Death of Others by Three Groups					
Between Groups	2	220.2052	110.1026	2.544	.080
Within Groups	399	17270.4142	43.2842		
Total	401	17490.6194			
Fear of Dying of Self by Three Groups					
Between Groups	2	276.7410	138.3705	6.909	.001
Within Groups	399	7990.8336	20.0272		
Total	401	8267.5746			
Fear of Dying of Others by Three Groups					
Between Groups	2	1209.9882	604.9941	17.273	less than .001
Within Groups	399	13974.9869	35.0250		
Total	401	15184.9751			

No significant differences among the three groups were found in fear of death of self or death of others, contrary to the prediction that medical students would have a higher mean score on all scales than undergraduates and graduate students. In fear of dying of self, the mean score for medical students was significantly lower ($p = .001$) than that for graduate students. Neither graduate students nor medical students differed significantly from undergraduates, whose mean score was intermediate between the other two. In fear of dying of others, the medical students' mean score was lower (p less than .001) than that of either of the other groups.

These results do not support the hypothesis that medical students will show a higher fear of death than the other groups. There are several possible reasons for this finding.

It may be that medical students are lower in fear of dying of others due to their greater experience with the dying. A certain amount of desensitization may occur during their training, even in the first and second years. As is illustrated in Tables 4.2 and 4.3, more medical students had experience with the dying than did members of the other groups.

The majority of the undergraduate and graduate groups had had little or no contact with dying people, while a higher percentage of the medical student group had had such contact. In all three groups, few had actually talked with a dying person about their impending death.

Many of the medical students who were interviewed during the experimental portion of the study indicated that they had been exposed to course work in the area of death and dying, during either undergraduate school or medical school. Eleven were currently enrolled in a

Table 4.2

Contact with the Dying

Have you ever had a deep conversation with someone about death, during which both of you knew that one of you was dying?

	Yes	No
Undergraduates	14 8.1%	157 91.3%
Graduate Students	15 15.0%	84 84.0%
Medical Students	28 21.5%	102 78.5%

Table 4.3

Presence at Death of Others

Have you ever been with someone at the moment of their death?

	Yes	Close, But Not Right at Moment at Death	During Terminal Illness, Not at Moment of Death	No
Undergraduates	14 8.1%	24 14.0%	38 22.1%	96 55.8%
Graduate Students	15 15.0%	17 17.0%	27 27.0%	41 41.0%
Medical Students	37 28.5%	31 23.8%	26 20.0%	36 27.7%

course in death and dying offered by the medical school. Nine had previously taken such a course, either as part of their medical training or as a portion of another course during their undergraduate education.

Thirty-six subjects had had no coursework in the area of death and dying. (Many of those who were currently enrolled in that course referred to it often as being influential in their thinking on the subject of death and the care of the dying.)

There is no reason to believe that the proportion who had experienced such training was any different in the whole group of medical students who completed the questionnaire (from which the experimental sample was drawn). This course work may have influenced the attitudes and feelings of the medical students enough to contribute to the differences found on the fear of death scales, since the undergraduates and graduate students may be presumed to have experienced less academic work in that area. On the other hand, there has been a good deal of death-related material in the media of late, and the area has gained a certain amount of academic respectability, so that, even in the absence of formal coursework, students at all levels may be expected to have experienced more exposure to problems in the area of death than used to be true. Such exposure may serve to attenuate differences which otherwise might have existed.

It is also possible that the perceived social desirability of admitting to fear of death is different among different populations. Several studies[1,2,3] have shown no differences in fear of death based

---

[1]Joseph A. Durlak, "Relationship between individual attitudes toward life and death," Journal of Consulting and Clinical Psychology, 1972, 38 (3), 463.

[2]Thornton Hooper and Barnard Spilka, "Future time and death among college students," Omega, 1970, 1, 49-56.

[3]Donald I. Templer, The construction and validation of a death anxiety scale, Ph.D. Dissertation, University of Kentucky, 1967.

on a tendency to respond in a socially desirable manner. However, it is possible that the medical students perceived some responses as being more socially desirable than others, while members of the other groups perceived no such differences. For instance, they may have found it socially undesirable to admit fear of death (particularly that of others) for themselves only because they are members of the medical profession, and expect themselves to be able to deal with such matters with equanimity. For members of non-medical groups, for whom being able to relate comfortably to the dying is not part of a professional self-image, there may be no perceived social undesirability in admitting to fear of death.

Intercorrelations among subscales of the Collett-Lester inventory for the experimental group of 56 medical students are presented in Table 4.4.

Table 4.4

Inter-Scale Correlations
(Experimental Sample, n = 56)

	Scale 1	Scale 2	Scale 3	Scale 4
Scale 1 (death of self)	1.00			
Scale 2 (death of others)	.31# (.38)	1.00		
Scale 3 (dying of self)	.33# (.35)	.41# (.22)	1.00	
Scale 4 (dying of others)	.28* (.16)	.12 n.s. (.12)	.28* (.35)	1.00

*indicates significant at .05 level for 54 d.f., one-tailed test
#indicates significant at .01 level for 54 d.f., one-tailed test

(correlations for whole sample, n = 402 are shown in parentheses)

Some observations may be made about the similarity of correlations in this sub-sample and in the total group. The correlation between Scales 1 and 4, death of self and death of others, is considerably larger in this group than in the total group, as is the correlation between Scales 2 and 3, death of others and dying of self. The correlation between Scales 2 and 4, death of others and dying of others, is about the same as in the total group, but is non-significant here due to the difference in sample size. All other correlations were of approximately the same magnitude in both groups.

Relationships between Fear of Death and Demographic Variables

Subjects' responses to demographic items were correlated with their total scores and subscale scores on the Collett-Lester inventory. Correlations, even those which were statistically significant, were, with few exceptions, low (less than .20). Many low correlations reached a .05 level of significance due to the large sample size (n = 402), but only those of significance better than .01 are discussed here. Correlations are given first for the entire group, and then for undergraduates, graduate students, and medical students separately, as well as for the experimental sub-sample (n = 56) of medical students. Correlation coefficients and significance levels are presented in Table 4.5.

Scale 1. Fear of death of self was associated with being less religious and not believing in an afterlife. Subjects with high scores on Scale 1 admitted (when directly asked) to fearing their own death, and tended never to have talked about death with a dying person.

Scale 2. Fear of death of others was correlated positively with being female and younger, having been to fewer funerals, believing in an afterlife, and admitting to fear of death. The association with

Table 4.5

Intercorrelations of Fear of Death and Demographic Variables

(Whole Sample, n = 402)

	Death of Self	Death of Others	Dying of Self	Dying of Others	Total FOD
Sex	.09	.24*	.12#	.04	.18*
Age	.08	-.13#	.00	-.08	-.11#
Religiosity	-.25*	.02	-.11	.01	-.15*
# Funerals	-.05	-.12#	-.08	-.11	-.13#
Talk with Dying	-.11#	.07	-.08	-.13#	-.15#
Admitted FOD	.54*	.32*	.13#	-.03	.43*
Change in Religion	.01	-.06	-.04	-.12#	-.07
Belief in Afterlife	-.17*	.14#	-.08	.00	-.06

*indicates p = .001
#indicates p less than or equal to .01

No other demographic variables were significantly correlated with fear of death scales.

admitting directly to fear of death is weaker with fear of death of others than with fear of death of self.

Scale 3. High fear of dying of self was correlated with being female, and, weakly, with admitting to fear of death.

Scale 4. High fear of dying of others was associated with never having talked about death with a dying person, and with having a religious orientation the same as one's religion of upbringing.

Total fear of death score. Total fear of death was correlated with being female, younger, and less religious. High scorers tended to have attended fewer funerals, to have never talked with a dying person about their death, and to admit fear of death.

The strongest relationship between fear of death and sex is shown in responses to Scale 2, fear of other of others, although on all scales, females scored higher. The strength of this relationship may reflect a learned orientation to sensitivity to loss, or a learned orientation to dependency on the part of females, which makes the death of others particularly hard to bear.

In an attempt to demonstrate the construct validity of the Collett-Lester subscales, subjects were directly asked about their attitudes toward their own death. An attempt was made to scale alternative responses on this item on a dimension of denial of fear of death. In Table 4.6, responses to this item are correlated with responses to the subscales, to demonstrate the variety of relationships. The strongest relationship is between admitted fear of death and the fear of death of self scale, and secondly with fear of death of others, while there is very little relationship shown between admitted fear of death and scales of fear of dying of self or others. The weakness of the relationship to fear of dying of self may reflect the low reliability of that scale.

As has been shown in previous research, there is a relationship between the dimension of religiosity and whether the individual's fear of death is primarily for self or primarily for others. High religiosity subjects tended to express fear for others, while low religiosity subjects expressed more fear for self. The same result was shown in responses to the question about belief in an afterlife; those who believed in an afterlife tended to fear for others, while those who did not more often feared for themselves.

Table 4.6

Measured Fear of Death and Admitted Fear of Death

Scale	Correlation with Admitted Fear of Death
1. Death of Self	.52
2. Death of Others	.30
3. Dying of Self	.15
4. Dying of Others	.04

Since there were a few differences in the correlations between demographic variables and fear of death among the different populations studied, results are reported separately for each group.

Undergraduates

Scale 1. Fear of death of self was associated with not being very religious, not believing in an afterlife, and admitting to fear of death.

Scale 2. Fear of death of others was associated with being female, and admitting to fear of death.

Scale 3. Fear of dying of self was associated with not being very religious and admitting fear of death. A positive correlation was found with saying that one was terminally ill, but, without knowing what positive answers to this item mean, the result is impossible to interpret.

Scale 4. Younger subjects expressed greater fear of death of others. However, the great majority of this group were 20 years of age or younger, and almost all were under 25.

Total scale. Total fear of death was associated with not having children, and with admitting to fear of death.

Table 4.7

Intercorrelations between Fear of Death Scales and Demographic Variables

(Undergraduate Sample, n = 172)

	Death of Self	Death of Others	Dying of Self	Dying of Others	Total FOD
Sex	.13	.31*	.11	-.07	.18#
Age	-.09	-.06	-.02	-.17#	-.13
Religiosity	-.28*	.00	-.20#	-.06	.22#
Terminal Illness	-.08	-.08	-.18#	.00	-.12
More Funerals	-.13	-.05	-.14	-.16	-.17#
Conversation with Dying	.16	-.06	-.09	-.16	-.18#
Admitted FOD	.56*	.32*	.22#	.10	.51*
Belief in Afterlife	-.17#	.14	-.15	-.09	-.12

*indicates p = .001
#indicates p less than or equal to .01

No other demographic variables were significantly correlated with fear of death scales.

Graduate Students

Scales 1 and 2, total fear of death. The results were the same as in the undergraduate sample.

Scale 3. There were no significant correlations between fear of dying of self and other variables.

Scale 4. Fear of dying of others was associated with not having changed religious orientation from the religion of upbringing, and with not admitting to fear of death.

Denial of thinking about or fearing death was correlated, in this sample, positively with fear of dying of others. The avoidance of dying, whether one's own (by not thinking about it) or of others, might be indicated by this association. The content of Scale 4 has much to do with avoidance of a dying person, rather than being strictly limited to items about fear of the dying of others.

Total scale. Total fear of death was associated with not having children and with admitting fear of death.

Table 4.8

Intercorrelations among Fear of Death Scales and Demographic Variables

(Graduate Student Sample, n = 100)

	Death of Self	Death of Others	Dying of Self	Dying of Others	Total FOD
Sex	.14	.23#	.09	.07	.20
Children	-.21	-.09	-.21	-.09	-.23#
Religiosity	-.28#	-.04	.04	.02	-.14
Admitted FOD	.47*	27#	.04	-.22#	28#
Change in Religion	.07	-.06	.08	.23#	-.05
Belief in Afterlife	-.24#	.02	-.08	-.09	-.16

*indicates p = .001
#indicates p less than or equal to .01

No other demographic variables were significantly correlated with fear of death scales.

Medical Students

Scale 1. High fear of death of self was correlated with having experienced the loss of a significant other within the past year, and

with admission of fear of death.

Scale 2. Fear of death of others was associated with admitted fear of death and with belief in an afterlife; high scorers tended not to have ever talked with a dying person about death.

Scale 3. Fear of dying of self was associated with admission of fear of death.

Scale 4. Fear of dying of others was associated with not having talked about death with a dying person.

Total scale. High total score was associated with admitted fear of death and with never having talked with a dying person about death.

Table 4.9

Intercorrelations of Fear of Death Scales and Demographic Variables

(Medical Student Group, n = 130)

	Death of Self	Death of Others	Dying of Self	Dying of Others	Total FOD
Recent Loss	.23#	.01	.06	-.15	.10
Talk with Dying	-.11	-.20#	-.14	-.24#	-.23#
Admitted FOD	.61*	.36*	.22#	.11	.55*
Belief in Afterlife	-.11	.22#	-.06	.08	.03

*indicates p = .001
#indicates p less than or equal to .01

No other demographic variables were significantly correlated with fear of death scales.

These results suggest that medical students with less contact with the dying have more fear of the death and dying of others, a

relationship which was not found in the other two groups. The fact that medical students with no exposure to dying persons still have that experience ahead of them in their professional career may lead one to expect that they would have stronger attitudes towards the death and dying of others than those who may more easily avoid contact with dying people.

Experimental Subjects

Pearson product moment correlations were calculated separately for the group of medical students who participated in the experimental study (n = 56). Correlations were generally similar to those obtained in the total group. In Table 4.10, the correlations between demographic variables and scale scores are shown. Only those variables which showed a significant correlation with at least one scale are tabled.

Table 4.10

Intercorrelations between Subscale Scores and Demographic Variables

(Experimental Subjects, n = 56)

Variables	Death of Self	Death of Others	Dying of Self	Dying of Others
Sex (Females +)	.12	.36#	.18	.03
Children (Yes +)	.24*	-.03	.08	.30*
Religious (More +)	-.04	.22*	-.07	.28*
Recent Loss (Yes +)	.04	.04	-.06	-.22*
Expected Loss (Yes +)	-.17	.01	-.13	-.26*
Conversation with a Dying Person (Yes +)	-.22*	-.15	-.24*	-.32*
Admitted Fear of Death (Yes +)	.52#	.30#	.15	.04
Change in Religious Preference (Yes +)	.03	.04	-.10	-.21*

*significant at .05 level for 54 d.f., one-tailed test
#significant at .01 level for 54 d.f., one-tailed test

As is shown in Table 4.10, those who scored high on Scale 1, fear of death of self, were people with children, those who said they had never talked about death with a dying person, and those who admitted to fear of death. Those who scored high on Scale 2, fear of death of others, were females, more religious people, and those who admitted fear of death. On Scale 3, fear of dying of self, higher scores were achieved by those who said they had never talked about death with a dying person; this was the only variable significantly correlated with Scale 3. Finally, those who scored higher on Scale 4, fear of dying of others, were those who had children, more religious people and those who had not changed their religious preference, those who had never talked with a dying person about death, and those who neither had lost someone significant in the past year nor expected to lose someone soon.

There were no significant correlations between fear of death scales and age, marital status, current living situation (alone or with others), the number of funerals the person had attended, whether either parent was deceased, and whether they professed belief in an afterlife.

Testing of Survey Hypotheses

(See Tables 4.5, 4.7, 4.8, 4.9, and 4.10.)

1. Medical students will have a higher mean score on the four fear of death scales than will undergraduates or other graduate students.

This hypothesis was not supported. The only differences of significance were in the direction opposite to that which was predicted. Medical students scored significantly lower than graduate students in fear of dying of self, and lower than both graduates and undergraduates in fear of dying of others. There were no significant differences among groups in fear of death of self or death of others. (See Table 4.1.)

2. Females will score higher on the four fear of death scales than males.

In the total group, this hypothesis was supported for fear of death of others, dying of self, and total fear of death, although all correlations were generally low. Among undergraduates separately, females scored significantly higher than males on fear of death of others and total fear of death, and among graduates and the experimental group of medical students, females scored significantly higher only in fear of death of others. However, among medical students as a whole, there was no significant correlation with sex.

3. More religious people will score higher on the fear of death and dying of others scales than will less religious people.

There were no significant correlations between religiosity and fear of death of others, except in the experimental medical student group. For that group alone, there was a significant correlation with both Scales 2 and 4. In this respect, the group which participated in the experiment was different from the whole group of medical students who responded to the survey. This may represent only chance variation, because of the way in which sampling was done. It is not clear how this difference may have affected the results of the study.

4. Less religious people will score higher on the fear of death and dying of self scales than will more religious people.

In the total group, there was a significant negative correlation between fear of death of self and religiosity, but not between religiosity and fear of dying of self. The same results were found in the graduate student group, but no significant correlations were found among medical students. Among undergraduates, less religious subjects scored higher than more religious people on both Scales 1 and 3. This might suggest

that this difference is larger in younger people, who might be expected to be more intensely religious, but there is no clear evidence in this direction.

5. People who believe in an afterlife will score higher on the fear of death and dying of others scales than will people who do not.

This hypothesis was supported in the total group for fear of death of others, but not for fear of dying of others. Among the medical students separately, the same results occurred, but there was no significant correlation between either fear of death or dying of others and belief in afterlife among the graduate students and undergraduates.

6. People who do not believe in an afterlife will score higher on the fear of death and dying of self scales than people who do.

There were no significant correlations between fear of dying of self and belief in afterlife. Among the undergraduates, graduate students, and in the group as a whole, those who did not believe in an afterlife did score higher on fear of death of self. This result did not occur in the medical student group. The lack of significant correlations with fear of dying of self may reflect the unreliability of that scale.

7. People who have suffered a recent loss (within the past year) will score higher on the four fear of death scales than those who have not.

This hypothesis was not supported. The only exception to this finding is that medical students who had suffered a recent loss did score higher on fear of death of self than those who had not. There were no other significant correlations between these variables.

8. People who directly admit to fear of death will score higher on the fear of death scales than those who deny fear of death.

This hypothesis was supported for some scales but not for others. In the group as a whole, admitted fear of death was positively correlated with all scales except fear of dying of others, and with total fear of death. The same pattern of correlations occurred in the undergraduate and medical student groups. Among graduate students admitted fear of death was significantly positively correlated with all scales except fear of dying of self.

Anxiety Ratings of Vignettes

". . . knowledge of the external degree of threat alone seems to be an insufficient basis on which to predict with any certainty how a person will react to it."[4]

It was the original intention of this study to have the stimulus tapes rated for anxiety-arousing potential by raters similar to the subjects, so that only those tapes rated as high and low in anxiety could be presented to subjects. Thus, the "external degree of threat" could to some degree be controlled. The entire set of six episodes was presented to eight medical student raters, who were asked to rate each one on a 1 to 5 scale, according to how anxious it would make them to have to respond to that person. No agreement was obtained; each episode was rated highest and lowest by at least one person. It was decided, therefore, to present the entire set to all subjects, and to have them rate each episode for anxiety after they had responded to all of them. In this way, individuals' ratings of how anxious the episodes made them could be correlated with other measures of anxiety in their responses.

---

[4]Herman Feifel, "Attitudes toward death in some normal and mentally ill populations," in Feifel, Herman, ed., The Meaning of Death, 114-130.

It was predicted that those who subjectively experienced an episode as more anxiety arousing would also show this anxiety in the emotionality of their response, in lack of directness of reference to death, and in the time it took them to respond.

The finding of little agreement among raters was borne out in the entire poor of subjects, in which there was little consistency in how people rated the episodes. There was not only little agreement as to which vignettes produced the most anxiety, but so many tied ratings that mean ratings for all vignettes were quite close. Episode 4 received the highest mean rating (3.50) and was rated highest or tied for highest by the largest number of people (26). Episode 2 received the lowest mean rating (2.32) and was rated lowest or tied for lowest by the largest number (32). It appears, however, that each individual tended to rate the entire set of vignettes either high or low in anxiety, and few made use of the entire range of the scale. Means and standard deviations of anxiety ratings are shown in Table 4.11.

Table 4.11

Anxiety Rating Means and Standard Deviations

(n = 56 Ratings for Each Vignette)

Episode	Mean	Standard Deviation
1	3.09	1.25
2	2.32	1.18
3	2.95	1.20
4	3.50	.93
5	2.59	1.06
6	3.29	1.07

Range = 1 - 5

It was predicted that those who scored higher on the fear of death subscales, particularly those having to do with fear of death and dying of others, would rate the vignettes as a group higher in anxiety elicitation than those who obtained lower fear of death scores. Conflicting results were obtained. Although no predictions were made about differences in anxiety ratings based on other characteristics of subjects, their responses to the demographic and experience items of the DEQ were correlated with their anxiety ratings to see whether any patterns emerged.

Correlations between Anxiety and Fear of Death

No significant correlations were found between anxiety ratings and scores of fear of death and death of others. There was a significant negative correlation ($r = .26$, $p < .05$) between scores on fear of dying of self and the anxiety rating given the whole group of episodes. People who scored high on Scale 3 rated the vignettes, as a group, lower than those who scored lower on that scale. There was no significant relationship found between scores on Scale 4, fear of dying of others, and anxiety ratings of the vignettes. Thus, the prediction that there would be a positive relationship between measured fear of death and the anxiety ratings given the vignettes was not supported.

There were a few significant correlations between scores on individual subscales and the ratings given individual vignettes. There was a negative relationship ($r = -.24$, $p < .05$) between scores on Scale 3, fear of dying of self, and the anxiety rating given Episode 3, in which the patient is accusing the physician of avoiding him because he is dying. A negative correlation was also found ($r = -.21$, $p < .05$) between scores on Scale 4, fear of dying of others, and the anxiety rating given to Episode 2, in which the patient expresses depression over the likelihood that he will die alone, and asks the physician to be with him when he dies.

There was a positive correlation ($r = .24$, $p < .05$) between scores on Scale 4, fear of dying of others, and the anxiety rating given to Episode 6, in which the patient has just been told that he has six months to live. This was the only significant result which was in the predicted direction.

Correlations between Anxiety and Demographic and Experience Variables

There were significant correlations (all p's less than .05) between demographic variables and total anxiety rating. Males rated the vignettes lower in anxiety than did females (r = -.26). This is consistent with findings of this and previous studies that men tend to be somewhat less death anxious than women.

There was a positive association (r = .22) between living alone and rating the vignettes higher in anxiety, a result which is also consistent with previous research, which shows that people who live alone, as opposed to living with others, are more death anxious. No other demographic variables showed significant correlations with anxiety ratings of the vignettes as a group; however, there were several significant associations between subject characteristics and anxiety ratings assigned to specific vignettes. These will be discussed for each vignette separately.

Episode 1 was rated higher in anxiety only by those whose mothers were deceased (r = .30). People who had no children (r = .30, p less than .01) and people who had been to a smaller number of funerals (r = -.25) rated Episode 2 higher in anxiety. Episode 3 was rated higher in anxiety by males (r = -.26), by those who had a significant other they expected to have die soon (r = .20), and by those who had not changed their religious preference from the religion they were brought up in (r = -.23).

Episode 4 was rated high in anxiety arousal by people who expected soon to lose a significant other to death (r = .25). Episode 5 was rated higher by younger people (r = -.27). Episode 6 was rated high by people living alone (r = .29), by those who had been to fewer funerals (r = -.26), and by those who admitted to fearing death (r = .22).

Discussion

There are no clear patterns which emerge from these correlations. Some vignettes are rated high in anxiety by both those who have experience with death and those who do not. Two episodes, 3 and 4, were rated high by those who said they had a significant other who was expected to die soon. There may be an association between expecting loss and becoming anxious in the presence of a patient who is confronting one with the possibility that one has committed some crucial error, a confrontation which occurs in both these episodes. (The physician is accused, in Episode 3, of having avoided the dying patient, and in Episode 4, of having made an error in diagnosis.) The weakness of this relationship is shown by the lack of correlation between expected loss and anxiety rating given to Episode 6, in which the patient also accuses the physician of having made a mistake.

There are some other possible reasons for the lack of clear patterns which emerge. One is that individuals' ratings of anxiety tended to fall in one end of the scale or the other, and few spread their ratings over the entire range of the scale. This problem might have been at least partially avoided had subjects been required to rate only one vignette highest and one lowest; too many tied ratings resulted from omitting this requirement.

Secondly, if the reliability of the subscale scores were improved, other relationships might emerge, although those scales with the poorest reliability, Scales 3 and 4, are the only ones which show any correlations at all with anxiety ratings.

Reasons for Highest and Lowest Anxiety Ratings

The reasons subjects gave for the highest and lowest ratings they assigned to the episodes were examined. There are some similarities in the ways in which subjects responded to the vignettes that do not show up in the correlations with either subscale scores or demographic and experience variables. The similarities which emerge tend to be related to the subjects' perceptions of their roles as medical professionals, and with aspects of the episodes other than the death-related content. This finding suggests that the assumption that anxiety will be directly related to the subject of death is too simplistic, and that more complex relationships exist.

In Table 4.12, the number of subjects rating each episode highest or tied for highest, and lowest or tied for lowest, is given. (Frequencies of ratings do not equal the number of subjects because of the number of tied ratings.)

Table 4.12

Number of Subjects Rating Each Vignette Highest and Lowest in Anxiety

	Vignettes											
	1		2		3		4		5		6	
	H	L	H	L	H	L	H	L	H	L	H	L
Number of Subjects	19	13	6	32	18	16	26	8	4	25	17	8
Percent	34	23	11	57	32	29	46	14	7	45	30	14

Although no quantitative analysis of the reasons subjects gave for their highest and lowest ratings was performed, this information is important in suggesting what features of each vignette elicited anxiety (at least anxiety of which the subjects were aware), and what aspects might be changed or eliminated in improving the stimulus. Each episode is discussed individually.

Episode 1.

1. You know, doc, I thought about this a lot and, uh, I've decided that I want to die now, I mean soon. Since at best you tell me I have only a couple months left, and you've already told me the pain will get worse and worse before I go, and even all the pain killers you give don't do much. If you really want to help me, I think you ought to give me a way to end it now.

For those who rated Episode 1 highest in anxiety, the issue raised was one of the legitimacy of the patient's request to be helped to die. For some, this was posed as in ethical conflict, a question of whether one has the right to continue to keep him alive against his wishes, and an admission that his acceptance of death ran counter to the physician's commitment to healing.

Others commented on the illegality of the request. Three subjects said that they were anxious because they agreed that the patient should have the right to choose to die, but they felt they could not help him. Most were ambivalent about the legitimacy of the request and unsure of their role as physicians in that situation. They felt "put on the spot."

Those who rated this episode lowest in anxiety tended to express acceptance both of the patient's wish to die, and of their own inability or unwillingness to help him do so. One subject said that the patient probably did not really want to die, but said he did because he was depressed. In general, those who said that they did not know how they would

respond to such a request reported more anxiety than those who knew what they would or would not do for that patient.

Episode 2.

2. Sure, I know I'm going to die pretty soon, and, well, I've faced that, and it really doesn't bother me too much now. But what does bother me is that I'm just really alone. I just feel so lonely. My family doesn't seem to care or bother me that much, and you're the only one that I see very often. Well, I'd just feel better if I knew I didn't have to go, if I didn't have to die all alone. Please promise me that you'll come and be with me when the time comes.

Those who found Episode 2 the most anxiety arousing episode said that they felt threatened either by the loneliness of the patient or by the possibility that they could not do what he asked. Most expressed a desire to give him what he wanted, and found it anxiety arousing because it was likely that they could fail despite good intentions. (Many subjects, in responding to this patient, simply promised to be with him when he died, without considering whether they would be able to keep the promise.)

Episode 2 was rated as lowest or tied for lowest in anxiety by more subjects than any other episode. All these subjects indicated that they were less anxious about this episode because the man, unlike the others, was asking for something they could and wanted to give. For over half the subjects, this was the main condition alleviating their anxiety. Four others observed that the real issue seemed to be loneliness, not death per se, and that that made it easier to respond to him. Others commented that the patient's acceptance of his death, and his awareness of his own needs made it easy to respond to him. They said that responding to that need was part of the job, that being with someone when they died was not frightening, and that they themselves would want someone there at that time. In contrast with those who rated this episode high

in anxiety, none mentioned the possibility that circumstances might prevent them from fulfilling the request; they felt sure of being able to do what he asked.

Note the contrast between reactions to the patient's acceptance of death in Episode 1 and that in Episode 2. Both patients accept the fact that they are about to die, but subjects respond very differently and with more anxiety to the one who wants to take an active part in bringing about his own death than they do to the one who simply waits for it to happen.

Episode 3.

3. Where have you been for the past few days? Every time I want to know something, the nurses tell me to ask the doctor, but you're never around. Maybe I am dying; for Christ's sake, you don't have to avoid me completely.

Many subjects who rated Episode 3 highest in anxiety commented on the confrontive quality of the episode, and felt attacked by the patient. Two said they felt accused of something they knew they would never do. Four felt guilty for having failed the patient, and one indicated that this vignette elicited her fear of getting to be so busy in the practice of medicine that she could unintentionally fail to respond to individual needs.

Several subjects responded to the word 'maybe,' interpreting it to mean either that the patient was dying and had not been told so directly, or that he was not dying but for some reason thought that he was. (The intended sense of that phrase was ". . . even though I am dying . . ." which was the way in which most subjects evidently understood it.) It may be that several subjects seized on the ambiguity, wanting the patient not to be dying. Two subjects in this group commented on the patient's unclarity about whether he was dying.

The responses of those who rated Episode 3 lowest in anxiety are not easily categorized. Five indicated that they were sure they would not have been avoiding the patient, and that if they had been staying away, it would have been for some easily explainable reason. Four commented that his anger was understandable. Generally, those for whom this episode aroused little anxiety felt that they were in control of the situation. They did not take on responsibility for having avoided the patient, and responded to his anger without personalizing it.

Episode 4.

4. Isn't there something you could have done to cure me? I've known other people who've had what I have. They lived! God damn it, I don't want to die. You must have missed something. You must have missed something.

It appears that those who responded with anxiety to this vignette fell into two groups: those who accepted the patient's claim that a mistake must have been made, and those who recognized that that claim stemmed from the patient's shock and desperation but were frightened by the intensity with which it was expressed. Eleven commented that the possibility that they really had made a mistaken diagnosis was what made them anxious. Five others mentioned the intensity of the patient's feelings as having been significant. Two mentioned the accusatory tone of the vignette, while three others said they were anxious because they did not know how to respond to him.

Those who responded less anxiously to this episode gave few reasons for their ratings. Two said that the patient's disbelief and shock were quite understandable. One said that dealing with the patient's emotional upset was more difficult than focusing on possible errors in treatment or diagnosis. Unlike those who rated this vignette high in anxiety,

they did not express concern over the possibility that they had in fact made an error.

Episode 5.

5. I've worked so hard. Everything was finally starting to go my way, and now this. All I can do is lie here and wait until I die. All the things you get in life, they don't mean much, do they?

Only four people selected Episode 5 as the one which made them the most anxious. These four responded mainly to the fact that the patient had given up and was depressed, and all commented in some way on how hard it was to think of something meaningful to say to him or do for him.

Episode 5 was rated as arousing the least anxiety by about half the subjects. A variety of reasons was given. Five said that they were not anxious because they themselves were sure that life was not meaningless, so the patient's statement had less impact on them. Four said that they had an answer for him, and four others stated that they were less anxious simply because no answer or problem resolution was demanded. One commented that the patient sounded philosophical, not emotional.

Episode 6.

6. Six months! Oh my god, you must be wrong. There must be a mistake. How can you stand there and tell me something like that?

Episode 6 elicited anxiety for a variety of reasons. Several subjects commented on the shock of having given such bad news to a patient, on the newness of that situation for the patient, and on their inability to help him accept the imminence of his death. Two said they felt responsible for his feelings, one that he felt accused by the patient, and one that it was possible that a mistake had been made. Two subjects said that they would never have told a patient that s/he had six months to live. One of these expressed anxiety because the patient

thought that such a thing had been said, and the other expressed anger at the person (presumed to be someone else) who had given the news in that way.

Few people rated Episode 6 low in anxiety. Those who did felt that they could respond easily to his feelings without being personally involved. One commented that the episode seemed unrealistic because he could never imagine himself saying such a thing to a patient.

Subjects were also asked to describe any feelings other than anxiety which they had experienced while responding to the vignettes. Although few described feelings about any specific episodes, several mentioned feelings about being in the general situation of having to respond to a dying patient. These included: hopelessness, frustration, sadness, helplessness, inadequacy, resentment at having so much responsibility thrust upon them, fear, anxiety about their own feelings about death, feeling sorry for the patients, and a wish to know how to handle them better.

Dependent Measures

Intercorrelations among Dependent Measures

In Table 4.13, the intercorrelations among the variables of directness of death reference, response lag, anxiety rating, and emotionality of the responses to the simulated patients are summarized. All correlations were low (less than .30), and only two were significant at the .05 level. The amount of time individuals required to respond to the patients (using their combined score on all six vignettes) was negatively related to the directness of their references to death in the responses ($r = -.28$), and to the emotionality of the response

(r = -.25). This result is in the expected direction, since longer response lag, emotionality, and indirectness of death references were predicted to be indicators of high death anxiety. However, neither showed any relationship to measured fear of death.

Table 4.13

Intercorrelations among Dependent Measures

	Directness of Death Reference	Response Lag	Anxiety Rating
Response Lag	-.28*		
Anxiety Rating	-.18	-.06	
Emotionality	.09	-.25*	.17

*indicates significant at .05 level for 54 d.f., one-tailed test

Correlation of Fear of Death and Dependent Measures

Pearson product moment correlations were calculated for scores on the four fear of death scales and the four anxiety measures. Most correlations were very low. There was a correlation of -.26 (p less than .01) between fear of dying of self and the anxiety ratings given the vignettes. This correlation is not in the predicted direction, since high fear of dying of self (as well as high scores on the other scales) was predicted to be related to high anxiety.

Emotionality of the response, also intended as indicating anxiety, was positively correlated (r = .24, p less than 05) with fear of dying of others. This is the only significant correlation in the predicted direction. All correlations are shown in Table 4.14.

Table 4.14

Intercorrelations of Scale Scores and Dependent Measures

	Fear of Death of Self	Fear of Death of Others	Fear of Dying of Self	Fear of Dying of Others
Anxiety Rating	.02	.03	-.26*	-.02
Death Directness	.21	-.05	-.10	.14
Response Lag	-.13	.01	.15	-.03
Emotionality	.05	.19	.11	.24*

*indicates significance less than .05 for 54 d.f., one-tailed test

n = 56

Correlations between Demographic and Experience Variables and Dependent Measures

In Table 4.15, corrections are shown between dependent variables and demographic items. Only those items which show a significant correlation with at least one dependent variable are shown in the table.

No significant correlations were found between any dependent variables and marital status, whether the person had children, whether the father was alive and dead, religiosity, change in religious preference, recent or expected loss, or whether the individual had talked with a dying person about their impending death.

Table 4.15

Demographic Variables and Response Lag, Death Directness, Emotionality, and Anxiety

n = 56

	Death Directness	Response Lag	Emotion-ality	Anxiety Rating
Sex	.01	.27*	.02	.02
Age	.02	.34#	-.22*	-.26*
Living Alone or with Others	.03	-.15	.21	.22*
# Funerals Attended	.16	.23*	-.24*	-.16
Mother Living or Dead	.34#	-.04	.15	.09
Admitted Fear of Death	.00	-.29*	.01	-.13

*indicates significance at .05 level for 54 d.f., one-tailed test
#indicates significance at .01 level for 54 d.f., one-tailed test

There were, however, different patterns of significant correlations between demographic items and dependent measures in the individual vignettes. These correlations are summarized in Table 4.16.

Individual correlations between variables provided a scattered and disorganized picture of relationships, with little consistency across variables. Several canonical correlations were computed, in an attempt to discover relationships among groups of variables which might prove more intelligible than relationships among pairs. Only two canonical correlations yielded significant canonical variables, and of each of these, only the first canonical variable was significant at the .05 level.

Table 4.16

Significant Correlations between Demographic Items and Dependent Variables

n = 56

	Death Directness	Response Lag	Emotionality
	r	r	r
Episode 1			
Recent Loss	.24		
Mother Dead	.23		
# Funerals		.23	
Episode 2			
Mother Dead	.23		
Talk with Dying	.22		
Change in Religion		-.31	
Sex		.22	
Age		.31	
Children		.36	
Religiosity		-.23	
Recent Loss		.26	
Sex			.27
Father Dead			.22
Talk with Dying			.28
Episode 3			
Religiosity	.24		
Expected Loss	-.23		
Mother Dead	.29		
Age		.34	
Expected Loss		.23	
# Funerals		.35	
Living Alone			.26
Recent Loss			-.22
Mother Dead			.23
Admitted FOD			.30
Episode 4			
Belief in Afterlife	.22		

Table 4.16 (Continued)

	Direct Directness	Response Lag	Emotion-ality
	r	r	r
Episode 5			
Sex	-.32		
Age		.22	
Children		.23	
Talk with Dying		-.25	
Admitted FOD		.37	
Age			-.31
Children			-.23
# Funerals			-.32
Episode 6			
Father Dead	.22		
Sex		.28	
Recent Loss		.30	
Belief in Afterlife			.27

p less than .05 for 54 d.f., one-tailed test for all correlations

The first canonical variable of significance was one in which the first set of variables consisted of demographic variables (sex, age, children, living situation, religiosity, parents living or dead, recent or expected loss, conversation about death with a dying person, admitted fear of death, change in religious preference, belief in afterlife). The second set of variables consisted of directness of death reference, response lag, emotionality rating, and anxiety rating, with separate scores for each of the six episodes. The largest contributers to the variance of the significant canonical variable were: father being dead (.40), admitted fear of death (-.47), response lag, Episode 3 (.77), response lag, Episode 2 (-.55) and anxiety rating of Episode 4 (.53). Canonical

correlation for this variable was .93, accounting for .87 of the variance. Significance of this canonical correlation was .03.

The second significant canonical correlation was one in which the first set of variables included the demographic variables listed above, and fear of death scales one through four. The second set consisted of total scores on death directness, response lag, and anxiety rating. The largest contributing variables were fear of death of self (.58), fear of dying of self (-.56), sex (-.45), and admitted fear of death (.41), with total response lag score (-.80). The canonical correlation was .74, with percentage of variance accounted for equal to .54. Significance of this correlation was .02. In one other correlation which was performed, the same variables were included with the addition of total emotionality score, since some of these correlations were computed before the emotionality ratings had been completed. The addition of this score to the set of variables yielded a non-significant canonical correlation.

The results of #1 may be stated as follows: males who denied fear of death, and scored low in fear of dying of self, and high in fear of death of self, tended to respond rapidly to the six vignettes taken as a whole. One possible interpretation is that of perceptual sensitization, suggested by Lester and Lester.[5] In males, according to this interpretation, the denial of fear of death which is clearly measured by Scale 1 is related to the individual's being sensitized to death threat stimuli in such a way that he responds to those stimuli fairly rapidly.

---

[5]Gene Lester and David Lester, "The fear of death, the fear of dying, and threshhold differences for death words and neutral words," Omega, 1970, 1, 175-179.

(Lester and Lester believe that this rapid response to threatening stimuli has survival value.) But this appears to happen only in the presence of the denial of fear of death on a conscious level (measured by direct question) while fear exists on a level below that of awareness. (However, it is difficult to support the idea that subjects would not know that they are admitting to fear of death in responding to this questionnaire, an assumption which is necessary if it is to be assumed that Scale 1 measures anything other than conscious fear of death.) Perhaps this group consists of men who, while willing to admit to feelings which are components of fear of death of self, are unwilling to admit openly to that feeling itself, perhaps because of a feeling that it is socially undesirable for men to admit fear of death. At the same time, these are men who score low in fear of dying of self, which lends weight to Lester's contention that fear of death and fear of dying really are distinguishable.

In addition to the canonical correlation, a multiple regression analysis, both stepwise and non-stepwise, was performed on scores on death directness, response lag, and anxiety rating. No significant correlations were found; most correlations were close to zero.

Testing of Experimental Hypotheses

1. Subjects who score high on fear of death scales will be rated as responding with high emotionality to the simulated patients.

This hypothesis was not supported. The correlations are positive, but low. Only in relation to Scale 4, fear of dying of others, is there a correlation of any size between fear of death and emotionality. (See Table 4.14 for all correlations relevant to these hypotheses.) The lack of any correlations between fear of death and emotionality may reflect the fact that ratings of emotionality tended to be low; raters tended

not to make use of the higher end of the scale. Had raters been more discriminating, making more use of the entire range of the scale, correlations with fear of death might have been higher. One possible explanation for their unwillingness to use the high end of the scale is that they may have been unwilling or unable to perceive a high level of feeling in others due to their own anxiety about the subject matter.

2. There will be a negative relationship between fear of death and the directness of references to death in the response to the simulated patients. Subjects who score high on directness of death reference should score low on fear of death, particularly on fear of death of others.

Most of the correlations between fear of death and directness of reference to death were close to zero. No significant correlations were found, and the only one of any magnitude was in the direction opposite from that predicted.

3. There will be a positive relationship between fear of death, particularly fear of death and dying of others, and the anxiety ratings given to the vignettes.

This hypothesis was not supported. Most of the correlations were close to zero. There was a significant negative correlation between anxiety rating and fear of dying of self; this is in the opposite direction from that predicted.

4. There will be a positive relationship between high fear of death and the length of time the subject takes to respond to the simulated patient. Particularly, there will be a positive relationship between fear of death and dying of others and longer response lag.

No correlations significantly different from zero were found. The hypothesis was not supported.

5. Subjects will show a longer time lag before responding to episodes which make them more anxious than they will to those which make them less anxious. Thus, there should be a positive correlation between the anxiety rating given to the vignette and the time it takes the subject to respond to it.

This hypothesis was not supported. The correlation was only -.06 between time to respond and anxiety rating.

6. There will be a positive relationship between fear of death, especially fear of death and dying of others, and the emotionality rating given to the response.

This hypothesis was supported only for the fear of dying of others scale, which showed a correlation of .24 with emotionality rating. There were no significant correlations with other fear of death scales.

Interview Data

Most information obtained from the medical school subjects during the interviews was used in describing the sample or for the description of their attitudes towards knowing about their own death and towards informing their patients of their approaching death. Responses to a few of the questions asked during the interview were coded and correlated with responses to the survey items and experimental task. These results are discussed in this section.

Knowledge of Own Impending Death

Everyone in the sample indicated that they would want to be informed if they were dying, most regarding it as their right to know. In Table 4.17, the kinds of reasons given for wanting to know that information are shown, with the number given each reason. Many subjects listed more than one reason.

Two subjects commented that the pretense involved in their doctor not telling them that they were dying would damage the doctor-patient relationship, from their point of view as a patient. Four

Table 4.17

Reasons for Wanting to Know of Own Impending Death

Reason	Number Giving That Reason
Be Able to Do Things I Want to Do, Do New Things	15
Put My Affairs in Order	12
Change My Behavior, Goals, or Lifestyle	11
Desire for Knowledge of What Is Happening to Me	10
Chance to Change or Improve Relationships	9
Desire for Control	9
Chance to Prepare for Death	8
I Have the Right to Know	6
Be Able to Live to the Fullest until Death	4
Plan for Afterlife, Religious Reasons	3
Not Knowing Creates Anxiety	3
Be Able to Experience Death Fully	2

said that they viewed it as the physician's responsibility not to withhold information from them, and that it would be unethical for the physician to have such information about them and not tell them or tell some other family member instead. In reasons given for wanting to know of their impending death, three times as many men as women said that they wanted the opportunity to put their affairs in order; roughly equal numbers of men and women gave each of the other responses. This result conflicts with that found by Kahana and Kahana,[6] who found differences in the reasons given by men and women. It may be, however, that this group of achievement-oriented people, medical students, gave a more restricted range of responses than would subjects from the general population. In retrospect, it appears that it would have clarified the attitudes of these

[6]Boaz Kahana and Eva Kahana, "Attitudes of young men and women toward awareness of death," Omega, 1972, 3, 37-44.

medical students to have asked them whether they thought that their families had the right to decide that that information should be withheld from them, since many mentioned the wishes of the family in their listing of factors which would inhibit them from telling their own patients about their impending death.

Informing Patients of Impending Death

Subjects were asked two questions which had to do with the extent to which they had contact with the dying: 1) Have you ever experienced closely the death of someone in your personal life? and 2) Have you worked with dying patients in any capacity? There was a correlation of .24 (all p's less than .05) between responses to these two questions; those who had worked with dying patients tended to also say that they had experienced personally the death of another. This finding may indicate that some who had worked with dying patients had felt the impact of their deaths quite personally. In addition, many of those who had experienced the death of someone in their personal life had experienced it recently (r = .24). They tended also to say that the physician alone should be the one to tell a dying patient of his or her impending death. Those who had not had such an experience tended to admit more fear of death.

Those who had not worked with dying patients scored higher than those who had on the scales of fear of death of self, dying of self, and dying of others (r = .24, .25, and .30 respectively). They tended to report having had conversations about death with a dying person (r = .42), and to have a father who was still alive (.22).

In addition, subjects were asked three questions about their

opinions on telling a patient that he or she is dying: 1) What percentage of people should be told of their impending death?, 2) Who should decide whether a given person should be told of his/her impending death? and 3) Who should be responsible for telling the patient? Subjects who were older ($r = .33$), had attended fewer funerals ($r = -.25$), expected soon to lose a significant other ($r = .23$) or who lived with other people ($r = .35$) tended to say that not all people should be told of their impending death. Younger subjects, those who had been to fewer funerals, those who expected no loss in the near future, and those who lived alone were more likely to say that everyone should be told.

Subjects who admitted to fear of death ($r = .23$) and who scored high on the scale of fear of death of self ($r = .22$) tended to say that it should not be just the physician who makes the decision of whether to tell the patient of his/her impending death, but that that task should be done by either a combination of the physician and others, someone entirely other than the physician, or the patients themselves. Interestingly, those who said that the physician should take total responsibility for making that decision also were those who gave lower anxiety ratings to the simulated patient vignettes. Evidently, persons who had accepted that function as part of their duties as a physician were those whose anxiety about interacting with the dying was less. However, it may be that the acceptance of that responsibility itself alleviates some of the ambiguity of that situation and thus reduces anxiety. People who had had no experience with dying patients tended to say that someone other than the physician alone should be the one to tell the patient of his or her approaching death ($r = .25$), while those with experience with the dying tended to say that the physician alone should be the one to

tell. Those who did not think it was the physician's sole responsibility included both those who thought that more than one person should be present to break that news, and those who thought that the responsibility could be delegated by the physician to another professional or family member.

While all subjects apparently regarded it as their right to know of their own death, only 13 indicated that they would give their own patients that information simply because it was their right to know. Most subjects indicated that they believed that there were some circumstances in which a patient (other than themselves) should not be told. Twelve could not, or did not, name any circumstances in which the patient ought not be told, while four said that they thought there must be some such cases, but could not imagine what they might be.

Many subjects expressed the belief that knowledge of impending death was likely to be damaging, either physically or psychologically, to a few or many patients. Some acknowledged that their own discomfort might lead them to withhold information from patients even when it would be better not to do so. One went so far as to say that the suspicion that a given patient might become hysterical and be an inconvenience to the doctor would be a good enough reason to tell the family and not the patient. (This might be assumed to be a socially undesirable response, and raises the question of how many other subjects might act in accordance with this belief although feeling that they should not hold it.)

Table 4.18 indicates the main reasons subjects gave for not telling patients they were dying, with the numbers who gave each reason.

Clearly, considering themselves in the patient's position, subjects took for granted their right to this information, and none considered

Table 4.18

Reasons for Not Telling Patients of Their Impending Death

Reason	Number Giving That Reason
Psychological Reasons (Emotional Instability, Psychosis, Mental Illness)	25
Young Age of Patient	9
Old Age of Patient, Senility	7
Family's Wishes That Patient (Adult or Child) Not Know	6
Patient Too Ill or Will Never Go Home	6
Patient's Desire Not to Know	5
Patient Out of Touch or Comatose	5
Knowledge Might Exacerbate Illness	4
Patient Might Commit Suicide	2
Patient Might Not Cooperate with Treatment	2

the possibility that they themselves might not want to know that they were dying or that their families might regard it as their right to withhold that information (although they were not asked about their families directly, but none spontaneously mentioned family intervention). When asked about themselves, all treated it as their own (the patient's) decision that they should be told. However, when they put themselves in the position of the physician, most subjects regarded the decision of whether to tell the patient as belonging to them (the doctor). Most assumed that a situation of at least one-sided pretense about the patient's condition could and would exist unless they made the decision to tell. This is consistent with the finding of Feifel et al[7] that the majority of physicians would want to be informed if they had an incurable disease,

[7]Herman Feifel, Susan Hanson, Robert Jones, and Lauri Edwards, "Physicians consider death," Proceedings, 75th Annual Convention of American Psychological Association, 1967, 201-202.

but were significantly less willing to provide that information to someone else in that condition than were members of a patient population.

Subjects were asked who should make the decision whether the patient should be hold of his/her impending death, and who should have the responsibility for telling the patient once that decision had been made. About half expressed the belief that both the decision and the telling were the physician's responsibility. In Tables 4.19 and 4.20, a complete summary of the responses to those questions is given, with the number who gave each response.

Table 4.19

Who Should Decide Whether a Patient Is to Be Told of Impending Death?

Person(s) Who Should Decide	Number Giving That Reason
Physician Alone	25
Physician and Other Professional, Family Member, or Close Other	8
Physician or Delegate	1
Physician or Family Member	1
Family Member(s)	1
Physician and Patient	6
Patient Alone	11
Depends on Case	1
No Response	2

Several subjects remarked that they had not really considered these questions, while a few reported experiences which had made an impact on their beliefs about whether, when, and by whom the patient should be told. Such experiences included personal brushes with death, death of a family member or friend that was handled well or poorly by the

Table 4.20

Who Should Be Responsible for Telling the Patient of Impending Death?

Responsible Person	Number Giving That Reason
Physician Alone	27
Physician and Other Professional, Family Member, or Close Other	7
Physician or Delegate	4
Physician or Family Member	3
Family Member(s) or Closest Other	5
Depends on Case	9

physician involved, and experiences they had had while working in other health-related professions prior to entering medical school. Others indicated that taking a course in death and dying had changed or unsettled their opinions on these questions.

Finally, students were asked whether they were currently, previously, or never enrolled in a course on death and dying. (Numbers who gave each response are given in Chapter III.) Those who had never had such coursework tended to be those who scored lower in fear of death of self, males, older people, those who lived with others, those whose mother was still living, and those who had changed their religious preference. As was shown in previous sections, males tended to score lower in fear of death as did, to a lesser extent, those who lived with other people. One possible conclusion from this evidence is that people who sign up for coursework in death and dying do so out of an awareness of their own fear and a desire to lessen it, particularly when they know that they will have to deal with dying patients.

Summary

Chapter IV contains the results of the questionnaire survey on fear of death, as well as the results of the experimental study of medical students' responses to simulated dying patients. In the final section, their responses to several interview questions are summarized.

Several of the survey hypotheses were supported, although none of the correlations were very high, even those which reached significance. The hypothesis that medical students will show more fear of death and dying than the other groups was directly contradicted; the only significant results showed the medical students having less fear of dying of self and others than the other groups. The expectation that medical students were particularly high in fear of death of others was not confirmed.

In general, the findings on the relationship between fear of death and sex were the same as in previous studies. In all cases in which significant results were obtained, they were in the predicted direction of females scoring higher than males, although in some cases there were no significant differences.

The relationships expected between religiosity and fear of death (more religious people fearing more for others and the less religious more for self) were not supported, with one exception. Less religious undergraduates were higher in fear for self than were more religious undergraduates. Hypotheses about the relationship between belief in afterlife and fear of death (that those who believe in an afterlife fear more for others and those who do not more for self) were partially supported. While there were some positive correlations between belief in afterlife and fear of death of others, there was no relationship

shown with fear of dying of others. In all but the medical student group, those who did not believe in an afterlife showed higher fear of death of self, but there was no relationship between fear of dying of self and belief in an afterlife. There were no correlations in the opposite direction from that predicted. These hypotheses were confirmed for the fear of death scales, but not for the fear of dying scales. Belief in an afterlife appears to be related to fear of death, of both self and others, but not to affect the individual's attitudes toward the process of dying. This finding does provide some support for the notion that there are distinct fears of death and dying, since it has been possible to establish that belief in afterlife is related to one but not the other.

The hypothesis that people who have suffered a recent loss will show higher fear of death than those who have not was generally not supported. The relationship between feelings about loss and fear of death is not clear.

Finally, people were asked about their fear of death, and their willingness to admit fear of death directly was predicted to be positively related to measured fear of death. In general, this hypothesis was supported, showing that questions about fear of death probably do not need to be disguised in order for subjects to give honest answers to them. Subjects were apparently willing to admit to at least some degree of fear of death; few said that they never thought about it.

Most of the experimental hypotheses were not supported. No significant relationships were found between fear of death and response lag, directness of death reference, or the anxiety ratings given the vignettes. A significant correlation was found between fear of dying

of others and the emotionality of the response; this was the only result in the predicted direction. The interpretation of these results is discussed in Chapter V.

The data from the interviews with medical students was discussed. Although this data was not intended for inclusion in the quantitative analysis, some questions lended themselves well enough to the scaling of responses that correlations with other data could be calculated, in order to discover any relationships which might exist. Few relationships were found between the medical students' experiences with death and their attitudes toward work with the dying, nor with their beliefs about whether dying patients should be informed of their condition, and about who should inform them. The interview data consists mainly of subjects' subjective accounts of their opinions. In general, subjects were willing and eager to talk, and many expressed surprise that anyone was willing to discuss this area with them. Although no feedback was given on their responses to the simulated patients, nor on their opinions on talking with the dying, many expressed the belief that they had learned from the experience, a result which suggests that it may be beneficial to medical students to have some such experience as a part of their training.

CHAPTER V

In this chapter, results of the study are reviewed and discussed. Possibilities for future research on the construction of fear of death inventories and on the relationship between doctor and dying patient are suggested. Implications of this study for the training of medical students are discussed.

Overview of the Study

Collett and Lester[1] have suggested that there are different fears of death and dying, of self and others, and that the relationship between fear of death and other individual characteristics is a complex one. There is little previous research on how the attitudes and feelings of physicians affect their relationships with their dying patients.

A 67-item Death Experience Questionnaire was constructed, containing demographic items, questions about the individual's prior contact with death, and the items of Collett and Lester's Fear of Death Inventory, which is divided into four scales. Scale reliabilities were calculated; the fear of death of self scale was the only one of the four to achieve a satisfactory level of reliability in this sample. Correlations between scale scores and demographic variables were calculated for three groups: undergraduates (n = 172), graduate students in education (n = 100), and first and second year medical students (n = 130).

---

[1]Lora-Jean Collette and David Lester, "The fear of death and the fear of dying," The Journal of Psychology, 1969, 72, 179-181.

The three groups were compared in their scores on the fear of death scales.

Fifty-six of the medical students who completed the DEQ were asked to respond to six simulated dying patients presented on audio tape, while imagining themselves to be that patient's physician. Responses were examined for emotionality, directness of reference to death, and response lag. Subjects rated each vignette as to how anxious it made them to respond to that patient. They were interviewed on their experiences with the dying and their attitudes toward work with dying patients.

Subjects with high fear of death, especially fear of death and dying of others, were expected to show a greater response lag, more emotional responses, and less direct references to death than those with lower fear. The first two results have been shown to occur in word association tasks, in which subjects take longer to respond and give more emotional responses to death words than to neutral words. No neutral stimuli were presented in this study, but it was predicted that subjects would respond with more emotionality, longer response lag, and less direct references to death to individual episodes which they rated as making them more anxious than to those which evoked less anxiety. Subjects who scored high in fear of death were expected to rate all the episodes higher in anxiety than those who scored low.

These hypotheses were generally not supported. No significant correlations were found between fear of death and response lag, directness of death reference, or the anxiety ratings given the vignettes. A significant positive correlation was found between fear of dying of others and the emotionality of the response, but no relationship was

found between emotionality and other scales. Other findings of the study are summarized in the following section.

Conclusions

The following conclusions may be drawn from the results of this study. Because all correlations obtained are fairly low, some conclusions are tentatively stated.

1. Medical students did not score higher in fear of death than other students. Contrary to the findings of Feifel et al[2], medical students appeared to have less fear of the process of dying, both their own and that of others, than did members of the other groups studied.

2. Females consistently scored higher in fear of death of others than males, but no association was found between sex and fear of either death of self or dying of others. In fear of dying of self, females scored higher than males in the group as a whole, but there were no significant correlations between this scale and sex in any individual group. In no cases did men score higher than women.

3. Less religious people tended to score higher in fear of death of self than did more religious people, and, in some groups, in fear of dying of self. The relationship between religiosity and fear of death variables were different in the different groups, suggesting that there may be other factors which increase or decrease the influence of religiosity on fear for self. In the group of medical students who participated in the experimental study, more religious people were more fearful for others than the less religious.

---

[2]Herman Feifel, Susan Hanson, Robert Jones and Lauri Edwards, "Physicians consider death," Proceedings, 75th Annual Convention of the American Psychological Association, 1967, 201-202.

4. People who believed in an afterlife tended to show more fear of death of others than those who did not, while those who did not believe in an afterlife showed more fear of death of self than those who did. No relationship was found between belief in an afterlife and fear of dying of either self or others. There are two possible explanations for the finding that people who believed in an afterlife feared the death of others. One is that believing in an afterlife implies believing in hell, and that they were afraid of their loved ones going to hell. Alternatively, they may have believed more in ghosts, and been afraid that they themselves would be troubled by others already dead.

5. Medical students who had suffered a loss within the past year scored higher in fear of death of self than those who had not.

6. People who directly admitted to fear of their own death scored higher in fear of death of self and death of others than did those who denied fear. In the graduate student group, unlike the others, there was a significant correlation between admitting fear and fear of dying of others, but no significant relationship to fear of dying of self.

7. There was a significant negative correlation between response lag and both emotionality of response, and directness of death reference.

8. People who scored high in fear of dying of self tended to give lower anxiety ratings to the episodes than those who scored lower on that scale.

9. Emotional responses to the episodes were given by people who scored high in fear of dying of others, younger people, those who did not live alone, and those who had attended fewer funerals.

10. People who took longer to respond to the episodes were

older people, those who had attended a larger number of funerals, and those who did not admit to fear of death.

11. Those whose mothers had died tended to give responses in which death was directly mentioned.

12. Simulated patients were rated as arousing more anxiety by younger people and by those who lived alone.

13. There was no relationship between fear of death measured on any of the four scales, and either response lag or directness of death references.

14. In stating why they would want to know if they themselves were dying, more subjects talked about being able to do new things before it was too late, putting their affairs in order, changing their lifestyle or behavior, and desire for knowledge. None said that they would not want to know if they were dying.

15. Most subjects indicated that they believed there were some circumstances in which a dying patient ought not to know s/he was dying, usually for psychological reasons.

16. The majority believed that the physician, alone or in consultation with others, should make the decision whether the patient should be told s/he is dying (except in the case in which they themselves were the patients), and that the physician alone is responsible for breaking that news.

Discussion

The reliability data on the Collett-Lester scales for this sample is discussed in this section, along with the results of the experimental study.

Reliability of Collett-Lester scales. One purpose of this study was to attempt to cross-validate the Collett-Lester inventory, and to show that it was usable in populations other than the one on which it was developed. Inter-item and inter-scale correlations were approximately the same in the three groups studied.

The scale was not demonstrated to be as reliable for the sample under study as it had appeared from previous research, with the exception of Scale 1, fear of death of self. Other fear of death instruments, with reliabilities similar to that of Scale 1, generally attempt to tap only fear of death of self (evidently on the assumption that fear of death consists only of fear of death of self), making Scale 1 by itself comparable to other existing inventories.

There are several possible explanations of the low reliabilities of the other three subscales. The scales contained only ten items apiece, with the exception of Scale 3, which had only eight items. It is likely that the scales could be made more reliable by being lengthened. The combination of low scale reliability in three out of four cases with significant inter-scale correlation suggests that there may not be clearly distinguishable fears of death and dying, and that fears for self and others may also not be clearly separable. It is clear that something justifiably called fear of death is measured by Scale 1, but it may be that what the other three scales measure ought to be called something else, perhaps feelings about loss, pain, physical deterioration or helplessness, or tendencies to avoid unpleasant and emotionally laden situations. It might be shown, upon further investigation, that the fears measured by Scales 2, 3, and 4 actually correlate better with measures of denial, authoritarianism, or attitudes toward the disabled or ill,

than they do with fear of death.

Examination of the content of the items supports the contention that the content is not limited to dying. Several items of the fear of dying scales are about feelings about pain and deterioration. These items may measure attitudes toward non-lethal chronic illness or toward old age, without specifically measuring fear of dying, unless one assumes that all such feelings are related to fear of death. Again, many items have to do with the subject's attitudes toward knowing that another person is dying or being confronted with that person, and may reflect more a willingness to be confronted with unpleasant realities rather than specific feelings about the dying.

It may also be that fears other than a specific fear of one's own death are idiosyncratic, or dependent on personal experience variables other than those which were elicited by this questionnaire. A few low but significant correlations between fear of death and sex and religiosity were discovered, but most demographic variables were not found to stand in any clear relationship to different fear of death and dying. If such fears were truly idiosyncratic, the reliabilities of the scales would be even lower. There must be some other variables relevant to different varieties of fear of death which are not included here. Findings cited in Chapter II about the relationship between fear of death of parents and that of their offspring suggest the possibly subtle nature of the phenomena to be investigated.

The scales used here may be too unreliable a measure of differences which really do not exist, or they may be an attempt to measure the wrong things. Another way of dividing the phenomenon of fear of death would be more productive. Perhaps what is needed is not only the improvement

of the reliability of these scales, but also the construction of scales based on different theoretical notions of what kinds of fear of death might exist, or of empirically derived scales free of a priori theoretical notions.

The idea that there are clearly distinct varieties of fear of death, which are separable along the dimensions of self/others and death/dying, has not clearly been supported, but neither has it been disproved. Flaws in the construction of this instrument, due to item content, and the length of the scales, the fact that it was constructed and validated on a very small sample of female undergraduates, make it inadequate for measuring what it purports to measure. The results of the factor analysis, discussed in Chapter III, make it clear that, at the very least, many items should either be eliminated or re-phrased, and new ones developed.

The factor analysis done in this study indicates that the items do not empirically group themselves into scales in the same way as the Collett-Lester scales. It would be useful to undertake a factor analytic study of items from several of the inventories available, in an attempt to obtain a truly empirical scale. The difficulty of such an approach is that the scales which so emerge might not lend themselves to clear theoretical interpretation.

Fear of death and responses to simulated patients. There are several possible reasons why medical students' responses to the simulated patients were not predicted by their scores on the fear of death scales:

1. The simulations were not realistic enough to elicit responses really related to fear of death.

2. The measures chosen for examining the anxiety in the responses were inappropriate, being drawn from other tasks which are not similar enough to the one with which these subjects were presented.

3. The sample size was small.

4. The stimulus and response yielded so small a unit of subjects' behavior in relation to dying patients.

5. Aspects of the stimuli other than the death content were more salient to respondents, so that their reactions were partly or entirely to factors other than the death content. The problems of creating a reasonably pure stimulus are enormous, and fear of death may simply not have been what some of the episodes elicited from some subjects.

For instance, in Episode 3, many subjects siezed upon the word "maybe," to interpret the statement as meaning that the patient did not know that he was dying, or thought mistakenly that he was. While in this instance, the focus is on the death content, the example illustrates the extent to which small and seemingly insignificant cues can alter the subject's perception of the situation.

The closeness of the simulations to the reality of working with dying patients is of course an issue. The audio tape may have been inadequate to arouse the anxiety that would really be present in an interaction between physician and dying patient. Some subjects commented that they had difficulty "getting into" the role-playing. Use of a videotaped stimulus or a live actor might produce quite different results, but even that amount of simulation might be too far removed from the actual situation. However, there are large problems in attempting field study in this area.

There is some evidence that the use of these stimulus tapes did arouse some anxiety. Two subjects became very upset by the task. No subjects, when asked to rate the extent to which the episodes had made them anxious, objected that they had felt no anxiety at all. While a few rated all episodes very low in anxiety, no one rated all of them as arousing no anxiety at all. (Note that they were not asked whether any of the episodes made them anxious, they were simply asked to use the scale. It is possible that their willingness to admit to some level of anxiety was created by their perception that the experimenter wanted to find some.) Few said that any of the episodes had seemed unrealistic, and those who did mainly gave reasons having to do with the quality of acting in some particular vignette, although a few commented on the artificiality of the situation.

Finally, regardless of the adequacy or inadequacy of the stimulus, the measures of response lag and emotionality were drawn from such methodologies as word association tasks, and appear not to have been useful in a situation in which the behavior of interest is one of response to another individual. The association between emotionality and fear of dying of others, the only correlation of significance found between a fear of death scale and one of these two variables, suggests that the area of the emotional level of the response, at least, is worth further study.

Some studies[3] have found that subjects who verbally deny having strong feelings about death still show affective involvement in death-related tasks. Many subjects admitted to having other feelings besides

---

[3]Herman Feifel and Allan B. Branscomb, "Who's afraid of death?", Journal of Abnormal Psychology, 1973, 81 (3), 282-288.

anxiety while responding to the vignettes, which might account at least partly for the lack of correlation between emotionality and both the rated anxiety level of the episodes and any fear of death scales except fear of dying of others. What emotionality there was in the response was probably composed partly of anxiety and partly of other affect. In addition, some of the emotion which subjects felt was evidently directed at other than the death content; subjects said they responded to confrontiveness, accusations, legal and moral issues raised by the patients, and the patients' moods.

The comparison of the stimulus of a dying patient with an emotionally more neutral one would be useful in sorting out how much of the emotionality of the responses was due to the death content. People may respond with more emotion to death stimuli than to neutral ones in the context of a doctor/patient interaction as in other contexts.

Emotionality of the responses may have been attenuated by the subjects' desire to give an empathic and helpful response to the patient, and to sound helpful to the experimenter, so they may not have responded as they would have to a real patient. Students may have given responses which they thought a psychological researcher would consider helpful, but several commented that they were at a loss for how to respond when they did not know how to be helpful to such a patient. Some may have given helpful responses which had been integrated into their style of responding to patients. Many, trying to sound helpful, showed widely diverse ideas of what a helpful response would be, and may have sounded more emotional simply because they were struggling to come up with a good response, or were anxious that the experimenter think they had responded adequately to the patient. Some, on the other hand, may have

controlled their own emotional responses so as not to have them interfere with the helpfulness of the response--a set which many described as necessary to the successful practice of medicine.

A failing in the use of the anxiety ratings appears to have been that subjects were not required to give only one highest and one lowest rating. This confused the interpretation of their reasons for the ratings, and made the mean anxiety ratings closer than they might have been. While this is more likely to give an adequate picture of the extent to which the episodes affected subjects in similar ways, it does obscure the reasons for the ratings. Ratings of anxiety may have been contaminated by the fact that they were made during a second hearing of the vignettes, and subjects were asked to reflect back to how they had felt while responding to them. Also, conditions of anxiety should have been set before the subjects were exposed to the tapes, had that been possible.

It was predicted that those who were most anxious about death would avoid directly mentioning it, even though all the simulated patients spoke directly about it. However, no relationship was found between fear of death as measured by any of the scales and directness of death reference. Those who feared death or dying appeared to avoid directly mentioning death just as much as those who were less afraid. This finding may be a function of the training that the students had received. The great majority made no mention of death at all in response to any vignette. Some appeared to struggle to avoid mentioning it; others merely found something else to respond to or talked around it. There may be a social desirability factor in operation here: some appeared to believe that it was not good to mention death too directly to a dying patient.

A dichotomous rating of whether subject mentioned death at all, rather than the rating of directness or indirectness which was used here might have been preferable. It would also have helped in the interpretation of these results to have asked subjects why they did or did not refer to death directly.

It is possible to describe students' responses to the simulated patients in the terms of Glaser and Strauss.[4] They describe various awareness contexts occurring between dying patients and those around them. The main types are open awareness (both know the patient is dying, and each knows that the other knows); closed awareness (the patient does not know); suspicion (the patient suspects, but does not directly ask); and mutual pretense (both know and each pretends not to). Many students reacted to the vignettes as if they had assumed a priori a situation of mutual pretense, which was violated by the patient's direct mention of his death. Episode 3 is treated by many who were made anxious by it as if it were a suspicion context; the patient's use of the phrase "maybe I am dying" creates that context.

Those who scored higher in fear of dying of self tended to give lower anxiety ratings to the vignettes than those who showed lower fear. Possibly, being confronted with the situation in which someone else is dying actually allows one for the moment to ignore one's own anxiety about death, to focus on that of another. It may be that in a group with higher fear of death scores than these medical students made, would show more relationship between other fear of death scales and the anxiety ratings and death directness.

---

[4]Barney Glaser and Anselm Strauss, Awarness of Dying, Chicago, Aldine, 1975.

Differences among groups. It is difficult to explain the finding that medical students were lower, rather than higher, than the other groups in fear of dying of others and self. Some desensitization, via courses in death and dying or exposure to cadavers and perhaps to actual dying patients, may have occurred. Or, they may regard it as less socially acceptable to admit to fear of the dying, since they have a professional involvement with them, and ability to work well with the dying may be a part of their professional self concepts. Commonly accepted theory has been that one reason people become physicians is that they are so afraid of death that they have to fight it professionally. While the results of this study do not entirely justify scrapping that theory, they do suggest that the notion be reexamined. It may be that the idea springs from the fact that people who make theories about why physicians become physicians have been patients, and cannot take a totally unbiased approach.

Suggestions for Future Research

There are a variety of kinds of future research which may be able to make use of the findings, either substantial or methodological, of the current study. More research is also needed on the instrument used.

First of all, those medical students who served as subjects for this research can be followed up once they have graduated from medical school and worked in the field for a period of time. (Several of the subjects themselves suggested this approach.) Changes in their attitudes and fears about death could be examined, perhaps using the more reliable parts of the Collett-Lester scale. The questions they were asked during the interview about their opinions about telling patients

of their approaching death, who should tell, and who should decide to tell could be asked again. It would be enlightening to medical educators to learn what experiences appear to them to have been significant in determining changes in their attitudes and behaviors toward the dying.

This study itself could be done again, with major changes. Medical students could be asked to respond to different kinds of simulated patients. The quality of helpfulness in the responses could be a variable of interest. Clearly different conditions of anxiety could be created. Subject feedback on what made them anxious suggests some ways in which the stimuli could be clarified and improved.

Greater study of the fear of death scales themselves is of importance if clear findings about the relationship between fear of death and patient relations are to be obtained. A similar study would be more useful if scales of greater reliability could be devised.

Use of format in training. It may be that the research potential of simulation studies in the area of death attitudes is limited. However, many subjects commented that the experience of responding to the vignettes was useful for their own learning. Some commented on the variety of patients presented in the simulation, and thought that the presentation of such material as part of their training would be very useful. Many said that they had learned from the experience (what they had learned was not asked) in spite of the fact that they had received no feedback on their performance, and had been interviewed without the interviewer knowing what they had said in response to the patients. This in itself would be a valuable area of research: what is the impact of the presentation of simulation material as a training tool in the area of dealing with the dying, and what benefits accrue to the

medical student who experiences such a program. Are there different kinds of simulations which might be useful to people with different backgrounds, experiences, and/or attitudes toward death? Given the changing attitudes toward the dying in this society, and the changing and increasing involvement of medical professionals with them, this appears the most challenging and worthwhile area of future effort.

Conclusion

This is the first time that attitudes toward death have been explored, not from the point of view only of self report, and not only of the relationship of the individual's feelings to other individual attributes, but from the point of view that attitudes influence how a professional who deals with the dying is able to interact with them. Previous studies of attitudes prevalent in the medical profession have not considered the interaction of doctor and patient, nor has there been systematic analysis of the socialization of the medical student into a standard way of dealing with the dying. This study is a first step in that direction.

One fact which has been made clear by this, and previous, studies is that it is insufficient just to look at attitudes toward death from the point of view of expressed fear. Merely to look at fear of death, while it fits everyday conceptions of how people feel about that phenomenon, does not do justice to the complex set of attitudes surrounding it. Nor does it do justice to the social complexities of the doctor-patient interaction. It is time to begin to look at more subtle ways in which individuals' feelings and attitudes interact when a healthy person interacts with someone who is dying.

Diggory and Rothman[5] have suggested that a person whose self-esteem is wrapped up in certain functions s/he performs should be afraid of anything which will cause him/her to lose those functions, and that death is the limiting case of loss of the ability to exercise skills or abilities. From this, and from the lack of clear results in medical student responses to the simulated patients, it may be argued that the presentation of the stimulus of the dying patient to medical students elicited, not particularly the fear of death (of self or others), but the fear of loss of other objects, skills, or abilities (for instance, the desire to be or be seen as an effective physician instead. They may have been responding, not to the death stimulus at all, but to other threats to self-confidence, competency, or control, to name only a few possibilities. The consequence for the physician of the death of a patient, or the mere presence of that dying patient, may have more impact on the physician than the death itself. The initial assumption of this study was that the dimension of fear for self vs. fear for others would be the one which would separate medical students from the general public. This assumption appears to have been in error, as the differences between medical students and other groups appeared to have been in their orientations to dying, medical students being less afraid of the process of dying, while not different from the other groups in their fears of being dead.

---

[5]James C. Diggory and Dorreen Z. Rothman, "Values destroyed by death," Journal of Abnormal and Social Psychology, 1961, 63 (1), 205-210.

APPENDICES

Appendix A

Items of the Collett and Lester Fear of Death Inventory

(Numbers in parentheses indicate the item/scale correlations found by Collett and Lester.)

Scale 1, Fear of Death of Self

101.	I would avoid death at all costs.	(.55)
102.	The total isolation of death frightens me.	(.46)
103.	I would like to know what happens on earth after I die.	(.18)
104.	I am disturbed by the shortness of life.	(.56)
105.	The feeling that I might be missing out on so much after I die bothers me.	(.56)
106.	I would not mind dying young.	(-.60)
107.	I view death as a relief from earthly suffering.	(-.36)
108.	Not knowing what it feels like to be dead does not bother me.	(-.64)
109.	The idea of never thinking or experiencing again after I die does not make me anxious.	(-.61)
110.	I am not disturbed by death being the end of life as I know it.	(-.77)

Scale 2, Fear of Death of Others

201.	I would experience a great loss if someone close to me died.	(.45)
202.	I would like to be able to communicate with the spirit of a friend who has died.	(.32)
203.	If a friend died, I would feel sad about the things s/he would be missing.	(.23)
204.	I would never get over the death of someone close to me.	(.67)
205.	If someone close to me died, I would miss him/her very much.	(.32)
206.	I could not accept the finality of the death of a friend.	(.31)
207.	I accept the death of others as the end of their life on earth.	(-.46)
208.	I would easily adjust after the death of someone close to me.	(-.64)
209.	I would not mind having to identify the corpse of someone I knew.	(-.38)
210.	I do not think of dead people as having an existence of some kind.	(-.48)

Scale 3, Fear of Dying of Self

301.	I am disturbed by the physical degeneration involved in a slow death.	(.37)

302.	The pain involved in dying frightens me.	(.29)
303.	I am disturbed by the prospect of my experiences being limited during a slow death.	(.23)
304.	The intellectual degeneration of old age disturbs me.	(.52)
305.	If I knew I were dying, I would like to talk about it.	(-.53)
306.	Dying might be an interesting experience.	(-.62)
307.	If I had a fatal disease, I would like to be told.	(-.46)
308.	I would rather die suddenly than of a slow death.	(.10)

Scale 4, Fear of Dying of Others

401.	I would prefer that someone close to me died a sudden death rather than a slow one.	(.20)
402.	I would avoid a friend who was dying.	(.27)
403.	I would feel uneasy if someone talked to me about the approaching death of a common friend.	(.61)
404.	I would feel anxious if someone who was dying talked to me about it.	(.76)
405.	If a friend were dying, I would not want to be told.	(.54)
406.	I would not feel anxious in the presence of someone I knew was dying.	(-.49)
407.	If I had a choice as to whether or not a friend should be informed s/he is dying, I would tell him/her.	(-.45)
408.	I would want to know if a friend were dying.	(-.55)
409.	I would visit a friend on his/her deathbed.	(-.55)
410.	If someone close to me were dying, I would spend as much time as possible with him/her.	(-.18)

Appendix B

B-111 Fee Hall
Michigan State University
February 9, 1976

Dear CHM Student:

I would like to ask your help in conducting my dissertation research, which concerns the attitudes towards death and dying held by people who are at the beginning of their medical careers. I am interested in knowing what your feelings about death are, what experiences you have had with dying people, and how you yourself would deal with a dying patient.

There are two parts to the research. The first is a questionnaire, which you will find in your mailbox in Life Sciences later this week. It takes about 20 minutes to fill out. Enclosed with the questionnaire is an answer sheet and a pencil. Please record your answers on the answer sheet, and return everything to me in the same envelope via Campus Mail. (Just cross your name off the envelope; it's already addressed to me.) Your answers will be kept anonymous and confidential.

The second part of the research involves playing some tapes of simulated patients to you, and asking you to respond to them. This part will take about 30 minutes, which I will schedule at your convenience. At the back of the questionnaire, please indicate whether you are willing to participate in part two, and include your phone number. I will be calling you to set up a time to meet with you. If you cannot participate in part two, I would appreciate it if you would send me your completed questionnaire anyway.

I know that as medical students you are concerned with learning everything you can about how you interact with patients, and I believe you will be able to learn something about yourself if you are willing to take the time to participate in this study. Of course, I will be glad to share a summary of my results with you as well.

Thank you very much for your help. If you could return your completed questionnaire to me by February 20, I would be most grateful.

Sincerely,

Susan M. Parry
Doctoral Student
Dept. of Counseling

MICHIGAN STATE UNIVERSITY

COLLEGE OF HUMAN MEDICINE · OFFICE OF THE DEAN
OFFICE OF CURRICULUM IMPLEMENTATION

EAST LANSING · MICHIGAN · 48824

January 27, 1976

Dear CHM Student:

I am writing to solicit your involvement in a research project conducted by Susan Parry, a graduate student in Psychology. Her research involves attitudes toward death and dying. As you know, this is an area of increasing research and applied interest to physicians and one which I feel merits the attention of all of us involved in health care delivery.

I am aware of the pressures and time constraints which we all face, but I do hope you will attempt to assist Ms. Parry in this important activity.

Sincerely,

Robert M. Daugherty, Jr., M.D., Ph.D.
Acting Associate Dean, College of Human Medicine

RMD:JHL:emk

Appendix C

Death Experience Questionnaire

Instructions

This is a set of questions about your experiences with death, and the attitudes and feelings you have about death. The purpose of the questionnaire is to find out how people in general feel about death. No one will know how you individually responded.

Answer the questions as honestly and accurately as you can. People have many different feelings about death, and there is no one "normal" way to feel. The important thing is to put down how you actually feel.

Record all your answers on the answer sheet you have been given. Do not write on the questionnaire booklet, except for the last space. Do not write your name on the booklet or answer sheet. Answer all the questions; do not skip any. Some of the questions may appear not to apply to you, but you will always find an alternative that fits, or almost fits, your situation. If you do not know the exact answer to a question, put down your best guess. If you are not sure what a question means, answer it according to what you think it means. Give one, and only one, answer to each question.

Answer each question by blackening the space on the answer sheet which corresponds to the alternative you have chosen. The number of alternatives is usually smaller than the number of available spaces. Ignore the rest of the spaces. The number of alternative answers will not always be the same.

NOTE: THE ANSWER SHEETS ARE NUMBERED ACROSS, NOT DOWN.

When you have finished all the items:

1. Check to see that you have answered every question in the proper place on the answer sheet.
2. Be sure there are no stray marks on the answer sheet.
3. Be sure all your marks are heavy and dark.
4. Hand in the questionnaire, answer sheet, and scoring pencil.

Here is an example of how to answer the first item.

1. Sex
   0 = male
   1 = female

answer sheet

1. /0/ /1/ /2/ /3/ /4/ /5/ /6/ /7/ /8/ /9/

In this example, the question has been answered by a woman. She has blackened the space marked /1/ on the answer sheet. A male would have blackened the space marked /0/. Ignore the rest of the numbered spaces.

Now, turn the page and answer all the questions. Do not skip any. Work as rapidly as you can, and do not spend too much time on any one item.

Thank you very much for your help in this research.

Questionnaire

Blacken the space on the answer sheet which corresponds to the numbered alternative you have chosen. Select the one that best applies to you. Do not blacken more than one space per question. Answer every question. Read all alternatives before you respond.

1. Sex
   0 = male
   1 = female
   (ignore spaces 2 through 9)

2. Age
   0 = 20 or under
   1 = 21 - 25
   2 = 26 - 30
   3 = 31 - 40
   4 = 41 or older

3. Marital status
   0 = single (never married, not currently cohabiting)
   1 = married
   2 = separated
   3 = divorced
   4 = widowed
   5 = cohabiting with partner of same or opposite sex

4. Do you have any children?
   0 = yes
   1 = no

5. Academic status
   0 = undergraduate
   1 = medical student
   2 = other graduate student

6. Current academic major area (pick the one that best fits you)
   0 = medicine (not including pre-med)
   1 = natural sciences
   2 = social sciences (including education)
   3 = arts and letters
   4 = business
   5 = technical (including agriculture and engineering)
   6 = no preference

7. Current living situation
   0 = with family of origin (parents and/or siblings)
   1 = with spouse and/or children (or partner to whom not married)
   2 = with friends or roommates
   3 = alone

8. Which best describes your mother (or the women who brought you up)?
   0 = never worked outside the home, or did so only briefly
   1 = currently employed
   2 = currently unemployed, but usually employed
   3 = incapacitated, unable to work
   4 = retired
   5 = deceased
   6 = I grew up without a mother or mother-substitute

9. If your mother is or was regularly employed outside the home, which best describes her work?
   0 = not applicable, mother did not work outside the home
   1 = professional person
   2 = business person
   3 = skilled worker
   4 = unskilled worker

10. Which best describes your father (or the man who brought you up)?
   0 = never worked outside the home, or did so only briefly
   1 = currently employed
   2 = currently unemployed, but usually employed
   3 = incapacitated, unable to work
   4 = retired
   5 = deceased
   6 = I grew up without a father or father-substitute

11. If your father is or was regularly employed outside the home, which best describes his work?
   0 = not applicable, father did not work outside the home
   1 = professional person
   2 = business person
   3 = skilled worker
   4 = unskilled worker

12. What religion were you brought up in?
   0 = Roman Catholic or Orthodox
   1 = Major Protestant denomination
   2 = Fundamentalist Protestant (including Baptist)
   3 = Jewish
   4 = Eastern religion or Moslem
   5 = Pro-religion, no formal affiliation
   6 = No religious upbringing
   7 = Anti-religious upbringing
   8 = Other

13. What religion do you now consider yourself a member of?
   0 = Roman Catholic or Orthodox
   1 = Major Protestant denomination
   2 = Fundamentalist Protestant (including Baptist)
   3 = Jewish
   4 = Eastern religion or Moslem
   5 = Pro-religion, no formal affiliation
   6 = Agnostic
   7 = Atheist
   8 = Other

14. Defining 'religious' in any way you feel applies to you, how religious would you say you are?
    0 = very religious
    1 = about average
    2 = not very religious
    3 = non-religious
    4 = anti-religious

15. To the best of your knowledge, are you now suffering from a terminal illness?
    0 = yes
    1 = no

16. Has anyone who was <u>important</u> to you died within the past year?
    0 = no
    1 = yes, one or more grandparents
    2 = yes, my mother
    3 = yes, my father
    4 = yes, one or more brothers and/or sisters
    5 = yes, my spouse (or partner of the same or opposite sex)
    6 = yes, my child
    7 = yes, another relative
    8 = yes, a close friend
    9 = yes, more than one of the above

17. In your conversations with that person (or people) was their impending death ever mentioned?
    0 = not applicable, no one close to me has died in the past year
    1 = yes, he/she brought it up
    2 = yes, I brought it up
    3 = no, and I'm glad it wasn't
    4 = no, and I wish it had been
    5 = death was sudden, there was no chance to discuss it

18. Is there anyone important to you who is expected to die soon?
    0 = no
    1 = yes, a grandparent
    2 = yes, my mother
    3 = yes, my father
    4 = yes, a brother or sister
    5 = yes, my spouse (or partner of the same or opposite sex)
    6 = yes, my child
    7 = yes, another relative
    8 = yes, a close friend
    9 = yes, more than one of the above

19. In your conversation with that person (or people) has their impending death ever been mentioned?
    0 = not applicable, no one close to me is expected to die soon
    1 = yes, he/she brought it up
    2 = yes, I brought it up
    3 = no, and I don't want to talk with them about it
    4 = no, but we probably will talk about it

20. How many funerals have you attending during your life?
    0 = 0
    1 = 1
    2 = 2
    3 = 3
    4 = 4
    5 = 5
    6 = 6
    7 = 7
    8 = 8
    9 = 9 or more

21. Which best applies to your mother?
    0 = still living
    1 = died in childbirth when I was born
    2 = died when I was a child (12 or under)
    3 = died when I was an adolescent (13 through 20)
    4 = died when I was an adult (21 or older)

22. Which best applies to your father?
    0 = still living
    1 = died before I was born
    2 = died when I was a child (12 or under)
    3 = died when I was an adolescent (13 through 20)
    4 = died when I was an adult (21 or over)

23. Which best applies to your brothers and sisters?
    0 = all are still living
    1 = one has died
    2 = more than one has died
    3 = I have no brothers or sisters

24. Which best applies to your spouse?
    0 = I have never been married
    1 = I am (or was) married, but have never been widowed
    2 = I have been widowed once
    3 = I have been widowed more than once

25. Which best applies to your child or children?
    0 = I have never had children
    1 = I have had children and all are still alive
    2 = I have lost one child
    3 = I have lost more than one child

26. Have you ever been with someone <u>at the moment</u> of their death?
    0 = yes
    1 = close to the moment of death, but not right up to it
    2 = during the time they were terminally ill, but not very close to death
    3 = not at all

27. Have you ever had a deep conversation with someone about death, during which both of you knew that one of you was dying?
    0 = yes
    1 = no

28. Which best describes your attitude towards your own death?
    0 = I am afraid of my death
    1 = I am sometimes afraid of my death, and sometimes not
    2 = I am not afraid of my death
    3 = I never think about my death at all

Items 29 through 67 are a series of general statements. You are to indicate how much you agree or disagree with them. Record your opinions on the answer sheet, according to the following scale:

    0 = strong disagreement
    1 = moderate disagreement
    2 = slight disagreement
    3 = slight agreement
    4 = moderate agreement
    5 = strong agreement

Read each item and decide quickly how you feel about it, then record the extent of your agreement or disagreement. Put down your first impression. The scale is repeated underneath the first two items, and again at the top of each page. Use the same scale for all the following items.

29. I would avoid death at all costs.
    0 = strong disagreement
    1 = moderate disagreement
    2 = slight disagreement
    3 = slight agreement
    4 = moderate agreement
    5 = strong agreement

30. I would experience a great loss if someone close to me died.
    0 = strong disagreement
    1 = moderate disagreement
    2 = slight disagreement
    3 = slight agreement
    4 = moderate agreement
    5 = strong agreement

Continue using the same scale for all the rest of the items.

31. I would not feel anxious in the presence of someone I knew was dying.

32. I would prefer that someone close to me died a sudden death rather than a slow death.

33. The total isolation of death frightens me.

34. I am disturbed by the physical degeneration involved in a slow death.

35. I would not mind dying young.

Continue using this scale:
0 = strong disagreement
1 = moderate disagreement
2 = slight disagreement
3 = slight agreement
4 = moderate agreement
5 = strong agreement

36. I accept the death of others as the end of their life on earth.

37. If I knew I were dying, I would like to talk about it.

38. I would easily adjust after the death of someone close to me.

39. If I had a choice as to whether or not a friend should be informed he/she is dying, I would tell him/her.

40. I would like to know what happens on earth after I die.

41. I would avoid a friend who was dying.

42. Dying might be an interesting experience.

43. I would like to be able to communicate with the spirit of a friend who has died.

44. I view death as a relief from earthly suffering.

45. The pain involved in dying frightens me.

46. If a friend died, I would feel sad about the things he would be missing.

47. I would want to know if a friend were dying.

48. I am disturbed by the shortness of life.

49. I would not mind having to identify the corpse of someone I knew.

50. I would never get over the death of someone close to me.

51. The feeling that I might be missing out on so much after I die bothers me.

52. I am disturbed by the prospect of my experiences being limited during a slow death.

53. I do not think of dead people as having an existence of some kind.

54. I would feel uneasy if someone talked to me about the approaching death of a common friend.

55. Not knowing what it feels like to be dead does not bother me.

Continue using this scale:
0 = strong disagreement
1 = moderate disagreement
2 = slight disagreement
3 = slight agreement
4 = moderate agreement
5 = strong agreement

56. If I had a fatal disease, I would like to be told.

57. I would visit a friend on his deathbed.

58. The idea of never thinking or experiencing again after I die does not make the anxious.

59. If someone close to me died, I would miss him/her very much.

60. I am not disturbed by death being the end of life as I know it.

61. I would feel anxious if someone who was dying talked to me about it.

62. I would rather die suddenly than of a slow death.

63. The intellectual degeneration of old age disturbs me.

64. If someone close to me were dying, I would spend as much time as possible with him/her.

65. If a friend were dying, I would not want to be told.

66. I could not accept the finality of the death of a friend.

67. I believe in some kind of life after death.

Thank you very much for your help. Please read and fill out the following form:

I understand that I may discuss with the person conducting this research any feelings I might have which were aroused by filling out this questionnaire. I understand that the results of this research will be analysed anonymously, and that my answers will in no way be connected with me unless I choose to discuss them. I consent to my answers being used in this way.

_____
(signature)

_____
(address)

_____

I wish to receive a summary of the results of this research.
_____yes _____no

Appendix D

Collett-Lester Items
Inter-Item Correlations for Each Scale

Scale 1, Fear of Death of Self

Item	101	102	103	104	105	106	107	108	109	110
101		.25	.26	.15	.20	.19	.27	.08	.19	.18
102			.21	.31	.09	.43	.43	.32	.36	.41
103				.13	.26	.21	.27	.11	.24	.25
104					.07	.32	.42	.29	.31	.33
105						.14	.22	.08	.15	.17
106							.56	.33	.36	.37
107								.30	.46	.50
108									.46	.44
109										.52
110										

Scale 2, Fear of Death of Others

Item	201	202	203	204	205	206	207	208	209	210
201		.02	.19	.03	.11	.09	.13	-.06	.25	.05
202			.09	.13	.00	.05	.05	.08	-.00	.16
203				.12	.12	.29	.35	-.02	.23	.30
204					.10	-.05	.03	-.03	.10	.13
205						.24	.21	-.18	.18	.23
206							.14	.07	.26	.17
207								-.01	.01	.44
208									-.03	.04
209										.09
210										

Scale 3, Fear of Dying of Self

Item	301	302	303	304	305	306	307	308	309	310
301		-.04	-.03	.25	.31	.04	-.24	.32		
302			.25	-.08	-.03	.15	-.14	-.09		
303				.01	-.09	.21	-.09	-.10		
304					.23	.10	-.11	-.19		
305						.00	-.19	.31		
306							-.01	-.05		
307								-.21		
308										

Scale 4, Fear of Dying of Others

Item	401	402	403	404	405	406	407	408	409	410
401		.04	.02	.10	-.00	.08	.07	.30	-.01	-.01
402			.13	.06	.11	.11	-.14	.04	-.07	.13
403				.10	.32	.23	.16	.14	.03	.38
404					.04	.21	.08	.23	.12	.17
405						.22	.10	.05	.10	.52
406							.13	.42	.09	.22
407								.15	.12	.15
408									-.01	.08
409										.17
410										

Appendix E

Factor Analysis of Collett-Lester Items

Factor 1

Item		Loading
107.	I view death as a relief from earthly suffering.	.75761
110.	I am not disturbed by death being the end of life as I know it.	.59984
109.	The idea of never thinking or experiencing again after I die does not make me anxious.	.58303
106.	I would not mind dying young.	.57115
102.	The total isolation of death frightens me.	.50097
205.	If someone close to me died, I would miss him/her very much.	.45475
104.	I am disturbed by the shortness of life.	.44142
108.	Not knowing what it feels like to be dead does not bother me.	.40453
103.	I would like to know what happens on earth after I die.	.39931
101.	I would avoid death at all costs.	.36426
105.	The feeling that I might be missing out on so much after I die bothers me.	.33442
208.	I would easily adjust after the death of someone close to me.	-.32767

Factor 2

410.	If someone close to me were dying, I would spend as much time as possible with him/her.	.62716
403.	I would feel uneasy if someone talked to me about the approaching death of a common friend.	.60237
405.	If a friend were dying, I would not want to be told.	.50601
302.	The pain involved in dying frightens me.	.49928
306.	Dying might be an interesting experience.	.44634

Item		Loading
303.	I am disturbed by the prospect of my experiences being limited during a slow death.	.43519
406.	I would not feel anxious in the presence of someone I knew was dying.	.41291
407.	If I had a choice as to whether or not a friend should be informed s/he is dying, I would tell him/her.	.26722
204.	I would never get over the death of someone close to me.	-.25342
404.	I would feel anxious if someone who was dying talked to me about it.	.24356
Factor 3		
203.	If a friend died, I would feel sad about the things s/he would be missing.	.61390
210.	I do not think of dead people as having an existence of some kind.	.47569
207.	I accept the death of others as the end of their life on earth.	.46968
206.	I could not accept the finality of the death of a friend.	.42790
209.	I would not mind having to identify the corpse of someone I knew.	.34275
304.	The intellectual degeneration of old age disturbs me.	.30925
409.	I would visit a friend on his/her deathbed.	-.27901
201.	I would experience a great loss if someone close to me died.	.26555
401.	I would prefer that someone close to me died a sudden death rather than a slow death.	.22626
Factor 4		
307.	If I had a fatal disease, I would like to be told.	-.57137
402.	I would avoid a friend who was dying.	.54032
301.	I am disturbed by the physical degeneration involved in a slow death.	.51605

Item		Loading
308.	I would rather die suddenly than of a slow death.	.45016
305.	If I knew I were dying, I would like to talk about it.	.38015
408.	I would want to know if a friend were dying.	.26982
202.	I would like to be able to communicate with the spirit of a friend who has died.	-.24853

NOTE: Item numbers identify items as belonging to individual subscales of the Collett-Lester inventory, as follows:

101-110: Scale 1, Fear of death of self
201-210: Scale 2, Fear of death of others
301-308: Scale 3, Fear of dying of self
401-410: Scale 4, Fear of dying of others

Appendix F

Vignettes

Episode 1

You know, doc, I've thought about this a lot, and, uh, I've decided that I want to die now, I mean soon. Since at best you tell me I have only a couple months left, and you've already told me the pain will get worse and worse before I go. And even now the painkillers you give me don't do much. If you really want to help me, I think you ought to give me a way to end it now.

Episode 2

Sure, I know I'm going to die pretty soon, and, y'know, I've faced that, and it doesn't really bother me too much now. But what does bother me is that I'm just really alone. I just feel so lonely. My family doesn't seem to care or bother me that much, and you're the only one that I see very often. Well, I'd just feel better if I knew I didn't have to go, if I didn't have to die all alone. Please promise me that you'll come and be with me when the time comes.

Episode 3

Where have you been the past few days? Every time I want to know something, the nurses tell me to ask the doctor, but you're never around. Maybe I am dying, but for Christ sake, you don't have to avoid me completely.

Episode 4

Isn't there something you could have done to cure me? I've known other people who've had what I have. They lived! God damn it! I don't want to die. You must have missed something, you must have missed something.

Episode 5

I worked so hard. Everything was finally starting to go my way. And now this. All I can do is lie here and wait until I die. All the things you get in life--they don't mean much, do they?

Episode 6

Six months! Oh my God, you must be wrong! There must be a mistake! How can you stand there and tell me something like that?!

Appendix G

Instructions to Subjects and Interview Format

This process will take about a half hour, maybe less. If you don't mind, I will be taping most of the session, because it will free me from having to take notes. I'll try to answer any questions you have about the research, but please hold them until we have finished.

First of all, I am going to play you a series of vignettes. I would like you to imagine that the man on the tape is your patient and you are his physician. Imagine that he is talking directly to you, and expects you to respond to him. Although it is a simulation, please try to use your imagination and to respond with what you might really say to such a patient. For some of the episodes, you will need to imagine that you have said something which elicited the statement made by the person on the tape. Respond directly to him as you would if he were a patient of yours.

There are six vignettes in all. Each one is a different person, with a different concern. Before we begin, I will play you one extra tape just for practice, to make sure you understand the instructions. Are there any questions? ANSWER QUESTIONS.

PLAY PRACTICE VIGNETTE. MAKE ANY NEEDED COMMENTS.

Please respond to the other six vignettes. The episodes are spaced on the tape so that you will have plenty of time to respond without stopping the tape in between. After you have responded to each

episode, just wait for the next one to come up on the tape. After you have responded to all six episodes, please come to the door and get me. I will be just outside. If anything should go wrong with the tape, just come and get me. Are there any questions? ANSWER QUESTIONS. I will start both tape recorders before I leave the room.

START RECORDING TAPE. START STIMULUS TAPE. LEAVE ROOM.

STOP RECORDING. RUN STIMULUS TAPE FORWARD, TURN OVER.

Now I am going to play the same set of vignettes again. This time, I would like you to rate each one on this scale. GIVE THEM THE SCALE. Rate each vignette according to how much anxiety you experienced while responding to that person. Remember that you are imagining that he is an actual patient of yours. The scale runs from one to five. A rating of one means that you experienced no anxiety at all while responding to that person. A rating of five means that responding to that person made you very anxious. Two, three, and four are ratings of intermediate levels of anxiety. Circle the number which corresponds to the amount of anxiety you felt. Please only use whole numbers; do not rate between numbers. I am interested in how differently the vignettes affected you. I will run the tape. Are there any questions? ANSWER QUESTIONS. PLAY VIGNETTES.

DO NOT TURN THE RECORDING TAPE OVER.

Now, I would like to ask you a few questions about the vignettes and then about yourself. First, let's talk about the tapes.

START TAPE ON SIDE 2

1. Did any of the episodes strike you as being unrealistic for any reason? (SHOW TYPESCRIPT) Which ones? _____
   Why did those particular ones seem unrealistic?
2. You rated number _____ as being the one that made you the most anxious? What was it about that episode in particular that made you anxious?
3. You rated number _____ as being the one that made you the least anxious? What was it about that one that made it less anxiety provoking?
4. Could you describe any other feelings you had, in addition to anxiety, while listening to any of the vignettes?
5. How do you feel now, after having responded to all of them?
6. Are there any other comments you would like to make about any of the vignettes?

---

7. What medical specialty do you intend to enter? _____
   What would be your second choice? _____
8. What attracts you to your first choice?
9. How committed do you feel to this choice?

---

10. Have you ever experienced closely the death of someone in your personal life? _____ If so, what was it like for you?

11. Have you worked with dying patients at all, in any capacity? _____
    What was that experience like for you? How did you feel about it?

---

12. What are your beliefs about telling a patient that he or she is dying?
13. What percentages of people would you estimate should be told about their impending death? _____
14. Under what circumstances, if any, should a person not be told?
15. Who should decide whether a person should be told of his or her impending death? _____
16. Who should be responsible for telling the patient? _____
17. What influenced you in arriving at this particular set of beliefs?
18. Would you personally want to be informed of your impending death? _____ Why or why not?
19. Have you ever participated in a course on death and dying? _____
    If so, currently or previously? _____

Thank you very much for your participation in this study. Now, I'd be glad to answer any questions you might want to ask about the purpose of the research, but I'd appreciate it if you would not discuss it with any other medical students, since many others will also be participating in the study.

Appendix H

Anxiety Rating Scales

Circle the number which best describes your feeling while listening to the episode.

Episode 1.

1	2	3	4	5
not at all anxious	a little anxious	somewhat anxious	quite anxious	very anxious

Episode 2.

1	2	3	4	5
not at all anxious	a little anxious	somewhat anxious	quite anxious	very anxious

Episode 3.

1	2	3	4	5
not at all anxious	a little anxious	somewhat anxious	quite anxious	very anxious

Episode 4.

1	2	3	4	5
not at all anxious	a little anxious	somewhat anxious	quite anxious	very anxious

Episode 5.

1	2	3	4	5
not at all anxious	a little anxious	somewhat anxious	quite anxious	very anxious

Episode 6.

1	2	3	4	5
not at all anxious	a little anxious	somewhat anxious	quite anxious	very anxious

Appendix I

Scale of Emotional Arousal

Instructions to Raters

You will be listening to responses made to some simulated medical patients. You will hear a number of different responses to the same vignette. There are six different vignettes in all. You will hear vignette #1, followed by all the responses made to it, then vignette #2 with all the responses to it, etc.

Rate each response on the basis of how emotionally aroused you think the speaker is as s/he is speaking. The specific content of the emotion does not matter; for example, high fear arousal and high joy arousal would receive the same rating if you think the arousal is about as strong in both cases. Give a rating of 1 to responses which show no arousal at all. Give a rating of 5 to responses which show a high level of arousal. Give 2, 3, and 4 to responses showing intermediate levels of arousal.

On the following page are descriptions of each level. The indicators given for each level are to be taken as suggestions only. A response need not have all the qualities listed for a particular level in order to be rated at that level. You are to make a single, global rating for each response. Therefore, to use the five-point scale will require you to use your clinical judgment about what cues you decide are relevant in assigning a rating.

Each response will be played once. If you miss any of a response, I will play it a second time. I will play no response more than twice. If you still cannot hear enough of the response to assign a rating, leave the space blank.

Scale of Emotional Arousal

Level 1, No arousal at all

Look for such things as:

1. Even, smooth delivery, sounds calm
2. Normal speaking tone of voice
3. No groping for words
4. Appropriately task-oriented, objective, or cognitive content
5. Cliche or ritual responses
6. Open, relaxed manner of speaking; person sounds willing to continue the conversation
7. No emotion labels (feeling words) referring to self; few, if any, referring to others
8. Very mildly worded

Level 2, Slight arousal

Look for such things as:

1. Few or slight changes in rate of speaking or tone of voice or modulation
2. Little hesitancy or groping for words
3. Mostly cognitive or task-oriented in content
4. Few feeling labels applied to self; few applied to others
5. Mildly worded
6. Pure Rogerian response

Level 3, Moderate arousal

1. Changes from normal speaking rate and tone for part of response
2. Some hesitancy or groping for words
3. Statements of own feelings of moderate intensity
4. Neither very mildly nor very strongly worded
5. Lecturing

Level 4, Considerable arousal

1. Fairly rapid or frequent changes in speaking rate, modulation, pitch, tone of voice
2. Frequent use of feeling labels referring to self or statements about own inner state
3. Reflects the speaker's inner state more than the needs of the person being responded to
4. Person sounds tense and unwilling to continue the conversation, if the emotions expressed are negative or unpleasant. Sounds eager to continue the conversation and very involved in it if the emotions are positive or pleasant.
5. Occasion use of superlatives
6. Use of fairly strong emotional language
7. Strongly worded

Level 5, High arousal

1. Uneven, jerky delivery
2. Voice sounds higher or lower than usual
3. Many or long pauses to think or grope for words; disorganized response
4. Many feeling labels referring to self; may also have many or strong words referring to feelings of other
5. Content largely or entirely about speaker's own feelings
6. Little or no task-orientation; little or no empathy uncolored by own feelings
7. Frequent use of superlatives, swearing, strong language
8. Sounds unwilling to continue conversation if emotions expressed are negative or unpleasant; sounds eager to continue talking if emotions are positive
9. Arguing with other person
10. Very strong worded

BIBLIOGRAPHY

BIBLIOGRAPHY

Adlerstein, Arthur M., The Relationship between Religious Belief and Death Affect, Ph.D. Dissertation, Princeton University, 1958.

Alexander, Irving E. and Alderstein, Arthur M., "Affective responses to the concept of death in a population of children and early adolescents," Journal of Genetic Psychology, 1958, 93, 167-77.

"Death and Religion" in H. Feifel, ed., The Meaning of Death, New York, McGraw-Hill, 1959.

Alexander, Irving E.; Colley, Randolph S.; and Adlerstein, Arthur M., "Is death a matter of indifference?", The Journal of Psychology, 1957, 43, 277-283.

Alexander, Michelle, and Lester, David, "Fear of death in parachute jumpers," Perceptual and Motor Skills, 1972, 34 (1), 338.

Berman, Alan L., "Belief in afterlife, religion, religiosity, and life-threatening experiences," Omega, 1974, 5 (2), 127-135.

Blake, Robert R., Attitudes toward Death as a Function of Developmental Stages, Ph.D. Dissertation, Northwestern University, 1969.

Blatt, Sidney J., and Quinlan, Paul, "Punctual and procrastinating students: a study of temporal parameters," Journal of Consulting Psychology, 1967, 31 (2), 169-174.

Bouton, David, "The need for including instruction on death and dying in the medical curriculum," Journal of Medical Education, 1972, 47 (3), 169-175.

Boyar, Jerome I., The Construction and Partial Validation of a Scale for the Measurement of the Fear of Death, Ph.D. Dissertation, University of Rochester, 1963.

Bruhn, John G.; Thurman, A. Eugene; Chandler, Betty C.; and Bruce, Thomas A., "Patients' reactions to death in a coronary care unit," Journal of Psychosomatic Research, 1970, 14 (1), 65-70.

Caldwell, Diane, and Mishara, Brian L., "Research on attitudes of medical doctors toward the dying patient: a methodological problem," Omega, 1972, 3 (4), 341-346.

Cameron, Paul, The imminency of death, Journal of Consulting and Clinical Psychology, 1968, 32 (4), 479-481.

Cash, Larry M., and Kooker, Earl W., "Attitudes toward death of NP patients who have attempted suicide," Psychological Reports, 1970, 1970, 26, 879-882.

Chasin, Barbara, "Neglected variables in the study of death attitudes," Sociological Quarterly, 1971, 12, 107-113.

Christ, Adolph E., "Attitudes toward death among a group of acute geriatric psychiatric patients," Journal of Gerontology, 1961, 16 (1), 56-59.

Cohen, Ronald J., and Parker, Christian, "Fear of failure and death," Psychological Reports, 1974, 34, 54.

Collett, Lora-Jean and Lester, David, "The fear of death and the fear of dying," The Journal of Psychology, 1969, 72, 179-181.

Cramond, W. A., "Psychotherapy of the dying patient," British Medical Journal, 1970, 3 (5719), 389-393.

Crown, Barry; O'Donovan, Denis; and Thompson, T. Gale, "Attitudes toward attitudes toward death," Psychological Reports, 1967, 20, 1181-1182.

Degner, Leslie, "The relationship between some beliefs held by physicians and their life-prolonging decisions," Omega, 1974, 5 (3), 223-232.

Dickstein, Louis S., "Death concern: measurement and correlates," Psychological Reports, 1972, 30, 563-571.

Dickstein, Louis S., and Blatt, Sidney J., "Death concern, futurity, and anticipation," Journal of Consulting Psychology, 1966, 30, 11-17.

Diggory, James C., and Rothman, Dorreen Z., "Values destroyed by death," Journal of Abnormal and Social Psychology, 1961, 63 (1), 205-210.

Durlak, Joseph A., "Measurement of the fear of death: an examination of some existing scales," Journal of Clinical Psychology, 1972, 28 (4), 545-547.

"Relationship between individual attitudes toward life and death," Journal of Consulting and Clinical Psychology, 1972, 38 (3), 463.

"Relationship between various measures of death concern and fear of death," Journal of Consulting and Clinical Psychology, 1973, 41 (1), 162.

Eliot, Thomas D., " - of the shadow of death," Annals of the American Academy of Political and Social Science, 1943, 229, 87-99.

Faunce, William A., and Fulton, Robert L., "The sociology of death: a neglected area of research," Social Forces, 1958, 36, 205-209.

Feifel, Herman, "Attitudes of mentally ill patients toward death," Journal of Nervous and Mental Diseases, 1955, 122, 375-380.

"Attitudes toward death in some normal and mentally ill populations," in Feifel, Herman, ed., The Meaning of Death, New York, McGraw-Hill, 1959, 114-130.

"Older persons look at death," Geriatrics, 1956, 127-130.

"Religious convication and fear of death among the healthy and the terminally ill," Journal for the Scientific Study of Religion, 1974, 13, 353-360.

Feifel, Herman (ed.), The Meaning of Death, New York, McGraw-Hill, 1959.

Feifel, Herman, and Branscomb, Allan B., "Who's afraid of death?", Journal of Abnormal Psychology, 1973, 81 (3), 282-288.

Feifel, Herman; Frelich, Jeffrey; and Hermann, Lawrence J.,"Death fear in dying heart and cancer patients," Journal of Psychosomatic Research, 1973, 17, 161-166.

Feifel, Herman; Hanson, Susan; Jones, Robert; and Edwards, Lauri, "Physicians consider death," Proceedings, 75th Annual Convention of American Psychological Association, 1967, 201-202.

Feldman, Marvin J., and Hersen, Michel, "Attitudes toward death in nightmare subjects," Journal of Abnormal Psychology, 1967, 72 (5), 421-425.

Ford, Robert E.; Alexander, Michelle; and Lester, David," Fear of death of those in a high stress occupation," Psychological Reports, 29, 502.

Golburgh, Stephen L.; Rotman, Charles B.; Snibble, John R.; and Ondrack, Jack W., "Attitudes of college students toward personal death," Adolescence, 1967, 2 (6), 212-229.

Golding, Stephen L.; Atwood, George E.; and Goodman, Richard A., "Anxiety and two cognitive forms of resistance to the idea of death," Psychological Reports, 1966, 18, 359-364.

Golub, Sharon, and Reznikoff, Marvin, "Attitudes toward death: a comparison of nursing students and graduate nurses," Nursing Research, 1971, 20 (6), 503-508.

Greer, S., "Parental loss and attempted suicide, a further report," British Journal of Psychiatry, 1966, 112, 465-470.

Haley, Harold B.; Juan, Isabel R.; and Gagan, Jean F., "Factor-analytic approach to attitude scale construction," Journal of Medical Education, 1968, 43 (3), 331-336.

Handal, Paul J., "The relationship between subjective life expectancy, death anxiety, and general anxiety," Journal of Clinical Psychology, 1969, 25 (1), 39-42.

Handal, Paul J., and Rychlak, Joseph F., "Curvilinearity between dream content and death anxiety, and the relationship of death anxiety to repression-sensitization," Journal of Abnormal Psychology, 1971, 77 (1), 11-16.

Hogan, Robert A., "Adolescent attitudes toward death," Adolescence, 1970, 5 (17), 55-66.

Hooper, Thornton, and Spilka, Barnard, "Future time and death among college students," Omega, 1970, 1, 49-56.

Hopkinson, G., and Reed, G. F., "Bereavement in Childhood and Depressive Psychosis," British Journal of Psychiatry, 1966, 112, 459-463.

Jeffers, Frances C.; Nichold, Claude R.; and Eisdorfer, Carl, "Attitudes of older persons toward death: a preliminary study," Journal of Gerontology, 1961, 16 (1), 53-56.

Kahana, Boaz, and Kahana, Eva, "Attitudes of young men and women toward awareness of death," Omega, 1972, 3, 37-44.

Kalish, Richard A., "Some variables in death attitudes," Journal of Social Psychology, 1963, 59, 137-145.

Kalish, Richard A., and Reynolds, David K., "Widows view death: a brief research note," Omega, 1974, 5 (2), 187-192.

Klein, Melanie, "A contribution to the theory of anxiety and guilt," International Journal of Psychoanalysis, 1948, 29.

Kram, Charles, and Caldwell, John M., "The dying patient," Psychosomatics, 1969, 10 (5), 293-295.

Lester, David, "Antecedents of the fear of the dead," Psychological Reports, 1966, 19, 741-742.

"Attitudes toward death and suicide in a non-disturbed population," Psychological Reports, 1971, 29, 386.

"Attitudes toward death held by staff of a suicide prevention center," Psychological Reports, 1971, 28, 650.

"Attitudes toward death today and thirty-five years ago," Omega, 1971, 2, 168-173.

"Fear of death and nightmare experiences," Psychological Reports, 1969, 25, 437-438.

"Re-examination of Middleton's data: sex differences in death attitudes," Psychological Reports, 1970, 27, 136.

"Relation of fear of death in subjects to fear of death in their parents," Psychological Reports, 1970, 20, 541-543.

"Religious behavior and the fear of death," Omega, 1970, 1, 181-188.

"Sex differences in attitudes toward death: a replication," Psychological Reports, 1971, 28, 754.

"Studies in death attitudes: part two," Psychological Reports, 1972, 30, 440.

"Studies on death-attitude scales," Psychological Reports, 1969, 24, 182.

"The fear of death of those who have nightmares," Journal of Psychology, 1968, 69, 245-247.

Lester, David; Getty, Cathleen; and Kneisl, Carol Ren," Attitudes of nursing students and nursing faculty toward death," Nursing Research, 1974, 23 (1), 50-53.

Lester, David, and Kam, Elizabeth G., "Effect of a friend dying upon attitudes toward death," The Journal of Social Psychology, 1971, 83, 149-150.

Lester, David, and Templer, Donald I., "Resemblance of parent-child death anxiety as a function of age and sex of child," Psychological Reports, 1972, 31, 750.

Lester, Gene, and Lester, David, "The fear of death, the fear of dying, and threshold differences for death words and neutral words," Omega, 1970, 1, 175-179.

Livingston, Peter B., and Zimet, Carl N., "Death anxiety, authoritarianism, and choice of specialty in medical students," Journal of Nervous and Mental Disease, 1965, 140 (3), 222-230.

Lowry, Richard J., Male-female Differences in Attitudes towards Death, Ph.D. Dissertation, Brandeis University, 1965.

Lucas, Richard A., "A comparative study of measures of general anxiety and death anxiety among three medical groups including patient and wife," Omega, 1974, 5 (3), 233-243.

Magni, Klas G., "Reactions to death stimuli among theology students," Journal for the Scientific Study of Religion, 1970, 9 (3), 247-248.

Martin, David, and Wrightsman, Lawrence S., "Religion and fears about death: a critical review of research," Religious Education, 1964, 59 (2), 174-176.

"The relationship between religious behavior and concern about death," Journal of Social Psychology, 1965, 65, 317-323.

Maurer, Adah, "Adolescent attitudes toward death," Journal of Genetic Psychology, 1964, 105, 75-90.

Middleton, Warren C., "Some reactions toward death among college students," Journal of Consulting and Clinical Psychology, 1936, 31, 165-173.

Munro, Alistair, "Parental deprivation in depressive patients," British Journal of Psychiatry, 1966, 112, 443-457.

Nogas, Catherine; Schweitzer, Kathy; and Grumet, Judy, "An investigation of death anxiety, sense of competence, and need for achievement," Omega, 1974, 5 (3), 245-255.

Osarchuk, Michael, and Tatz, Sherman J., "Effect of induced fear of death on belief in afterlife," Journal of Personality and Social Psychology, 1973, 27 (2), 256-260.

Pandey, R. E., and Templer, Donald I., "Use of the death anxiety scale in an inter-racial setting," Omega, 1972, 3 (2), 127-130.

Paris, Joyce, and Goodstein, Leonard D., "Responses to death and sex stimulus materials as a function of repression - sensitization," Psychological Reports, 1966, 19, 1283-1291.

Pearlman, Joel; Stotsky, Bernard A.; and Dominick, Joan R., "Attitudes toward death among nursing home personnel," Journal of Genetic Psychology, 1969, 114, 63-75.

Ray, J. J., and Najman, J., "Death anxiety and death acceptance: a preliminary approach," Omega, 1974, 5 (4), 311-315.

Reynolds, David K., and Kalish, Richard A., "Anticipation of futurity as a function of ethnicity and age," Journal of Gerontology, 1974, 29 (2), 224-231.

"Work roles in death-related occupations," Journal of Vocational Behavior, 1974, 4, 223-235.

Rhudick, Paul J., and Dibner, Andrew S., "Age, personality, and health correlates of death concerns in normal aged individuals," Journal of Gerontology, 1961, 16 (1), 44-49.

Roberts, Jean L.; Kimsey, Larry R.; Logan, Daniel L.; and Shaw, Gordon, "How aged in nursing homes view dying and death," Geriatrics, 1970, 25 (4), 115-119.

Roll, Samuel; Hinton, Richard; and Glazer, Michael, "Dreams of death: Mexican-Americans vs. Anglo-Americans," Revista Interamericana de Psicologia, 1974, 8 (1-2), 111-115.

Schneidman, Edwin S., "On the deromanticization of death," American Journal of Psychotherapy, 1971, 25 (1), 4-17.

Selvey, Carole L., "Concerns about death in relation to sex, dependency, guilt about hostility, and feelings of powerlessness," Omega, 4 (3), 209-219.

Shilder, Paul, "The attitude of murderers towards death," Journal of Abnormal and Social Psychology, 1936, 31, 348-363.

Shrut, Samuel D., "Attitudes toward old age and death," Mental Hygiene, 42, 1958, 259-266.

Snyder, M.; Gertler, R.; and Ferneau, E., "Changes in nursing students' attitudes toward death and dying: a measurement of curriculum integration effectiveness," International Journal of Social Psychiatry, 1973, 19 (3-4), 294-298.

Swenson, Wendell M., A Study of Death Attitudes in the Gerontic Population and Their Relationship to Certain Measurable Physical and Social Characteristics, Ph.D. Dissertation, University of Minnesota, 1958.

"Attitudes toward death in an aged population," Journal of Gerontology, 1961, 16 (1), 49-52.

Templer, Donald I., "Death anxiety as related to depression and health of older persons," Journal of Gerontology, 1971, 26 (4), 521-523.

"Death anxiety in religiously very involved persons," Psychological Reports, 1972, 31, 361-362.

The Construction and Validation of a Death Anxiety Scale, Ph.D. Dissertation, University of Kentucky, 1967.

"The construction and and validation of a death anxiety scale," Journal of Genetic Psychology, 1970, 82, 165-177.

"The relationship between verbalized and nonverbalized death anxiety," Journal of Genetic Psychology, 1971, 119, 211-214.

Templer, Donald I., and Dotson, Elsie, "Religious correlates and death anxiety," Psychological Reports, 1970, 26, 895-897.

Templer, Donald I., and Lester, David, "An MMPI scale for assessing death anxiety," Psychological Reports, 1974, 34, 238.

Templer, Donald I., and Ruff, Carol F., "Death anxiety: age, sex, and parental resemblance in diverse populations," Developmental Psychology, 1971, 4 (1), 108.

"Death Anxiety Scale means, standard deviations and embedding," Psychological Reports, 1971, 29 (1), 173.

Tolor, Alexander, and Murphy, Vincent M., "Some psychological correlates of subjective life expectancy," Journal of Clinical Psychology, 1967, 23, 21-26.

Tolor, Alexander, and Reznikoff, Marvin, "Relation between insight, repression-sensitization, internal-external control, and death anxiety," Journal of Nervous and Mental Disease, 1965, 140, 222-230.

Toynbee, Arnold; Mant, A. Keith; Smart, Ninian; Hinton, John; Yudkin, Simon; Rhode, Eric; Heywood, Rosalind; and Price, H. H., Man's Concern with Death, London, Hodder and Stroughton, 1968.

Vernon, Glenn M., "The religious 'Nones': a neglected category," Journal for the Scientific Study of Religion, 1968, 7, 219-229.

Weisman, Avery D., "Coping with untimely death," Psychiatry, 1973, 36 (4), 366-378.

Williams, Robert L., and Cole, Spurgeon, "Religiosity, generalized anxiety, and apprehension concerning death," Journal of Social Psychology, 1968, 75, 111-117.

Wolff, Kurt, "Personality type and reaction toward aging and death," Geriatrics, 1966, 21 (8), 189-192.