

BRN 24837

AN INVESTIGATION OF THE RELATIONSHIPS BETWEEN
CERTAIN DEMOGRAPHIC AND PERSONALITY VARIABLES
AND DEATH ANXIETY IN INDIAN YOUTH

by

MANORUNJUNIE MAHABEER

*Submitted in part fulfilment of the
requirements for the degree of*

MASTER OF ARTS

in the Department of Psychology

in the Faculty of Arts

at the University of Durban-Westville.

SUPERVISORS: Dr K. BHANA

Mr B.A. BALKISSON

DATE SUBMITTED : January, 1980.

ACKNOWLEDGEMENTS

It is with sincere gratitude and appreciation that I first name Dr. K Bhana and Mr. B A Balkisson of the University of Durban-Westville for their guidance, invaluable criticism and suggestions in this research.

Further, I am greatly indebted to:

Professor C. Ramfol, Head of the Department of Psychology for his interest and inspiration;

Prof. G.C. Oosthuizen, Head of the Department of Science of Religion, Prof. S.S. Nadvi, Head of the Department of Islamic Studies and Prof. P.M. Krishna, Head of the Department of Oriental Studies for their assistance and guidance concerning the aspect of the religious viewpoints of life and death of Christianity, Hinduism and Islam;

Mr. R.D. Ramkissoo, member of staff of the University of Durban-Westville, for his enthusiastic and generous assistance in the analysis of the research data;

The Department of Indian Affairs (Division of Indian Education) for allowing me the access to schools under its control for testing of the high school samples;

The principals of the Isipingo High Schools, Meadowlands High School, Orient-Islamic High School and Reservoir Hills High School for their prompt and enthusiastic assistance in organising subjects from the different classes;

The many individuals who willingly agreed to be subjects;

Miss P. Naidu for her assistance in typing this research;

The University of Durban-Westville for the use of its printing facilities;

Finally I wish to thank my loving husband, Basanth and children, Yesolata, Apsara and Sathyen, without whose inspiration and countless sacrifices, my undertaking of this task would not have been possible.

M. MAHABEER

1980

C O N T E N T S

	Page
 <u>CHAPTER ONE</u>	
1. <u>INTRODUCTION</u>	1
1.1 NEED FOR THE STUDY	1
1.1.1 Relevance of the Study to the Helping Professions	4
1.1.2 Relevance of the Study to Education	7
1.2 STATEMENT OF THE PROBLEM	8
1.3 AIMS OF THE RESEARCH	11
1.4 HYPOTHESES	12
1.5 DEFINITION OF TERMS	13
1.5.1 Anxiety	13
1.5.2 Fear of Death and Death Anxiety	14
1.5.3 Religion	15
1.5.4 Religiosity	16
 <u>CHAPTER TWO</u>	
2. <u>RELIGIOUS VIEWPOINTS OF LIFE AND DEATH</u>	17
2.1 THE CHRISTIAN VIEWPOINT OF LIFE AND DEATH	17
2.2 THE HINDU VIEWPOINT OF LIFE AND DEATH	23
2.3 THE ISLAMIC VIEWPOINT OF LIFE AND DEATH	30
2.4 CONCLUSION	34
 <u>CHAPTER THREE</u>	
3. REVIEW OF LITERATURE	36
3.1 RELIGION AND DEATH ANXIETY	38
3.2 RELIGIOSITY AND DEATH ANXIETY	43
3.2.1 Studies Reporting a Relationship Between Death Anxiety and Religiosity	45

	Page
3.2.2 Studies Reporting No Relationship Between Death Anxiety and Religiosity	53
3.3 SEX AND DEATH ANXIETY	56
3.3.1 Studies Reporting Sex Differences in Death Anxiety	56
3.3.2 Studies Reporting No Sex Differences in Death Anxiety	61
3.4 AGE AND DEATH ANXIETY	64
3.5 GENERAL ANXIETY AND DEATH ANXIETY	68
3.6 CONCLUSION OF THE REVIEW	71

CHAPTER FOUR

4. <u>THE INVESTIGATION</u>	72
4.1 INTRODUCTION	72
4.2 THE SUBJECTS	73
4.2.1 High School Sample	74
4.2.2 University Sample	75
4.3 THE INSTRUMENTS USED	75
4.3.1 The Death Anxiety Scale (DAS)	76
4.3.1.1 Description	76
4.3.1.2 Rationale and Selection of Items in the Construction of the DAS	77
4.3.1.3 Item Analysis	77
4.3.1.4 Reliability	78
4.3.1.5 Response Sets	78
4.3.1.6 Validity	79
4.3.1.7 Use of the DAS in an Inter-racial Setting	81
4.3.2 The Ipat Anxiety Scale Questionnaire	82
4.3.2.1 Description	82
4.3.2.2 Reliability	82
4.3.2.3 Validity	83
4.3.3 The Religious Orientation Scale of the Omnibus Personality Inventory	84

	Page
4.3.3.1 Description	84
4.3.3.2 Reliability	85
4.3.3.3 Validity	86
4.3.4 The Semantic Differential	88
4.3.4.1 Description	88
4.3.4.2 Reliability	88
4.3.4.3 Validity	89
4.4 PROCEDURE	92

CHAPTER FIVE

5. <u>RESULTS OF THE INVESTIGATION</u>	94
5.1 THE EFFECT OF SEX, AGE AND RELIGION ON DEATH ANXIETY ...	94
5.2 THE EFFECT OF SEX, AGE AND RELIGION ON RELIGIOSITY	97
5.2.1 The Effect of Sex, Age and Religion on Religiosity as Measured by the Religious Orientation Scale of the OPI	97
5.2.2 The Effect of Sex, Age and Religion on Religiosity as Measured by the Semantic Differential	100
5.3 THE EFFECT OF SEX, AGE AND RELIGION ON GENERAL ANXIETY .	102
5.4 THE EFFECT OF SEX, AGE AND RELIGION ON THE SEMANTIC DIFFERENTIAL CONCEPT, "MY DEATH"	104
5.5 A SUMMARY OF THE RESULTS OF THE ANALYSES OF VARIANCE ...	106
5.6 AN EXAMINATION OF THE INTERRELATIONSHIPS BETWEEN DEATH ANXIETY, RELIGIOSITY, GENERAL ANXIETY AND THE CONCEPT, "MY DEATH" USING THE PEARSON PRODUCT-MOMENT CORRELATION COEFFECIENT	107
5.6.1 The Relationship Between Death Anxiety and General Anxiety	109
5.6.2 The Relationship Between Death Anxiety and Religiosity as Measured by the Religious Orientation Scale of the OPI and the Semantic Differential	109

	Page
5.6.3 The Relationship Between Death Anxiety and the Concept, "My Death"	110
5.6.4 The Relationship Between General Anxiety and Religiosity	110
5.6.5 The Relationship Between General Anxiety and the Concept, "My Death"	111
5.6.6 The Relationship Between the Religious Orientation Scale and Religious Concepts on the Semantic Differential	112
5.6.7 The Relationship Between Religiosity and the Concept, "My Death"	112
5.6.8 Summary of the Results of the Intercorrelations Between Death Anxiety and the Concept, "My Death"	114

CHAPTER SIX

6. DISCUSSION OF RESULTS

6.1 DEATH ANXIETY	115
6.1.1 Death Anxiety and Religion	115
6.1.2 Death Anxiety and Sex	121
6.1.3 Death Anxiety and Age	122
6.2 RELIGIOSITY	123
6.2.1 Religiosity and Religion	123
6.2.2 Religiosity and Sex	125
6.3 GENERAL ANXIETY	127
6.3.1 General Anxiety and Sex	127
6.3.2 General Anxiety and Age	128
6.4 THE SEMANTIC DIFFERENTIAL CONCEPT, "MY DEATH"	129
6.4.1 The Concept "My Death" and Religion	129
6.5 SUMMARY OF THE DISCUSSION OF THE RESULTS BASED ON THE ANALYSES OF VARIANCE	131

	Page
6.6 THE INTERRELATIONSHIPS BETWEEN DEATH ANXIETY, RELIGIOSITY, GENERAL ANXIETY AND THE CONCEPT, "MY DEATH"	132
6.6.1 The Relationship Between the Religious Orientation Scale Scores of the OPI and Rating Scores of Religious Concepts on the Semantic Differential Scale	132
6.6.2 The Relationship Between Death Anxiety and General Anxiety	133
6.6.3 The Relationship Between Death Anxiety and Religiosity	134
6.6.4 The Relationship Between Death Anxiety and the Concept, "My Death"	135
6.6.5 The Relationship Between General Anxiety and Religiosity as Measured by the Religious Orientation Scale of the OPI and the Semantic Differential	136
6.6.6 The Relationship Between General Anxiety and the Semantic Differential Concept, "My Death"	137
6.6.7 The Relationship Between Religiosity and the Semantic Differential Concept, "My Death"	138
6.6.8 Summary of the Discussion of the Intercorrelations Among Death Anxiety, Religiosity, General Anxiety and the Concept, "My Death"	139
6.7 IMPLICATIONS OF THE STUDY	139
6.7.1 Theoretical Implications	139
6.7.2 Practical Implications	142
6.8 LIMITATIONS OF THE STUDY	144
6.9 FURTHER RESEARCH POSSIBILITIES	145
6.10 CONCLUSION	147

	Page
<u>CHAPTER SEVEN</u>	
7. <u>SUMMARY</u>	148
<u>APPENDICES</u>	151
<u>REFERENCES</u>	179

LIST OF TABLES

<u>TABLE</u>	<u>DESCRIPTION</u>	<u>Page</u>
I	Distribution of Subjects According to Religion, Sex and Age	74
II	Results of the 2X2X3 (Sex X Age X Religion) Analysis of Variance Examining the Influence of these Factors on Death Anxiety Scores as Measured by the Death Anxiety Scale	95
IIa	Total Death Anxiety Scores of Male and Female Subjects	96
IIb	Total Death Scores of Christian, Hindu and Muslim Subjects	96
III	Results of the 2X2X3 (Sex X Age X Religion) Analysis of Variance Examining the Influence of these Factors on Religiosity as measured by the Religious Orientation Scale of the OPI	98
IIIa	Total Religiosity Scale Scores of Christian, Hindu and Muslim Subjects	99
IIIb	Total Religiosity Scale Scores of Christian, Hindu and Muslim Male and Female Subjects	99
IV	Results of the 2X2X3 (Sex X Age X Religion) Analysis of Variance Examining the Influence of these Factors on Death Anxiety Scores as Measured by the Semantic Differential Scale	101
IVa	Total Scores on Rating of Religious Concepts of Christian, Hindu and Muslim Subjects	102
V	Results of the 2X2X3 (Sex X Age X Religion) Analysis of Variance Examining the Influence of these Factors on General Anxiety Scores as Measured by the Ipat Anxiety Scale Questionnaire	103
Va	Total General Anxiety Scores of Males and Females	104
Vb	Total General Anxiety Scores of University and High School Subjects	104

<u>TABLE</u>	<u>D E S C R I P T I O N</u>	<u>Page</u>
VI	Results of the 2X2X3 (Sex X Age X Religion) Analysis of Variance Examining the Influence of these Factors on the concept, "My Death" as measured by the Semantic Differential Scale	105
VIa	Total Scores on Rating of the Concept, "My Death" of Christian, Hindu and Muslim Subjects	106
VII	Results of the Intercorrelations Between Death Anxiety, Religiosity, General Anxiety and the Concept, "My Death" as Calculated by the Pearson Product-Moment Coefficient of Correlation	108
VIII	The Raw Data for the 2X2X3 (Sex X Age X Religion) Analysis of Variance Examining the Influence of these factors on Death Anxiety Scores	168
IX	The Raw Data for the 2X2X3 (Sex X Age X Religion) Analysis of Variance Examining the Influence of these factors on General Anxiety	169
X	The Raw Data for the 2X2X3 (Sex X Age X Religion) Analysis of Variance Examining the Influence of these Factors on Religiosity as Measured by the Religious Orientation Scale of the OPI	170
XI	The Raw data for the 2X2X3 (Sex X Age X Religion) Analysis of Variance Examining the Influence of these Factors on Religiosity as Measured by the Semantic Differential Scale	171
XII	The Raw Data for the 2X2X3 (Sex X Age X Religion) Analysis of Variance Examining the Influence of these Factors on the Concept, "My Death"	172

<u>TABLE</u>	<u>DESCRIPTION</u>	<u>Page</u>
XIII	Summary Table to Examine the Effect of Sex X Age X Religion (AXBXC) on Death Anxiety	174
XIIIa	AB Summary Table	174
XIIIb	AC Summary Table	175
XIIIc	BC Summary Table	175
XIV	Results of the 2X2X3 (Sex X Age X Religion) Analysis of Variance Examining the Influence of these Factors on Death Anxiety Scores as Measured by the Death Anxiety Scale	177

A P P E N D I C E S

		Page
APPENDIX A	INSTRUCTIONS	151
APPENDIX B	THE BIOGRAPHICAL INVENTORY	152
APPENDIX C	THE IPAT ANXIETY SCALE QUESTIONNAIRE AND SCORING KEY	153
APPENDIX D	TEMPLER'S DEATH ANXIETY SCALE AND SCORING KEY	158
APPENDIX E	THE RELIGIOUS ORIENTATION SCALE OF THE OMNIBUS PERSONALITY INVENTORY AND SCORING KEY	160
APPENDIX F	THE SEMANTIC DIFFERENTIAL SCALE AND SCORING KEY	163
APPENDIX G	THE RAW DATA FOR THE 2X3X3 (SEX X AGE X RELIGION) ANALYSES OF VARIANCE EXAMINING THE INFLUENCE OF THESE FACTORS ON DEATH ANXIETY, GENERAL ANXIETY, RELIGIOSITY AND THE CONCEPT, "MY DEATH" OF 360 SUBJECTS ..	168
APPENDIX H	STATISTICAL ANALYSES	174

CHAPTER ONE

1. INTRODUCTION

This is a report on a study conducted to investigate the effect of certain demographic (sex, age and religion) and personality (general anxiety and religiosity) variables on death anxiety in a sample of Indian South African adolescents.

1.1 Need for the Study

Kastenbaum and Aisenberg, comment with regard to death anxiety that "no topic in psychology has been more neglected through the years - yet one might contend that psychology originated in thoughts about death" (1972, p. 1). This is so because preliterate man approximated a definition of mental life in relation to death, when the soul or spirit was believed to have departed from the body. The anticipation of losing one's most treasured possession, one's psyche or soul, must most definitely be cause for concern. Thus death concern has generated not only the discipline of philosophy, but also its offspring, psychology. As such, research on death concern and more specifically on death anxiety is of crucial importance to psychology.

The inevitability of death must exert a profound influence on all human beings. This is supported by Caprio (1943) and Zilboorg (1943) who regard death concern to be a universal reaction from which no one is quite free. Feifel (1959) also supports this by stating

that the awareness of death is active at all age levels. It is not merely confined to the sick, aged, suicidal or combat soldier.

The universal concern about death, according to Caprio (1946), is also evident in historical and ethnological information which reveals that reflection concerning death extends back to the earliest known civilizations and exists among practically all peoples.

This is also apparent in psychological and philosophical works. Friedman (1961) states that Freud (1922) postulated the presence of an unconscious death wish which he connects with certain tendencies to self-destruction.

The existentialist philosophers emphasize the importance of death anxiety. Stolorow (1973) reports that Heidegger (1927) stresses that time has meaning for us only because we know we have to die. Further, he states that death anxiety for the existentialists, is not a secondary derivative, but on the contrary, it is the basic core of every fear. The phenomena of life can be interpreted as efforts to defend against the experience of death anxiety.

From the foregoing discussion, it is evident that issues surrounding death are vital aspects of psychological functioning. As such, further research on the topic can only give greater insight into human behaviour.

In spite of the importance of this topic, it was previously regarded as a taboo topic. As a result, there has been a paucity of literature and research information in this area. But during the seventies, there has been a sudden and increased focus on the question of death in psychological functioning. Death has become a subject for research, study and general interest. Shneidman (1971) reported that research questionnaires on death sent out by the magazine "Psychology Today" (August, 1970), fetched more than 30,000 replies. This broke the previous record set by their sex questionnaire which received more than 20,000 replies.

The impetus for this upsurge of interest in death and its relationship to human behaviour could be due to the advance in modern technology.

The improved knowledge in medical technology (e.g. artificial respiration and organ transplants) has resulted in an increase in the average time which elapses between the onset of a fatal illness and death. The patient is now aware of his ill-health and impending death for a longer period, than was the case previously. This, according to Feifel et al., (1973), has increased the interest in the role of death and its accompanying emotions. This is not merely the concern of the terminal patient himself, but also his close relatives who share his feelings and also face the possibility of bereavement.

With the invention of the bomb there is the prospect of mass death. Besides adding a further threat to life, it has led to questioning anew the meaning of life in the face of the potential destruction of the whole human race. Kastenbaum and Aisenberg (1972) report that this new form of death awareness is being increasingly revealed by clients to their psychologists and psychiatrists in working out their clients' problems. Therefore, at present, there appears to be increasing realization that death is an integral part of human existence.

Consequently, the present research was undertaken to examine some of the factors related to death and human behaviour. Specifically, a study was designed to determine factors related to individual differences in intensity and manifestation of death anxiety and its relationship to religious affiliation, sex, age and general anxiety.

Such a study is relevant to various important aspects of the helping professions, a discussion of which follows.

1.1.1 Relevance of the Study to the Helping Professions

Research concerned with death and its associated emotions would lead to clearer understanding of modes of adaptation in coping with pain, crisis, stress and bereavement. The counsellor may be better enabled to help his patient to cope with situations that may arise as suggested in the following instances :

(a) Sleep Disturbances

According to Friedman (1961), sleep disturbances and anxiety over falling asleep are often found in patients with death

anxiety. This is so because anxiety about death and sleep are both related to fear of punishment such as castration, loss of love or separation.

Also, Caprio (1950) suggests that an underlying fear of death is responsible for children's nightmares.

(b) Drug Abuse

Bowers et al. (1975), report that research in drug abuse indicates that it may be related to death anxiety. Individuals who are anxious about dying may be experimenting with drugs in order to test and experience "death" or going into another world and out of the boundaries of consciousness.

(c) Suicidal Behaviour

According to Bowers et al. (1975), some suicidal behaviour may be rooted in death anxiety. Since the occurrence of death cannot be controlled with regard to time, place and manner, suicide may be used as an irrational device to control death by those who are especially anxious about the unpredictability of death.

Adam et al. (1973) have found that bereavement at a young age is positively correlated with suicidal tendencies. Therefore, it is important for the counsellor to be able to reduce fear and anxiety and to increase inner security which would prevent suicidal tendencies.

(d) Terminal Patients

Regan (1965) states that medical and mental health professionals are now realising that little is known about the psychological dimensions involved in the terminal patient. There is a lack of information about how one should minister to the needs of one who cannot adequately cope with the psychic pain of his impending death.

Schoenberg et al. (1970) have demonstrated that a dying patient can be willing to share with a neutral listener his deepest feelings of loneliness and isolation, associated with death anxiety. This is because there is a strenuous effort to bring order and meaning into his life.

Thus the counsellor's role with the terminal patient is not merely that of bringing peace, but also meaning and order to the events being experienced.

Zuehlke and Watkins (1975) found that terminally ill patients who receive psychotherapy reported significantly greater decrease in death anxiety. This offers considerable support for the usefulness of such therapy.

(e) Medical Professionals

In modern and western cultures, most people die in surroundings isolated from the general community, that is, in hospitals and other medical institutions. This places medical and para-medical

professionals in a crucial position to minister to the special emotional needs of the dying. Le Shan (1975) found that nurses avoided patients closer to death than those further away. By avoiding such patients, they unconsciously expressed their own aversion to death which could have interfered with the care of their patients.

Clinical literature has suggested therefore the need for caregivers such as doctors, nurses and counsellors to cope with their own feelings about death in order to deal effectively and comfortably with a patient facing impending death (Abrams and Vispo, 1971; Hinton, 1971; Barton et al. 1972 and Shady, 1976).

Although the present study may be unable to solve all of these problems posed in counselling, among other disciplines, it may reveal certain facts that could serve as vital cues for further investigation in this field.

1.1.2 Relevance of the Study to Education

According to Bowers et al (1975), death anxiety may be apparent in the taboo against healthy discussion of its meaning for individuals. To counteract this, Feifel (1959) calls for closer psychological familiarity with death, since a repressive outlook encourages neurotic anxieties about death.

A suitable starting point towards this goal could be the educational setting. Hardt (1975) reports that recently in America, there has been an impetus to include death education as part of the health education curricula. Leviton and Forman (1974) support this by emphasizing that the need for formal and informal education enabling people of all ages to cope with death is becoming increasingly evident. Helping people come to terms with their eventual death, helping them cope with the death of their loved ones and the prevention of suicide are legitimate health education concerns.

The present research, being very preliminary, may reveal certain aspects of death that could instigate further investigation into the need for death education, and the suitable curricula for such education.

1.2 Statement of the Problem

Previous research has attempted to determine the factors related to individual differences in intensity and manifestation of feelings toward death. Some of the variables investigated in relation to this by various researchers have been religion, religiosity, sex, age and general anxiety.

However, these studies have been limited mainly to western populations, with Christian backgrounds. Such studies need to be done with non-western populations with different cultural backgrounds, for example, an Indian sample in South Africa. Indians in South Africa are unique.

Although they have very strong cultural and traditional ties of their own, they function within a western technological system.

In addition to the cultural difference between western groups and Indian South Africans, there is also a religious difference. In dealing with death anxiety, it may be important to find out how people belonging to other religions, as well as to Christianity, feel about death.

There are no studies, to date, that compare death anxiety scores of Christian, Hindu and Muslim groups. Since Hilda Kuper (1960) is of the opinion that religion plays a vital role in the lives of Indians, it is important to investigate whether differences in death anxiety exist among Christians, Hindus and Muslims. This may be so because although all three groups hold the view that death is not the end and that there is still a continuation of the soul, each has a different belief concerning the actual details of what exactly happens in the afterlife.

Also of importance would be to investigate how the death anxiety scores of the Indian Christian group would compare with that of western Christian groups. Therefore, it might be fruitful to investigate whether there are differences in the death anxiety scores of Christian, Hindu and Muslim Indian South Africans.

Religion or religious denomination, per se, may be inadequate to

account for possible differences in death anxiety scores. Individuals may have varying degrees of commitment to the religions to which they belong. Depending upon the amount of comfort and confidence one has in one's faith, one's death anxiety may be affected accordingly. This necessitates an investigation into the relationship between religiosity and death anxiety.

The effect of sex on death anxiety amongst Indian South Africans also needs to be explored. The roles of the Indian male and female, according to Hilda Kuper (1960), are seen as clearly differentiated. The female appears to be subservient to the dominant male, implying protection of the female by the male in threatening or uncertain situations such as death. It would be worthwhile to investigate how death anxiety is affected by such expectations of the male and female roles.

There are also no studies which compare death anxiety scores of younger and older adolescents. Previous research in this field, studying age as a variable, has been mainly restricted to comparison of adult groups.

Age is a crucial variable of death anxiety especially in adolescence, as Lester (1967) pointed out that age will affect attitude only until mental development is complete. Thereafter, personality factors and life experiences become the more important determinants of death anxiety. Therefore, age as a variable of death anxiety is more important in adolescence, rather than at the

adult level when death anxiety becomes more stabilized.

Studies on death anxiety have posed the question about the relationship between general anxiety and death anxiety. But a study aimed at distinguishing death anxiety from general anxiety, if this is possible, needs to be done because of the paucity of research on this aspect.

Death anxiety, according to the existentialists, is the basic source of all fears (Stekel, 1949). As such, a strong relationship could be expected between death anxiety and general anxiety. However, it has been found that these two variables are moderately correlated (Templer, 1970), but not equivalent. Therefore, it appears that death anxiety cannot be explained solely in terms of general anxiety.

Such a study needs to be repeated cross-culturally. Different religions, with differential degrees of permissiveness and security may instil varying intensities of anxiety in its followers. This could be related to death anxiety.

1.3 Aims of the Research

The aims of the study are:

- (a) to investigate the effect of religion, sex and age on death anxiety, religiosity, general anxiety and the semantic differential concept, "My Death";

- (b) to examine the interrelationships between death anxiety, religiosity, general anxiety and the semantic differential concept, "My Death".

1.4 Hypotheses

The following hypotheses were tested:-

- (a) There are significant differences in the death anxiety scores of
 - (i) Christians, Hindus and Muslims;
 - (ii) males and females;
 - (iii) younger and older adolescents.
- (b) There are significant differences in the religiosity scores of
 - (i) Christians, Hindus and Muslims;
 - (ii) males and females;
 - (iii) younger and older adolescents.
- (c) There are significant differences in the general anxiety scores of
 - (i) Christians, Hindus and Muslims;
 - (ii) males and females;
 - (iii) younger and older adolescents.

- (d) There are significant differences in the semantic differential rating scores on the concept, "My Death"
- (i) amongst Christians, Hindus and Muslims;
 - (ii) between males and females;
 - (iii) between younger and older adolescents.
- (e) There are significant interrelationships between death anxiety, religiosity, general anxiety and the semantic differential concept, "My Death".

1.5 Definition of Terms

1.5.1 Anxiety

The variety of definitions of "anxiety" in the literature reflects confusion concerning its nature. According to Hilgard et al. (1975), Freud differentiated between:

- (a) objective anxiety which is realistic response to perceived danger in the environment as synonymous with fear; and
- (b) neurotic anxiety which stems from an unconscious conflict within the individual who is unaware of the reason for his anxiety.

Also, for the neo-Freudians, in the case of fear, the danger is transparent, objective one, whereas in the case of anxiety it is hidden and subjective (Horney, 1962).



While behaviour psychologists do not generally distinguish between fear and anxiety and use both terms almost interchangeably (Kurzweil, 1968), Hilgard et al., state that "many psychologists find a distinction between fear and anxiety meaningful" (1975 p. 441).

Since there is only a vague differentiation of the two emotions, both on the basis of physiological responses and the expression of an individual's feelings, the terms "anxiety" and "fear" will be used interchangeably for the purpose of this study.

The term will be used in reference to anxiety, both overt and covert, as measured by the Ipat Anxiety Scale (Cattell, 1963).

1.5.2 Fear of Death and Death Anxiety

The terms "fear of death" and "death anxiety" will be used interchangeably (for reasons already mentioned under 1.5.1). They will encompass:

- (a) the apprehension of the event of dying, that is, prolonged suffering, illness and loss of control;
- (b) extinction, that is, ceasing to be; and afterlife, that is, that which transpires after death.

In this study the terms will be conceptualized as the negative evaluation of the reality of death as measured by the Death Anxiety Scale (Templer, 1970).

1.5.3 Religion

The term "religion" embraces such a wide variety of data that definitions of the term are generally unsatisfactory, and it is perhaps impossible to formulate a completely adequate single definition (Webb, 1916; Spinks, 1963; Thomas, 1970 and Van Buren, 1972).

The word religion itself is a transliteration of the Latin word "religio" which means to bind or to fasten up. It implies that religion pulls mankind together.

The word also carries with it a suggestion of scrupulousness and anxiety to fulfil an obligation. Furthermore, according to Oates (1973), it refers to the objects of worship, reversion and sacred feelings.

The term "religion" also implies beliefs, customs, traditions and rites of certain groups e.g. Christians, Hindus and Muslims. It also encompasses individual apprehension of some Supreme Object, Power or Principle which is regarded as the director of man's destiny.

In this study "religion" is measured by what the subject regards himself to be, for example Christian, Hindu or Muslim.

1.5.4 Religiosity

"Religiosity" refers to the degree to which a person is committed to his religious beliefs and practices.

In this study it would refer to:-

- (a) the degree of commitment to one's religion as measured by the Religious Orientation Scale of the Omnibus Personality Inventory (Heist and Yonge, 1968), and
- (b) the responses to certain concepts involving religiosity on the semantic differential scale.

CHAPTER TWO

2. RELIGIOUS VIEWPOINTS OF LIFE AND DEATH

Goldburgh et al., state that history makes it clear that since "man has been able to speculate, think and wonder, the idea of his own personal death, has been of concern, facination and dread" (1967, p 211). Man, being unable to account for this universal concern, has initially turned to religion for comfort and guidance in life as a preparation for death. Therefore, religion has a profound influence on individual attitude towards death.

The different religions, undoubtedly, have their own interpretations regarding death. The member of a particular religion is influenced by his religious teachings and customs. Although one must concede that some of the religious beliefs regarding death may overlap, there are also varying details and attitudes which may be significant in determining death anxiety.

For the purpose of this study, the philosophic conceptions concerning life and death of Christianity, Hinduism and Islam will be discussed.

2.1 The Christian Viewpoint of Life and Death

The Bible is honest and realistic about death. It does not glorify death and states that "The last enemy is death" (1 Cor. 15:26). Death is seen as an awful calamity because it is a

time when the soul is torn away from the body, leaving the body incomplete. Death breaks all associations and affections of life on earth. Consequently, it is understandable if one has strange and uneasy feelings about death.

This is the view presented in both the Old and the New Testaments. Often the saints in the Old Testament protested to God against death. It has been described as an evil and foreign invasion into God's creation. Even Christ felt disgusted at the grave of His friend, Lazarus.

However, in the crucifixion of Christ, this situation was remedied as all mankind was redeemed. Death was no longer to be regarded by Christians as a terrible and dreadful situation. The triumphant message of the Christian faith was stated by Apostle Paul when he wrote, "O, Death, where is your victory? O, Death, where is your sting?" (1 Cor. 15:55).

Accordingly, the fundamental factor in the Christian view of life and death is the relationship between God and man. Monnich states that "death is where man refuses to obey the Lord, life is where man is obedient" (1971, p 105). Christ is regarded by the Christians as the obedient and righteous servant of the Lord. When He accepted man, He overthrew the sovereignty of death by opening up the path to eternal life for which St. Paul used the word "immortality" (1 Cor. 15:55).

Therefore death is not the end.

Although life is eternal for Christians, the Christian gospel does not advocate that its followers minimize the inevitable fact of death, nor to be surprised if one finds oneself being afraid of death. But it certainly encourages Christians not to be morbid about death. However, one cannot face and appreciate the opportunities of life unless one has a healthy and realistic view of death.

In the Gospels, the physical nature of death is prevalent, as there is no development of the concept of spiritual death. This approach does not minimize the importance of death, rather, it leads to a realistic conception and appreciation of physical death. This is especially apparent in the attitude of Christ to the death of others which suggests the serious and grave nature of death. Even as Jesus faced his own death on the Cross, his attitude was in keeping with the realism of the other references to death. He manifested fear of experiencing death, particularly in a brutal form. This arose out of His sensitive awareness of the full meaning of human life and the horrors of death. Jesus experienced physical death for every man in a more horrible and painful form than ordinary people face. His attitude to it and the eventual triumph over it are of the utmost importance to Christians.

The essential truth according to Christians is that death is the penalty for sin. It is not just the natural end of life. Man had been created in the image of God, being free from dissolution and mortality. Man's physical death was the result of his spiritual death when the soul was alienated from God. This was caused by Adam when he disobeyed God by eating of the Tree of Knowledge of good and evil. The penalty was announced as : "In the day that thou eatest thereof thou shall surely die" (Gen. 2:17).

The Bible makes it clear that since death is a penal evil, it is not merely a result of natural law, since death is the payment for sin. Had there been no sin, there would have been no death. According to Boettner (1956), the whole Christian world believes that in the Fall, Adam who represented the entire human race, brought the evil of death not only upon himself, but upon all his posterity. Death is something foreign and hostile to human life and being an expression of God's anger and condemnation man approached it with dread and fear.

However, with the experience of resurrection through Christ, the death of the body is not the end of life - "For as in Adam all die, so in Christ shall all be made alive" (1 Cor 15:22).

Jesus suggested that the idea of his own death be regarded as a baptism that his disciples should share. Those who are baptized into Christ become victorious over death. However, their natural death must

still take place, because in this age the full glory is not yet revealed. Victory can only be achieved by faith. Christians can look upon death as merely a sleep from which there will be an awakening. Conversely, those who sin are even dead on earth as they have no "life". Death as a rule, therefore, does not mean physical death, but the consequence of sin and alienation from God.

The real terror of death does not consist in eternal destruction. Instead of alienating the dreadful prospect of death, the belief in an afterlife intensifies its terror. What man fears is not that death is annihilation, but that it is not. The horror of death is not extinction, but the wrath in the hereafter.

A further problem arises concerning the suffering and death of believers. If their sins have been atoned for, why is it still necessary for them to die? Even the best people do suffer and die with their suffering sometimes being far in excess of those experienced by notoriously wicked individuals.

The answer is that the suffering and death of believers is not a penalty, but rather a purgation designed for moral and spiritual advancements of those who experience them.

The death of believers also serves as a warning to all those still in this life that the time of their death is also approaching. The

death of the wicked, however, is a consequence of, and a punishment for sin. It brings to an end their false sense of security.

They cannot escape from sudden destruction when they have to venture alone into the mysterious future. The death of the believer and that of the non-believer, though outwardly appearing to be the same, from the divine viewpoint, there is a great difference.

For the Christian there are two aspects of death that must always be kept in balance. On the one hand, death has been so transformed by the atonement of Christ that its sting has been removed and it comes now as the last earthly discipline, preparing man for that which lies ahead. Through the atonement provided by Christ, the believer gains more than he lost in the fall of Adam, in the closer relationship between God and man. This makes man's life fuller and richer than that of Adam before the fall.

On the other hand, death should not be regarded as a blessing in itself. Except, as it is over-ruled for good in Christ, it is a cruel enemy bringing grief and misery. It is a violent and unnatural separating of the soul and body. It is something that should never have entered the world, except that it became necessary as punishment for sin.

According to Monnich (1971), those who are able to live under God's law and have absolute faith and belief in His omnipotence, are the ones who will achieve salvation and freedom. The believer looks upon his life as a path leading to heaven. Human life is

viewed as a struggle for purity and as such it is regarded as a process of evolution. If man disobeys God and does not lead a good Christian life, then he will be doomed to eternal damnation in hell which is conceived of as fire. God will determine on the Day of Judgment when the souls and bodies are re-united, who will go to heaven and who will go to hell. Therefore, what happens after death could be associated with or perhaps be the source of death anxiety. Those who believe they have lived in accordance with God's rules, may be less death anxious than those who believe that they have disobeyed God.

2.2 The Hindu Viewpoint of Life and Death

The following is an interpretation of Hinduism by Dandekar (1971):-

Unlike most religions, Hinduism does not centralize the concept of God. It does not have a system of theology, making dogmatic theories about the nature of God. It does not regard any particular person as its only prophet or founder, nor does it advocate any particular book as being its basic, authoritative scripture.

Being such a free religion which is fairly informal about its practices, Hinduism does not convey any definite or single idea. No dogma or practice is recognized as universal or essential to Hinduism. Thus all Hindus may not necessarily have common faith or worship, with the different sections regarding different aspects as being essential. Another characteristic feature of Hinduism

is that worship is personal and not congregational.

Therefore, a Hindu does not regard religion as an externally imposed duty or problem that he must deliberately ponder over. For him, life is an integrated whole with all its aspects and activities, including religion, being harmoniously interwoven. The word, "dharma", which is a synonym for religion, has a far wider connotation. It encompasses the entire way of life, being life itself.

A core idea of Hinduism is that the real man (atman) or essential self is not the same as the man (jiva) who experiences and "lives" in this physical world. The essential self transcends the physical, mental and intellectual aspects of human personality, and is not subjected to the limitations, mutations and experiences of the body and mind, namely, hunger, thirst, desire, sin, old age, death and grief. Thus, the true character of the essential self is one of pure existence (sat), self-consciousness (cit) and bliss (ananda). The essential self is embodied in a physical and subtle body.

At death, only man's physical body is believed to perish dissolving into the five elements (earth, water, light, wind and ether) out of which it is produced. The subtle body, plays an important role in transmigrating the self to another physical body. Since at death, only the physical body perishes, the journey of the self continues through one body to another.

Therefore "death" is not the terminus; it is merely a junction for the self to change the body and maybe the route of its journey. The subtle body is not only the medium of transporting the self to another physical body, but also determines the type of the physical body for the next lap of its journey. The subtle body thus imprints moral consequences of past deeds. Direct moral consequences determine the kind of physical body to be taken and other environmental factors relating to rebirth. Indirect moral consequences are responsible for certain innate tendencies which prompt the individual to act in a particular way in his new life.

The idea of rebirth is common to several religions of the world. But the distinctive difference in Hinduism is that it has attempted to rationalize the idea on the basis of highly ethical principles. Four main principles are involved in the Hindu theory of rebirth or transmigration (samsara).

- (a) The essential self is permanent. Without this assumption, any reference to rebirth would become meaningless.
- (b) The operation of ignorance (avidya) is the source of delusion and breeds selfishness. According to Radhakrishnan "it becomes a knot in the heart which has to be untied before one can get possession of the self" (1953, p 88).

- (c) Liberation is only possible when the soul overcomes time, space and causality, characteristic of the phenomenal world. It then fuses into the absolute, being freed from further possibility of rebirth, thus attaining Moksa. Moksa represents the answer to the eternal question : "Whither man?" Therefore, transmigration is not an idle or unmotivated journey.
- (d) The doctrine of Karma is the cause of man's rebirth while avidya is the cause of his birth. The operation of this law is one of the most distinctive features of Hinduism and has vitally influenced most of the important Hindu beliefs and practices. Belief in the doctrine of Karma may be the solution offered by Hindus to account for the suffering and inequalities of this world. Morally good acts are believed to produce good results and morally bad acts to produce bad results. However, it is not possible for all of the individuals acts to bear fruits within a single short lifespan.

Since according to the Law of Karma, every action has to be accounted for, it becomes necessary for an individual to live another life. Therefore, one may assume the existence of a series of lives, ending only when all the deeds of an individual have been justified. This is the theory of transmigration which forms an essential corollary to the Law of Karma. The moral consequences of one's preceding life take effect in the present life, for example, determining the kind of body, family, caste, society and position

and also the kind of acts towards which one feels inclined. Nothing occurs as a result of blind chance and extraneous factors such as fate or destiny are excluded. The causes of an individual's nature and life can be ultimately traced back to the individual himself who is the architect of his own life. Thus, man is allowed his own initiative as a free agent of his own future life.

Since morally good deeds may continue to keep the individual in a more and more ethically elevated state, it may seem that Karma and Moksa are essentially antithetical. However, the Bhagavadgita bridges the gap by stating that if man acts in obedience to the Law of Karma, and at the same time controls himself towards passionless detachment regarding the outcome or results of his actions, he will leave the road open for his progress towards Moksa.

God is conceived of as a creator, and a moral governor of man and the universe. He is also the dispenser of the Law of Karma. A Hindu tries to achieve a personal relationship with God by surrendering his whole being. The ideal of a Hindu devotee is "bhakti" which implies dedication to all one's actions - physical, mental and spiritual - to God.

Therefore, Hinduism does not believe in the possibility of complete annihilation of the human personality at death, since this would oppose the law of causality. It does not also believe in eternal happiness in heaven or permanent damnation in hell, since life either in heaven or hell would be as unreal or transitory as life

on earth. Hinduism emphasizes that Moksa is the birthright and the true destiny of the human soul.

Belief in survival after death is perhaps the oldest and most universal of religious beliefs. But belief in the transmigration of the soul from one body to another is especially Indian. It has been found only occasionally in European thought, and was taken from India to China and Japan by the Buddhist missionaries.

Being indestructible, the soul does not die when the body dies, since it is not born with the birth of the body. Post-existence (life after death) is certain because there is pre-existence (life before birth). The soul being eternal, does not come from anywhere nor does it become anyone. Thus the wise one knows that since he is not born, he does not die.

In Hindu religious texts, men were urged to fix their dying thoughts on the Lord, for whatever state a man bore in mind during death, he would grow into that state hereafter. Similarly, the Buddhists held that Buddha and other holy ones should gather around the dying so that he would depart in tranquility to be reborn into the Buddha's Pure Land. The remarkable tenacity with which Hindus and Buddhists hold to the teaching of transmigration, illustrates the fundamental human need to believe in life after death.

Having such a religious philosophy about death, Hilda Kuper (1960), states that the majority of South African Hindus do not consider death

as a frightening or terrible experience. The relatives of the deceased may show outward grief for their own loss, but not for the deceased. Because Hindus believe in the transmigration and ultimate liberation of the soul, life and death are regarded differently from those who believe "in one life, one death, one heaven and one hell" (Hilda Kuper, 1960, p 173).

Hindus generally believe that the departed soul or "self" does not take on a new physical body immediately. Having remained near the home for a period of ten to sixteen days, it journeys to Jama Loka, the land of the dead, until it is reincarnated depending upon the deeds on earth. In very conservative homes, the closest relatives are interested in the future of the spirit in his next life. Flour, ash or sand may be spread in the corner of the room of death. The next morning the elders would interpret the marks, and this is kept confidential. Although the dead are believed to be reincarnated, offerings are continually made at a set period each year.

Hilda Kuper (1960) states that most South African Hindu worship is based more on rituals than on philosophy. This is because many of them are not very enlightened about their religious philosophy. They justify their practices by rationalizing them to be the customs of their fore-fathers. However, at present, there are rapidly growing numbers who dismiss traditional rituals, as they are becoming more aware, enlightened and critical. Since Hinduism is such a free and informal religion, this may be common not only to South African Hindus, but to other Hindus as well.

2.3 The Islamic Viewpoint of Life and Death

Belief in a future life after death, is common to most religions of the world, but in Islam, a great deal of emphasis is given to this aspect. In fact, it is the third fundamental article of a Muslim's faith (the other two being, belief in God and belief in the Divine revelation by Prophet Muhammad).

According to Ahmad (1975), "Islam" is an Arabic word, denoting submission, surrender and obedience. As a religion, it represents complete submission and obedience to God. Its other literal meaning is "peace" which implies the achievement of physical and mental peace through obedience to God, whom Islam calls Allah.

The basic Islamic concept is that the universe was harmoniously created by Allah with the purpose of aiding man to achieve the object of his creation, that is, to become a manifestation of Allah's attributes. This could be done, according to Khan (1962), by man becoming Allah's image but within the bounds of his human limitations.

Allah created man and allowed for each human being a fixed period of life to be spent on earth. He prescribed a code of life as being correct to man, but has also conferred freedom of choice as to whether or not he adopts this code as the actual guide of his life. One who chooses to follow the code of God becomes a Muslim (believer), while the one who refuses to do so, becomes a Kafir (non-believer).

As long as man continues to be obedient to God, His bounties to man will be multiplied, but if he abuses them, he will be liable to account for them, and these bounties may become the instruments of his ruin and destruction. Therefore, the normal path of salvation for the Muslim is to follow the commands of God, integrated in the law of human conduct, known as Shariah.

The main problem for the Muslim is the compatibility of Allah's will and human freedom. The Qur'an allows for freedom of will, otherwise there would be no meaning in a man having to account for his deeds.

Life after death is a subject on which sure knowledge can be gained through the sayings of Prophet Muhammad. He has directed Muslims into believing in resurrection after death and in the Day of Judgment which is necessary for justice.

The life of this world and all that is in it will come to an end on an appointed day. Everything will be annihilated on the Last Day when all human beings who lived in the world since its creation will be restored to life and presented before God in court. Then the entire record of every person, with all their good doings and misdoings, will be presented before God for final judgment. Thus, according to the Qur'an (6:160):

"Whosoever will come with a good deed, for him there shall be the like of it tenfold, while whosoever will come with an ill deed,

he shall be requited with only one like it and they shall not be treated unjustly."

Those who emerge successful in this judgment will go to Paradise with its open doors to eternal bliss, while those condemned and who deserve punishment will be sent to Hell, the abode of fire and torture.

The Qur^{an} also stresses that life after death is only a continuation of the present life. Man's life on earth lacks total fulfilment as too often it comes to an abrupt end. If nothing is to follow, the strict adherence to the right path in this life would be meaningless without accountability and responsibility. But more important is that belief in the hereafter consummates the greatest desire of the human soul in the realization that this life is only a superficial or twilight experience of the real one to follow.

Islam insists on belief in life after death, being concomitant with belief in the existence of God. Maududi (1975) states that the denial of life after death negates all other beliefs. Thus there would be no faith at all.

Muslims believe that it is idle contention that when a man dies and his body disintegrates, his whole existence also ends. Man's very existence is proof that there is the possibility of continuation. When man's existence is viewed as being brought

about by an All-Powerful Creator, the conclusion is inevitable that man was created for a purpose and the fulfilment of that purpose demands a continuation of life.

Depending upon the type of life led on earth, each soul develops qualities and defects which render it either capable of appreciation or to react painfully to the conditions after death. The life on earth thus prepares the soul for a much more intensified state of good or evil in the hereafter. Therefore one who purifies his soul will prosper, while one who corrupts it will be ruined, being even more astray in the future life.

Paradise and hell exist coexistensively like day and night. They represent reward and punishment. The righteous will be led to Paradise which is a place to enjoy the blessings of one's previous good deeds. They will be placed in the Garden of Eternity with streams of water, wine, honey and milk and enjoy abundance of every pleasure. But more important is that it is the starting point of the development of the facilities of man. Those in Paradise shall continually exert themselves to reach higher stages. This increasing desire for perfection shows clearly that progress in paradise shall be endless as one unceasingly desires to attain higher and higher places.

Hell is for those who disobey God. Those who persevere in their evil and do not repent before death are exposed to

extreme torments and torture through all seven senses. The greatest torment will be that God will not speak to nor look at them.

The Qur'an teaches that while rewards in paradise can be everlasting, the torment and pain of sinners may come to an end, having achieved their curative purpose. However, this redemption is entirely left to the grace of the Sovereign God. A time could come, therefore, when hell would be empty and the cool breezes of God's mercy will blow through it.

Thus there will be continuous progress for all. Those under sentence will undergo a curative process designed to cure the soul of the defects accumulated on earth and bring it to a state of purity and health. Because the attributes of God are without limit, man's seeking to become the perfect manifestation of God's attributes will be endless.

2.4 Conclusion

From the foregoing discussion it is evident that all three religions, Christianity, Hinduism and Islam postulate that death is not the end, since there is still a hereafter.

However, they differ in the details of exactly what happens in the hereafter.

According to Hinduism an individual remains in the cycle of births and deaths until his good deeds outweigh his bad deeds, when his soul will be liberated.

The Christians and Muslims believe in a Day of Judgment when God will make a decision based on an individual's way of life, about those destined for heaven and those for hell. But the difference between these two religions is that in Islam, punishment after death is immediate and purgatory until the Day of Judgment. Physical punishment after death is spelled out in detail for those who have failed to live strictly according to Islamic principles.

For the Christians, however, physical punishment after death is not so immediate as in the case of Muslims. Christians believe that after death they would have to wait until the Day of Judgment before their deeds are reckoned. Thus they would not endure physical punishment while awaiting the Day of Judgment, as the Muslims believe.

These subtle differences in beliefs of Christians, Hindus and Muslims may lead to differential death anxiety among them. This aspect will be examined in the present research.

CHAPTER THREE

3. REVIEW OF LITERATURE

Studies referring specifically to death anxiety are rather limited. However, many studies involving fear of death, attitude towards death and death concern have been done. Some studies have used the terms, "death anxiety" and "fear of death" interchangeably (Templer, 1970; 1971; 1972; and Feifel and Branscomb, 1973). These studies have investigated feelings associated with death anxiety which is treated in global terms.

In other studies using the Collett - Lester Fear of Death Scale (1969), the variables measured are specific features associated with death, for example, fear of death of self and of others, fear of dying of self and of others. In a study by Jeffers et al., (1961), the specific death fear studied was fear of consequences of one's death.

In studies investigating attitude towards death, both negative and positive dispositions have been studied because as argued by Nogas et al. there actually are "a wide variety of attitudes towards death ranging from extreme degrees of fear to complete acceptance and a welcoming of one's own death without fear or anxiety" (1974, p. 245).

Attitude towards death have been measured by various methods:

questionnaires (Goldburgh et al, 1967 and Pandey, 1975); check lists (Swenson, 1961) and interviews (Alexander and Adlerstein 1958). This multidimensional approach of investigating both positive and negative conceptions about death gives valuable information on this topic.

In studying death anxiety, two levels of awareness of death anxiety have been investigated. The majority of the studies have dealt with the conscious awareness of death anxiety. But in a few studies, for example, Lester (1970b) and Feifel and Branscomb (1973), the unconscious level was also investigated.

A survey of the related literature indicates that the researchers have not clearly defined the terms regarding death in their investigations. Since there seems to be no clearcut differentiation between variables such as death anxiety, fear of death, attitude towards death and death concern, studies pertaining to all these factors have been included in the review.

Most studies have concurrently investigated the relationship between some of the variables of religion, religiosity, age and sex, and death anxiety. But to clarify the effect of each of these variables on death anxiety, each study will be quoted in the review, under the relevant variable being discussed.

3.1 Religion and Death Anxiety

One of the variables studied in relation to death anxiety has been religion. Unfortunately these studies have employed mainly the Christian religion, with its various denominations. The other major non-Christian religions, for example, Hinduism and Islam have usually been excluded.

The majority of the studies dealing with mainly Christian subjects have failed to demonstrate a difference in death anxiety based on religious denominations. This may be due to the fact that the distinctions between the Christian denominations may be too fine to be observable by the methodology and measuring instruments used in the studies.

A closer examination of the studies investigating the relationship between religion and death anxiety follows.

One of the earliest studies was carried out by Christ (1961). He investigated the relationship between religion, religiosity and fear of death in sixty Catholic and Protestant geriatric psychiatric patients over sixty years old. The author does not report the exact numbers in each religious group. He used a word-association test, interviews and questionnaires to obtain information on their death anxiety and on their religiosity. On the basis of information obtained, he divided the group into those with "less fear of death" (N=26) and those with "more fear of death" (N=34). He found no

significant relationship between the variables of religion and religiosity on death anxiety.

Diggory and Rotman (1961) in a study with 563 Catholics, Protestants and Jews (15 - 55 years), investigated the extent to which religion would affect the fear of various consequences of one's own death. A questionnaire with seven "consequences of one's own death" was presented to the subjects.

Two consequences were found to differ significantly in the religious groups. The researchers found that the consequence, "I could no longer have any experiences" is most important to Jews, then to Protestants and finally to Catholics. On the consequence of "fear of the future", the order was reversed, when Catholics evidenced the greatest fear, followed by Protestants and then Jews.

According to Diggory and Rotman (1961), there is the possibility that differences in the two consequences mentioned, reflect differences in the concreteness of religious beliefs about life after death with the life after death being most real to Catholics, then to Protestants and finally to Jews.

Kalish (1963) investigated the relationship between religion and fear of death by means of a questionnaire. The subjects were 93 Protestants, 38 Catholics, 25 Jews and 35 Athiest - Agnostics, between 18 and 65 years. He concluded that there were no differences between religious groups in fear of death.

Lester (1970b) investigated the relationship between :

- (a) religious denomination and
- (b) religiosity

and conscious and unconscious fear of death. The sample consisted of 12 Catholic; 14 Jewish and 83 Protestant female students in an Introductory Psychology course. They were administered a questionnaire about their own religious affiliation and that of both parents. To measure religiosity, the Religiosity Scale of Josey (1950) was given. Each subject was then administered a word-association test to measure unconscious fear of death. To measure conscious fear of death, the Death Scales of Boyar (1964), Lester (1967) and Collett and Lester (1969) were used.

No significant differences were found in the conscious and unconscious fear of death among Catholics, Jews and Protestants. On an intensive examination of the Protestant sample, he found that the effects of the different Protestant denominations, namely, Episcopalians and Presbyterians had no significant association with the fear of death.

A comparison was made of the religious and non-religious Protestant subjects. The fear of death scales produced inconsistent results. On the Lester Scale, the students with low religiosity had a significantly higher fear of death. On the Boyar scale, similar results were found, but the difference did not reach significance.

Regarding unconscious attitude towards death, those with low religiosity scores, showed less unconscious fear of death than those with high religiosity scores. However the difference did not reach significance.

This may be due to the rather crude method used for tapping the unconscious attitude towards death. Perhaps use of the tachistoscope with which the visual presentation for an extremely short time can be accurately recorded, would have been more worthwhile.

The variable of sex, which may be an important variable was not controlled since only females were used in the study. Consequently, this finding cannot be extended to males. Therefore such a study including males and females needs to be done.

Templer and Dotson (1970) studied the effect of religious denomination and religious activity on death anxiety in 213 Protestant and Catholic students. Templer's Death Anxiety Scale (1970) (DAS) was used to measure death anxiety. A religious inventory containing eight religious variables assessed religious beliefs and activities.

They found that Protestants and Catholics had very similar means in their death anxiety scores. Also, there were no significant relationships between DAS scores and the eight variables of religious affiliation, beliefs and activities as measured by the inventory.

The apparent absence of any relationship was explained in terms of religion having quite a limited effect upon the attitude and behaviour of most college students. However, this conclusion cannot be generalized to a non-western sample with different religious beliefs. Therefore, it would be fruitful to research the role of religion on the death anxiety of Indian college students who have vastly different cultural and religious backgrounds.

The preceding group of studies illustrate that the specific association between religion and death anxiety is inconsistent. The different studies report conflicting results. One possible reason for this could be that the samples were too small. Lester (1970b) states that there is the possibility of an association between religious denomination and fear of death. But this association may be so weak that it may only become apparent when very large samples are used. For example, the Jews in Lester's (1970b) study had consistently higher fears of death and dying than Catholics and Protestants, though these differences did not reach significance.

Another reason for the lack of clarity concerning the relationship between religion and death anxiety could be that individuals differ in religiosity. Those belonging to the same religious group may have differing commitments to their religion. Therefore, the present study attempts to disentangle the effects of religious denomination and religiosity. The major religions of Christianity, Hinduism and Islam will be compared with respect to death anxiety.

In addition the religiosity of the adherents to each religious group will be studied in relation to death anxiety.

Researchers, aware of this issue, have examined religiosity in relation to death anxiety. These studies are presented below.

3.2 Religiosity and Death Anxiety

Religiosity refers to the degree to which a person is committed to the beliefs and practices of his religion. There is insufficient empirical evidence for the relationship between religiosity and death anxiety as the results of such investigations are inconsistent.

One of the reasons for this problem, according to Kastenbaum and Aisenberg (1972), is that religiosity very often has been included as an afterthought, rather than as an integral part of the research design.

Lester (1970b) has stated that another factor for the inconsistent results could be attributed to the use of unreliable measures of both religiosity and attitude towards death.

The term "religiosity" has been variously used by researchers. The meaning has usually depended upon the measuring instruments employed. Religiosity has been defined by some researchers (Jeffers et al., 1961) in behavioral terms such as frequency of Bible reading and church attendance.

Other researchers have assessed religiosity by means of inventories and questionnaires such as the Broen's Religious Attitude Inventory (1957) and the MMPI Religiosity Scale. Studies by Chasin (1971) and Shearer (1973) have used the term "religious orthodoxy" as measured by the Browne-Lowe Inventory of Religious Beliefs (1951).

Certain researchers, for example, Kahoe and Dunn (1975), and Shearer (1973) have distinguished between "intrinsic" and "extrinsic" religious orientation as measured by the Allport and Ross Intrinsic and Extrinsic Religious Orientation Scale (1968).

Although these scales overlap with each other on certain aspects, they may also be measuring different aspects of religiosity. Therefore, each could be measuring a different dimension which may also contribute towards the conflicting results in studies relating religiosity to death anxiety.

Another possible reason for the conflicting results in this area could be the distinction that some researchers make between conscious and unconscious levels of awareness of death anxiety. Feifel and Branscomb (1973), for example, make such a distinction in their research. They found discrepancies in the results of conscious and unconscious levels of death anxiety. At the conscious level, the more religious group was less death anxious, but at the unconscious level both groups tended to react more anxiously to death stimuli than to neutral stimuli.

Because of the foregoing difficulties, the specific influence of religiosity on death anxiety is not clear. The literature is contradictory on this point, with some studies showing a relationship between religiosity and death anxiety and others showing no relationship between these variables.

3.2.1 Studies Reporting a Relationship Between Death Anxiety and Religiosity

Many studies report that religiously inclined persons fear death less than those with a secular bent.

Jeffers, Nichols and Eisdorfer (1961) carried out one of the earliest studies concerning the relationship between religiosity and death anxiety. The subjects were 260 subjects, over the age of sixty years. They assessed these variables by means of a two-hour interview, covering questions such as, "Are you afraid to die?" and "Do you believe in a life after death?" Religiosity was measured by questions covering frequency of Bible reading, religious attitude and church attendance.

They found that the factors significantly associated with no fear of death include a tendency to read the Bible more often, more belief in a future life, more frequent church attendance and reference to death with more religious connotations.

Since the age group was restricted to over sixty - year-olds, such a finding cannot be generalized to younger groups who may have differing degrees of religiosity and death anxiety, being further away from death than older people.

Swenson (1961) studied the relationship between religiosity and attitude towards death in 200 sixty-year-olds. They were given a Death Attitude Check List to assess death attitude and the MMPI. Religiosity Scale to measure religiosity. He then divided the subjects, on the basis of the results thus obtained, into 3 groups : those looking forward positively to death, those avoiding any thought of death and those fearing death experience. These groups were then compared for religiosity as measured by the MMPI Religiosity Scale.

He found that persons with strong religious convictions looked forward to death more than those with lower religiosity who either evaded reference to death or feared it.

Martin and Wrightsman (1965) researched the effect of religiosity on fear of death in 58 Protestant adults. They were given the Broen's Attitude Inventory (1957) to measure religiosity. They measured fear of death with the Sarnoff and Corwin's Fear of Death Scale (1959) and a sentence completion test related to death concern. They found that those with higher religiosity scores indicated less fear of death.

Chasin (1971) studied the relationship between religiosity and attitude towards death in a sample of 324 subjects with the median age of 42. He used the term, "religious orthodoxy", for religious intensity. The Browne-Lowe Inventory of Religious Beliefs (1951) was used to divide the subjects into high and low on the dimension of religious orthodoxy. Swenson's Check List (1961) on death attitude was used to categorize death conceptions as : optimistic, pessimistic and evasive.

The results indicated that there is the tendency for religiously orthodox subjects to be more optimistic about death than religiously more liberal subjects.

Templer (1972) investigated the relationship between religiosity and death anxiety in 267 subjects who being in church service, were regarded as very religiously involved. He measured their religiosity by means of a questionnaire involving several variables of religious affiliation, belief and activity. Death anxiety was measured by means of the DAS (Templer, 1970). He found that with religiously involved persons, those who had a higher religiosity score had a lower death anxiety score on the DAS.

The majority of studies investigated death anxiety at a conscious level. Feifel and Branscomb (1973) studied the relationship between religiosity and fear of personal death at the conscious, unconscious and fantasy levels. They used the terms, fear and anxiety interchangeably.

At the conscious level, the subjects were asked the questions, "Are you afraid of your own death?" "Why?" The responses were categorized by two independent raters whose coefficient of agreement was 0,91. The reasons given for the affirmative responses of subjects were categorized into the following: "fear of the unknown", and "fear of leaving life behind". The reasons given for the negative responses were categorized into the following : "it's inevitable", "it's God's will", "I don't think about it".

The fantasy level was assessed to avoid formal intellectualized conceptions about death. The subject was asked, "What ideas or pictures come to your mind when you think about your own death?" The answers were categorized as: positive, ambivalent or negative by two independent raters whose coefficient of agreement was 0,90.

Fantasy notions about personal death were also obtained when the subject rated one's personal death on a seven point scale. The pairs of adjectives used were: dirty-clean, unfair-fair, dark-light, gentle-violent, cruel-kind, solitary-sociable (Osgood et al., 1957).

Below-the-level-of-awareness or the unconscious level was measured by a word-association test of 20 nouns, 10 of which involved death, for example "coffin", "skeleton", etcetera. The neutral words were, for example, "baggage", "architect" etcetera. Both sets were matched for frequency of usage and syllable content (Thorndike and Lorge, 1944). The words were randomly presented.

Another measure used was the Colour-Word Inference Test (Klein, 1948, Stroop, 1935). Here too, 10 death words and 10 neutral words, equally balanced on colour representation, frequency of language usage and syllable-content were utilized.

The test-retest reliabilities of all the above measures discussed ranged from 0,79 - 0,94 after six months with 42 patients and 44 healthy subjects.

Religiosity was measured on a four-point religious self-rating scale with the categories ,1 = nonreligious, ,2 = somewhat non-religious, 3 = somewhat religious and 4 = religious.

The subjects consisted of 371 individuals: 92 seriously physically ill, 90 mentally ill and 181 healthy subjects. The majority were Protestants. The overall mean age was 39.9 years (range 10 - 89 years).

At the conscious level, religiosity was significantly related to fear of personal death. Those reporting no fear of death because "it's God's will", rated themselves as significantly more religiously inclined.

At the fantasy level, the more religious individuals rated their own death as significantly more positive, and as more "clean", "fair", "kind" and "sociable".

But at the unconscious level, results pointed to an overall aversion for death by most subjects, including the more religious subjects.

Therefore, this multilevel criterion to measure death anxiety was used effectively, because discrepancies at the conscious and unconscious levels of death anxiety were made evident. At the fantasy level the more religious subjects rated their own deaths more positively than the less religious ones.

This study tapped the unconscious fear of death in both religious and non-religious groups. Both groups evidenced a fear of death which was not apparent at the conscious level. Those who profess to be more religious would also profess to be less afraid of death which is "God's will", and as such, it is supposed to be something to look forward to, positively.

A shortcoming of this study is that the concept of religiosity was measured unidimensionally and inadequately in that the person rated himself on a four-point scale. A subject, therefore, had an open choice to be as religious as he felt he ought to be or hoped to be in the eyes of others. The person who wanted to give a better impression of himself by rating himself to be more religious may be the person who would also consciously deny being afraid of death (as the results suggest).

To overcome this limitation, the religious self-rating scale could be supplemented with some other objective measure of religiosity including questions on religious participation, behaviour and beliefs.

Shearer (1973) researched the effect of religious beliefs on fear of death in Christian subjects. Religious beliefs were assessed by means of the Browne and Lowe Inventory of Religious Belief (1951), and the Allport and Ross Extrinsic-Intrinsic Religious Orientation Scale (1968). Fear of death was measured by the Boyar's Fear of Death Scale (1964).

He found that Christians who were more orthodox in their religious beliefs as measured by the Brown and Lowe Inventory of Religious Beliefs were less afraid of death than those more liberal. On the Allport and Ross Scale, those who had integrated their beliefs into their lives, that is, "intrinsic" were less afraid of death than those who had not, that is, "extrinsic".

Hardt (1975) attempted to measure the effect of religious intensity on death attitude. Attitude towards death was assessed by means of a self-constructed questionnaire of twenty items concerning thoughts about death. The sample consisted of 692 subjects between the ages of thirteen and twenty six years.

He assumed that those who attend church once or more a week, are more religious than those attending less often. He found that the more religious subjects (that is those attending church more often) had more favourable attitude towards death. He also suggested that another possible reason for more favourable attitude towards death of more frequent church-attenders, may be that topics of death and afterlife are frequently mentioned in sermons. This may help to create more positive attitude towards death in more frequent church-goers. This would imply that it is not religiosity, per se, but an

open discussion of, and familiarity with, the topic that make more frequent church-attenders accept death more favourably.

Kahoe and Dunn (1975) studied the relationship between religiosity and fear of death in 22 Baptists, 20 Catholics and 25 Methodists. A questionnaire, based on that of Martin and Wrightsman (1965), was used to measure religiosity. It consisted of a "concern with religious affairs" self-rating scale and the Allport and Ross Intrinsic and Extrinsic Religious Orientation Scale (1968). This also contained 16 death concern items to measure fear of death.

The data supported the hypothesis that individuals with more intense religious faith and activity have less fear of death. The researchers speculate that fear of death can motivate religious faith and activity, thus implying that if one is more afraid of death one becomes more religious.

However, the problem of whether intense religiosity increases death anxiety or death anxiety makes one more religious is still open to empirical research. The researchers suggest that such investigations with a more reliable measure of death concern and a more refined control of denominational traditions and doctrines need to be done. This would clarify and empirically relate fear of death to religiosity.

3.2.2 Studies Reporting No Relationship between Death Anxiety and Religiosity

Alexander and Adlerstein (1958) carried out an experiment with 50 male Protestant, middle and upper-class adolescent students. He investigated how the concept of death affects such a population, and also the importance of the variable religiosity in the attitude and feelings concerning death.

The subjects were divided into religious and non-religious groups by rigorous selection procedure that included objective test scores, background questionnaire information and interview data. Also as a check on this procedure, a paper- and-pencil scale was used for selecting dominant life values. The religious group constituted individuals with strong religious beliefs. Their participation in religious practice had been their way of life since childhood. In the nonreligious group, the people were not members of any religious groups. They did not have sustained contact with formal religious systems, beliefs and practices, although they were not negatively disposed toward religion. Rather, they were neutral or indifferent.

Indirect measures were used to ascertain attitude towards death. A word-association task measured the change in somatic response (GSR) to death words before and after exposure to death words. The semantic differential technique (Osgood et al., 1957), was employed to extract the "meaning" of a group of death words. To determine their conscious attitude towards death, a questionnaire and an open-ended interview with each subject was conducted. The first part of a manifest

anxiety scale was filled out immediately after the word-association task, and the second part, followed the interview.

It was found that the religious and nonreligious groups exhibited similar patterns in most aspects of behaviour concerning death. Both showed an increased GSR to death words and both assigned the "meaning" of "bad" and "potent" to death words on the semantic differential and were similar in their consciously expressed attitude towards death.

However, in the first half of the test session, the religious subjects had lower manifest anxiety which rose to equalise that of the religious group towards the end of the testing session. Therefore, one could argue that the possibility of a consequent rise in anxiety was a result of sensitising the subjects to death.

The researchers concluded that since death is a threat to the intact ego, it must be handled by all humans, irrespective of their religious convictions (Alexander and Adlerstein, 1958). At the unconscious level, it is a negatively toned concept, but at the conscious level subjects of both groups act as though they are not concerned at all about their own death.

This multi-level and fairly complex study is a refined inquiry into adolescent responses to death. But it has to be pointed out that it is unknown to what extent these results would generalize to other

religious populations and to samples of differing backgrounds and socio-economic levels.

Christ (1961) investigated the religiosity in 60 geriatric psychiatric patients (in a study quoted previously on p 38). He found no significant relationships between these variables as measured by a word-association test, interviews and questionnaires.

Templer and Dotson (1970), in a study quoted previously (on p. 41) found no significant relationship between the DAS (Templer, 1970) scores and religiosity (as measured by a religiosity questionnaire), in 213 students.

Sullivan (1977) investigated the effect of religious orientation on death anxiety on 321 college students (mean age 20 years). The Religious Orientation Scale (Allport and Ross, 1968) was used to assess religious orientation. The DAS (Templer, 1970) and the Collett-Lester Fear of Death Scale (1969) were administered to measure death anxiety.

Analysis of the data indicated that intrinsically religious subjects do not differ in death anxiety from extrinsically religious individuals.

A review of the studies, thus indicates that it remains difficult to arrive at convincing general conclusions regarding the relationship between religiosity and death anxiety, for reasons already mentioned.

3.3 Sex and Death Anxiety

A survey of the literature indicates that sex is an important variable in relation to death anxiety. Females appear to be more anxious about death than males. Some studies have shown sex differences in specific fears of death. However, other studies have indicated that there are no significant sex differences concerning death anxiety.

A possible reason for the conflicting results may be that many of the studies which examine the effect of sex on death anxiety have not used the variable of sex as an integral part of the research design. Thus there are unequal numbers of males and females in these studies. In some studies (Templer et al., 1971; Lester, 1972; Berman and Hayes, 1973), the break down in numbers of males and females is not even clarified. Yet, conclusions are made regarding the effect of the sex variable.

Attempts will be made in the current study to overcome these problems.

A discussion of the studies dealing with the relationship between sex and death anxiety follows.

3.3.1 Studies Reporting Sex Differences In Death Anxiety

The following studies have found that males and females differ on specific areas of death concern, death attitude and fear of death.

Lester (1971) attempted to replicate the study of Middleton (1936), with 175 males and 236 females with the median age of 20 years. As in his previous report, (Lester, 1970), he found that males were significantly more likely to think about death than were females, but had less negative affective reaction to death. However, the extent of the difference was less than in his previous report.

Lester (1972a) studied the relationship between sex and fear of death in 46 university subjects. The researcher did not specify the number of males and females. To measure the fear of death, the subjects were given the Collett - Lester Fear of Death Scale (1967) and were asked to rate the concept of death on the semantic differential scale.

He found that there were significant differences in the specific fears of death among males and females. Females had a greater fear of death of self, death of others and dying of self than did males. But they did not differ from males in fear of dying of others, general fear of death, and semantic differential ratings of the concept of death. This data suggests that the greater fear of death among females may not be general, but are related to specific dimensions of death.

The above studies have confined themselves to specific aspects of death. Other studies deal with death anxiety in global terms.

One of the earliest studies investigating the relationship between sex and attitude towards death was done by Middleton (1936). He studied the death attitude of 488 female and 337 male students, with the age range of 15 to 24 years, by means of a questionnaire on death attitude.

He reported no significant sex differences in attitude towards death.

However, Lester (1967) noted that there appeared to be large sex differences in Middleton's (1936) data, on the various aspects concerning death. Therefore, Lester (1970) re-analyzed this data. He concluded that males tended to think of death and dying significantly more than females but expressed less negativism towards death.

Diggory and Rotman (1961), (in a study quoted on p. 39), investigated the extent to which sex affects the fear of various consequences of one's own death. The subjects were 228 males and 335 females with an age range of 15 to 55 years. A questionnaire with seven "consequences of one's own death" was presented.

They found a significant sex difference in the intensity of anxiety concerning one of the seven different consequences of death. On the consequence of "dissolution of the body", females had a significantly greater fear than males. The researchers interpreted this to be related to the fact that women value themselves more in terms of their physical attractiveness than do men.

The following studies report that females are globally more anxious about or afraid of death than males. Templer (1970, 1971) used the terms, "death anxiety" and "fear of death" interchangeably to refer to negative feelings about death.

Templer, Ruff and Franks (1971) assessed the effect of sex on death anxiety. The subjects were chosen from diverse populations. The following groups made up the sample

- a) There were 283 residents of an upper-middle class with an age range from 19 to 85 years.
- b) 125 low-income individuals ranged in age from 18 to 61 years.
- c) 137 heterogeneous psychiatric patients were used with an age range from 17 to 59 years. This group was included, since Templer (1970) demonstrated that the personality correlates of the DAS are quite different in normal and abnormal populations.
- d) 743 students were used with an age range of 13 to 21 years.

The researcher does not give details of the number of males and females in the sample. The DAS (Templer, 1970) was administered as a measure of death anxiety. For all groups, females exhibited significantly higher death anxiety than males.

Berman and Hayes (1973) attempted to study the relationship of sex to life, death and afterlife in a sample of 300 college subjects. The researchers did not specify the number of males and females used in the sample. They were administered the Belief in Afterlife

Scale (Osarchuk and Tatz, 1973) to assess belief in afterlife. To measure death anxiety they were given the DAS (Templer, 1970) and the Fear of Death Scale (Lester, 1967).

They found that females scored significantly higher than males on the two death scales as well as on the Belief in Afterlife Scale.

Ray and Najman (1974) studied the role of sex on death anxiety in a sample of 83 males and 123 females. The DAS (Templer, 1970) and a death scale (Sarnoff and Corwin, 1959) were administered to assess death anxiety. Another seven-item scale formulated by the researchers was given to measure death acceptance.

They found a significant tendency for females to be more anxious about death than males on the death scales. The sexes did not differ, however, on scores of death acceptance.

Chiapetta, Floyd and McSeveney (1976) investigated the effect of sex on death anxiety. The sample consisted of 97 female and 43 male college students who were administered the DAS (Templer, 1970) to measure death anxiety.

The researchers found that death anxiety scores were significantly higher for females than for males.

The foregoing studies suggest that females tend to manifest higher death anxiety than do males. However, other studies have established that there are no significant sex differences in death anxiety.

3.3.2 Studies Reporting No Sex Differences in Death Anxiety

Some studies have reported that males and females do not differ in attitude towards death. These studies have used questionnaires, interviews and the TAT which measure both positive and negative attitude and concerns about death. The following are examples of such studies.

In one of the earliest studies of this nature, Rhudick and Dibner (1961) studied the effect of sex on death concern. The subjects, 30 females and 28 males were presented with twelve standard cards from the TAT. Two judges assessed the death content in the stories. There was ninety percent agreement in the scoring.

They found no demonstrable relationship between sex and the death content of the stories. They concluded that there were no sex differences in death concerns of males and females

Swenson (1961), in a study quoted previously on page 46 , studied the relationship between sex and attitude towards death. The subjects were 58 males and 152 females, over the age of 60.

He found that there were no sex differences in attitude towards death.

Kalish (1963) in a study quoted on page 39, investigated the relationship between sex and fear of death in a sample of 130 males and 67 females. Fear of death was measured by means of a questionnaire.



He found that there was no relationship between sex and fear of death.

Goldburgh, Rothman, Snibbe and Ondrack (1967) studied the influence of sex on attitude towards death. The subjects were 137 college students, with 56.9 percent males and 43.1 percent females. The age range was 17 to 25 years and the mean age was 19.9 years. They measured death attitude by means of an extensive eight-page questionnaire concerning terminal illness, discussion of personal death, attendance at funerals and associated feelings.

They found that sex did not prove to be a significant factor in attitude towards death; females did not appear to fear death, discuss it or think about it significantly more than did males.

Hardt (1975), in a study quoted on page 51, attempted to investigate the relationship between sex and death attitude. Males represented 50.87 per cent and females represented 49.13 per cent of the total population of 692 subjects between the ages of 13 and 26 years. He assessed attitude towards death by means of a 20-item questionnaire concerning thoughts about death.

The results of this study indicated that sex did not affect one's attitude towards death.

Pandey (1975) investigated the effect of sex on attitude towards death. The subjects were 233 students with 81 males and

152 females. The age range was 16 - 45 years with a mean age of 23.9 years. A test consisting of forty items related to attitude towards death was constructed to measure this variable. It contained questions concerning both positive and negative death attitude, for example, "I fear death", "I laugh about death".

He found that males and females react similarly to death and share the same factors of escape, depressive-fear, mortality and sarcasm.

A review of literature involving the influence of sex on death anxiety indicates that all the studies using the DAS (Templer, 1970), namely, Templer et al., (1971), Berman and Hayes (1973), Ray and Najman (1974) and Chiapetta et al., (1976), show significant sex differences in death anxiety. These studies have shown females to have higher death anxiety than males.

Also, the studies (Lester, 1971 and Lester, 1972) using Lester's (1969) Fear of Death Scale have proved sex to be an important factor in the fear of death. Females evidence a greater fear regarding certain aspects of death (Lester 1971, 1972).

However, studies using questionnaires, TAT, and interviews to assess attitude towards death show no differences between sex and death attitude.

3.4 Age and Death Anxiety

Studies have generally indicated that age is not correlated with death anxiety. Since these results may be due to inappropriate research methodology, it would be worthwhile to examine the effect of age on death anxiety and attitude towards death.

The following are studies, all of which have been quoted previously, investigating the relationship between age and attitude towards death.

Swenson (1961), in a study quoted previously on page 46 , studied the relationship between age and attitude towards death in subjects over 60 years old. The age groupings were: 60 to 69 years (N=66); 70 to 79 years (N=86); 80+ years (N=58).

He found that age did not manifest any significant relationship with attitude towards death on a checklist of death attitude.

Rhudick and Dibner (1961), in a study quoted on page 61 , investigated the relationship between age and death concern in a similar sample.

The age groups were as follows: 60 to 69 years (N=20); 70 to 79 years (N=28); 80 to 68 years (N=10).

They found no demonstrable relationship between these age groups and the death content of the stories of 12 TAT cards. This finding

corroborates that of Swenson (1961), in that there were no significant age differences in death concerns.

Kalish (1963), in a study quoted on page 39, worked with a sample with a wider age range between 18 to 65 years. The median age was 28 years. He did not specify the age-groups that he compared.

He concluded that there were no age differences in fear of death as measured by a questionnaire.

Goldburgh, Rotman, Snibbe and Ondrack (1967), in a study quoted on page 62, investigated the influence of age on attitude towards death. The sample of 137 college students had an age range of 17 to 25 years and a mean age of 19.9 years. The age groups and percentages of the total sample that they compared were as follows:

17 years - 6.6 percent; 18 years - 2.2 percent; 19 years - 41.6 percent; 20 years - 27.7 percent; 21 years - 12.4 percent; 22 years - 5.1 percent; 23 years - 1.5 percent; 24 years - 1.5 percent; 25 years - 2.2 percent.

Based on their findings, they postulated that adolescence and the experience of growing older did not significantly influence attitude towards death as measured by a self-constructed questionnaire to assess attitude towards death.

Lester (1972), in a study quoted on page 57, examined age differences in relation to fear of death. There were 46 subjects with an age range of 17 to 50 years. The mean age was 22.5 years. The subjects were administered the Collett-Lester Fear of Death Scale (1967) and

they rated the concept of death on the semantic differential.

He concluded that age was not correlated with fears of death. However, in this study he did not specify the age groups that he compared.

Templer et al., 1971 in a study quoted on page 59, studied the effect of age on death anxiety. He studied four different age groups with mean ages of: 48.8 years, 38.1 years, 32.2 years and 15.8 years.

On the scores of Death Anxiety Scale (Templer, 1970), he found no significant correlation between age and death anxiety for any of the groups studied.

The evidence indicates that age is not correlated with death anxiety at a conscious level. But at the unconscious level, age may be an important variable in death anxiety, especially as one approaches old age. This could be so because older individuals, being closer to death, may be more defensive about fear of death.

7 This was the finding of Feifel and Branscomb (1973), quoted on page 44. They researched the relationship between age and fear of death among subjects in the following age groupings: 50 to 79 years; 30 to 49 years and 10 to 29 years.

They found that at the conscious level, as measured by direct questions concerning fear of death, the subjects in the 50 - 79 year old category denied fear of death reliably more than the two younger groups.

At the fantasy level, as measured by the semantic differential, age was linked significantly to death anxiety. The older individuals rated their own deaths as more "clean", "fair", "kind" and "social", than the younger subjects.

At the unconscious level, measured by a word-association test, age was found to be significantly associated with death anxiety. But at the unconscious level, the older subjects appeared to be more death anxious than the younger, as opposed to the findings on the previous two levels (conscious and fantasy levels]. Older persons took longer to respond to death words than their younger counterparts, thus expressing more death anxiety, even though they expressed a more favourable perception to death at a conscious level.

All the studies dealing with the effect of age on death anxiety showed no such association with the exception of the one by Feifel and Branscomb (1973). This is because these researchers used a multi-level criterion for assessing death anxiety and an adequate sample of 371, with an age range of 10 to 79 years. These subjects were divided into 3 age groups : youth (10 to 29 years], middle-age (30 to 49 years], old-age (50 to 79 years]. Since these researchers

did find an age difference, at all three levels (conscious, fantasy and unconscious), it suggests that age may be an important variable in death anxiety and as such, should not be overlooked.

Some studies have failed to find an association, mainly because the variable of age, used as an independent variable, was not an integral part of the research design, but merely added as an afterthought. Hence the groups were unequal in number. Some studies (Kalish, 1963; Lester 1972) the age groups compared are not even specified.

In other studies, which did consider age as an important aspect of the investigation, the focus was confined to old age and those approaching death.

It may appear that age difference of a few years does not seem to make any difference in death anxiety as is evident in the studies by Swenson (1961), Rhudick and Dibner (1961), Goldburgh et al., (1967). However, the difference may become apparent when subjects in different developmental stages are compared, for example, youth versus middle-aged versus old-aged.

3.5 General Anxiety and Death Anxiety

In researching death anxiety, it is important to consider the relationship between death anxiety and general anxiety. This would establish the extent to which death anxiety differs from general anxiety

and whether or not they are the one and the same variable.

These variables appear to be related, as Stolorow (1973) states that for the existentialists, death anxiety is the basic fear of humans. All other fears and anxiety stem out of death anxiety.

A few studies have been done which research the relationship between death anxiety and general anxiety.

Handal (1969) investigated the relationship between death anxiety and general anxiety. His subjects were 66 male and 50 female graduate students between the ages of 20 to 64 and with a mean age of 29 years for males and 33.4 years for females. They were administered the Zuckerman Affective Adjective Check List of Anxiety (1960) to measure anxiety and the Livingstone and Zimet Death Anxiety Scale (1965) to measure death anxiety.

He found that for both male and female subjects, there was a significant positive correlation at the .01 level between general anxiety and death anxiety.

Templer (1970), in the construction and validation of the Death Anxiety Scale, investigated the relationship between death anxiety and general anxiety in 77 undergraduates. They were administered the Death Anxiety Scale (Templer, 1970) to measure death anxiety. The MMPI was used to measure general anxiety because it contains three

well-known measures of anxiety: The Manifest Anxiety Scale (Bendig, 1959), the Welsh Anxiety Scale (Welsh, 1956), and the Welsh Anxiety Index (Welsh, 1956).

The coefficients of correlation of the Death Anxiety Scale with the Manifest Anxiety Scale and the Welsh Anxiety Scale were 0,39 and 0,36 respectively ($p < 0,05$). The correlation coefficient between the Death Anxiety Scale and the Welsh Anxiety Index did not reach significance. Thus, death anxiety correlates positively with general anxiety in two out of three scales ($p < 0,05$).

But since the correlation between death anxiety and general anxiety is not as high as the intercorrelations between the scales of general anxiety, it may be concluded that death anxiety and general anxiety are two related, though discriminant variables.

Nogas, Schweitzer and Grumet (1974) investigated the relationship between death anxiety and general anxiety in 80 female undergraduates. They were administered the Collett and Lester (1969) Fear of Death Scale to assess general anxiety.

They found that death anxiety correlated significantly with general anxiety ($p < 0,01$), but the correlation coefficient of 0,41 accounted for only sixteen per cent of the variance in death anxiety. Thus they concluded that general anxiety and death anxiety were correlated, but not equivalent.

The results of the fore-going studies indicate that death anxiety scores cannot be explained solely in terms of general anxiety. Therefore the distinction between death anxiety and general anxiety is that they are correlated, but to a moderate degree which suggests that they can still be differentiated.

3.6 Conclusion of the Review

From the foregoing discussion it is evident that the results of studies dealing with the effect of religion, religiosity, sex, age and general anxiety on death anxiety are inconclusive. Therefore the present study is intended to provide additional information on these variables and the interrelationships between them.

Attempts will be made to overcome some of the problems in the research designs of previous studies. A discussion of the research design and procedure follows.

CHAPTER FOUR

4. THE INVESTIGATION

4.1 Introduction

The review of the literature indicates that the studies investigating the relationship between variables such as religion, religiosity, sex, age and death anxiety have shown inconsistent results. As already suggested in the previous chapter, this could be due to:

- (a) Death anxiety and religiosity have been largely measured by questionnaires constructed by the investigators; for example, Hardt (1975). Few studies have used instruments with proven psychometric properties.
- (b) Many studies have dealt with attitude towards death which encompasses both positive and negative feelings about death.
- (c) Previous studies on death anxiety have been limited mainly to the Christian religion and its various denominations, to the exclusion of the other major religions, for example, Hinduism and Islam.
- (d) The samples used in the majority of the studies have unequal distribution in numbers with regards to religion, sex and age. In some cases the data were analyzed for religion, sex and age effects almost as an afterthought and these variables did not form

an integral part of the research design.

The present study was designed to overcome some of the above problems. The influence of religion , sex and age on

- (i) death anxiety,
- (ii) religiosity and
- (iii) general anxiety

of Christian, Hindu and Muslim Indian subjects was investigated. There were equal numbers of males and females in two age groups, namely, 14 to 15 years and 18 to 20 years. The study was designed to measure the intercorrelations between:

- (i) death anxiety as measured by the Death Anxiety Scale (DAS) constructed by Templer (1970);
- (ii) general anxiety as measured by the Ipat Anxiety Scale Questionnaire and
- (iii) religiosity as measured by the Religious Orientation Scale of the OPI and the semantic differential scale.

Details of the subjects, instruments and procedure follow :

4.2 The Subjects

The total sample comprised 360 subjects with 180 males and 180 females. These subjects were divided into the following groups of 30 subjects each. (See Table I)

TABLE I

Distribution of Subjects According to
Religion, Sex and Age

	Males		Females		TOTAL
	Univ.	School	Univ.	School	
Christian	30	30	30	30	120
Hindu	30	30	30	30	120
Muslim	30	30	30	30	120
TOTAL	90	90	90	90	360

4.2.1 High School Sample

Class groups of pupils in standard eight were administered the questionnaire. The subjects belonged to the following high schools which are located in and around Durban:

Isipingo High, Meadowlands High, Orient-Islamic High and Reservoir Hills High

The age range of this group was 14 to 15 years and the mean age was 14.7 years.

There were 90 males and 90 females, with 60 Christian, 60 Hindu and 60 Muslim subjects. The total number in this group was 180.

4.2.2 University Sample

Students in the Psychology and English classes from the University of Durban-Westville were utilized as subjects. This university is attended by Indian students from all over South Africa, and can therefore be assumed to be representative of Indian university students in South Africa. The age range for this group was 18 to 20 years with a mean age of 18.8 years.

There were 90 males and 90 females, with 60 Christian, 60 Hindu and 60 Muslim subjects. The total number in this group was 180.

4.3 The Instruments Used

The following instruments were administered to the school and university subjects.

- a) A Biographical Inventory (see Appendix B) constructed by the investigator to ascertain relevant demographic information such as age, sex and religion was administered first. It was also used to select the final sample. Details of the specific selection criteria employed are given in the procedure section.
- b) Templer's Death Anxiety Scale (1970), was used to measure death anxiety (see Appendix D).

- c) The Ipat Anxiety Scale Questionnaire (National Bureau of Educational and Social Research, 1968) was used as a measure of general anxiety (see Appendix C)
- d) The Religious Orientation Scale of the Omnibus Personality Inventory (OPI) Form F (Psychological Corporation, 1968) was used to measure religiosity (see Appendix E)
- e) The semantic differential scale was used to supplement the findings of the Religious Orientation Scale of the OPI, as a measure of Religiosity (see Appendix F). It was also used to assess how one perceives one's own death.

A detailed description of the above instruments follows.

4.3.1 The Death Anxiety Scale (DAS)

4.3.1.1 Description

Death anxiety was measured by means of the Death Anxiety Scale (Templer, 1970) which is a fifteen item, true - false instrument. The Boyar's Fear of Death Scale, (1964) (FODS) which has only partial validation is the only other questionnaire with proven reliability to measure death anxiety.

A further advantage that the DAS enjoys over the FODS is that the former reflects a wider range of life experiences, for example, feelings towards talking and thinking about death, serious illness, transiency of time, the act of dying and afterlife. The FODS is limited to questions covering the act of dying, the finality of death, corpses and their burial.

4.3.1.2 Rationale and Selection of Items in the Construction of the DAS

Forty items were devised on a rational basis. Seven judges rated each item on a five-point scale as:

- a) irrelevant to death anxiety;
- b) slightly associated with death anxiety;
- c) moderately associated with death anxiety;
- d) considerably associated with death anxiety; and
- e) very greatly associated with death anxiety.

Nine items with a mean rating of 3.0 were discarded. The remaining 31 items were embedded in 200 filler items of the MMPI.

4.3.1.3 Item Analysis

Internal consistency was determined by utilizing item - total score point biserial correlation coefficients for three independent groups of university students. Fifteen items with point biserial coefficients significant ($p < 0,01$) in two out of three analyses were retained.

Phi-coefficients were computed to determine the relative independence of items. None of the coefficients of correlation between retained items exceeded 0,65. Thus, it can be inferred that there is no excessive inter-item redundancy.

4.3.1.4 Reliability

Thirty-one college subjects repeated the DAS three weeks after the first administration. The product-moment correlation coefficient between these two sets of scores was 0,83, demonstrating acceptable test-retest reliability. Also using the same subjects, a coefficient of 0,76 (Kuder-Richardson Formula 20, 1937) demonstrated the internal consistency of the test.

4.3.1.5 Response Sets

Nine items of the DAS are keyed "true" and six are keyed "false". It was necessary to determine whether or not the DAS is related to agreement response sets. Thirty-seven students were administered the DAS together with a measure of agreeing response tendency of Couch and Keniston (1960). The product-moment correlation of 0,23 (which is not significant at the 0,05 level) shows that the agreement response set accounts for little of the variance of the DAS.

The DAS and the Marlowe-Crowne Social Desirability Scale (1960) which measures the tendency to respond in a socially desirable direction were administered to 46 students. Since the product-moment correlation coefficient between the two scales was not significant, it would appear that the response set of social desirability is not significantly related to the death anxiety variable.

4.3.1.6 Validity

The construct validity of the DAS was established by the following projects involving psychiatric patients and college students:

- a) The DAS scores of 21 high death anxiety psychiatric patients were compared with those of control patients. The names of patients who had verbalized fear of or preoccupation with death were obtained by referrals of hospital chaplains (who had been told of death anxiety in counselling sessions), professional nursing staff and patients' records. The control subjects were matched for diagnosis, sex and age. The high death anxiety subjects had a DAS mean of 11,62, while the control had a mean of 6,77. A "t" score of 5,79 was significant ($p < 0,01$). Therefore, it can be concluded that psychiatric patients spontaneously verbalizing death anxiety have higher death anxiety scores than other psychiatric patients.

- b) The DAS score correlates of college students.

The DAS, Boyar's FODS, a sequential word-association test and the MMPI were administered to 77 under-graduates. Templer (1970) had previously established by means of a pilot study that there is a positive relationship between the number of emotional words (e.g. anxiety, bereavement, grief, hate) and DAS score. Thus he assumed that the more frequent the appearance of affective words in the subject's responses, the higher his death anxiety.

The MMPI was employed because it contains three well known measures of anxiety : The Manifest Anxiety Scale (Bendig, 1956), the Welsh Anxiety Scale (Welsh, 1956) and the Welsh Anxiety Index (Welsh, 1956)

A high correlation coefficient of 0,74 was found between the DAS and FODS which provides mutual evidence for the validity of both scales. The correlation of 0,25 between the DAS and a number of emotional word-associations was significant ($p < 0,05$). This word-association test which seems to tap death anxiety, correlates significantly with DAS scores. This further indicates that DAS does measure death anxiety.

The correlation coefficients of the DAS with the anxiety scales of the MMPI, namely the Manifest Anxiety Scale and the Welsh

Anxiety Scale were 0,39 and 0,36 respectively. These values were significant ($p < 0,05$). Thus, death anxiety correlates positively with general anxiety. However, this correlation is not as high as the intercorrelations between the scales measuring general anxiety. This establishes that the DAS has discriminant validity.

4.3.1.7 Use of the DAS in an Inter-racial Setting

The DAS has been used in an inter-racial setting by Pandey and Templer (1976). They proposed to assess the possible differences between black and white college students on the DAS and also to determine whether the DAS adequately measures death anxiety in black populations. It was concluded that the similarity of black and white DAS means and standard deviations suggests that the DAS does adequately measure death anxiety of blacks and that the death anxiety of blacks and whites is not very different. However, no mention is made in the study about the religious differences of the subjects.

4.3.2 The Ipat Anxiety Scale Questionnaire

4.3.2.1 Description

The Ipat Anxiety Scale Questionnaire was developed from extensive research and practice by Cattell (1963). This scale with adaptations and norms for White South Africans by the National Bureau of Educational and Social Research (Cattell et al., 1968) was used in the current study.

It is an instrument to obtain information on anxiety level in an objective and standardized manner. It is a brief, non-stressful questionnaire, appropriate for ages of 14 or 15 years upward through the adult range. The test consisting of forty questions can be conveniently applied to groups or to individuals. The Ipat Anxiety Scale is primarily designed to measure free-floating, manifest anxiety level which may be determined by the situation or which may be relatively independent of the immediate situation. However, according to the manual of the South African Adaptation of the Ipat (Cattell et al., 1968), the Scale does not to measure other clinical varieties of anxiety, for example, "bound", "characterological" or "unconscious" anxiety.

4.3.2.2 Reliability

According to Cohen (1970), the authors claim reliability coefficients ranging from 0,80 to 0,93. Guilford (1970) states that split-half reliabilities of 0,84 was obtained in a normal population and 0,91 in

a mixed normal and pathological population.

For the South African Adaptation of the IPAT, the test-retest reliability coefficients for 162 boys and 184 girls with an age range of 15 to 18 years was 0,83 to 0,88 after two weeks interval. The split-half coefficients ranged from 0,76 to 0,83, thus establishing the test's internal consistency.

4.3.2.3 Validity

Evidence for the test's validity is impressive, being established by various ways. This scale is based on the foundation of replicated factor - analytic researches. These involved not only questionnaire items, but objective tests and physiological measures of anxiety which established and cross-matched the anxiety variable. From these, construct validity coefficients in the range 0,85 to 0,90 are claimed by its authors.

To establish the construct validity of the South African adaptation, standard seven pupils of two English and two Afrikaans high schools in Pretoria were used as subjects. It was hypothesized that maladjustment as measured by the National Bureau Adjustment Questionnaire of the National Bureau of Educational and Social Research (1967) would show some relationship with anxiety. The correlations, ranging from 0,28 to 0,55 between the Ipat Anxiety Scale and an all ten fields of National Bureau Adjustment Questionnaire reached significance.

The Ipat Anxiety Scale Questionnaire was chosen for the present research, because it is a highly promising brief scale for assessing such a pervasive personality variable as anxiety. Shaffer states that the Ipat "has a sounder conceptual base than other current instruments of its type" (1970, p. 761).

This is supported by Cohen who holds that, "What is notable about this test is that it is a mature fruit of a third of a century of both methodologically and clinically sophisticated large scale factor - analytic research". (1970, p. 1061).

Thus the Scale's impressive systematic research background commends it for use as an overall measure of anxiety since no competing test can better it on this crucial point.

4.3.3 The Religious Orientation Scale of the Omnibus Personality Inventory

4.3.3.1 Description

The Religious Orientation scale of the OPI Form F (Psychological Corporation, 1968), consisting of twenty-six items was used to measure religiosity. The OPI is a multiscale, true-false, self-administering personality questionnaire which was constructed to assess certain attitudes, values and interest in the areas of normal ego-functioning and intellectual activity. It includes fourteen scales, of which Religious Orientation, is one. The others are Thinking Introversion, Theoretical Orientation, Estheticism, Complexity, Autonomy Social Extroversion, Impulse-Expression, Personal Integration,

Anxiety Level, Altruism, Practical Outlook, Masculinity-Femininity and Response Bias.

Heist and Yonge define the Religious Orientation scale as: "High scorers are sceptical of conventional religious beliefs and practices and tend to reject most of them, especially those that are orthodox or fundamentalistic in nature. Persons scoring around the mean are manifesting a moderate view of religious beliefs and practices, low scorers are manifesting a strong commitment to Judaic-Christian beliefs and tend to be conservative in general and frequently rejecting of other viewpoints" (1968, p. 5).

The above description implies that the test measures the conservative-liberal dimension of an individual's religious beliefs and practices. It may be that the individuals with conservative views and those with liberal views on religion could be equally religious. However, for the purpose of this study, those who express scepticism and rejection of conventional religious beliefs and practices will be regarded as having low religiosity. Those manifesting a strong commitment to their religious beliefs and practices will be regarded as having high religiosity.

4.3.3.2 Reliability

The estimation of the reliability of the OPI appears adequate. The internal consistency of the Religious Orientation scale was estimated by the Kuder-Richardson Formula (1937) and the corrected split-half

method. the reliability coefficient was 0,86 for thirty-seven colleges (N=7283) and 0,91 at one college (N=400), thus showing higher reliability on less heterogeneous samples. The test-retest reliability values of the scale, with time intervals between three to four weeks, was 0,92 for women (N=67) at three colleges and 0,91 for men (N=71) at one college.

4.3.3.3 Validity

The validity of the OPI has been established mainly through correlations with other inventories. For the Religious Orientation Scale, the only test correlation of direct relevance is with the Study of Values Religious Scale (Allport et al., 1951). The correlation statistic between these scales was 0,66.

However, McReynolds (1967), regards such inter-inventory correlations to establish validity as being inadequate because the main point it reveals is the extent to which the measures of one test can be translated into the measures of another. Such correlations overlook major problems such as response sets, verbal skills, and test anxiety. Often the items of one test are taken from other similar tests, as in the case of the OPI.

But the authors, having recognized this problem, provide some validity evidence based upon behavioral measures. They found that with respect to acknowledged "frequency of attendance at religious services", those who attend church more often had significantly lower scores as compared to those who never attend church.

The factor that strongly influenced the selection of the Religious Orientation Scale of the OPI in the current research, is that the OPI focuses on an adolescent population of university students. It aims to reveal certain attitudes, interests and values relevant to the academic activity and functioning of late adolescents in an educational environment. However, since the present research has also included younger adolescents in high schools, every endeavour was made by the researcher to ensure that the latter understood all the terms used in the scale. Most of the statements have been originally very simply worded, but certain terms, such as, "compromise", "predicted", "theology", "agnostic", were given more simplified meanings in brackets.

Another reason for the suitability of the scale for this research is that although it focuses on Judaic-Christian religion, the items were worded such, that they could be broadened to include other religions by adding or changing certain terms. For example, "Qur'an" and "Gita" were added with references to the Bible. "Mosque" was added to church and temple, "religious service" was used instead of attending church or temple. This, however, is not such a simple matter with some other measures of religiosity that are confined to Christian practices and beliefs. Thus the scale has been altered slightly to suit the present study, since there is no other available religiosity scale covering Christian, Hindu and Islamic religions. This does not necessarily mean radical semantic changes of any kind to the original scale. For research purposes it could be assumed that the items added for relevance to the other two religions, measure the same variables as the original (See Appendix E).

4.3.4 The Semantic Differential

4.3.4.1 Description

The semantic differential is a method employed to measure the connotative meanings of concepts by means of standardized and quantified procedure. The technique, developed by Osgood, et al., (1957), resembles a game of questions. By asking a variety of questions about a certain concept, the meaning of that concept gradually appears. But instead of asking questions, the semantic differential uses rating scales. An advantage of the semantic differential is that it yields quantitative data which are presumed to be verifiable, in that, other investigators can apply the same sets of scales to equivalent subjects to obtain reliable results.

4.3.4.2 Reliability

The reliability of the semantic differential has been firmly established by a large number of studies.

In the test form from which data for the factor analysis was collected by Osgood and Suci (1955), forty of the one thousand items were selected at random. These were presented again to the same subjects. The reliability coefficient was 0,85.

Further, high test and retest reliability coefficients have also been reported, generally of the order of between 0,83 and 0,90. (Jenkins et al., 1958; Osgood et al., 1957).

Marais (1967) used the semantic differential to measure the attitude of 53 subjects towards the concept, "Psychology". The test-retest reliability coefficient was 0,58 after a three-week period.

Di Vesta (1966) working with children from grades 2 to 7 over a period of time found adequate test-retest reliability with children as young as in the third grade. This fact was further supported by Maltz (1963) and Oles (1973).

4.3.4.3 Validity

The establishment of the validity of the semantic differential has been a difficult matter, because meaning and its quantification are largely subjective. Therefore, studies associated with the question of validity have dealt mainly with face validity.

Reeves (1954) found a high correlation between semantic differential ratings and the clinical stories based on the personal judgment of the subjects in relation to some Thematic Apperception Test pictures.

Maltz (1969) administered the semantic differential to subjects from four age levels. It was shown that the connotative meanings of the concepts, as measured by the semantic differential, change with age in such a way that the change becomes more apparent with greater difference in age. It is also concluded that the meaning of concepts is less consistent in the youngest children. The fact that the results

are those which would logically be expected, makes the semantic differential a useful instrument for measuring the meaning of childrens' concepts.

Marais (1967) points out that investigators using the semantic differential are usually satisfied with its face validity. Alternatively, the high correlation coefficients between the semantic differential and other attitude scales are accepted as being indicative of its validity. A further advantage of this technique is that Osgood (1959) testifies to its validity as a cross-cultural technique when he demonstrates that the visual-verbal synesthetic relationships characteristic of one language and culture-community are shared by peoples with different language and culture. He supposes that there is a world - view that is relatively stable despite differences in both language and culture.

This is particularly beneficial for the current research dealing with subjects of varying cultural and religious backgrounds. The flexibility of the semantic differential and its capacity to accept a diversified number of concept ratings is suited to study religiosity in different religious groups such as Christians, Hindus and Muslims.

For the current study, the semantic differential was used to assess how individuals perceive their religious concepts. It was hoped that these findings would supplement the results of the Religious Orientation Scale of the OPI which had been originally designed to measure Judaic-Christian beliefs. Semantic differential concepts were chosen to include the other two religions, Hinduism and Islam, as well.

The semantic differential was also used to assess how one perceives one's own death.

The following concepts had to be rated on a five-point scale.

My Religion

My Place of Worship

My Religious Book

Prayer

My Death

The scales used represented the three factors isolated by Osgood (1959), namely, evaluative, potency and activity.

The evaluative scales were:

good - bad;
just - unjust;
happy - sad;
necessary - unnecessary;
easy - difficult

The potency scales were:

powerful - powerless;
gentle - violent;
rugged - delicate;

The activity scales were:

active - passive;
cold - warm.

4.4 Procedure

A booklet comprising the above questionnaires was constructed. The order of appearance of the different scales was:

- (a) Biographical Information
- (b) The Ipat Scale
- (c) The Death Anxiety Scale
- (d) The Religious Orientation Scale of the OPI
- (e) The Semantic Differential Scale.

The booklet was administered in a group setting. The instructions that appeared on the booklet (See Appendix A) were read to the class.

Only those subjects who satisfied certain criteria based on the biographical information were selected for the final sample. These criteria are listed below:

- (a) University subjects between the ages of 18 to 20 years and high school pupils between 14 to 15 years were chosen.
- (b) Christians, Hindus and Muslims were chosen, with the exclusion of other groups, such as Agnostics, Buddhists etc.
- (c) Subjects whose parent/parents did not belong to the same religion were excluded. This is because Lester (1970) and Templer (1971) found that parental attitudes have a significant influence on death anxiety. If religion has an effect on death anxiety, the death anxiety of the individual whose religion differs from that

of his parent/parents, may also be influenced accordingly. Those with newly acquired religious faiths (where the subjects differed from the parents) and those facing the conflict of choosing between the differing religions of two parents, may be different in their views from those following the same religion as both parents.

- (d) Since bereavement may be a factor related to death anxiety, subjects who experienced the death of close family members, for example, father, mother, brother(s), sister(s) were excluded.
- (e) Those who had seriously contemplated suicide were also excluded, since this could be a factor related to death anxiety.

The responses of the final sample of 360, thus obtained, was then subjected to statistical analysis, the details of which appear in the next chapter.

CHAPTER FIVE

5. RESULTS OF THE INVESTIGATION

Quantitative data on death anxiety, religiosity and general anxiety of 360 subjects were obtained. The raw data were subsequently statistically analyzed by means of two types of analyses.

- a) A series of 2x2x3 (Age, Sex and Religion) factorial analyses of variance were performed to investigate the effect of religion, sex and age on the dependent variables of:
 - (i) death anxiety,
 - (ii) religiosity,
 - (iii) general anxiety and
 - (iv) the semantic differential concept rating of "My Death".
- b) A number of Pearson product-moment coefficients of correlation were calculated to examine the interrelationships between death anxiety, religiosity, general anxiety and the concept, "My Death". Details of the individual analyses follow.

5.1 The Effect of Sex, Age and Religion on Death Anxiety

Death anxiety was measured by the DAS (Templer, 1970). Each subject's total death anxiety score was calculated by summing his responses to test items indicative of death anxiety (see Appendix D for scoring key). A high score indicated high death anxiety, while a low score indicated low death anxiety.

To investigate the influence of sex, age and religion on death anxiety, the total death anxiety scores of each of the 360 subjects were subjected to a Sex X Age X Religion factorial analysis of variance. Details of the factors follow.

- A (Sex) : Male subjects and female subjects.
- B (Age) : Younger subjects (mean age 14.7 years) and older subjects (mean age 18.8 years)
- C (Religion) : Hindu subjects, Christian subjects and Muslim subjects.

The results of the analysis are presented below.

TABLE II

Results of the 2x2x3 (Sex X Age X Religion) Analysis of Variance
Examining the Influence of these Factors on Death Anxiety Scores
as Measured by the Death Anxiety Scale

Source of Variation	df	ss	mss	F-ratio	P<
Sex	1	204,003	204,003	15,317	,01
Age	1	50,625	50,625	3,801	
Religion	2	275,972	137,986	10,360	,01
Sex X Age	1	9,024	9,024	,678	
Sex X Religion	2	8,738	4,369	,328	
Age X Religion	2	37,717	18,8585	1,416	
Sex X Age X Religion	2	13,214	6,607	,496	
Exp. error for within factors	348	4634,9	13,319		
Total	359	5234,19			

The above table indicates that the main effect of sex was significant ($p < 0,01$). The female subjects obtained significantly higher total death anxiety scores than male subjects (see Table IIa).

TABLE IIa

Total Death Anxiety Scores of Male and Female Subjects

	N	Death Anxiety Scores
Male Subjects	180	1331
Female Subjects	180	1602

As indicated in Table II, the main effect of religion was significant at the ,01 level. A further analysis of the data by means of the Scheffe Test (Roscoe, 1969), revealed that the death anxiety scores of Muslim subjects were significantly higher than that of the Hindu or Christian subjects ($p < 0,01$). There was no significant difference between the death anxiety scores of Hindus and Christians (see Table IIb).

TABLE IIb

Total Death Anxiety Scores of Christian, Hindu and Muslim Subjects

	N	Death Anxiety Scores
Christian Subjects	120	896
Hindu Subjects	120	911
Muslim Subjects	120	1126

5.2 The Effect of Sex, Age and Religion on Religiosity

Religiosity was measured by the Religious Orientation Scale of the OPI and the semantic differential scale.

5.2.1 The Effect of Sex, Age and Religion on Religiosity as Measured by the Religious Orientation Scale of the OPI

This scale consisting of 26 items was used to measure religiosity. The test was scored by a scoring key (see Appendix E). As mentioned in Chapter Four, p. 85 , a high total score was assumed to indicate low religiosity and a low total score to indicate intense religiosity.

To investigate the effect of sex, age and religion on religiosity as measured by the Religious Orientation Scale, the total scores of each of the 360 subjects on this scale were subjected to a 2x2x3 (Sex X Age X Religion) factorial analysis of variance calculation.

The results of this analysis are summarized in the following table.

TABLE III

Results of the 2X2X3 (Sex X Age X Religion) Analysis of Variance
Examining the Influence of these Factors on Religiosity as Measured
by the Religious Orientation Scale of the OPI

Source of Variance	df	ss	mss	F-ratio	p <
Sex	1	42,711	42,711	2,513	,01
Age	1	,178	,178	,010	
Religion	2	1862,67	931,335	54,794	
Sex X Age	1	32,400	32,400	1,906	,01
Sex X Religion	2	184,839	92,4195	5,437	
Age X Religion	2	32,906	16,453	,968	
Sex X Age X Religion	2	34,716	17,358	1,021	
Exp. Error for within factors	348	5914,867	16,997		
Total	359	8105,289			

Table III indicates that the main effect of religion was significant ($p < 0,01$). This suggests that Christian, Hindu and Muslim subjects respond differentially to religiosity (see Table III a).

A further analysis of the data using the Scheffe Test reveals that the Hindu subjects are less religious than Christian or Muslim subjects ($p < 0,01$). There is no significant difference between the religiosity scores of Christian and Muslim subjects.

TABLE IIIaTotal Religiosity Scale Scores of Christian, Hindu and Muslim Subjects

	N	Religiosity Scale Scores
Christian Subjects	120	901
Hindu Subjects	120	1506
Muslim Subjects	120	957

There is a significant religion and sex interaction ($p < 0,01$) (see Table III). This suggests that the male and female subjects of the different religions respond differentially to religiosity. (See Table IIIb).

TABLE IIIb
Total Religiosity Scale Scores of Christian, Hindu and Muslim Male
and Female Subjects

RELIGION	SEX	
	Male	Female
Christian subjects	480	421
Hindu subjects	737	769
Muslim Subjects	403	554
Total	1620	1744

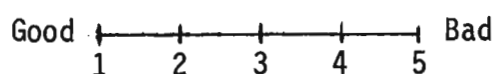
5.2.2 The Effect of Sex, Age and Religion on Religiosity as Measured by the Semantic Differential Scale

The response measure was the subjects ratings of the religious concepts on the semantic differential scale. The following concepts were rated on five-point scales:

- a) My Religion
- b) My Place of Worship
- c) My Religious Book, for example, Qu'ran/Gita/Bible
- d) Prayer

There were ten scales which represented the evaluative, potency and activity factors.

A score for each scale was computed as shown in the following example:



The degree of unfavourableness increased progressively from 1 to 5. A score of 1 represented extreme good and a score of 5 represented extreme bad. The scores of each subject for each scale were added to give a total score. The range of the total score was between 40 to 200. A lower total score indicated higher religiosity and vice versa.

To investigate the influence of sex, age and religion on religiosity as measured by the semantic differential scale, the scores of each of the 360 subjects were subjected to a 2X2X3 (Sex X Age X Religion) factorial analysis of variance calculation.

The results of this analysis are summarized in the following Table IV.

TABLE IV

Results of the 2X2X3 (Sex X Age X Religion) Analysis of Variance Examining the Influence of these Factors on Death Anxiety Scores as Measured by the Semantic Differential Scale

Source of Variation	df	ss	mss	F-ratio	p <
Sex	1	56,011	56,011	,142	
Age	1	309,878	309,878	,784	
Religion	2	14718,350	7359,175	18,619	.01
Sex X Age	1	92,011	92,011	,233	
Sex X Religion	2	485,372	242,686	,614	
Age X Religion	2	1942,605	971,303	2,457	
Sex X Age X Religion	2	204,073	102,037	,254	
Exp. Error for within factors	348	137545,2	395,245		
Total	359	155353,5			

As indicated in Table IV, the main effect of religion is significant ($p < 0,01$). This means that the subjects of the three religions

are scoring significantly differently on religiosity as measured by the semantic differential scale.

A further analysis of the data by means of the Scheffe test revealed that Christian and Muslim subjects rated religious concepts more positively than Hindu subjects ($p < 0,01$) (see Table IVa). There is no significant difference between Christian and Muslim subjects in the rating of the religious concepts. Similar results were obtained on the Religious Orientation Scale of the OPI.

TABLE IVa

Total Scores on Rating of Religious Concepts of Christian, Hindu and Muslim Subjects

	Religiosity Scores
Christian	7141
Hindu	8755
Muslim	7114

5.3 The Effect of Sex, Age and Religion on General Anxiety

General anxiety was measured by the Ipat Anxiety Scale Questionnaire (National Bureau of Educational and Social Research, 1968). The test was scored by means of a scoring key (see Appendix C). A high total score indicated high general anxiety while a low total score indicated low general anxiety.

To investigate the influence of sex, age and religion on general anxiety, the total general anxiety scores of each of the 360 subjects were subjected to a 2X2X3 (Sex X Age X Religion) factorial analysis of variance.

The results of this analysis are summarized in the following Table V.

TABLE V

Results of the 2X2X3 (Sex X Age X Religion) Analysis of Variance
Examining the Influence of these Factors on General Anxiety as
Measured by the Ipat Anxiety Scale Questionnaire

Source of Variation	df	ss	mss	F-ratio	p <
Sex	1	1388,469	1388,469	11,6144	,01
Age	1	1508,803	1508,803	12,6209	,01
Religion	2	140,705	70,3525	0,58849	
Sex X Age	1	42,025	42,025	0,3515	
Sex X Religion	2	194,873	97,4365	0,8150	
Age X Religion	2	244,172	122,086	1,021237	
Sex X Age X Religion	2	443,7	221,85	1,8557	
Exp. error for within factors	348	41602,433	119,5472		
Total	359	45565,18			

An examination of the information on Table V reveals that the main effect of sex was significant ($p < 0,01$). Female subjects obtained significantly higher general anxiety scores than male subjects (see Table Va).

TABLE VaTotal General Anxiety Scores of Males and Females

	N	General Anxiety Scores
Males	180	5730
Females	180	6437

An examination of the data on Table V shows that the main effect of age was significant ($p < 0,01$). Younger adolescents with a mean age of 14.7 years had higher general anxiety scores than the university subjects with a mean age of 18.8 years (see Table Vb).

TABLE VbTotal General Anxiety Scores of University and High School Subjects

	N	General Anxiety Scores
High School Subjects	180	6452
University Subjects	180	5715

5.4 The Effect of Sex, Age and Religion on the Semantic Differential Concept, "My Death"

The concept of one's own death was also rated on a semantic differential

scale in the same way as the religious concepts discussed previously Refer to (.5.2.2, p.100). A total score was calculated for each subject. The lower the score, the more positive one's perception of one's death and vice versa.

To investigate the influence of sex, age and religion on the concept of one's own death as measured by the semantic differential scale, the scores of each of 360 subjects were analysed by a 2X2X3 (Sex X Age X Religion) factorial analysis of variance.

The results of this analysis are summarized in the following Table VI.

TABLE VI
Results of the 2X2X3 (Sex X Age X Religion) Analysis of Variance
Examining the Influence of these Factors on the Concept, "My Death"
as Measured by the Semantic Differential Scale

Source of Variation	df	ss	mss	F-ratio	p <
Sex	1	196,544	196,544	2,973	,01
Age	1	152,1	152,1	2,301	
Religion	2	1054,31	527,155	7,975	
Sex X Age	1	59,212	59,212	0,896	
Sex X Religion	2	47,172	23,586	0,357	
Age X Religion	2	208,716	104,358	1,579	
Sex X Age X Religion	2	75,439	37,72	0,571	
Exp. error for within factors	348	23003,6	66,102		
Total	359	24797,093			

Table VI indicates that the main effect of religion was significant ($p < 0,01$). Subjects of different religious groups perceived their own deaths differently (see Table VIa).

TABLE VIa

Total Scores on Rating of the Concept, "My Death" of Christian, Hindu and Muslim Subjects

	N	Semantic Differential scores on "My Death"
Christian Subjects	120	2888
Hindu Subjects	120	3369
Muslim Subjects	120	3001

An analysis of the data by means of the Scheffe test revealed that Hindu subjects perceive their own deaths significantly more negatively than the Christian subjects and the Muslim subjects ($p < 0,01$).

There was no significant difference between Christian subjects and Muslim subjects in the perception of their own deaths.

5.5 A Summary of the Results of the Analyses of Variance

An examination of the analyses of variance indicates that religion has a significant effect on death anxiety, religiosity and the concept, "My Death". Muslim subjects are more anxious about death than Christian

subjects and Hindu subjects ($p < 0,01$). Hindu subjects perceive religion and their own deaths more negatively and have lower religiosity than Christian and Muslim subjects ($p < 0,01$).

There are significant sex and age differences in death anxiety and general anxiety. Female subjects have higher death anxiety and general anxiety than male subjects ($p < 0,01$). Younger adolescents are more generally anxious than older adolescents ($p < 0,01$).

5.6 An Examination of the Interrelationships Between Death Anxiety, Religiosity, General Anxiety and the Concept, "My Death" Using the Pearson Product - Moment Correlation Coefficient

To examine the interrelationships between death anxiety, religiosity, general anxiety and the concept "My Death", a series of Pearson product - moment coefficients of correlation were calculated.

Correlations between these different variables were computed for the total sample as well as for the various sub-groups that comprised the total sample. The results of these analyses are summarized in Table VII.

RESULTS OF THE INTERCORRELATIONS BETWEEN DEATH ANXIETY, RELIGIOSITY, GENERAL ANXIETY AND THE CONCEPT,
"MY DEATH" AS CALCULATED BY THE PEARSON PRODUCT MOMENT COEFFICIENT OF CORRELATION

GROUPS	N	1	2	3	4	5	6	7	8	9	10
		DEATH ANXIETY & GENERAL ANXIETY	DEATH ANXIETY & RELIGIOSITY (SCALE)	DEATH ANXIETY & RELIGIOSITY (S.D.)	DEATH ANXIETY & "MY DEATH" (S.D.)	GENERAL ANXIETY & RELIGIOSITY (SCALE)	GENERAL ANXIETY & RELIGIOSITY (S.D.)	GENERAL ANXIETY & "MY DEATH"	RELIGIOSITY SCALE & SEMANTIC DIFFERENTIAL	RELIGIOSITY SCALE & "MY DEATH"	RELIGIOSITY (S.D.) & "MY DEATH"
		4	1	2	3	5	6	7	8	9	10
TOTAL SUBJECTS	360	.47 英英	.01	.02	.34 英英	.11 英	.17 英英	.26 英英	.64 英英	.20 英英	.28 英英
CHRISTIAN SUBJECTS	120	.52 英英	.10	.04	.43 英英	.13	.28 英英	.31 英英	.47 英英	.27 英英	.33 英英
HINDU SUBJECTS	120	.47 英英	.12	.12	.39 英英	.16	.13	.23 英英	.66 英英	.04	.05
MUSLIM SUBJECTS	120	.46 英英	-.05	.00	.27 英英	.16	.22 英英	.28 英英	.64 英英	.16	.47 英英
CHRISTIAN MALE SUBJECTS	60	.47 英英	.13	.08	.46 英英	.16	.32 英英	.25 英	.43 英英	.33 英英	.30 英
CHRISTIAN FEMALE SUBJECTS	60	.55 英英	.11	-.05	.38 英英	.15	.24	.33 英英	.56 英英	.22	.36 英英
HINDU MALE SUBJECTS	60	.44 英英	.23	.28 英	.40 英英	.29 英	.26 英	.18	.68 英英	.00	.11
HINDU FEMALE SUBJECTS	60	.46 英英	.00	.00	.38 英英	-.01	.02	.26 英	.65 英英	-.09	-.01
MUSLIM MALE SUBJECTS	60	.42 英英	-.16	.01	.22	.02	.15	.18	.61 英英	.17	.52 英英
MUSLIM FEMALE SUBJECTS	60	.47 英英	-.14	-.07	.32 英英	.23	.27 英	.36 英	.68 英英	.14	.43 英英
CHRISTIAN MALE UNIVERSITY SUBJECTS	30	.31	.10	.09	.54 英英	.17	.42 英	.35 英	.53 英英	.42 英	.33
CHRISTIAN MALE SCHOOL SUBJECTS	30	.55 英英	.24	.12	.33	.27	.31	.05	.28	.26	.29
CHRISTIAN FEMALE UNIVERSITY SUBJECTS	30	.68 英英	.10	.12	.50 英英	.12	.04	.33	.56 英英	-.03	.25
CHRISTIAN FEMALE SCHOOL SUBJECTS	30	.40 英	.06	.05	.26	.50 英英	.53 英英	.35 英	.61 英英	.37 英	.43 英
HINDU MALE UNIVERSITY SUBJECTS	30	.43 英	.27	.25	.64 英英	.31	.26	.35 英	.70 英英	.41 英	.31
HINDU MALE SCHOOL SUBJECTS	30	.47 英英	.20	.36 英	.18	.33	.36 英	.01	.67 英英	-.32	-.07
HINDU FEMALE UNIVERSITY SUBJECTS	30	.44 英英	.09	-.21	.36 英	.18	.21	.42 英	.66 英英	-.18	-.12
HINDU FEMALE SCHOOL SUBJECTS	30	.37 英	.19	.37 英	.41 英	.32	.48 英英	.13	.67 英英	.00	.14
MUSLIM MALE UNIVERSITY SUBJECTS	30	.41 英	-.43 英	-.09	.20	.29	.01	.18	.57 英英	.04	.49 英英
MUSLIM MALE SCHOOL SUBJECTS	30	.45 英英	.15	.14	.25	.27	.24	.19	.61 英英	.32	.57 英英
MUSLIM FEMALE UNIVERSITY SUBJECTS	30	.50 英英	-.25	-.34 英	.20	.22	.21	.45 英英	.82 英英	.17	.28
MUSLIM FEMALE SCHOOL SUBJECTS	30	.42 英	.05	.24	.44 英英	.26	.35 英	.31	.45 英英	.12	.60 英英

英 p .05
英英 p .01

5.6.1 The Relationship Between Death Anxiety and General Anxiety

There were significant positive correlations between death anxiety and general anxiety scores ($p < 0,05$) for the total sample as well as for the sub-groups. This suggests that subjects who experience high death anxiety also manifest higher general anxiety.

The only exception was the Christian male university subjects (see Table VII, column 1).

5.6.2 The Relationship Between Death Anxiety and Religiosity as Measured by the Religious Orientation Scale of the O P I and the Semantic Differential

There were no significant correlations between death anxiety scores and the religiosity scores as measured by the Religious Orientation Scale of the OPI for the total sample as well as for all the sub-groups, except for the Muslim male university subjects. The correlation for this group was -0.43 ($p < 0,05$) (see Table VII, column 2).

There were also no significant correlations between death anxiety and religiosity as measured by the semantic differential ratings of religious concepts for the total sample and for most of the sub-groups. The exceptions were the Hindu male subjects, Hindu male school subjects, Hindu female school subjects and Muslim female university subjects for whom the correlation was significant ($p < 0.05$) (see Table VII, column 3).

This implies that the degree of commitment to one's religion is not related to death anxiety.

5.6.3 The Relationship Between Death Anxiety and the Concept, "My Death"

There were significant positive correlations between death anxiety scores and total ratings of the concept, "My Death" for the entire sample as well as for most of the sub-groups ($p < 0,05$).

This suggests that the more anxious one is about death, the more negatively does one perceive one's own death.

There were no significant correlations between these variables for Muslim male subjects, Christian male school subjects, Christian female school subjects, Hindu male school subjects, Muslim male university subjects, Muslim male school subjects and Muslim female university subjects (see Table VII, column 4).

5.6.4 The Relationship Between General Anxiety and Religiosity

A significant positive correlation ($p < 0,05$) was obtained between general anxiety and religiosity as measured by the Religious Orientation Scale for the entire sample. Significant Correlations ($p < 0,01$) were found for Christian female school subjects. A significant correlation ($p < 0,05$) was obtained for Hindu male subjects. This suggests that for these groups, the more anxious an individual the lower his religiosity. (see Table VII, column 5).

Significant positive correlations ($p < 0,01$) were found between general anxiety and religiosity as measured by the semantic differential scale for the entire group as well as for the following groups : Christian subjects, Muslim subjects, Christian male subjects, Christian female school subjects and Hindu female school subjects.

In addition, significant positive correlations, ($p < 0,05$) were found for Hindu male subjects, Muslim female subjects, Christian male university subjects, Hindu male school subjects and Muslim female school subjects. (See Table VII, column 6).

This suggests that for these groups the higher one's general anxiety, the more negatively does one perceive one's religious concepts.

5.6.5 The Relationship Between General Anxiety and the Concept, "My Death"

A significant positive correlation ($p < 0,01$) was found between general anxiety scores and the rating scores for the concept, "My Death". Further significant correlations ($p < 0,01$) were found in the following groups : Christian subjects, Hindu subjects and Muslim subjects, Christian female subjects and Muslim female University subjects.

In addition significant positive correlations ($p < 0,05$) were found for : Christian male subjects, Hindu female subjects, Muslim female subjects, Christian male university subjects, Christian female school subjects, Hindu male university subjects and Hindu female university subjects (see Table VII, column 7).

This suggests that for these groups, the more anxious the individual, the more negatively does he perceive his own death.

5.6.6 The Relationship Between the Religious Orientation Scale and Concepts on the Semantic Differential

Significant positive correlations, ($p < 0,01$) were found on these scales for the entire sample as well as for all the sub-groups, except for Christian male school subjects for whom the correlation did not reach significance (see Table VII, column 8).

This implies that the higher one's religiosity scores on the Religious Orientation Scale, the more positively does one perceive one's religious concepts.

5.6.7 The Relationship Between Religiosity and the Concept, "My Death"

There were significant positive correlations ($p < 0,01$) between the Religious Orientation Scale scores and the rating scores for the concept, "My Death", for the entire sample as well as for

Christian subjects and Christian male subjects. Significant positive correlations ($p < 0,05$) were found for Christian male university subjects Christian female school subjects and Hindu male university subjects (See Table VII, column 9),

This suggests that for these groups, the higher one's religiosity, the more positively does one perceive one's death.

Significant positive correlations ($p < 0,05$) were found on the semantic differential ratings of religious concepts and the concept, "My Death" for the entire sample as well as for the following sub-groups : Christian subjects, Muslim subjects, Christian female subjects, Muslim male subjects, Muslim female subjects, Muslim male university subjects, Muslim male school subjects and Muslim female school subjects.

Significant positive correlations ($p < 0,05$) were found for Christian male subjects and Christian female school subjects, (see Table VII, column 10).

This suggests that for these groups, the more positively one perceives one's religion, the more positive does one feel about one's own death.

5.6.8: Summary of the Results of the Intercorrelations Between Death Anxiety, Religiosity, General Anxiety and the Concept, "My Death"

An analysis of the data revealed that there were significant positive relationships between the following variables for the entire sample:

- a) death anxiety and general anxiety,
- b) death anxiety and the concept, "My Death",
- c) general anxiety and religiosity,
- d) general anxiety and the concept, "My Death",
- e) Religiosity as measured by the Religious Orientation Scale of the OPI and the semantic differential and
- f) The concept, "My Death" and religiosity.

A discussion of the above results will follow in the next chapter.

CHAPTER SIX

6. DISCUSSION OF RESULTS

The raw data obtained from this research were analyzed to investigate:

- (a) the effect of religion, sex and age on death anxiety, religiosity, general anxiety and the concept, "My Death";
- (b) the interrelationships between death anxiety, religiosity, general anxiety and the concept, "My Death".

The results thus obtained and presented in the previous chapter will now be discussed in relation to the aims and hypotheses which motivated this study.

6.1 Death Anxiety

6.1.1 Death Anxiety and Religion

It was hypothesized that there would be significant differences in the death anxiety scores of Christian, Hindu and Muslim subjects. This was partially supported by the results (see Table II). The death anxiety scores of Muslim subjects were significantly higher than those of the Hindu and Christian subjects ($p < 0,01$). However, there were no significant differences between the death anxiety scores of the Hindu and Christian subjects.

Muslim subjects may be more anxious about death than Hindu subjects for the following possible reasons.

- (a) Hindus and Muslims have differential degrees of dogmatism in their approach to religion, life and death.

For the Muslims, the Koran sets down the principles of life to which they have to adhere. Consequently, a Muslim would be able to judge by his own deeds whether or not he is leading a moral life according to the stipulated rules. His religion also teaches him about the life hereafter.

For a Hindu, the situation is quite different. He does not have set authoritative scripture that stipulates rules and regulations for living. Because Hinduism is a religion comparatively free of obligations, many of its followers are not precise about the exact nature of the deeds that would culminate in liberation.

Consequently, Hindu subjects may be less anxious about death than Muslim subjects because they are vague about, or ignorant of exactly what type of life awaits them after death.

- (b) Muslims and Hindus have different beliefs about the life after death.

The normal path of salvation for the Muslim is to follow the commands of God and to obey the rules of the Qu'ran. While a good life leads to heaven, an evil life will lead to

intense physical torture and pain from the time of death to the Day of Judgment. Even during this period, the individual will be physically tortured by suffocation in his grave when the grave presses and closes onto him if he has led an unacceptable life. On the Day of Judgment, when all his sins and virtues are reckoned, he will be sent to heaven or hell accordingly.

One would have to be purged of each sin committed during one's life by means of physical punishment before one reaches heaven. Since most people are guilty of some wrong doing during their life-time, this belief would imply that the majority have cause to be anxious about the consequences of death and the life hereafter. This also implies that a Muslim would be more anxious about the brevity of time on earth during which period a Muslim has to prepare himself for death and confrontation with God.

According to Dandekar (1971) Hindus believe that they will be re-born again and again until the good and evil deeds even out, when "Moksa" (liberation) will be achieved. This would imply that a Hindu believes that he would still be given more chances to live and better himself in the next life.

This could result in Hindu subjects having lower death anxiety scores than Muslim subjects.

- (c) Hindus and Muslims have differing beliefs about what exactly happens at death.

In Islam, when a person dies, states Benedict (1961), the angel of death removes the soul very gently from the virtuous, but wrenches it out cruelly from the evil. The dead are questioned in their tombs about their faith by Munkar and Nakir, the two terrible, black angels. Man's situation in the tomb is regarded as purgatory, since both the faithful and the sinners have in their graves a foretaste of the eternal joy or pain which they will feel after the Day of Judgment.

According to the Bhagvadgita during death, the soul calmly departs from the body, in the same way as one discards worn-out robes. The spirit then in accordance with the meritorious deeds performed here, will take on the appropriate body (rebirth) or merge into infinity (liberation).

Since Muslims believe in greater physical pain at the time of death than Hindus, this may be the cause of greater death anxiety in Muslims than Hindus.

- (d) Hindus and Muslims differ in their ways of religious worship and religious activity. According to Annemarie Schimmel (1971) fasting is obligatory in Islam. Also ritual prayer is prescribed five times a day and must be performed on a clean place in a state of ritual purity. These mandatory obligations are the keys of Paradise for a Muslim

(Annamarie Schimmel, 1971). If they are not adhered to, it may lead to physical punishment in hell for the non-conformer and hence the more intense death anxiety.

Much of Hindu worship takes the form of rituals and customs of fore-fathers. That which may hold good for one Hindu may not be necessarily so for another. Therefore, because a Hindu does not have to have fears of being punished concerning his way of worship and religious activity, this could result in Hindu subjects having lower death anxiety.

Christians like Muslims are also bound to their religion by dogmatic rules, congregational worship and have similar religious beliefs regarding the existence of heaven and hell and the Day of Judgment. But the study revealed that the Christian subjects, like the Hindu subjects, expressed less death anxiety than the Muslim subjects.

This could be due to the following possible reasons:

- (a) Christians and Hindus may have similar death anxiety scores because it may be that the majority of the Christian subjects tested may have been first, second or third generation Christians whose fore-fathers were Hindus. This aspect, however, was not controlled for in the present research. Although only subjects whose religion was the same as both their parents were chosen, there had been no check on whether

their parents were recent converts. Since Lester (1970) and Templer (1971) found that the death anxiety of children resemble that of their parents, it may be possible that the Christian subjects may be influenced by their parents Hindu connotations of death.

- (b) Christian subjects may have lower death anxiety than Muslim subjects because of the difference in the rigidity of rules governing morality and immorality. When a Christian realizes that he has committed evil, it is possible for him to be redeemed in this life if he repents, makes a confession to the church pastor and asks God for forgiveness. Thus he does not have to suffer after death for his sins of this life. Consequently, he would approach death more positively than a Muslim for whom there is no equivalent concession. According to Annemarie Schimmel (1971) fasting outside Ramadan can be expiation for some sins, but most sins are punishable for a Muslim only after death.
- (c) Christians believe that although death had been a dreadful event prior to Christ, the birth of Christ and His acceptance of man removed the sting out of death. Monnich (1971) states that Christ by his death and resurrection granted his people salvation and a new eternal life. Thus, Christians are supposed to be more positive towards death.

The results of the present study cannot be compared with another study with regards to the effect of religion on death anxiety, since this is the first study that has compared the death anxiety of the major religious groups, namely, Christian, Hindu and Muslim subjects.

These results are contrary to the results of previous studies by Christ(1961), Kalish (1963), Lester (1970), Templer and Dotson (1970) where no significant relationship was reported between the variables of religion and death anxiety. This may be due to the fact that the studies mentioned have investigated mainly the Christian religion in relation to its various denominations. The differences between these denominations, if they do exist, may be too small to be apparent in the samples used.

6.1.2 Death Anxiety and Sex

As hypothesized, it was found that there was a significant sex difference ($p < 0,01$) (See Table II). Female subjects evidenced higher death anxiety than male subjects. This may be due to the following possible reasons:

- (a) Females may be more anxious and insecure in threatening and uncertain situations such as death.
- (b) Males are assumed to take more dominant roles than females. Males may try to live up to their expectations by manifesting less anxiety towards death. Also, in accordance with masculine expectations, they may be less likely to admit

death anxiety than females.

Although the present study is unique in that it compares death anxiety scores of males and females of a non-western sample, the results are in accordance with results of previous studies using western samples. Templer, Ruff and Franks (1971), Berman and Hayes (1973), Ray and Najman (1974), Chiapetta, Floyd and Seveney (1976) found that females were more anxious about death than males. This suggests that the Indian subjects have similar sex-roles concerning death anxiety to their western counterparts.

6.1.3 Death Anxiety and Age

There appeared to be a tendency for the younger adolescents (mean age 14.7 years) to be more anxious about death than the older group (mean age 18.8 years) (see Table II). The f -ratio obtained was 3,80, instead of 3,84 to have reached significance ($p < 0,05$). The total death anxiety scores for the younger group was 1534 as compared to the total score of 1399 for the older group.

This could be due to the fact that adolescents between 14 to 16 years are in a transitional stage when rapid changes are occurring in their physical and cognitive development. Further complications arise due to changing parental expectations. This causes temporary imbalances, according to

Antony (1970). Since an adolescent in this age group is insecure and unsettled, it may result in increased death anxiety.

Research by Swenson (1961), Rhudick and Dibner (1961), Kalish (1963) Goldburgh, Rotman, Snibbe and Ondrack (1967), Lester (1972) and Templer (1976) has indicated that age is not correlated with death anxiety, except as one approaches old age (Feifel and Branscomb, 1973). However, these previous findings are contrary to the results of the present finding mainly because the age groups compared were different from those of the previous studies mentioned.

6.2 Religiosity

6.2.1 Religiosity and Religion

The coefficient of correlation of the two measures of religiosity namely, the Religious Orientation Scale of the OPI and the Semantic Differential was 0,64. This high correlation suggests that these measures are closely related. The results of both scales indicated that Christian and Muslim subjects were significantly more religious than Hindu subjects ($p < 0,01$). Both measures also indicated that there was no significant difference in the religiosity scores of Christian and Muslim subjects.

Christian and Muslim subjects manifested higher religiosity than Hindu subjects because of the following possible reasons:

- (a) According to Dandekar (1971) a Hindu does not regard religion as an extraneously imposed duty, but as a way of life. Hinduism is a comparatively permissive religion with ritualistic practices which are more a matter of personal choice.
- (b) Christianity and Islam advocate congregational prayer on set days and times. Attendance to a church or mosque is obligatory. But for a Hindu, attendance at the temple does not have the same significance because he is allowed to pray wherever and whenever he wishes to do so.
- (c) Although Hindus have many religious scriptures, for example, the Bhagvadgita and Ramayana, these may not have the same significance in the daily lives for the majority of Hindus as the Bible has for Christians and the Qu'ran for Muslims.

Some of the items and concepts that measured religiosity were based on church attendance, reading of religious scriptures and prayers. These could have influenced the responses of Hindu subjects.

These results are also in accordance with the results of Tilak (1975) who examined religious concepts of urban Indian school children in South Africa. He found that the Hindu group indicated the lowest intensity of religious identification as compared to Christians and Muslims. He also found a closer affinity between Christian and

Muslim subjects than between Hindu subjects and subjects of the other two religious groups.

6.2.2 Religiosity and Sex

There was a significant interaction ($p < 0,01$) between the variables of sex and religiosity on the Religious Orientation Scale of the OPI. Thus the difference in religiosity scores was greatest between the sexes for Muslim subjects, followed by Christian subjects and finally Hindu subjects for whom the difference was negligible. (see Table III).

It was found that Muslim females evidenced lower religiosity than Muslim males ^{possibly} because of the differential treatment of Muslim males and females in their religious context.

Maududi states that "the foremost obligatory duty in Islam is to offer the prescribed prayers, as far as possible, in the mosque in congregation. But in this regard, the Commands for the males are different from those meant for the females. For the males the best prayer is that which is different in the mosque in congregation, whereas for the females the best prayer is offered
 ✕ inside and in seclusion"(1972, 1972, p. 202). The reason given for this discrimination is that the Law-giver disapproved women's leaving home frequently and mixing with the males in congregations.

The permission to visit the mosque for females is conditional. Women should only go to the mosque in the dark, to the Night Prayer and the Dawn Prayer, when they could not be recognised. They should not come to the mosque with decoration and perfume. They should not mix with the males in the congregation, but should stand separately behind the rows of men. Also women are not allowed to raise their voices during the prayer. If the men should say "Subhan Allah" (Allah be glorified), the women should only tap their hands.

Another congregational duty in Islam is the performance of Haj which is obligatory for males and females. But women are prohibited from mixing with men as far as possible while moving around the Kacabah.

Consequently, these conditions stipulated for females to remain in the background during prayers may result in females having lower religiosity than males for whom prayers and attending mosque are obligatory duties.

Since the female subjects tested in the present research were high school and university females, they may be fairly sophisticated and exposed to much western influences. This would perhaps lead to their passively rebelling against such discrimination.

The relationship between sex and religiosity was opposite for Christian subjects. Females evidenced greater religiosity than males. However, this difference was not as great as in the case of the Muslim subjects. This is in accordance with the results of the study by Argyle (1958) when he found in a sample of western Christian subjects that religion appealed significantly more to females than to males. Peterson (1965) in a study with 420 subjects in Los Angeles found females to exceed males on most measures of religiosity.

For the Hindu subjects, the difference in religiosity scores was so small, that it may be assumed that Hindu males and females have similar religious intensity.

6.3 General Anxiety

6.3.1 General Anxiety and Sex

As hypothesized, there was a significant sex difference ($p < 0,01$) in the general anxiety scores. Males expressed less general anxiety than females (see Table IV).

This may be due to the fact researched by Hill and Sarason (1966) who have shown that males are more defensive and less willing to admit to weaknesses. They suggest that females are higher on self-report anxiety scales simply because they are more willing than

males to admit that they feel anxious.

This trend also corroborates the results of Morris, Finkelstein and Fisher (1976) when they found that in 122 eighth-graders, females scored significantly higher on general anxiety than males.

6.3.2 General Anxiety and Age

As hypothesized, younger adolescents (mean age 14.7 years) manifested significantly higher general anxiety than the older group (mean age 18.8 years) ($p < 0.01$). (see Table IV).

Although every young person encounters some anxiety and frustration in the course of his or her development, there is evidence that these psychological problems are more frequent at certain ages than at others. For example, Antony (1970) found that referrals to psychological clinics were highest in the period from 14 to 16 years during adolescence. This is so because this age period represents a transitional stage with accelerations in physical or cognitive development, rapid changes in parental expectations and sudden social demands which "give rise to temporary unbalances" (Antony, 1970, p. 704). This could be the reason for adolescents between 14 and 16 years having higher general anxiety than those between 18 to 20 years.

There has been little or no research that compares the general anxiety scores of these two age groups in an Indian sample in an

acculturating society. The results of the present study indicate that the Indian adolescent sample has similar general anxiety trends with regards to age as their western counterparts.

This finding is in keeping with the other results of the present research. Death anxiety and general anxiety were found to be positively correlated. Hence there is an age effect on general anxiety and a tendency of an age effect on death anxiety (Refer to 6.1.3 p. 122).

6.4 The Semantic Differential Concept, "My Death".

6.4.1 The Concept, "My Death" and Religion

As hypothesized, there was a significant difference ($p < 0.01$) in the scores of Christian, Hindu and Muslim subjects on the concept, "My Death". Hindu subjects viewed their own deaths more negatively than Christian and Muslim subjects (see Table IV). There was no significant difference between the Christian and Muslim subjects in the perception of their own deaths.

This may possibly be due to the following reasons:

- (a) As mentioned previously (Refer 6.21), Christians and Muslims had significantly higher religiosity scores than Hindus. Since Christian and Muslim subjects perceived their own religious concepts more positively, they may have perceived their deaths more positively than Hindu subjects. This finding has been supported by the results of the relationship between religiosity

and the concept, "My Death" (refer Table VII, Columns 9 and 10), where there were significant positive correlations ($P < 0,01$) between these variables for the entire sample as well as for the Christian and Muslim sub-groups.

However, the results of the effect of religion on anxiety as measured by the DAS differs from the effect of religion on one's perception of one's death. The result of the effect of religion on death anxiety indicated that Muslim subjects were significantly more anxious than Christian and Hindu subjects while the result of the effect of religion on one's perception of one's own death revealed that Hindu subjects perceived their own deaths more negatively than Christian and Muslim subjects.

This may possibly be caused by the two scales measuring different aspects of death. For example, the items of the DAS covered a broader spectrum with specific questions relating to being distressed by the way time flies so very rapidly, dying a painful death and the subject of life after death. These aspects may have been the cause of Muslim subjects manifesting higher death anxiety on the DAS (refer 6.1.1).

Since the semantic differential concept, "My Death" does not involve specific questions about death, it may have been perceived by the more religious individuals with greater hope and optimism as opposed

to the less religious. Since Hindus were found to be less religious than Christian and Muslim subjects (see 6.2.1 p 123), they were also found to be more negative in perceiving their own deaths.

6.5 Summary of the Discussion of the Results Based on the Analyses of Variance

Religion had a significant effect on death anxiety, religiosity and the concept, "My Death".

Muslim subjects were more anxious about death than Hindu and Christian subjects, possibly because of their differential philosophies concerning life, death and the hereafter.

Christian and Muslim subjects may have evidenced higher religiosity than Hindu subjects due to the former religions being more dogmatic in religious practices and beliefs than the latter. The Hindu subjects' lower religiosity may have caused them to perceive their own deaths significantly more negatively than Christian and Muslim subjects. This was supported by the finding (refer to Table VII, columns 9 and 10), that the more religious one is, the more hopefully and optimistically one perceives one's own death.

Female subjects may have evidenced higher death anxiety and general anxiety than male subjects due to their role expectations. Females have also been found to admit to anxiety more easily and to be less defensive about it than males.

Age had an effect on general anxiety with high school subjects (mean age 14,7 years) manifesting significantly higher general anxiety scores than university subjects (mean age 18,8 years). There was a tendency for the younger group to be more death anxious than the older one. This may be due to the younger group experiencing a transitional stage of physical, social and emotional development which could cause greater insecurity and anxiety.

6.6 The Interrelationships Between Death Anxiety, Religiosity, General Anxiety and the Concept, "My Death"

The interrelationships, as presented in the previous chapter, were examined by a series of Pearson product-moment correlation coefficients. The salient features of the results obtained follow.

6.6.1 The Relationship Between the Religious Orientation Scale Scores of the OPI and Rating Scores of Religious Concepts on the Semantic Differential Scale

A correlation coefficient of 0,64 was obtained between the Religious Orientation Scale scores and the rating scores of religious concepts on the semantic differential scale, (see Table VII, column 8). A significant, positive correlation ($p < 0,01$) was found for the entire sample as well as for all the sub-groups. The only exception was the

Christian male school subjects for whom the correlation did not reach significance. It may be assumed that this may be due to chance factors.

This high level of significance of the correlation between the two scales indicates that they are both closely related and can well be assumed in this research to be measuring religiosity.

6.6.2 The Relationship Between Death Anxiety and General Anxiety

A significant positive correlation, ($p < 0,01$) was found between the scores of the DAS and scores of the Ipat Anxiety Scale scores for the total groups. Significant positive correlations ($p < 0,05$), were also found for all other sub-groups, except for the Christian male university subjects. (See Table VII, column 1).

A significant correlation of coefficient of 0,47 between death anxiety scores and general anxiety scores confirms the findings of previous studies, Handal (1969), Templer (1970) and Nogas et al., (1974), which report that death anxiety and general anxiety are related to each other although they are not the same thing. This study supports results of previous findings that death anxiety and general anxiety, although correlated, are not equivalent in that the correlation of coefficient is moderate and not very high.

6.6.3 The Relationship Between Death Anxiety and Religiosity

The correlation coefficients of both measures of religiosity, the Religious Orientation Scale of the OPI and the Semantic differential scale, revealed that death anxiety did not correlate with religiosity for the entire sample. (See Table VII, column 2 and 3)

This finding implies that the degree of commitment to one's religious practices and beliefs does not intensify or reduce one's death anxiety. These results support the findings of previous researchers, Alexander and Adlerstein (1959), Christ (1961), Templer and Dotson (1970) and Sullivan (1977) who found that there is no relationship between religiosity and death anxiety. The latter study of Sullivan (1977) (refer to page 55) utilized the Allport and Ross (1968) Intrinsic and Extrinsic Religious Orientation Scale to measure religiosity and the DAS to measure death anxiety in a group of college adolescents (mean age 20 years).

He also found no relation between the religiosity scores and the death anxiety scores. This substantiates the fact that even the intrinsic and extrinsic religious orientations have no influence on death anxiety in adolescents.

Although religion had an effect on death anxiety (see 6.1.1, page 115) there was no relationship between religiosity and death anxiety. This suggests that the beliefs and practices of the religious group one belongs to plays an important part in death anxiety, rather than the degree of one's commitment of one's religion.

However, significant positive correlations between death anxiety and religiosity scores were found ($p < 0,05$) for Muslim male university subjects on the Religious Orientation Scale and for Hindu male subjects, Hindu male school subjects, Hindu female school subjects and Muslim female university subjects on the semantic differential scale. It may be assumed that this could have been due to chance factors.

6.6.4 The Relationship Between Death Anxiety and the Concept, "My Death".

A correlation coefficient of 0,34 was obtained between the death anxiety scores and the semantic differential rating scores of the concept, "My Death" for the entire sample. Although this positive correlation is significant ($p < 0,01$), it is fairly low. (Refer to Table VII, column 4). This indicates that the two scales are related though not equivalent. Thus there are differences which may be due to aspects of death concerning an after life and brevity of time. These aspects are covered by the death anxiety scale.

6.6.5 The Relationship Between General Anxiety and Religiosity as Measured by the Religious Orientation Scale of the OPI and the Semantic Differential

A significant positive correlation ($p < 0,05$) was found between the general anxiety scores and the scores of the Religious Orientation Scale for the entire sample. (Refer to Table VII, column 5). A significant positive correlation ($p < 0,01$) was found between the general anxiety scores and the scores on the semantic differential scale for the total group. (Refer to Table VII, column 6).

Significant positive correlations ($p < 0,01$) were obtained for Christian and Muslim subjects, but not for the Hindu subjects. This indicates that for Christian and Muslim subjects, the more anxious an individual, the less religious he is.

This may be due to the fact that unlike Hinduism, Christianity and Islam have similar dogmatic religious practices with prescribed rules for positive conduct with regard to religion. Possibly the dogmatic religious rules make it more difficult to live according to the religious demands. Therefore, one has lower religiosity which in turn stirs up the anxiety. Alternatively, lower religiosity may lead to general feelings of insecurity and anxiety. Conversely, higher religiosity may lead to more security and hence lower general anxiety.

These results corroborate the findings of Williams and Cole (1968) who investigated the relationship between religiosity as measured by the Religious Participation Scale (Ligon, 1965) and generalized anxiety as measured by the Security-Insecurity Inventory (Maslow, 1952) and the MMPI. The subjects were 161 college students between 19 to 21 years of age.

The high religiosity subjects manifested the least anxiety and insecurity while the low religiosity group manifested the greatest generalized insecurity ($p < 0,001$).

6.6.6 The Relationship Between General Anxiety and the Semantic Differential Concept, "My Death"

Significant positive correlations ($p < 0,01$) were found between general anxiety scores and the rating scores on the concept, "My Death" for the entire sample as well as for the Christian, Hindu and Muslim groups. This finding implies that for all three religions, the higher the subject's general anxiety, the more negatively does he perceive his own death. (See Table VII, column 7).

6.6.7 The Relationship Between Religiosity and the Semantic Differential Concept, "My Death"

Significant positive correlations ($p < 0,01$) were obtained between scores of the Religious Orientation Scale and the semantic differential rating of the concept, "My Death", for the entire sample, as well as for the Christian sub-group. (See Table VII, column 9).

Significant positive correlations ($p < 0,01$) were also found between semantic differential ratings of religious concepts and the concept, "My Death" for the entire sample, as well as for the Christian and Muslim sub-groups. (See Table VII, column 10).

These correlations indicate that for Christian and Muslim subjects, the higher one's religiosity, the more positively one perceives one's own death.

Therefore, it appears that although religiosity is related to how one perceives one's own death, it is not related to death anxiety as measured by the DAS (Refer 6.6.3).

This may be due to the fact that the two scales, the DAS and the semantic differential scale on the concept, "My Death" are measuring different aspects of death (Refer 6.6.4).

6.6.8 Summary of the Discussion of the Intercorrelations Among Death Anxiety, Religiosity, General Anxiety and the Concept, "My Death"

There were high correlations between the scores of the Religious Orientation Scale of the OPI and the semantic differential scale ratings of religious concepts. This indicates that the two scales are closely related and may be assumed to be caused by the same variable.

Death anxiety correlated with general anxiety and the concept, "My Death". This suggests that the more anxious about death an individual is, the more he is anxious about other matters. Such an individual also perceives his own death more negatively.

Religiosity correlated with general anxiety and the concept, "My Death". This may be caused by the fact that the less religious individual feels guilty about his religious commitment which in turn stirs up his anxiety in various matters. This may lead to him being pessimistic about his own death.

6.7 Implications of the Study

6.7.1 Theoretical Implications

To date research on death anxiety in relation to demographic and personality variables has been largely conducted on western

non-acculturating societies. However, in psychology, it is necessary to conduct research in cross-cultural and diverse populations in order to increase confidence in research findings and to investigate any possible differences. The present study has facilitated this by producing corroborative results as well as providing valuable extension to existing research findings for the following reasons:

- (a) The present research is the first one to be conducted on death anxiety in a nonwestern, and acculturating Indian community.
- (b) Previous studies on the relationship between death anxiety, religion and religiosity have been confined to Christianity with its various denominations (Jeffers et al., 1961; Swenson, 1961; Martin and Wrightsman, 1965; Chasin, 1971; Templer, 1972; Shearer, 1973; Hardt, 1975; and Kahoe and Dunn, 1975).

The present study is the first to have compared the interrelationships between death anxiety, religiosity and general anxiety of the three major religions of the world, Christianity, Hinduism and Islam.

- (c) It is the first study to have compared the death anxiety scores of younger (mean age 14.7 years) and older adolescents (mean age 18.8 years). It is one of the very few studies to have compared the general anxiety of these age groups in a non-western Indian sample.

- (d) It is evident from the review of the literature that the variable of religiosity has not been adequately measured in some studies (Feifel and Branscomb; 1973). It has also been defined in various ways, such as, in behavioral terms (frequency of Bible reading and church attendance (Jeffers et al., 1961) or by means of questionnaires on attitudes toward religion (Chasin, 1971).

In the present study an attempt has been made to overcome this problem as well as to provide an assessment of religiosity that would apply to three different religions, Christianity, Hinduism, Islam, with varying beliefs and practices.

Therefore two measures of religiosity were used - the Religious Orientation Scale of the OPI and the semantic differential scale of religious concepts. These proved to be adequate measures of religiosity because the correlation coefficient between scores of these scales was 0,64.

- (e) Unlike as in many of the previous studies quoted in the review of literature, the sampling of the present study was well planned in that there were equal numbers of subjects in each cell with regards to sex, age and religion.

From the foregoing it is evident that this study has corroborative value. Its contribution to research methodology together with its

careful sampling procedure provides avenues for future research.

6.7.2 Practical Implications

Information obtained from the present research may provide valuable aid to counsellors, clinicians and ministers of religion in their understanding of certain problems of Indian helpees.

The information can be important in counselling terminally-ill patients who have to face imminent death as well as their immediate family and relatives who are confronted with the possibility of bereavement. It may aid doctors and nurses in their handling of large numbers of patients who may be preoccupied with death.

The following are salient features of the results that could be used by members of the helping professions.

There is a religious difference in death anxiety with Muslims being more death anxious than Christians and Hindus. This may be due to differential philosophies concerning life, death and life-hereafter.

Religion seems to have a greater influence in the lives of Christians and Muslims than on Hindus. This may possibly be caused through the dogmatic religious practices of Christianity and Islam.

The above are certain practical implications of the research. However, more comprehensive information in this area is necessary to deal more effectively with psychological problems.

6.8 Limitations of the Study

The following are some of the limitations that appeared in the present research.

- (a) Although the religions of parents' of subjects were controlled, (because only subjects with both parents belonging to the same religion as the subject were chosen), it may have been possible, especially in the Christian sample that many of the subjects could have been first or second generation converts whose ancestors were Hindus. This fact may have affected the results, since the death anxiety scores of Christian and Hindu subjects were similar.
- (b) The current research has been confined to measuring death anxiety at a conscious level. Feifel and Branscomb (1973) have shown that there is a discrepancy in the scores of conscious and unconscious levels of death anxiety. Some individuals, especially those who profess to be more religious and those reaching old age tend to be more defensive about death anxiety than less religious and younger subjects. This means

The above are certain practical implications of the research. However, more comprehensive information in this area is necessary to deal more effectively with psychological problems.

6.8 Limitations of the Study

The following are some of the limitations that appeared in the present research.

- (a) Although the religions of parents' of subjects were controlled, (because only subjects with both parents belonging to the same religion as the subject were chosen), it may have been possible, especially in the Christian sample that many of the subjects could have been first or second generation converts whose ancestors were Hindus. This fact may have affected the results, since the death anxiety scores of Christian and Hindu subjects were similar.
- (b) The current research has been confined to measuring death anxiety at a conscious level. Feifel and Branscomb (1973) have shown that there is a discrepancy in the scores of conscious and unconscious levels of death anxiety. Some individuals, especially those who profess to be more religious and those reaching old age tend to be more defensive about death anxiety than less religious and younger subjects. This means

that death anxiety measured at a conscious level may not be a true reflection of how death anxious one really is.

However, Templer (1971) investigated the relationship between scores of the DAS and GSR to death-related words with 49 adults. He found a significant positive correlation between verbalized and nonverbalized death anxiety which gives credibility to the results of the present study.

6.9 Further Research Possibilities

The present study offers several possibilities for further research on death anxiety, religiosity and general anxiety among Indians in South Africa. Since this is a pioneering study, there is a wide scope for future research in this field. Some of these are discussed below:

- (a) The present study was confined to adolescents. Such a study might be extended to other age groups as well since age seemed to be an important factor in general anxiety and to a less extent, in death anxiety.
- (b) The present investigation studied the death anxiety scores of normal subjects, but such a topic may be more pertinent and problematic to terminal patients or bereaved individuals.

Research with such subjects would be useful for counselling terminal patients as well as their families.

- (c) The personality variables investigated were limited to religiosity and general anxiety. It would be fruitful to examine other variables, such as, need for achievement (Nogas et al., 1974), locus of control and self esteem in relation to death anxiety. This would give more comprehensive knowledge about the interaction of the various personality factors.
- (d) Subjects who admitted to serious contemplation of suicide were eliminated in this study. It may be useful to compare the death anxiety of suicidal persons with a control group. Lester (1967) found that suicidal adolescents have significantly less fear of death than non-suicidal adolescent students as the former group regard death as a cure for their problems. Further knowledge in this area might increase understanding of the psychodynamics underlying suicidal behaviour.

Friedman (1961) reported that sleep disturbances and anxiety over falling asleep are found in patients with death anxiety. Therefore, investigation into this area could be important for counselling such patients.

- (e) Although Feifel (1973) found no difference in death anxiety of mentally ill patients and normal subjects, it may be useful to investigate such a relationship in an Indian acculturating society.

The research possibilities outlined above are very limited when one takes into account the vast area of death anxiety that remains unexplored.

6.10 Conclusion

This study is an exploratory research in the field of death anxiety in Indian South Africans. It has yielded valuable empirical information on the influence of sex, age and religion on death anxiety, religiosity and general anxiety. In addition, it has provided indications of the interrelationships between these variables. The results are very suggestive of further research possibilities and have many practical implications.

CHAPTER SEVEN

7. SUMMARY

This study was undertaken to investigate the effect of religion, sex and age on death anxiety, religiosity and the concept, "My Death, and the interrelationships between these variables. The sample consisted of 360 Indian South African youth.

Templer's Death Anxiety Scale, the Religious Orientation Scale of the OPI, the semantic differential and the Ipat Anxiety Scale Questionnaire were used to investigate the following:

- (a) The effect of religion, sex and age on death anxiety, religiosity, general anxiety and the semantic differential concept, "My Death".
- (b) The interrelationships between death anxiety, religiosity, general anxiety and the semantic differential concept, "My Death".

The total sample comprised of 360 subjects with 180 males and 180 females. These subjects were divided into groups of 60 males and 60 females according to religion (Christians, Hindus and Muslims). They were further sub-divided into two age groups (mean ages 14.7 years and 18.8 years). Hence there were 12 groups of 30 subjects each.

The following were the major, significant findings:

- (a) Religion had an effect on death anxiety with Muslim subjects being more death anxious than Christian and Hindu subjects. There were no significant differences between the death anxiety scores of Hindu and Christian subjects.
- (b) Female subjects manifested higher death anxiety and general anxiety than male subjects.
- (c) Christian and Muslim subjects were more religious than Hindu subjects on both measures of religiosity used.
- (d) Subjects in the younger age group (mean age 14.7 years) had higher general anxiety scores than those in the older age group (mean age 18.8 years).
- (e) Hindu subjects perceived their own deaths more negatively than Christian and Muslim subjects.
- (f) Death anxiety correlated positively with general anxiety and the concept, "My Death".
- (g) General anxiety correlated positively with religiosity and the concept, "My Death".
- (h) There was a positive correlation between religiosity and the concept, "My Death".

- (i) The Religious Orientation Scale scores correlated positively with the semantic differential ratings of religious concepts.

The results were discussed with respect to their theoretical and practical implications. Further research possibilities in the area of death anxiety were suggested.

APPENDIX A

INSTRUCTIONS

This questionnaire is intended as a means of reporting your attitudes, opinions and feelings regarding certain matters.

Please respond truthfully to all statements and questions.

Your answers will be entirely confidential and used for research purposes only.

If you find difficulty in answering any question or do not understand the meaning of any item, please raise your hand without disturbing the others and you will be helped.

Use a soft pencil so that you can rub off errors neatly.

APPENDIX B

THE BIOGRAPHICAL INVENTORY

- 1. Today's Date:
- 2. Name (optional):
- 3. (a) Name of School:
Standard & Division:
or
(b) Name of Institution:
- 4. Age:
- 5. Male or Female:
- 6. Religion (e.g. Hinduism, Islam, Christianity, etc.)
(a) Father's religion:
(b) Mother's religion:
(c) Your religion:
- 7. Have you experienced the death of any of the following: father,
mother, brother(s), sister(s)?
(a) Yes or no?
(b) If "yes", write down who died and how old you were at that time.
.....
.....
.....
- 8. Have you ever seriously contemplated suicide?
(a) Yes or no?
(b) If "yes", state the reason(s) for it briefly.
.....
.....
.....

APPENDIX C

THE IPAT ANXIETY SCALE QUESTIONNAIRE & SCORING KEY

The following forty questions, deal with difficulties that most people experience at one time or another. It will help a lot in self-understanding if you mark YES, NO, etc., to each, frankly and truthfully.

Start with the two simple examples just below, for practice. As you see, each inquiry is actually put in the form of a sentence. By putting a cross X, in one of the three boxes on the right you show how it applies to you. Make your marks now.

1. I enjoy walking	Yes	Occasion- ally	No
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A middle box is provided for when you cannot definitely say YES or NO. But use it as little as possible.

2. I would rather spend an evening:	A	In between	B
(A) talking to people, (B) at a movie	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

About half the items inside end in A and B choices like this. B is always on the right. Remember, use the "In between" or "Uncertain" box only if you cannot possibly decide on A or B.

If you are still uncertain as to what to do, please raise your hand, otherwise proceed to the next page.

- | | | | |
|---|---|--|---|
| 1. I find that my interests, in people and amusements, tend to change fairly rapidly | True
<input type="text" value="2"/> | In between
<input type="text" value="1"/> | False
<input type="text"/> |
| 2. If people think poorly of me I can still go on quite happily and without worrying too much | True
<input type="text"/> | In between
<input type="text" value="1"/> | False
<input type="text" value="2"/> |
| 3. I like to wait till I am sure that what I am saying is correct, before I put forward an argument | Yes
<input type="text"/> | In between
<input type="text" value="1"/> | No
<input type="text" value="2"/> |
| 4. I am inclined to let my actions get influenced by feelings of jealousy | Sometimes
<input type="text" value="2"/> | Seldom
<input type="text" value="1"/> | Never
<input type="text"/> |
| 5. If I had my life to live over again I would: (a) plan very differently, (b) want it the same | A
<input type="text" value="2"/> | In between
<input type="text" value="1"/> | B
<input type="text"/> |
| 6. In general, I admire my parents | Yes
<input type="text"/> | In between
<input type="text" value="1"/> | No
<input type="text" value="2"/> |
| 7. I find it hard to "take 'no' for an answer", even when I know what I ask is impossible | True
<input type="text" value="2"/> | In between
<input type="text" value="1"/> | False
<input type="text"/> |
| 8. I doubt the honesty of people who are more friendly than I would naturally expect them to be | True
<input type="text" value="2"/> | In between
<input type="text" value="1"/> | False
<input type="text"/> |
| 9. In demanding and enforcing obedience my parents (or guardians) were:
(a) always very unreasonable
(b) Often unreasonable | A
<input type="text"/> | In between
<input type="text" value="1"/> | B
<input type="text" value="2"/> |
| 10. I need my friends more than they seem to need me | Rarely
<input type="text"/> | Sometimes
<input type="text" value="1"/> | Often
<input type="text" value="2"/> |

- | | | | |
|---|--------------------------------|--------------------------------|--------------------------------|
| 11. I feel sure that I could "pull myself together" in an emergency | Always | Often | Seldom |
| | <input type="text" value=""/> | <input type="text" value="1"/> | <input type="text" value="2"/> |
| 12. As a child I was afraid of the dark | Often | Sometimes | Never |
| | <input type="text" value="2"/> | <input type="text" value="1"/> | <input type="text" value=""/> |
| 13. People sometimes tell me that I show my excitement in voice and manner too obviously | Yes | Uncertain | No |
| | <input type="text" value="2"/> | <input type="text" value="1"/> | <input type="text" value=""/> |
| 14. If people take advantage of my friendliness I: | | | |
| (a) Soon forget and forgive | | | |
| (b) resent it and hold it against them | A | In Between | B |
| | <input type="text" value=""/> | <input type="text" value="1"/> | <input type="text" value="2"/> |
| 15. I find myself upset rather than helped by the kind of personal criticism that many people make | Often | Occasionally | Never |
| | <input type="text" value="2"/> | <input type="text" value="1"/> | <input type="text" value=""/> |
| 16. Often I get angry with people too quickly | True | In Between | False |
| | <input type="text" value="2"/> | <input type="text" value="1"/> | <input type="text" value=""/> |
| 17. I feel restless, as if I want something but do not know what | Very Rarely | Sometimes | Often |
| | <input type="text" value=""/> | <input type="text" value="1"/> | <input type="text" value="2"/> |
| 18. I sometimes doubt whether people I am talking to are really interested in what I am saying | True | In Between | False |
| | <input type="text" value="2"/> | <input type="text" value="1"/> | <input type="text" value=""/> |
| 19. I have always been free from any vague feelings of ill-health, such as funny pains in my head, stomach or heart | True | Uncertain | False |
| | <input type="text" value=""/> | <input type="text" value="1"/> | <input type="text" value="2"/> |
| 20. In discussion with some people, I get so annoyed that I can hardly trust myself to speak | Sometimes | Rarely | Never |
| | <input type="text" value="2"/> | <input type="text" value="1"/> | <input type="text" value=""/> |
| 21. Through getting "worked-up" I use up more energy than most people in getting things done | True | Uncertain | False |
| | <input type="text" value="2"/> | <input type="text" value="1"/> | <input type="text" value=""/> |

- | | | | |
|--|---|---|---|
| 22. I make a point of not being absent-minded or forgetful | True
<input type="checkbox"/> | Uncertain
<input type="checkbox" value="1"/> | False
<input type="checkbox" value="2"/> |
| 23. However difficult and unpleasant the obstacles, I always stick to my original intentions | Yes
<input type="checkbox"/> | In between
<input type="checkbox" value="1"/> | No
<input type="checkbox" value="2"/> |
| 24. I tend to get over-excited and "rattled" in upsetting situations | Yes
<input type="checkbox" value="2"/> | In Between
<input type="checkbox" value="1"/> | No
<input type="checkbox"/> |
| 25. I occasionally have vivid dreams that disturb my sleep | Yes
<input type="checkbox" value="2"/> | In Between
<input type="checkbox" value="1"/> | No
<input type="checkbox"/> |
| 26. I always have enough energy when faced with difficulties | Yes
<input type="checkbox"/> | In Between
<input type="checkbox" value="1"/> | No
<input type="checkbox" value="2"/> |
| 27. I sometimes find myself counting things for no particular reason | True
<input type="checkbox" value="2"/> | Uncertain
<input type="checkbox" value="1"/> | False
<input type="checkbox"/> |
| 28. Most people are a little queer mentally though they do not like to admit it | True
<input type="checkbox" value="2"/> | Uncertain
<input type="checkbox" value="1"/> | False
<input type="checkbox"/> |
| 29. If I make an awkward social mistake I can soon forget it | Yes
<input type="checkbox"/> | In Between
<input type="checkbox" value="1"/> | No
<input type="checkbox" value="2"/> |
| 30. I feel grumpy and just do not want to see people: This happens (a) occasionally, (b) rather often | A
<input type="checkbox"/> | In Between
<input type="checkbox" value="1"/> | B
<input type="checkbox" value="2"/> |
| 31. I am brought almost to tears by having things go wrong | Never
<input type="checkbox"/> | Very Rarely
<input type="checkbox" value="1"/> | Sometimes
<input type="checkbox" value="2"/> |
| 32. In the midst of social groups I am nevertheless sometimes overcome by feelings of loneliness and worthlessness ... | Yes
<input type="checkbox" value="2"/> | In Between
<input type="checkbox" value="1"/> | No
<input type="checkbox"/> |
| 33. I wake in the night and, through worry, have some difficulty in sleeping again | Often
<input type="checkbox" value="2"/> | Sometimes
<input type="checkbox" value="1"/> | Never
<input type="checkbox"/> |
| 34. My spirits generally stay high no matter how many troubles I meet | Yes
<input type="checkbox"/> | In Between
<input type="checkbox" value="1"/> | No
<input type="checkbox" value="2"/> |

- | | | | | |
|-----|---|-----------------------|----------------------------|-----------------------|
| 35. | I sometimes feel guilty or very sorry
over quite small matters | Yes
<div>2</div> | In Between
<div>1</div> | No
<div></div> |
| 36. | My nerves get on edge so that certain
sounds, e.g. a screechy hinge, are
unbearable and give me the shivers | Often
<div>2</div> | Sometimes
<div>1</div> | Never
<div></div> |
| 37. | If something badly upsets me I generally
calm down again quite quickly | True
<div></div> | Uncertain
<div>1</div> | False
<div>2</div> |
| 38. | I tend to tremble or perspire when I think of
a difficult task ahead | Yes
<div>2</div> | In Between
<div>1</div> | No
<div></div> |
| 39. | I usually fall asleep quickly, in a few minutes
when I go to bed | Yes
<div></div> | In Between
<div>1</div> | No
<div>2</div> |
| 40. | I sometimes get very excited or "worked-up"
as I think about things that have happened
recently | True
<div>2</div> | Uncertain
<div>1</div> | False
<div></div> |

APPENDIX DTEMPLER'S DEATH ANXIETY SCALE AND SCORING KEY

Below follows another set of statements.

Read each of the statements and decide whether it is TRUE as applied to you, or FALSE as applied to you.

If a statement is TRUE or MOSTLY TRUE for you, put a cross (X) in the answer space marked "T". If a statement is FALSE or NOT USUALLY TRUE for you, put a cross in the answer space marked "F".

Do not spend too much time puzzling over answers. Answer each one immediately, as you feel NOW, at this moment.

	T	F
1. I am very much afraid to die.	<input type="checkbox"/>	<input type="checkbox"/>
2. The thought of death seldom enters my mind.	<input type="checkbox"/>	<input type="checkbox"/>
3. It doesn't make me nervous when people talk about death.	<input type="checkbox"/>	<input type="checkbox"/>
4. I dread to think about having to have an operation.	<input type="checkbox"/>	<input type="checkbox"/>
5. I am not at all afraid to die.	<input type="checkbox"/>	<input type="checkbox"/>
6. I am not particularly afraid of getting cancer.	<input type="checkbox"/>	<input type="checkbox"/>
7. The thought of death never bothers me.	<input type="checkbox"/>	<input type="checkbox"/>
8. I am often distressed by the way time flies so very rapidly.	<input type="checkbox"/>	<input type="checkbox"/>

	T	F
9. I fear dying a painful death.	<input type="checkbox"/>	<input type="checkbox"/>
10. The subject of life after death troubles me greatly.	<input type="checkbox"/>	<input type="checkbox"/>
11. I am really scared of having a heart attack.	<input type="checkbox"/>	<input type="checkbox"/>
12. I often think about how short life really is.	<input type="checkbox"/>	<input type="checkbox"/>
13. I shudder when I hear people talking about a World War III.	<input type="checkbox"/>	<input type="checkbox"/>
14. The sight of a dead body is horrifying to me.	<input type="checkbox"/>	<input type="checkbox"/>
15. I feel that the future holds nothing for me to fear.	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX E

THE RELIGIOUS ORIENTATION SCALE OF THE OMNIBUS PERSONALITY
INVENTORY AND SCORING KEY

The instructions given for the Death Anxiety scale were also applicable for this scale, since in the questionnaire the two scales were combined.

	T	F
1. In matters of religion, it really does not matter what one believes.	<input type="checkbox"/> 1	<input type="checkbox"/>
2. Each person should interpret the Bible/Koran/Gita/etc. for himself.	<input type="checkbox"/> 1	<input type="checkbox"/>
3. I pray several times a week.	<input type="checkbox"/>	<input type="checkbox"/> 1
4. I believe there is a God.	<input type="checkbox"/>	<input type="checkbox"/> 1
5. There must be something wrong with a person who is lacking in religious feeling.	<input type="checkbox"/>	<input type="checkbox"/> 1
6. I generally prefer being with people who are not religious.	<input type="checkbox"/> 1	<input type="checkbox"/>
7. It doesn't matter to me what religious group a man belongs to, or whether or not he belongs to a church, temple, mosque or any such institution at all.	<input type="checkbox"/> 1	<input type="checkbox"/>
8. I believe in life hereafter.	<input type="checkbox"/>	<input type="checkbox"/> 1
9. I have read little or no religious literature.	<input type="checkbox"/> 1	<input type="checkbox"/>
10. When it comes to differences of opinion in religion, we should be careful not to compromise with (give in to) those whose beliefs are different from ours.	<input type="checkbox"/>	<input type="checkbox"/> 1

- | | T | F |
|---|-------------------------------------|-------------------------------------|
| 11. Every person should have complete faith in a super-natural power whose decisions are obeyed without questions. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 12. My religion or faith has the only true approach to God. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 13. In religious matters I believe I would have to be called a skeptic or an agnostic (non-believer). | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 14. The only meaning to existence is the one man gives it. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 15. When science contradicts religion, it is because of scientific hypotheses that have not been or cannot be tested. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 16. I frequently have serious doubts about my religious beliefs. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 17. Organized religions, while sincere and constructive in their aims, are really an obstacle to human progress. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 18. Religions should be primarily a social force or institution. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 19. The prophets of the Old Testament/Koran/Gita/etc., predicted (forecast) the events that are happening today. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 20. God hears our prayers. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 21. We cannot know for sure whether or not there is a God. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 22. I believe in the worth of humanity, but not in God. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 23. One needs to be wary of those people who claim not to believe in God. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- | | T | F |
|--|-------------------------------------|-------------------------------------|
| 24. I go to a religious service almost every week. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 25. I am more religious than most people. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 26. I expect that ultimately mathematics will prove more important for mankind than will theology (study of religion and religious beliefs). | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

APPENDIX F

THE SEMANTIC DIFFERENTIAL SCALE AND SCORING KEY

In this section you are to indicate on a number of scales how you feel about about certain concepts. Each scale offers 5 possible responses.

Suppose you had to indicate your attitude towards the concept work on the scale "good-bad", you could do this by placing a cross (X) in the appropriate space on the scale. Your response may take one of the following forms:-

1. If you consider work to be generally very good, then your response is likely to be:

good X : ___ : ___ : ___ : ___ : bad

2. If you consider work to be fairly good, then your response is likely to be :

good ___ : X : ___ : ___ : ___ : bad

3. If you consider work to be neither good nor bad, then your response is likely to be:

good ___ : ___ : X : ___ : ___ : bad

4. If you consider work to be fairly bad, then your response likely to be:

good ___ : ___ : ___ : X : ___ : bad

5. If you consider work to be generally very bad, then your response is likely to be:

good ___ : ___ : ___ : ___ : X : bad

MY PLACE OF WORSHIP

good	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	bad
powerless	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	powerful
gentle	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	violent
unjust	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	just
easy	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	difficult
cold	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	warm
necessary	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	unnecessary
rugged	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	delicate
active	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	passive
happy	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	sad

MY RELIGIOUS BOOK e.g. Koran/Gita/Bible/etc.

good	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	bad
powerless	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	powerful
gentle	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	violent
unjust	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	just
easy	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	difficult
cold	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	warm
necessary	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	unnecessary
rugged	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	delicate
active	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	passive
happy	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	sad

PRAYER

good	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	bad
powerless	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	powerful
gentle	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	violent
unjust	<u>5</u> :	<u>4</u> :	<u>33</u> :	<u>2</u> :	<u>1</u> :	just
easy	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	difficult
cold	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	warm
necessary	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	unnecessary
rugged	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	delicate
active	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	passive
happy	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	sad

MY DEATH

good	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	bad
powerless	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	powerful
gentle	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	violent
unjust	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	just
easy	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	difficult
cold	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	warm
necessary	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	unnecessary
rugged	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	delicate
active	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	passive
happy	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	sad

NOTE:

1. Each concept to be rated appears on top of the scales.
2. Never put more than one cross on a single scale.
3. Do not omit any scale.
4. Work as quickly as possible, and try not to be careless because we want your true and first impressions.

MY RELIGION

good	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	bad
powerless	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	powerful
gentle	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	violent
unjust	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	just
easy	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	difficult
cold	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	warm
necessary	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	unnecessary
rugged	<u>5</u> :	<u>4</u> :	<u>3</u> :	<u>2</u> :	<u>1</u> :	delicate
active	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	passive
happy	<u>1</u> :	<u>2</u> :	<u>3</u> :	<u>4</u> :	<u>5</u> :	sad

APPENDIX G

THE RAW DATA FOR THE 2X3X3 (SEX X AGE X RELIGION) ANALYSES
OF VARIANCE EXAMINING THE INFLUENCE OF THESE FACTORS
ON DEATH ANXIETY, GENERAL ANXIETY, RELIGIOSITY AND THE
CONCEPT, "MY DEATH" OF 360 SUBJECTS



EXAMINING THE INFLUENCE OF THESE FACTORS ON DEATH ANXIETY SCORES

M A L E (N = 180)							F E M A L E (N = 180)						
SCHOOL (N=90)			UNIVERSITY (N=90)				SCHOOL (N=90)			UNIVERSITY (N=90)			
	HINDU	MUSLIM	CHRISTIAN	HINDU	MUSLIM	CHRISTIAN		HINDU	MUSLIM	CHRISTIAN	HINDU	MUSLIM	CHRISTIAN
1	5	1	6	9	0	5	13	9	13	1	15	4	
2	5	11	6	12	10	7	11	5	10	10	7	2	
3	11	2	4	6	9	7	6	14	2	8	8	15	
4	8	8	8	5	8	8	14	8	12	9	13	10	
5	6	14	8	1	9	9	11	10	7	13	8	8	
6	6	9	4	2	3	6	13	11	9	14	10	6	
7	8	10	12	4	6	7	3	9	9	13	6	9	
8	3	12	4	9	5	4	9	7	11	0	7	9	
9	4	8	8	12	12	2	15	13	2	1	10	6	
10	1	14	11	3	6	4	3	9	8	11	15	10	
11	6	6	12	5	11	5	14	13	1	13	5	8	
12	9	9	5	6	15	0	4	12	10	3	10	13	
13	15	12	12	15	15	0	7	5	9	6	11	6	
14	1	4	14	6	7	7	10	13	2	9	5	5	
15	5	11	12	12	11	3	12	12	14	15	5	5	
16	8	0	8	5	9	3	8	13	5	11	12	4	
17	6	8	7	0	5	9	8	13	15	11	11	8	
18	11	6	6	4	5	4	9	12	8	8	14	4	
19	8	8	7	8	0	11	4	12	4	12	8	7	
20	6	5	9	1	13	9	7	9	8	3	11	15	
21	12	3	9	13	12	9	9	11	9	13	8	10	
22	7	8	12	10	14	2	4	7	14	3	10	13	
23	7	9	7	10	13	11	9	15	12	1	13	4	
24	9	13	4	6	11	6	14	6	11	3	15	4	
25	6	4	0	8	6	10	4	10	11	9	12	3	
26	7	10	8	6	6	10	12	10	13	3	14	3	
27	14	10	4	4	12	8	10	9	6	2	13	11	
28	2	6	11	5	12	9	8	10	13	3	10	2	
29	7	8	6	8	3	2	14	14	7	8	10	11	
30	8	15	6	8	13	5	9	14	5	7	10	9	
ΣX	= 211	244	230	203	261	182	274	315	260	223	306	224	
$\Sigma(X) =$	2933												
$\Sigma X^2 =$	1807	2407	2072	1787	2785	1396	2890	3529	2704	2285	3390	2078	
TOTAL $\Sigma(X^2) =$	29130												

TABLE IX

THE RAW DATA FOR THE 2 X 2 X 3 (SEX X AGE X RELIGION) ANALYSIS OF VARIANCE EXAMINING THE

INFLUENCE OF THESE FACTORS ON GENERAL ANXIETY												
M A L E A1							F E M A L E A2					
SCHOOL B1			UNIVERSITY B2				SCHOOL B1			UNIVERSITY B2		
HINDU	MUSLIM	CHRISTIAN	HINDU	MUSLIM	CHRISTIAN		HINDU	MUSLIM	CHRISTIAN	HINDU	MUSLIM	CHRISTIAN
1	25	26	26	26	19	25	45	27	31	30	48	26
2	35	36	34	41	27	29	40	18	31	28	13	30
3	34	36	25	29	31	61	32	37	22	18	31	52
4	31	54	31	35	20	44	34	43	32	51	49	41
5	35	63	29	18	32	27	37	34	46	36	31	36
6	23	29	37	18	39	32	35	43	28	24	24	50
7	33	34	48	36	28	39	36	37	59	39	29	52
8	20	35	24	48	13	17	40	40	45	15	27	20
9	35	46	40	38	46	14	53	16	30	12	43	44
10	35	20	38	19	30	30	42	42	19	49	41	49
11	31	37	60	23	37	20	43	50	27	26	22	38
12	34	33	57	28	49	6	56	46	30	43	48	50
13	45	37	47	42	56	18	51	31	37	34	43	13
14	15	34	48	12	36	15	37	37	49	46	29	16
15	39	21	47	21	31	9	40	23	36	45	45	29
16	20	29	50	39	31	42	49	45	29	48	47	19
17	11	34	31	9	42	29	32	51	51	44	31	35
18	39	9	46	35	35	17	36	45	37	26	31	13
19	28	25	41	16	21	38	28	46	30	39	23	18
20	33	21	31	21	38	35	35	22	41	43	26	59
21	61	21	31	33	43	21	44	36	34	45	12	31
22	7	29	44	16	37	14	16	38	44	11	48	56
23	22	32	25	21	30	25	34	39	37	31	36	43
24	35	65	28	38	19	23	37	20	45	42	44	36
25	33	25	25	33	34	19	28	39	39	28	32	23
26	40	44	26	30	39	41	58	29	46	29	44	16
27	43	37	28	24	30	27	42	31	22	24	37	45
28	30	22	31	34	35	20	32	53	40	24	48	29
29	53	42	30	32	35	51	57	41	37	29	34	41
30	40	47	34	29	20	35	31	48	30	23	25	32

TABLE X

THE RAW DATA FOR THE 2X2X3 (SEX X AGE X RELIGION) ANALYSIS OF VARIANCE EXAMINING THE INFLUENCE OF THESE FACTORS ON RELIGIOSITY AS MEASURED BY THE RELIGIOUS ORIENTATION SCALE

OF THE O P I												
M A L E A1							F E M A L E A2					
SCHOOL B1			UNIVERSITY B2				SCHOOL B1			UNIVERSITY B2		
HINDU	MUSLIM	CHRISTIAN	HINDU	MUSLIM	CHRISTIAN		HINDU	MUSLIM	CHRISTIAN	HINDU	MUSLIM	CHRISTIAN
1	10	7	4	14	17	5	13	8	5	13	2	4
2	15	5	4	16	5	2	16	10	7	13	7	5
3	12	3	4	13	4	2	7	8	4	14	18	11
4	10	7	4	16	8	10	11	10	12	14	19	11
5	8	4	8	16	7	11	10	13	12	22	18	8
6	7	7	16	16	6	16	13	9	7	15	14	8
7	14	6	6	7	14	17	15	3	16	7	14	9
8	7	8	4	11	4	5	12	11	9	22	1	7
9	21	6	11	24	6	7	17	8	8	13	11	3
10	8	4	12	5	12	4	10	15	2	14	3	1
11	9	9	11	12	4	7	15	6	4	12	5	8
12	8	3	7	23	5	8	10	10	10	17	8	9
13	11	8	4	15	3	2	20	9	14	13	17	7
14	3	6	8	2	4	1	14	5	10	10	13	7
15	16	4	9	7	7	18	17	7	8	12	13	5
16	24	5	14	18	9	15	15	10	14	16	14	5
17	10	14	7	10	5	14	8	19	9	12	9	7
18	8	4	2	13	11	7	9	8	2	10	7	8
19	9	4	14	14	6	13	9	12	8	14	8	2
20	11	6	13	11	5	5	14	8	5	9	4	4
21	21	8	6	20	8	0	13	8	9	8	4	4
22	11	8	8	12	5	7	9	4	7	17	15	1
23	11	14	5	12	4	3	20	10	6	3	3	0
24	9	13	0	9	6	1	9	7	8	14	9	5
25	12	5	5	15	10	12	14	9	11	9	5	4
26	10	3	9	12	3	16	13	13	8	23	3	16
27	16	12	13	12	6	13	9	7	4	12	8	7
28	17	6	11	8	5	8	14	10	5	9	7	3
29	14	10	4	7	3	7	12	5	11	5	6	7
30	9	8	4	16	4	17	10	10	6	19	7	4

TABLE XI

THE RAW DATA FOR THE 2X2X3 (SEX X AGE X RELIGION) ANALYSIS OF VARIANCE EXAMINING THE INFLUENCE OF THESE FACTORS ON RELIGIOSITY AS MEASURED BY THE SEMANTIC DIFFERENTIAL SCALE

	M A L E A1						F E M A L E A2					
	SCHOOL B1			UNIVERSITY B2			SCHOOL B1			UNIVERSITY B2		
	HINDU	MUSLIM	CHRISTIAN	HINDU	MUSLIM	CHRISTIAN	HINDU	MUSLIM	CHRISTIAN	HINDU	MUSLIM	CHRISTIAN
1	48	44	51	48	73	54	95	43	52	89	40	53
2	66	40	48	105	40	52	78	58	45	54	40	65
3	74	56	40	73	48	45	43	46	40	90	100	53
4	52	44	60	114	40	88	44	73	51	92	94	70
5	55	60	42	113	41	40	44	94	89	87	94	40
6	75	73	64	58	40	75	60	76	50	83	66	64
7	92	58	64	40	103	79	53	59	105	68	66	77
8	73	60	50	77	40	56	48	52	72	177	43	60
9	79	50	79	154	51	40	104	40	50	51	64	55
10	45	40	79	55	48	46	50	40	40	57	42	50
11	50	71	78	51	67	56	58	65	73	69	55	75
12	69	57	63	136	66	40	48	44	90	77	54	72
13	77	62	52	59	41	69	115	52	81	59	67	52
14	44	60	61	44	56	43	119	75	100	69	69	65
15	70	40	40	100	55	48	96	61	52	88	111	45
16	109	70	49	98	53	87	74	79	57	95	71	56
17	63	52	73	43	40	73	60	117	40	44	72	49
18	48	40	57	106	94	60	56	42	60	43	60	70
19	74	53	78	87	52	58	40	71	54	61	80	68
20	77	57	47	70	41	44	49	72	52	61	40	51
21	103	44	62	87	65	62	67	71	64	77	40	53
22	40	79	69	67	46	60	50	40	40	97	80	58
23	95	103	44	83	40	43	107	69	43	64	40	52
24	54	86	62	52	40	42	59	40	50	92	51	55
25	66	40	78	64	75	74	44	63	76	82	48	48
26	59	44	46	78	40	82	123	55	65	111	48	85
27	104	96	49	58	70	65	46	65	24	54	58	61
28	90	86	68	56	82	70	57	78	70	55	40	46
29	90	61	51	61	45	80	65	52	80	51	43	77
30	88	72	48	71	56	68	53	57	40	116	43	54

TABLE XII

THE RAW DATA FOR THE 2X2X3 (SEX X AGE X RELIGION) ANALYSIS OF VARIANCE EXAMINING THE
INFLUENCE OF THESE FACTORS ON THE CONCEPT, "MY DEATH"

	M A L E						F E M A L E					
	SCHOOL			UNIVERSITY			SCHOOL			UNIVERSITY		
	HINDU	MUSLIM	CHRISTIAN	HINDU	MUSLIM	CHRISTIAN	HINDU	MUSLIM	CHRISTIAN	HINDU	MUSLIM	CHRISTIAN
1	50	23	30	30	20	25	40	23	45	42	35	23
2	18	10	14	30	31	14	30	15	14	24	30	27
3	27	16	10	21	29	11	30	26	22	24	28	14
4	46	12	14	30	21	24	50	25	34	31	34	30
5	30	30	24	30	17	22	50	19	35	33	34	20
6	26	26	23	15	24	28	24	30	27	31	19	16
7	27	30	12	14	30	30	24	27	36	40	26	31
8	30	27	25	24	21	16	28	18	24	10	26	25
9	16	34	30	34	20	30	31	16	11	19	30	22
10	26	20	44	16	18	15	25	10	10	32	32	30
11	36	20	30	27	21	18	46	18	28	36	17	27
12	36	24	26	16	32	10	28	22	30	32	22	28
13	30	30	17	46	23	13	30	14	34	27	22	28
14	32	16	35	13	32	12	30	25	27	30	20	20
15	23	25	36	30	30	10	22	26	29	39	31	22
16	24	33	16	31	25	24	18	37	20	46	20	13
17	46	27	23	21	22	28	46	38	18	21	35	30
18	34	16	14	28	30	17	31	17	25	20	26	19
19	30	22	24	19	28	42	14	42	26	20	26	30
20	40	25	21	17	31	30	22	32	25	20	10	40
21	36	15	28	31	30	33	42	46	30	27	10	16
22	10	23	22	38	30	11	23	14	38	24	38	30
23	38	36	28	33	14	24	35	31	14	29	31	14
24	32	29	28	28	15	15	28	21	30	29	22	16
25	24	24	21	24	25	18	17	22	32	26	27	19
26	18	24	30	23	10	36	31	18	29	27	30	21
27	33	33	17	18	36	31	14	28	20	32	23	32
28	20	30	32	20	37	17	13	31	23	15	35	22
29	27	18	30	19	21	18	23	25	30	42	15	35
30	32	30	14	34	19	29	17	31	28	22	30	25

APPENDIX H

STATISTICAL ANALYSES

1. A REPRESENTATIVE EXAMPLE OF A THREE FACTOR ANALYSIS OF VARIANCE
OF THE TOTAL DEATH ANXIETY SCORES OF 360 SUBJECTS TO EXAMINE
THE EFFECTS OF SEX, AGE AND RELIGION ON THE DEATH ANXIETY SCORES

The analysis of variance has been calculated according to the statistical procedure presented by Winer (1962, p 250 - 256).

The following is an example that examines the effects of sex X age X religion on death anxiety. (Refer to page 168 for the raw data).

TABLE XIII

Summary Table to Examine the Effect of Sex X Age X Religion
(AXBXC) on Death Anxiety

	b1			b2			
	C1	C2	C3	C1	C2	C3	Total
a1	230	211	244	182	203	261	1331
a2	260	274	315	224	223	306	1602
TOTAL	490	485	559	406	426	567	2933

TABLE XIIIa

AB SUMMARY TABLE

	b1	b2	Total
a1	685	646	1331
a2	849	753	1602
TOTAL	1534	1399	2933

TABLE XIIIb

AC SUMMARY TABLE

	C1	C2	C3	Total
a1	412	414	505	1331
a2	484	497	621	1602
TOTAL	896	911	1126	2933

TABLE XIIIc

BC SUMMARY TABLE

	C1	C2	C3	Total
b1	490	485	559	1534
b2	406	426	567	1399
TOTAL	896	911	1126	2933

Note: A = Sex
 B = Age
 C = Religion

The Raw Sum of Squares

$$1. \cdot (2933^2) \div 360 = 23895,802$$

$$2. \Sigma X^2 = 29130$$

$$3. (1331^2 + 1602^2) \div 180 = 24099,805$$

$$4. (1534^2 + 1399^2) \div 180 = 23946,427$$

$$5. (896^2 + 911^2 + 1126^2) \div 120 = 24171,775$$

$$6. (685^2 + 646^2 + 849^2 + 753^2) \div 90 = 24159,456$$

$$7. (412^2 + 414^2 + 505^2 + 484^2 + 497^2 + 621^2) \div 60 = 24260,117$$

$$8. (490^2 + 485^2 + 559^2 + 406^2 + 426^2 + 567^2) \div 60 = 24260,117$$

$$9. (230^2 + 211^2 + 244^2 + 260^2 + 274^2 + 315^2 + 182^2 + 203^2 + 261^2 + 224^2 + 223^2 + 306^2) \div 30 = 24495,1$$

Sum of Squares for the Numerical Example

SSA	= 3 - 1	204,002
SSB	= 4 - 1	50,622
SSC	= 5 - 1	275,972
SSAB	= (6 + 1) - (3 + 4) = 48055,258 - 48046,234	= 9,024
SSAC	= (7 + 1) - (3 + 5) = 48280,319 - 48271,581	= 8,738
SSBC	= (8 + 1) - (4 + 5) = 48155,920 - 48118,203	= 37,717
SSABC	= (9 + 3 + 4 + 5) - (6 + 7 + 8 + 1) = 96713,107 - 96699,893	= 13,214
SSW error	= 2 - 9	= 4634,9
SS Total	= (2-1)	= 5234,19
Total		= 5234,19

TABLE XIV

RESULTS OF THE 2X2X3 (SEX X AGE X RELIGION) ANALYSIS OF
VARIANCE EXAMINING THE INFLUENCE OF THESE FACTORS ON
DEATH ANXIETY SCORES AS MEASURED BY THE
DEATH ANXIETY SCALE

	SS	df	MS	F	
A	204,003	1	204,003	15,317*	p < 01
B	50.625	1	50,625	3,801	
C	275,972	2	137,986	10,360*	p < 01
AB	9,024	1	9,024	0,678	
AC	8,738	2	4,369	0,328	
BC	37,717	2	18,8585	1,416	
ABC	13,214	2	6,607	0,496	
Exp. Error	4634,9	348	<u>13,319</u>		
Total	5234,19	359			

2. A REPRESENTATIVE EXAMPLE OF THE CALCULATION OF THE SCHEFFE TEST

In the Table II , the factor of religion was found to be significant.
 In order to examine where the significance lay, a number of
 comparisons were made.

The following is an example of the calculation of the Scheffe Test
 (Roscoe, 1969) which illustrates the comparison between death
 anxiety scores of Christian and Hindu Subjects.

$$\begin{aligned}
 & \frac{(7.59 - 7.47)^2}{13,319 \times \left(\frac{1}{120} + \frac{1}{120}\right) \times 2} \\
 &= \frac{.014}{.443} \\
 &= \underline{.03}
 \end{aligned}$$

3. CORRELATIONAL ANALYSIS USING THE PEARSON r

All correlational analyses were performed by computer using the following formula:

$$r = \frac{N \Sigma X Y - (\Sigma X) (\Sigma Y)}{\sqrt{N \Sigma X^2 - (\Sigma X)^2} \quad N \Sigma Y^2 - (\Sigma Y)^2}$$

(Note: Refer to Table XII for the raw data).

(Downie, N.M., and Heath, R.W. Basic Statistical Methods. New York : Harper Row, 1965.)

REFERENCES

- ABRAMS, R.D. and VISPO, R.H. Denial and depression in the terminal cancer patient : A clue for Management. Psychiatric Quarterly, 1971, 45, 395-409.
- ADAM, K.S., LOHRENZ, J.G., and HARPER, D. Suicidal Ideation and Parental Loss: A Preliminary Research Report. Psychiatric Association Journal, 1973, 18, 95-100.
- AHMAD Islam : Its Meaning and Message. London : Islamic Council of Europe, 1975.
- ALEXANDER, I.E., and ADLERSTEIN, A.M. Affective responses to the concept of death in a population of children and early adolescents. Journal of Genetic Psychology, 1958, 93, 167-177.
- ALLPORT, G.W., VERNON, P.E., and LINDZEY, G. Study of Values. Boston : Houghton Mifflin, 1951.
- ALLPORT, G.W., and ROSS, J.M. Personal religious orientation and Prejudice. In G.W. Allport ((Ed.), The Person in Psychology, Boston : Beacon Press, 1968.
- ANTONY, E.J. The behaviour disorders of children. In P.H. Mussen (Ed.), Carmichael's Manual of Child Psychology, New York : Wiley, 1970, 2, 667-764.
- ARGYLE, M. Religious Behaviour. Routledge and Kegan Paul, 1958.
- BARTON, D., FLEXNER, J.M., VAN EYS, J., and SCOTT, C.E. Death and dying : A Course for Medical Students. Journal of Medical Education, 1972, 47, 945 - 951.

- BENDIG, A.W. The development of the short form of the Manifest Anxiety Scale. Journal of Consulting Psychology, 1959, 20, 384.
- BENEDICT, B. Indians in a Plural Society. London : Her Majesty's Stationery Office, 1961.
- BERMAN, A.L., and
HAYS, J.E. Relation Between Death Anxiety, Belief in Afterlife and Locus of Control, Journal of Consulting and Clinical Psychology, 1973, 41(2), 318.
- BOETTNER, L. Immortality. Philadelphia : The Presbyterian and Reformed Publishing Company. 1956.
- BOWERS, M.K.,
JACKSON, E.N.,
KNIGHT, J.A., and
LE SHAN, L. Counselling the Dying. New York : Jason Aronson, 1975.
- BOYAR, J.I. The construction and partial validation of a scale for the measurement of the fear of death. Dissertation Abstracts International, 1964, 25, 2041.
- BROEN, W.E. A factor analytic study of religious attitudes. Journal of Abnormal Social Psychology, 1957, 54 : 176-179.
- BROWNE, D.G., and
LOWE, W.J. The religious beliefs and personality characteristics of college students. Journal of Social Psychology, 1951, 33, 103-129.
- CAPRIO, F.S. Ethnological attitudes toward death : A psychoanalytic evaluation. Journal of Criminal Psychopathology, 1946, 7, 737.
- CAPRIO, F.S. A psycho-social study of primitive conceptions of death. Journal of Criminal Psychopathology, 1943, 5, 303.
- CAPRIO, F.S. A study of some psychological reactions during prepubescence to the idea of death. Psychiatric Quarterly, 1950, 24, 495.

- CATTEL, R.B. Ipat Anxiety Scale, Human Sciences Research Council, Pretoria, 1963.
- CATTEL, R.B., SCHEIER, I.H., and MADGE, E.M. Manual for the Ipat Anxiety Scale Questionnaire, National Bureau of Educational and Social Research, Pretoria, 1968.
- CHASIN, B. Neglected variables in the study of death attitudes. Journal of Sociological Quarterly, 1971, 12, 107-113.
- CHIAPETTA, W., FLOYD, H., and McSEVENY, D.R. Sex differences in coping with death anxiety. Psychological Reports, 1976, 39, 945-946.
- CHRIST, A.E. Attitudes toward death among a group of acute geriatric psychiatric patients. Journal of Gerontology, 1961, 16, 56-59.
- COHEN, J. Personality Tests and Reviews. In Buros O.K. (Ed.), New Jersey : The Gryphon Press, 1970, 1061.
- COLLETT, L.J., and LESTER, D. The fear of death and the fear of dying. Journal of Psychology, 1969, 72, 179-181.
- COUCH, A., and KENISTON, K. Yeasayers and Naysayer's agreeing response set as a personality variable. Journal of Abnormal and Social Psychology, 1960, 60, 151-174.
- DANDEKAR, R.N. Hinduism. In Bleeker, C.J., and Widengren, G. (Eds.), Historia Religionum : Handbook for the History of Religions, Netherlands : Leiden-Brill, 1971, 2, 237-345.
- DIGGORY, J.C., and ROTMAN, D.Z. Values destroyed by death. Journal of Abnormal and Social Psychology, 1961, 63, 205-210.

- DI VESTA, F.J. The test - retest reliability of children's ratings on the semantic differential. Educational Psychological Measurement, 1966, 26, 606-616.
- DOWNIE, N.M., and HEATH, R.W. Basic Statistical Methods. New York : Harper and Row, 1965.
- FEIFEL, H. The Meaning of Death. New York : McGraw-Hill Book Company, Inc., 1959.
- FEIFEL, H. Fear of death in mentally ill. Psychological Reports, 1973, 33, 931-938.
- FEIFEL, H., and BRANSCOMB, A.B. Who's afraid of death? Journal of Abnormal Psychology, 1973, 81, 282-288.
- FREUD, S. Beyond the Pleasure Principle, London : International Psycho-Analytic Press, 1922.
- FRIEDMAN, D.B. Death and the primal scene. Psychoanalytic Review, 1961, 48, 108-117.
- GOLDBURGH, S., ROTHMAN, C.B., SNIBBE, J.R., and ONDRACK, J.W. Attitudes of College students toward personal death. Adolescence, 1967, 2, 212-229.
- GUILFORD, J.P. Personality Tests and Reviews. In Buros O.K. (Ed.), New Jersey : The Gryphon Press, 1970, 759.
- HANDAL, P.J. The relationship between subjective life expectancy, death anxiety and general anxiety. Journal of Clinical Psychology, 1969, 25, 39-42.
- HARDT, D.V. Development of an investigatory instrument to measure attitudes towards death. Journal of School Health, 1975, 45, 96-99.
- HEIDEGGER, M. Seinund Zeit. Halle : Max Niemeyer Verlag, 1927.
- HEIST, P., and YONGE, G. Omnibus Personality Inventory Manual, Form F, The Psychological Corporation, New York : 1968.
- HILGARD, E.R., ATKINSON, R.C., and ATKINSON, R.L. Introduction to Psychology. New York : Harcourt Brace Jovanovick, Inc., 1975.

- HILL, K.T. and SARASON, S.B. The relation to test anxiety and defensiveness to test and school performance over the elementary school years. Monographs of the Society for Research in Child Development, 1966, 31, 104.
- HINTON, J. Dying. Baltimore : Penguin Books, 1971.
- HORNEY, K. The Neurotic Personality of Our Time. London : Routledge and Kegan Paul Limited, 1962.
- JEFFERS, F.C., NICHOLS, C.R., and EISDORFER, C. Attitudes of older persons toward death. Journal of Gerontology, 1961, 16, 53-56.
- JENKINS, J.J., RUSSEL, W.A., and SUCI, G.J. An Atlas of Semantic profiles for 350 words. American Journal of Psychology, 1958, 71, 688-699.
- JOSEY, C.G. A scale of religious development. American Psychology, 1950, 5, 281.
- KAHOE, R.D., and DUNN, R.F. The fear of death and religious attitudes and behaviour. Journal for Scientific Study of Religion, 1975, 14, 379-382.
- KALISH, R.A. Some variables in death attitudes. Journal of Social Psychology, 1963, 59, 137-145.
- KASTENBAUM, R., and AISENBERG, R. The Psychology of Death. New York : Springer Publication Company, Inc., 1972.
- KHAN, M.Z.K. Islam : Its Meaning for Modern Man. London : Routledge and Paul Ltd., 1962.
- KLEIN, M. A contribution to the theory of anxiety and guilt. International Journal of Psychoanalysis, 1948, 29, 114-123.
- KUDER, G.F., and RICHARDSON, M.W. The theory of the estimation of test reliability. Psychometrika, 1937, 2, 151-160.
- KUPER, H. Indian People in Natal. Natal University Press, 1960.
- KURZWEIL, Z.E. Anxiety and Education. New York : Yoseloff, 1968.

- LESTER, D. Experimental and correlational studies of fear of death. Psychological Bulletin, 1967, 67, 27-36.
- LESTER, D. Studies on death attitude scales, Psychological Reports, 1969, 24, 182.
- LESTER, D. Experimental and correlational studies of fear of death. Psychological Bulletin, 1967, 67, 27-36.
- LESTER, D. (a) Re-examination of Middleton's data : Sex differences in death attitudes. Psychological Reports, 1970, 27, 136.
- LESTER, D. (b) Religious behaviour and fear of death. Omega : Journal of Death and Dying, 1970, 1, 181-188.
- LESTER, D. Sex differences in attitudes toward death : a replication. Psychological Reports, 1971, 28, 754.
- LESTER, D. Studies in death attitudes : Part II. Psychological Reports, 1972, 30, 440.
- LE SHAN, L. Quoted in Bowers et al., Counselling the Dying. Jason Aronson, New York, 1975.
- LEVITON, D., and FORMAN, E.C. Death Education for children and youth. Journal of Clinical Child Psychology, 1974, 3, 8-10.
- LIGON, L. Philosophies of human nature and religious backgrounds. Paper read at Southeastern Psychological Association, Atlanta, Georgia, April, 1965.
- LIVINGSTON, P.B., and ZIMET, C.N. Death Anxiety, authoritarianism and choice of speciality in medical students. Journal of Nervous and Mental Disorders, 1965, 140, 222-230.
- MALTZ, H.E. Ontogenetic change in the meaning of concepts as measured by the semantic differential. In Snider and Osgood (Eds.), Semantic Differential Technique, Chicago : Aldine Publishing Company, 1963.
- MARAIS, H.C. Evaluation of the semantic differential as an instrument for measurement of attitudes. Psychological Reports, 1967, 21, 591-592.
- MARLOW, D., and CROWNE, D.P. A new scale of social desirability independent of psychopathology. Journal of Consulting Psychology, 1960, 24, 349-354.

- MARTIN, D., and
WRIGHTSMAN, L.S. The relationship between religious behaviour
and concern about death. Journal of Social
Psychology, 1965, 65, 317-323.
- MASLOW, A.H. Security-Insecurity Inventory : Manual.
California : Consulting Psychology Press,
1952.
- MAUDUDI, S.A. Towards Understanding Islam. Beirut :
International Islamic Federation of Student
Organization, 1972.
- McREYNOLDS, P. Review of the O.P.I. In Buros O.K. (Ed.),
Seventh Mental Measurements Yearbook.
New Jersey : Gryphon Press, 1967.
- MIDDLETON, W. Some reactions toward death among college
students. Journal of Abnormal Social
Psychology, 1936, 31, 165-173.
- MONNICH, C.W. Christianity. In Bleeker, C.J. and
Widengren, G. (Eds.), Historia Religionum :
Handbook for the History of Religions.
Netherlands : Leiden-Brill, 1971, 2, 49-124.
- MORRIS, L.W.,
Finkelstein, C.S., and
FISHER, W.R. Components of school anxiety : Developmental
trends and sex differences. Journal of
Genetic Psychology, 1976, 128, 49-57.
- NATIONAL BUREAU OF
EDUCATIONAL AND
SOCIAL RESEARCH National Bureau Adjustment Questionnaire,
Pretoria, 1967.
- NOGAS, C.,
SCHWEITZER, K., and
GRUMET, J. An investigation of death anxiety, sense of
competence and need for achievement. Omega :
Journal of Death and Dying, 1974, 5, 245-255.
- OATES, W.E. The Psychology of Religion. Texas:Word Books,
1973.
- OLEN, H.J. Semantic differential for third through
fifth grade students. Psychological Reports,
1973, 33, 24-26.
- OSARCHUK, M., and
TATZ, S.J. Effect of induced fear of death on belief
in afterlife. Journal of Personality and
Social Psychology, 1973, 27, 256-260.
- OSGOOD, C.E. The cross cultural generality of visual -
verbal synesthetic tendencies. Behavioral
Science, 1959, 5, 146-169.

- OSGOOD, C.E. and
SUCI, G.J. Factor analysis of meaning. Journal of Experimental Psychology, 1955, 50, 325-338.
- OSGOOD, C.E., and
TANNEBAUM, P. The Measurement of Meaning. Urbana : University of Illinois Press, 1957.
- PANDEY, R.E. Factor-analytic study of attitudes toward death among college students. International Journal of Social Psychiatry, 1975, 21, 7-11.
- PANDEY, R.E., and
TEMPLER, D.I. Use of the Death Anxiety Scale in an inter-racial setting. Omega : Journal of Death and Dying, 1976, 3, 127-130.
- PETERSON, J.A. Education for Marriage. Los Angeles : Scribner, 1965.
- RADHAKRISHNAN, S. The Principle Upanishads. London : George Allen and Unwin Ltd, 1953.
- RAY, J.J., and
NAJMAN Death anxiety and death acceptance : A preliminary approach. Omega : Journal of Death and Dying, 1974, 5, 311-315.
- REEVES, M.P. An application of the semantic differential to Thematic Apperception Test Material. In Osgood, et al 1964 (Ed.), The Measurement of Meaning. 4th edition. Urbana : University of Illinois Press, 1954.
- REGAN, P. The dying patient and his family. Journal of the American Medical Association, 1965, 192, 666-667.
- RHUDICK, P.J., and
DIBNER, A.S. Age, personality and health correlates of death concerns in normal, aged individuals. Journal of Gerontology, 1961, 16, 44-49.
- ROSCOE, J.T. Fundamental Research Statistics for the Behavioural Sciences. New York : Holt Rinehart and Winston, Inc., 1969.
- SARNOFF, I., and
CORWIN, S. Castration anxiety and the fear of death. Journal of Personality, 1959, 27, 374-385.

- SCHIMMEL, A. Islam. In Bleeker, C.J. and Widengren, G. (Eds.), Historia Religionum : Handbook for the History of Religions. Netherlands : Leiden Brill, 1971, 2, 125-210.
- SCHOENBERG, B.,
CARR, A., PERETZ, D.,
and KUTSCHER Loss and Grief : Psychological Management in Medical Practice. New York : Columbia University Press, 1970.
- SHADY, G.A. Death anxiety and care of the terminally-ill : A review of the clinical literature. Canadian Psychological Review, 1976, 17, 137-142.
- SHAFFER, L.F. Personality Tests and Reviews. In Buross O.K. (Ed.), New Jersey : The Gryphon Press, 1970, 761.
- SHEARER, R. Religious belief and attitudes towards death. Dissertation Abstracts International, 1973, 33 (7B), 3292
- SHNEIDMAN, E.S. You and death. Psychology Today, 1971, 71.
- SPINKS, G.S. Psychology and Religion. London : Methuen and Company, 1963.
- STEKEL, W. Conditions of Nervous Anxiety and their Treatment. New York : Leveright, 1949.
- STOLOROW, R.D. Perspectives on death anxiety : A review. Psychiatric Quarterly, 1973, 47, 473-485.
- STROOP, J.R. Studies of inference in serial verbal reactions. Journal of Experimental Psychology 1935, 18, 643-661.

- SULLIVAN, W.J. Effect of Religious Orientation, Purpose in Life and Locus of Control on the Death Anxiety of College Students. Dissertation Abstracts International, 1977, 38 (1B), 382-383.
- SWENSON, W.M. Attitudes toward death in an aged population. Journal of Gerontology, 1961, 16, 49-52.
- TEMPLER, D.I., and DOTSON, E. Religious correlates of death anxiety. Psychological Reports, 1970, 26, 895-897.
- TEMPLER, D.I. The relationship between verbalized and non-verbalized death anxiety. Journal of Genetic Psychology, 1971, 119, 211 - 214
- TEMPLER, D.I., RUFF, C.F., and FRANKS, C.M. Death anxiety : Age, sex and parental resemblance in diverse populations. Journal of Developmental Psychology, 1971, 4, 108.
- TEMPLER, D.I. Death anxiety in religiously very involved persons. Psychological Reports, 1972, 31, 361-362.
- TEMPLER, D.I. The construction and validation of a death anxiety scale. The Journal of General Psychology, 1970, 82, 165-177.
- TEMPLER, D.I. Two factor theory of death anxiety. Essence, 1976, 1, 91 - 93.
- THE BHAGAVADGITA
- THE HOLY BIBLE
- THE HOLY QUR'AN
- THOMAS, G.F. Philosophy of Religious Beliefs. New York : Charles Scribners, 1970.
- THORNDIKE, E.L., and LORGE, I. The Teacher's Word Book of 30,000 Words. New York : Columbia University Press, 1944.
- TILAK, M. An examination of some religious concepts of Urban Indian School Children. Unpublished Master's thesis, 1975.
- VAN BUREN, P.M. The Edges of Language : An Essay on Logic and Religion. London : S.C.M. Press, 1972.

- WEBB, C.C.J. Group Theories of Religion. London : Allen and Unwin, 1916.
- WELSH, G.S. (a) An anxiety index and an internalization ratio for the M M P I In G.S. Welsh and W.D. Dahlstrom (Eds.), Basic Readings in the M.M.P.I. In Psychology and Medicine. Minneapolis : University Minnesota Press, 1956, 298-307.
- WELSH, G.S. (b) Factor dimensions A and R. In G.S. Welsh and Dahlstrom (Eds.) Basic Readings in the MMPI in Psychology and Medicine, Minneapolis : Minnesota Press, 1956, 265-281.
- WILLIAMS, R.L. and COLE, S. Religiosity, generalized anxiety and apprehension concerning death. Journal of Social Psychology, 1968, 75, 111 - 117
- WINER, B.J. Statistical Principles in Experimental Design. New York : McGraw-Hill Book Company, 1962.
- ZILBOORG, G. Fear of death. Psychoanalytic Quarterly, 1943, 12, 465.
- ZUCKERMAN, M. The development of an affective adjective check list for the measurement of anxiety. Journal of Consulting Psychology, 1960, 24, 457-462.
- ZUEHLKE, T., and WATKINS, J. The use of psychotherapy with dying patients : An exploratory study. Journal of Clinical Psychology, 1975, 31, 729-732.