A Correlational Study of the Relationship Between Adolescent Religiosity and Adolescent Perception of Parental Behavior in Antigua and Barbuda

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A CORRELATIONAL STUDY OF THE RELATIONSHIP BETWEEN ADOLESCENT RELIGIOSITY AND ADOLESCENT PERCEPTION OF PARENTAL BEHAVIOR IN ANTIGUA AND BARBUDA

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A Dissertation
Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
Eustace Sheppard
August 1986
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BETWEEN ADOLESCENT RELIGIOSITY AND
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10 July 1986
ABSTRACT

A CORRELATIONAL STUDY OF THE RELATIONSHIP BETWEEN ADOLESCENT RELIGIOSITY AND ADOLESCENT PERCEPTION OF PARENTAL BEHAVIOR IN ANTIGUA AND BARBUDA

by

Eustace M. Sheppard

Chairman: John Youngberg, Ed.D.
ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University
School of Education

Title: A CORRELATIONAL STUDY OF THE RELATIONSHIP BETWEEN ADOLESCENT RELIGIOSITY AND ADOLESCENT PERCEPTION OF PARENTAL BEHAVIOR IN ANTIGUA AND BARBUDA

Name of researcher: Eustace M. Sheppard

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Purpose

This study investigated the relationship between adolescent religiosity and (a) adolescents' perception of paternal supporting, controlling, demanding, and punishing behavior; (b) adolescents' perception of maternal supporting, controlling, demanding, and punishing behavior; (c) the ten dimensions of adolescents' religiosity and three predictor variables of age, sex, and religious affiliation.

Methodology

The population investigated comprised adolescents
between the ages of fourteen and seventeen years old, in forms three and four, attending fifteen secondary schools in Antigua and Barbuda. A sample of 400 was chosen by purposive sampling from eleven of the fifteen secondary schools; of the 400 chosen 314 were included in the final analysis.

The Basic Religiosity and Composite Scales by King and Hunt (1975) were used to measure the religiosity dimensions. To measure adolescents' perception of parental behavior, the Bonfenbrenner Parent Behavior Questionnaire was used. The major statistical methods of analysis used were (1) canonical correlation analysis, and (2) multiple-regression analysis.

Results

Seventeen hypotheses were tested for possible relationship between the ten dimensions of adolescents' religiosity and (a) age, sex and religious affiliation; (b) adolescents' perception of paternal supporting, controlling, demanding and punishing behavior; and (c) adolescents' perception of maternal supporting, controlling, demanding, and punishing behaviors.

The results of the hypotheses were as follows:

(a) Religious affiliation emerged as the best predictor of adolescent religiosity.

(b) No significant relationship emerged between adolescents' religiosity and adolescents' perception of
Paternal Supporting, Controlling, Demanding, and Punishing behaviors.

(c) Significant relationship was found between the ten dimensions of adolescents' religiosity and adolescents' perception of Maternal Demanding, and Punishing behaviors. However, no significant relationship was found between adolescents' religiosity and adolescents' perception of Maternal Supporting and Controlling behaviors.

Conclusion

Mothers appeared to play a more significant role in the religious socialization of adolescents than fathers in the sample studied. There was, also, minimal support for Bandura's social interaction theory relating to the parent-child relationship. Finally, the findings of this study raises serious questions regarding the utility of studying adolescents' religiosity based solely on their perception of certain parental variables.
ACKNOWLEDGEMENT

Dedicated to my family—wife Jean, daughters Melissa and Maria, my father Senator Donald M. Sheppard, and my deceased mother, Iola Sheppard.

My interest in adolescent development span a total of ten years and dates back to my initiation into the preaching ministry. During this time I tried to learn as much as possible regarding the all-round personality development of the adolescent; that is, moral, intellectual, social, and religious. This dissertation represents a culmination of my effort in years of research, field experience, and the conducting of seminars relating to this phenomenon.

However, this dissertation would have remained just another idea of fruitless mental exercise were it not for the valiant assistance provided by several individuals who supported me academically, spiritually, financially, and morally.

First, my appreciation is extended to the educational staff in the Ministry of Education and Culture in Antigua and Barbuda who morally supported my project and assisted me in the pursuit of gathering the data for this study. A special word of thanks to Mr. Whitfield.
Harris, Chief Education Officer, and my friend for many years, who personally encouraged me to finish this piece of research, stressing its importance to family life development in Antigua and the Caribbean.

My thanks and appreciation is extended to the eleven principals from whose schools I gathered the data for this study, without their help and kind cooperation this research project could not have materialized.

Secondly, my thanks is extended to the members of my dissertation committee. I received invaluable assistance from Dr. Jerome Thayer, under whose guidance the design and statistical analysis for the study was developed, and who constantly challenged me to strive toward excellence and to develop a sense of professionalism. His contribution to this dissertation and to my academic development has been invaluable.

I also extend my heartfelt appreciation to Dr. Walter B. T. Douglas, my friend and mentor who encouraged me to pursue this topic, stressing the contribution it can make in terms of the sociology of religion in the Caribbean. Of particular importance to me was his stress on clarifying the role of religion as perceived by people in the Caribbean, and the need to take into account the cultural milieu in which religion is perceived. His expert opinion was greatly valued in developing the theoretical basis for this study.

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thank Dr. Marion Merchant, without whose sharp wit and keen insight relating to the psychological aspect of this dissertation, this study may not have materialized. Her mind for detail and consistency and helpful support in ironing out problem areas of this study was invaluable to me.

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Collectively, this committee has provided me with the kind of support that I needed in order to complete this research. I would like to say thank you to each of the members of my committee.

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Last, but not least, I would like to thank Pastors Aaron, Andrews, and Richards, who served as ministers in the state of Antigua and whose familiarity with the situation as it relates to my study was greatly appreciated. They provided me with invaluable insights on the relationship among family members in Antigua and Barbuda.
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CHAPTER I

INTRODUCTION

Background to the Problem

For many social psychologists (Coleman, 1974; Cattell & Scheir, 1961; Milner, 1949) adolescence is considered a period of conflict, particularly between the adolescents and their parents. It is thought to be a period of crisis—crisis of personality, and of religious faith—a time when the adolescent attempts to break away from the dominant, socializing influence of parents and establish his/her own set of values. Such views of adolescence have not gone unquestioned.

Bandura (1964, p. 224) questioned this theory which seems to characterize adolescence as a period of stormy conflicts and a wide array of negative behaviors. Such behaviors, according to Bandura, should be seen more as a result of cultural conditioning and social expectation rather than perceived as an inevitable developmental pattern characteristic of adolescence. Muuss (1975), commenting on Bandura's supposition, points out that adolescent aggressive behaviors should be

... viewed as the consequence of specific antecedent conditions in the child rearing patterns and the parent-child relationship such as dependency
training, socialization pressure, imitation and modeling rather than the result of adolescent adjustment problems. (p. 238)

Bandura demonstrated his theory in a study of aggressive and non-aggressive adolescents (Bandura & Walters, 1959), and found that children who appeared to be aggressive usually had a poor parent-child relationship, one which lacked warmth and affection and where the father was demanding and punitive. This type of relationship also affected their emotional attitude and resulted in antisocial and delinquent as well as aggressive adolescents. Bandura and Walters concluded that such "behavior in adolescent boys is the consequence of identifiable socialization variables in the parent-child relationship" (p. 251). In contrast, adolescents whose parents were warm, supportive, less punitive, and less demanding appeared to be less aggressive, less antisocial, and more well-adjusted than their counterparts.

The results of the Bandura-Walters study (1959) are consistent with those of an earlier study by Roberts and Fleming (1943). They found that adolescents who had good relationships with their parents were better adjusted socially, possessed a more understanding attitude towards parents, and had fewer religious conflicts. They also participated more actively in the church, had more insight into the feelings of others, had more regard for others, were happier, had less feelings of inferiority, and were better coordinated physically than those who had troubled
relationships with their parents, and who were often more spiteful, resentful of criticism, were sulky or listless, and who exhibited feelings of inferiority.

There appears to be evidence pointing to the pivotal role played by parents in shaping the adolescent personality (Malm & Jameson, 1952; Nichols, 1962; Rogers, 1977; Woolf, 1943). These studies have indicated that the strongest factor in the molding of a child's personality is the relationship with parents.

However, Rogers (1977) goes on to say that it is impossible to comprehend human development without paying attention to the religious forces that have shaped it. She further emphasizes the importance of the family in the shaping of adolescent religious beliefs and states that:

The more religion is stressed in childhood, the more favorable their attitude towards religion . . . . On the other hand, those with less favorable attitudes towards religion are more concerned with social ethics or improving life within society. (p. 190)

She further states that religion is not an isolated phenomenon but is deeply rooted in culture and the social fabric of society (p. 198).

Having established the importance of the parents in shaping the social adjustment of the child, one may take the argument one step further to include the shaping of religious values. Johnson (1973) points out that children's religious values are shaped by their parents' behavior and by parent-child interaction. Goldsen, Rosenberg, Williams, and Suchman (1960) hypothesize that
religiosity is one manifestation of conforming behavior, and as such shares an affinity with the formation of conscience and self.

Thus, it is assumed that the quality of parent-child relationship as perceived by the adolescent has far-reaching consequences for his/her religious development. It is further postulated that the dimensions of support, control, demanding, and punishing behaviors are seen as some of the most important interactional relationships (Devereaux, Bronfenbrenner, & Suci, 1962). It would seem that the supportive dimension in parent-child relations has two emphases: (1) the idea of conveying to the child his/her self-worth, and (2) attempts at motivating the child. Furthermore, they represent the kind of behavior parents exhibit at one time or another. According to Thomas, Gecas, Weigert, and Rooney (1974).

The core effect of the control dimension is the communicative and informational content it has for the child with respect to the family as a social group. It provides prescription of what constitutes appropriate and inappropriate behavior and what is expected of him as a member of the family and the socio-cultural system. (p. 10)

The dimensions of punishment and demanding are also communicative and informational. The punishment dimension characterizes the parent who uses physical punishment in order to elicit conformity regardless of the damage it may incur to the parent-child interactional system. The demanding dimension is sometimes used as a motivating force but functions negatively.
In light of the foregoing it is assumed that parent-child interaction results in a religious personality which can be generalized. Support and control are associated with positive attitudes of adolescents toward religiosity. Punishment and demanding behaviors are closely associated with negative adolescent religious attitudes.

The Rationale for the Study

The evaluation of parent-child interaction involves three distinct personalities: father, mother, and child. The child's behavior is often perceived by others as the interaction of the child's personality with his/her environment (Bandura & Walters, 1959; Bandura, 1964) which to a great extent is determined by the behavior of the parents; furthermore, behavior is often regarded as "his reaction to his parent's behavior as he sees and interprets it" (Williams, 1958, p. 487).

Ausubel, Balthazar, Rosenthal, Blackman, Schpoont, and Welkowitz (1954), in studying the relationship between children's perception and parental behavior, present two assumptions:

First, although parent behavior is an objective event in the real world, it affects the child's . . . development only to the extent and in the form in which he perceives it. Hence, perceived parental behavior is in reality a more direct, relevant and proximate determinant of personality development than the actual stimulus content to which it refers . . . in attempting to identify causal factors influencing personality development, it is less relevant to establish the nature of the actual environment to which the individual is exposed than to ascertain the
distinguishing features of this perceived world. Second, it seems reasonable to suppose that children's perception of parent behavior and attitudes can be measured more validly than these latter phenomena themselves. (p. 173)

Thus in seeking to study the nature of adolescents' religiosity¹ and how parents' behavior affects their offsprings' religiosity, it would appear theoretically practical to approach this study from the perspective of the adolescents' perception of their parents' behavior.

Apparently, no previous research of this type has been done anywhere; and an extensive search in literature on religiosity has revealed a lack of empirical data on religiosity in Antigua and Barbuda², as well as in the rest of the Caribbean. Also, some recent studies (Blake, Stycos, & Davis, 1980; Daniel, 1980) have pointed to the need for further investigation in the study of religiosity.

Statement of the Problem

Because of the primary importance of parents in the development of the adolescent personality, and because of their importance in the development of social and

¹Religiosity is defined as the practice of or adherence to religion (see pages 13-15 for a complete definition).

²Antigua and Barbuda comprise one state in the Caribbean. It is situated approximately 300 miles south of Puerto Rico, and 500 miles north-east of Venezuela. It has a total area of 180 square miles, with a population of about 80,000. English is the official language of communication.
religious values, there is a need to know what are the factors of parental behavior perceived by adolescents as influencing their religiosity. Also because research has shown that the variables of age, sex, and religious affiliation are related to religiosity, there is also a need to know what is the relationship between adolescents' religiosity and age, sex, and religious affiliation.

Specifically, What is the relationship between adolescents' religiosity and adolescent's perception of parental behavior, i.e., maternal and paternal behavior? Which of the two parents' behavior do the adolescents perceive as relating more to their religiosity? Is there a significant relationship between adolescents' religiosity and age, sex, and religious affiliation?

**Purpose of the Study**

The primary purpose of this study, therefore, was to investigate the relationship between adolescents' perception of parents' supporting, controlling, demanding, and punishing behavior and the religiosity of adolescents. The study also investigated the relationship between adolescents' religiosity and the predictor variables of age, sex, and religious affiliation and how these variables predict any of the dimensions of adolescents' religiosity.

**Significance of the Study**

This study is significant in several aspects.
First, as an interdenominational study, it provides religious leaders with useful information on the structure of religiosity among the members of their adolescent congregations. Such information may be used to plan educational programs for the youth in their various denominations. Second, it provides data on the role of parents in the religious socialization of adolescents. Third, a study of this nature provides Caribbean behavioral scientists with meaningful data from which further studies on religiosity can be done.

**Research Questions**

This study sought to ascertain answers to the following questions: What is the relationship between paternal supporting, controlling, demanding, and punishing behavior and adolescent religiosity? and, What is the relationship between maternal supporting, controlling, demanding, and punishing behavior and adolescent religiosity?

Other aspects of the study concerned the relationship among three independent variables: age, sex, and religious affiliation; and the dimensions of adolescent religiosity.

Specifically, the questions for which answers were sought are the following:

1. Will there be a significant canonical correlation between any of the dimensions of adolescent religiosity and paternal behavior?
2. Will there be a significant canonical correlation between any of the dimensions of adolescent religiosity and maternal behavior?

3. Will there be a significant multiple correlation between any of the dimensions of adolescent religiosity and a linear combination of the predictor variables: age, sex, and religious affiliation?

**Theoretical Framework**

Researchers (Fukuyama, 1961; Glock, 1959, 1962; Stark & Glock, 1968) in the social-psychological study of religiosity have postulated two theories concerning the structure of religious commitment. They questioned whether religiosity is: (1) a discrete, unitary variable, or, as it is commonly referred to, unidimensional; or (2) a multidimensional phenomenon with different and possibly unrelated elements?

The majority of researchers have concluded that religiosity is a multidimensional phenomenon. They further point out that religiosity is too complex a phenomenon to be approached any other way than through multiple analysis. The theoretical framework adopted for this study, therefore, is based on the theory that religiosity is multidimensional in nature.

In selecting the theory of multidimensionality, consideration was given to such aspects as: (1) whether the theory is sufficiently broad, (2) whether it had an acceptable procedural definition, and (3) whether the
theory, when tested, had predictive ability of the several dimensions of religiosity, i.e., if the value of "X" is known, then it should contribute significantly to predicting the "Y" variable or dependent variable.

A multidimensional explanation of religion has been offered by Wach (1944) and Fromm (1950); however, the theory was not fully developed until Glock (1959, 1962), and Glock and Stark (1965) postulated their five-dimensional approach to the study of religiosity. Glock established the parameters of his theory by positing first four (1959), and later five (1962), dimensions. These became the core for empirical considerations.

Cardwell (1980) presents Glock's propositions as follows:

P1. The proposition of the Universality of Religious Expectations. "Religion is not the same to all men: different religions expect quite different forms of their adherents (S98)."

P2. The proposition of the Universality of Concensus Relative to General Expression of Religious Commitment. "There nevertheless exists among the world's religions considerable consensus as to the more general areas in which religiosity ought to be manifested (S98)."

P3. The proposition of General Core Dimensions of Religiosity. "These general areas may be thought of as the core dimensions of religiosity (S98)."

P4. The proposition of the Universality of Religious Commitment. "Five core dimensions can be distinguished--within one or another of the dimensions all of the many diverse manifestations of religiosity can be ordered. The
dimensions are identified as the experiential, ritualistic, ideological, intellectual, consequential (S98)."

P5. The proposition of the Generality of the Theory of Religious Commitment. "These dimensions provide a theoretical frame of reference for studying religion and religiosity (S98)."

Glock's five dimensions proposed in P4 above may be defined as follows: (1) the experiential, which has to do with religious feelings and emotions; (2) the ritualistic, which has to do with religious behavior such as church attendances, and organizational meetings; (3) the ideological, relating to the religious beliefs held by the individual or thought to be important to his or her religious life; (4) the intellectual, including knowledge about one's religion and the beliefs held by such religions; and (5) the consequential, dealing with the total effect an individual's religion has on his or her daily lifestyle.

Glock's theory was operationalized by Fukuyama (1961), then later by Faulkner and DeJong (1966), and finally by King and Hunt (1969, 1972a, 1972b, 1975). In 1965, King (1967) empirically tested the hypothesis concerning the multidimensionality of religiosity. His main questions were: "Are there different religious dimensions? If so, what are they?" (p. 4)

King (1967) studied a sample of 575
Methodists from six congregations in North Dallas, Texas. The questionnaires included a total of 143 items, with 120 relating to various aspects of religion. Eleven hypothetical dimensions were proposed. Later, nine dimensions were proposed from an item analysis by Hunt (1970).

Still later, King and Hunt (1969) studied a sample of 1,356 from Protestant congregations in Dallas county. A factor analysis was done, as well as an item scale analysis. The results of their study yielded eleven dimensions: (1) Creedal Assent; (2) Devotionalism; (3) Church Attendance; (4) Organizational Activity; (5) Financial Support; (6) Religious Knowledge; (7) Growth and Striving; (8) Extrinsic: Allport; (9) Extrinsic: Original; (10) Salience: Behavior; (11) Salience: Cognition.

A further study was made (King & Hunt, 1975) of 1,990 persons, comprising a national sample. From this study, King and Hunt proposed thirteen dimensions forming three scales; ten of these dimensions form the Basic Religiosity and Composite Scales, and three cognitive dimensions. King and Hunt have demonstrated that religiosity should be conceived of in terms of multidimensional structures. They have further indicated that the theory of multidimensionality need not be confined to the limits established by Glock (1962), Glock and Stark (1965), and Stark and Glock.
(1968). (See section on "Instrumentation" in chapter 3 for a description of King and Hunt's 1975 scales.)

This study is based on the theoretical conceptualization by Glock (1959, 1962) and by Glock and Stark (1965) concerning the multidimensional nature of religiosity; it has as the grounds for its framework the theoretical operationalization of this theory by King and Hunt (1975) contained in the ten dimensions of the Basic Religiosity and Composite Scales.

Definition of Terms

Adolescence: Adolescence is here defined as that part of the individual's life span extending from age fourteen (14) to age eighteen (18). This period is considered by many developmental specialists to be the time in an individual's life when he or she prepares to make the transition from childhood to adulthood (Hurlock, 1975). The word originated from the Latin "adolescere," meaning "to grow" or "to grow towards maturity."

Religiosity: J. P. Williams (1962) and Glock (1962) have pointed to the difficulty encountered by the social psychologists in attempting to properly define religiosity. Brown (1969) defines religiosity as a complex phenomenon "involving beliefs, contingent behavior or practices, some kind of experience, and
'faith' or commitment to the truth of a belief system" (p. 259).

Due to the difficulty inherent in defining religious commitment, this study proposes to follow the multidimensional definition of religiosity posited by Glock (1959, 1962) and Glock and Stark (1965). In their definition, Glock and later Glock and Stark conceptualized religiosity in terms of five dimensions: the experiential, the ritualistic, the ideological, the intellectual, and the consequential. Others have operationalized this theory and have found that religiosity is better understood when defined in terms of multidimensional structures, e.g., King and Hunt (1975) operationalized Glock's theory and found thirteen dimensions (constituting three scales) in contrast to the five proposed by Glock (1962).

Religiosity is further defined for this study to imply traditional Christian beliefs, religious attitudes and religious behaviors, i.e., those forms recognized by established or institutionalized religion; and the extent to which an individual commits himself or herself to, and orders his or her life according to the norms and expectations of the religion with which he or she is affiliated.

Accordingly, the ten dimensions of religiosity proposed by King and Hunt (1975) from their Basic and Composite Religious scales have been
taken as representative of the above definition with its inclusion of such categories as belief, behavior, and attitude.

Assumptions and Limitations of the Study

The assumptions and limitations of the study are as follows:

1. It is assumed that the structure of religiosity is multidimensional in nature. Being religious on one dimension does not imply that the individual will be religious on the other dimensions.

2. It is assumed that religion is a psychological factor which manifests itself in attitudes and behaviors. Such attitudes and behaviors are assumed to be accessible to objective investigation.

3. Because of the narrow range of age being considered in this study, ages 14-17, it is assumed that age difference alone will not prove to be an adequate predictor of religiosity.

4. An obvious limitation to the study involves the nature of religiosity. Because of the difficulty inherent in defining religiosity, the religious variables in this study are limited to empirical manifestations of what is generally described as religious beliefs, attitudes, and behaviors, as definable by institutionalized Christian religion.

5. The analysis of the data from the study
is limited to correlational analysis. It must be noted that this method does not prove causation; however, it is useful as an aid in understanding the possible relationship between the various variables under consideration.

6. The predictor variables or independent variables used in this study are by no means exhaustive, but were selected after a careful investigation of the literature relating to religiosity.

7. The results of this study are limited to the population from which the sample was drawn. Inferences from the data may not be made to other populations without some qualification.

8. This study is further limited by the willingness of the participants to comply with the request for information and to react truthfully to the statements as they comprehend the meaning of the items.

Delimitations of the Study

For practical purposes this study is confined to adolescents between the ages of 14 and 17 presently attending secondary school in Antigua and Barbuda in forms three and four.¹

¹Forms three and four in the secondary school system in Antigua and Barbuda are the equivalent of grades 10 and 11. This is due to the fact that the educational system is designed so that most students will have completed secondary school (forms I-V) by age 16, although this is not always the case.
Outline of the Study

This study is divided into five chapters. Chapter 1 comprises the introduction to the study; chapter 2 presents a review of related literature on religiosity; chapter 3 deals with the methodology employed in gathering the data for this study and includes the hypotheses for the study; chapter 4 deals with the testing of the hypotheses and contains a report of the findings; and chapter 5 presents a summary of the findings of the study with recommendations for further investigation.
CHAPTER II

REVIEW OF LITERATURE

Introduction

This chapter presents a review of literature related to the study of religiosity. The topics discussed are: (1) personal religious orientation—the problem of identification and labeling, and the dichotomous and trichotomous views of religious orientation, (2) dimensions of religiosity—unidimensional or multidimensional? (3) correlates of religion—age, religious affiliation, and sex, (4) religiosity and parent-child relations. The chapter concludes with a summary of the literature reviewed.

Defining Personal Religious Orientations

In studying the individual and society, behavioral and social scientists often include the concept of religious belief and its importance to the individual. They believe that religion exercises an important influence on the individual's attitude, personality, and behavior (James, 1958). Such an idea has been much easier to formulate and theorize than to prove empirically. The problem encountered by researchers in the social-psychology of religion may be stated in the form of a
question: How does one identify and distinguish different religious orientations? or how does one distinguish between religion that is meaningful and well-internalized as opposed to religion that is overt, subjective, immature, and inherently selfish?

Dittes (1969) explains the dilemma of the social scientists:

On the one hand, there is religion in relatively explicit form tending to be public, social, overt, manifest institutionalized and differentiated... conveniently identified, ... into formal belief, or institutionalized connection which is identified by the culture as exclusively religious and as distinguished from "nonreligious" activity. ... On the other hand, there is "religion" in more subjective form, more a matter of personal attitudes, orientation, set, frame of reference, response expectancy, values and loyalties and commitments. This religion may be identified within and without more explicit and institutionalized "religion." (1969, p.619)

Researchers have sought to make this distinction concerning the objectivity of religion real. Many have sought to distinguish between "true" and "false" religion, a notion directly derived from the Bible (Matt 23:2-5, 13, 27-28); between "being religious" and "having faith," and between being "true Christians" as opposed to being "nominal Christians."

As a result of their studies, researchers have coined words and phrases to identify and explain the differences mentioned above. Dittes (1969, 1971) uses the terms "inside" and "outside" view of religion and classified studies done on religiosity in one of these two categories. Allen and Spilka (1967) distinguish between
the various ways of being religious by using such terms as "committed" and "consensual" religion. Ashbrook (1966) uses the terms "moral commitment" and "calculative involvement." Lenski (1961) seeks to distinguish between "the conventional" and "the committed," while Allport and Ross (1967) use such terms as "immature" versus "mature" religion, and "intrinsic" as opposed to "extrinsic" religious orientations.

Other researchers have ascribed labels to varying religious orientations. Thouless (1954), in his study of religiosity, classified personal religious orientations based on belief; these he termed "Father-centered" religion, "Jesus-centered" religion, and "Spirit-centered" religion. He suggests that, within these orientations, there are two types of people: (1) the "traditional type" and (2) the "moral type." Pratt (1905) states that personal religious orientation is rooted in five bases of beliefs. They are: (1) belief by argument or reasoning; (2) belief from authority; (3) belief from habit; (4) belief from the will to believe; and (5) belief from the "touch of mysticism." The will to believe he classifies as a religion of feeling.

Some researchers have seen the differences in orientation not as a difference in belief but as a difference in emphasis. Jeeves (1957) based his study on Allport's (1950) hypotheses of a two-fold religious orientation. His findings suggest that religious
attitudes could be classified as threefold rather than twofold. He categorized his threefold religious orientation as follows: (1) the kind of religion where emphasis is laid on the importance of religious institutions rather than on interiorization of religious and ethical beliefs; (2) the kind of religion which emphasizes the importance of religious institutions but stresses personal religious belief and interiorization of such beliefs; and (3) the orientation which places emphasis on the importance of personal religion as manifested in attitude, conduct, and practice, and placing minimal emphasis on institutionalized religion. Jeeves found that the first category correlated higher with prejudice than the second and the third categories, respectively.

Clark (1958), in looking at personal religious orientation, identified three levels of religious behavior. The first, which consists of a combination of human and divine effort realized when the individual seeks to harmonize his/her life in accordance with divine will, he termed "primary religious behavior." The second he referred to as "secondary religious behavior," which results from acquired habits and assumed obligations, and usually results in behavior modification in everyday life. The third level, which he termed "tertiary religious behavior," is conventional religious practice accepted on the authority of another (pp. 23-25).
Lenski (1961) also addressed himself to behavioral differences in religion. In his study of Detroit area residents, he sought to distinguish between what he describes as a "conventional" and a "devotional" religious orientation. He found that these were not only alternative choices of religious orientation but that they constituted "separate and independent orientations, and each has its own peculiar consequences for the behavior of individuals" (p. 24).

Ashbrook (1966), in a different type of study, studied the relationship between institutional affiliations. He developed an instrument with all of its items designed to measure church membership and church activities. His results seem to indicate that, with suitably discriminating items, it is possible to differentiate between church members. He found two kinds of religious orientations within his sample; these he termed "moral commitment" and "calculative involvement."

The literature reviewed thus far seems to indicate that although there is a consensus among researchers on the idea of different religious orientations, there is no complete agreement on a unifying approach to resolving the issue. This diversity of findings is mostly a result of the different approaches employed by each researcher, and of the differences in population.
Personal Religion--Dichotomous View

Perhaps the greatest influence on the study of personal religious orientation may be attributed to Gordon Allport (1950, 1954, 1959, 1960, 1966). He, more than anyone else, shaped the direction of research in identifying particular aspects of religion. In his first major work on religion (1950), he uses the terms the "mature" religion and the "immature" religion. He describes the attributes of the mature religion as those of a person who is interested in ideals and values beyond personal physical needs (psychogenetic values). The practitioner of mature religion has the ability to be objective, to see another's point of view. Finally, the mature religious person possesses a unifying philosophy of life. The immature religious person, on the other hand, possesses the exact opposite attributes.

In a later work (1954), Allport sought to test the hypotheses he had proposed in his earlier (1950) work. He substituted the terms "institutionalized" and "interiorized" for his "immature" and "mature" religion. In using these two terms, he sought to differentiate interiorized religion from what he viewed as blind institutionalized religion, characterized by exclusionists and self-centered in values. Prejudice often coexists with this form of religion, while, for the person whose religion is fully interiorized, it rarely exists.
The above terms were later (Allport & Ross, 1967) replaced by "intrinsic" and "extrinsic" religious orientations. Allport and Ross (1967) distinguish between the two as follows: The extrinsic religious orientation indicates a religion that is strictly utilitarian: useful for the self in granting safety and social standing, providing solace, and endorsing one's chosen way of life. In contrast, the intrinsically religious person regards faith as a supreme value in its own right. He or she is oriented toward a unification of being. They take seriously the command to love their brother and strive to transcend all self-centered needs.

The study further conceptualizes extrinsically religious persons as:

- disposed to use religion for their own ends. The term is borrowed from axiology to designate an interest that is held because it serves other, more ultimate, interests. Extrinsic values are always instrumental and utilitarian. Persons with this orientation may find religion useful in a variety of ways — the embraced creed is lightly held or else selectively shaped to fit more primary needs. In theological terms, the extrinsic type turns to God without turning away from self. (p. 434)

On the other hand, the intrinsically motivated person is one who finds his or her

- . . . master motive in religion. Other needs, strong as they may be, are regarded as of less ultimate significance, and they are, as far as possible, brought into harmony with the religious beliefs and prescriptions. Having embraced a creed, the individual endeavors to internalize it and follow it fully; it is in this sense that he lives his religion. (p. 434)

In other words, the extrinsically religious person uses
religion while the intrinsically religious person lives religion. The intrinsically religious person is mature, while the extrinsically religious person is immature.

According to Allport (1950), the intrinsically mature person has six attributes. His or her religion is: (1) well-differentiated; (2) dynamic in character, in spite of its derivative nature; (3) comprehensive; (4) integral; (5) in harmony with the greater context of life in general; and (6) fundamentally heuristic, i.e., he or she possesses the ability to hold a belief in suspension until it is confirmed or modified, knowing that commitment is possible without complete certainty (p. 53).

Using Allport’s proposition of dichotomous personal orientation, several researchers have sought to operationalize the concept empirically. In a study of Southern fundamentalists, Feagin (1964) operationalized Allport’s concept of intrinsic-extrinsic religious orientation. In this study, he developed a scale of twenty-one intrinsic-extrinsic items from a pool of items taken from Allport’s seminar. Two items were chosen from Wilson’s Extrinsic Religious Value. After a preliminary analysis, Feagin used twelve of the original items and divided them into two scales of six items each. The results of Feagin’s factor analysis pointed to two separate dimensions of intrinsic and extrinsic religious orientations.

Brown (1964) attempted to measure orientation to
religious belief without using techniques of attitude scaling. He employed a modified sentence-completion structure technique. Using Allport's intrinsic-extrinsic concept as his basis for classification, he asked a panel of three judges to classify the returns from a sample of 309 first-year college students. In his study, he assumed that the intrinsic-extrinsic concepts were part of the same continuum. The results of his study indicate that the intrinsic-extrinsic orientations were separate dimensions. He therefore proposed a three-dimensional model of religious orientations: two describing religious orientations and a third which he describes as "a belief--disbelief continuum."

Allport and Ross (1967) retained all of the items developed at Harvard and divided them into two subscales based on face validity. Their findings, however, led them to question the utility of combining the intrinsic-extrinsic scales into one. From their study of a sample of college students, they were able to identify four types of religious persons: (1) the intrinsic type, (2) the extrinsic type, (3) the indiscriminately proreligious, and (4) the indiscriminately antireligious. They also found that, as a group, churchgoers tended to be more prejudiced than nonchurchgoers; further, a relationship was discovered in the data which seems to suggest that the intrinsically motivated religious individual was less prejudiced than the extrinsically motivated individual.
Several other researchers also tested Allport's concept of dichotomizing religious orientations empirically, e.g., Keene (1967), Monoghan (1967), and Hood (1970). Keene used different items from Feagin's (1964) although he chose them from the same pool. He employed a factor analysis in his attempt to identify the basic dimensions of religious behavior. His sample consisted of Jews, Bahais, and Christians. The results of his study produced four dimensions as opposed to two: (1) Salient/Irrelevant, (2) Spiritual/Secular, (3) Skeptical/Approving, and (4) Orthodox/Personal.

Monoghan (1967) sought to discover among his sample, motivations for church attendance and church membership. He discovered that there are three types of hypothetical religious persons: (1) the Authority Seekers, (2) the Comfort Seekers, and (3) the Social Participators.

Hood (1970), in his study, attempted to develop an adequate operational measure of the degree of reported religious experience and to discover how this is related empirically to defined indicators of religious commitment, such as Allport's intrinsic-extrinsic orientations. He developed an extrinsic scale which he described as the Religious Experience Episode Measure (REEM), and which he used to measure the religious experience of fifty-one students. After establishing the reliability and validity of his REEM scale, he sought to relate it to Allport and
Ross's (1967) Religious Orientation Scales (ROS). He found that the two scales correlated .51 for the REEM with the intrinsic ROS, and .60 for the REEM with the extrinsic ROS. He found no difference between extrinsic religious orientation and the indiscriminately antireligious. The only categories he discovered were the intrinsic and extrinsic categories.

Following Allport's conceptualization of two types of religious orientations, Allen (1965) and Allen and Spilka (1967) coined the terms "committed" and "consensual" religious orientations in their study to describe opposite aspects of being religious. Allen describes the committed religious person as one with an orientation which

... reflects an emphasis on the abstract, relational qualities of religious belief which tend to be non ambiguous, well-differentiated or multiplex, and diversity-tolerant. It would also involve a personal, devotional commitment to religious values which suffuse daily activities. (p. 14)

On the other hand, the consensual religiously oriented individual is one whose orientation

... reflects an emphasis on the concrete, literal qualities of religious belief which tend to be vague and global, non-differentiated and bifurcated, ... involving a detached or neutralized magical or possible vestigial commitment to religious values. (p. 14)

Both types of religious orientations represent a broad difference in cognitive styles and expressions. Allen describes them as follows:

The committed style involves a personal and authentic commitment to religious values wherein the full creed
with the attendant consequences are internalized and experienced in daily activities and behavior. (p. 13)

In contrast, he describes the consensual style as involving a "conformity or acquiescence to religious values wherein the full creed is not meaningfully internalized with respect to consequences for daily activities and behavior" (p. 13).

Allen and Spilka distinguish between the committed and the consensual religious orientations in terms of five structural components or characteristics: (1) content—abstract relation versus concrete literal relation; (2) clarity—discerning versus vagueness; (3) complexity—well-differentiated religiosity; consisting of a number of categories where ideas tend to be multiple rather than simple, as opposed to a religiosity that is monopolistic-dichotomous; (4) flexibility—candid, openness as opposed to restrictiveness; and (5) importance—religion that is important and relevant for all of life versus religion that is detached and neutralized (pp. 198-200).

Allen and Spilka operationalized their theory in a study of 497 college students at Colorado State University. Initially, they employed a 30-45 minute semi-structured interview using questions which centered around such orthodox beliefs as God, prayer, Bible, church, and faith. They sought to distinguish between the beliefs of individuals who were high or low in prejudice. The results of their study revealed certain characteristics
evident among both groups. The committed attended church more regularly than the consensual and scored higher on ratings of religiosity and attitude towards the church. Thus, the researchers concluded that there were two distinct groups of religiously oriented individuals: the committed, who possess a philosophical perspective and have multicomplex religious ideas, and "an open and flexible framework of commitment, . . . and meaningfully relate religion to daily activities"; (p. 200) and the consensual, who closely identify self with religion.

The concept of the committed and the consensual was further investigated by Spilka, Stout, and Minton, and Sizemore (1977) who found that from a diverse sample of respondents, the committed and the consensual correlated with Allport's intrinsic-extrinsic scales at -.64 and .45, respectively. Spilka, Read, Allen, and Dailey (1968) had earlier conducted a factor analytic study using thirty-eight different subscales measuring various aspects of religiosity. The scale consisted of forty-five items and was designed specifically to measure the difference between the committed and the consensual religious orientations. They were successfully able to distinguish between the two types of orientations.

From the studies done on intrinsic-extrinsic religious orientations and the committed and consensual types of religion, it would appear that there is an overlap between Allport and Ross's categories and those of
Allen and Spilka. The overwhelming conclusion in the research done based on the model proposed by Allport (1950), including Allport and Ross (1967), is that it is extremely difficult to arbitrarily categorize all religious persons into two groups, for within the various groups, great variations may be found.

**Personal Religion—Trichotomous View**

The unsatisfactory nature of the dichotomous position proposed by Allport (1950), Allport and Ross (1967), and Allen and Spilka (1967) has caused some researchers to assert their dissatisfaction with such a model. Two other studies have argued that personal religious orientation is best understood when viewed as trichotomous rather than dichotomous (Batson & Ventis, 1982; Fleck, 1976).

Fleck based his model on the work of three researchers in the fields of sociology (Reisman, 1961) and social psychology (Kelman, 1961; Krathwohl, Bloom, & Masia, 1964). Fleck's proposed model appears to parallel Allport's intrinsic-extrinsic and Allen and Spilka's committed and consensual models. His categories are: (1) committed orientation, (2) consensual religious orientation, and (3) extrinsic religious orientation.

According to Fleck, his model is directly derived from the work of Reisman’s (1961) three different character types: (1) "other directed," (2) "tradition directed," and (3) "inner directed" people— from Kelman's
Fleck describes his three dimensional model as follows:

Extrinsic religion is conceptualized as being very similar to Allport’s extrinsic religious orientation. Religious membership and participation are used in a self-serving, utilitarian manner for social purposes such as meeting the right people, gaining acceptance and social standing in the community, realizing economic gain in one’s business, etc.

Consensual religion is conceptualized in this, as a separate dimension from extrinsic religion. Religious authority, beliefs, ceremony, membership, participation, practices, ritual, and the religious group itself are used as a personality support or haven for personal comfort, relief and strength. Consensual religionists are characterized by a shallow and restrictive mode of thinking resulting in a simple conformist orientation to life including steady, routine, and regular participation in institutionalized religious beliefs and practices.

Committed religion is conceptualized as being essentially the same as Allen and Spilka’s committed religious orientation and Allport’s intrinsic religious orientation. It involves a personal and authentic commitment to religious values in which religion becomes a master motive in life and suffuses daily activities. Committed religionists display a high sense of perspective combined with an open, flexible, many-valued approach to faith and life. (p. 198)

Fleck also points out that committed religion is mature both psychologically and religiously and is ego-oriented, while both consensual and extrinsic religion are immature psychologically and religiously, but in different ways. Whereas extrinsic religion is id-oriented, consensual religion is super-ego-oriented.
In order to prove that his model was a viable alternative to that proposed by Allen and Spilka and by Allport and Ross, Fleck offered two pieces of research done by Brown (1964) and Hoge (1972) in support of his theory. However, these researchers did not set out to prove that Fleck's theory was plausible or empirically sound. Thus, while the findings of the various studies mentioned above do have merit in that they found more than two types of religious persons, they cannot be offered as conclusive proof of Fleck's trichotomous view.

Batson and Ventis (1982) also proposed a three-dimensional model of personal religious orientation. They proposed that religion is best understood when perceived from a trichotomous standpoint. Their categories are: (1) religion as a means, (2) religion as an end, and (3) religion as a quest.

In order to test their theory, four scales were designed. Three of the scales were combined into a Religious Life Inventory (RLI), while the fourth contained items for an orthodoxy scale. The authors also made use of Allport's intrinsic-extrinsic scales. Thus, they used six scales to measure the three areas proposed above. Batson and Ventis's six scales were divided into three categories:

1. The external scale designed to measure a component of the extrinsic means orientation, i.e., the
degree to which an individual's social environment influences his/her personal religion.

2. The **internal scale** designed to measure the component of the intrinsic end orientation, i.e., the degree to which an individual's religion is a result of internal needs for certainty, strength, and direction.

3. The **interactional scale** designed to measure the basic component of the **quest orientation**, i.e., the degree to which an individual's religion involves an open-ended response dialogue with existential questions raised by the contradictions and tragedies of life.

Items in the scales were designed specifically to compensate for the aspects thought to be missing in Allport's mature religion. The fourth scale used in the study was patterned after Glock's model of religious orthodoxy and was designed to measure belief in traditional religion. Batson and Ventis expected the first two scales to correlate with Allport's intrinsic-extrinsic factors, and the third, the interactional scale, to stand alone.

The sample for this study consisted of 255 undergraduates and 67 seminarians. The results of the study produced high intercorrelations among the six scales. They also found that the scales correlated with each other. The results confirmed their theory of a trichotomous view of religious orientation.

Following the previous study by Batson and Ventis...
(1982), Batson and Raynor-Prince (1983) studied three aspects of religiosity thought to be excluded from Allport's studies (1959, 1966). They categorized the intrinsic religion as being limited to "single minded commitment to religion and reliance as a central, master motive in life" (p. 38). Three aspects were included in their study: (1) readiness to face existential questions without reducing the complexity of religion, (b) perception of religious doubts as positive, and (c) openness to future change in one's religion.

To test the hypotheses of the relationship between the quest orientation and cognitive complexity, and of the non-positive relationship which should exist between extrinsic means orientations, Batson and Raynor-Prince (1983) developed the Religious Paragraph Completion Test (RPCT); also, six Religious Orientation Scales used by Batson and Ventis in an earlier study (1982) were employed.

Batson and Raynor-Prince studied a sample of twenty-two males and thirteen females at the University of Kansas. The sampled all indicated a moderate interest in religion. From their study, they concluded that the Quest orientation defines good religion, and that it possesses a more psychological adaptive approach to religion than the extrinsic, and end orientations, though these should not be dismissed. They found that the Quest orientation towards religion correlated more positively with greater
cognitive complexity in dealing with existential concerns rather than the intrinsic, and end orientations.

In response to Batson and Ventis (1982) proposition of the Quest orientation, Hood and Morris (1985) argue that Batson's and Ventis' attempt to differentiate between intrinsic religion and the Quest is a futile effort. First they point out that the attempt to distinguish the Quest orientation by mathematical formula was an error, since most of the questions on the Quest Scale could be adequately addressed in the Orthodoxy Scale. Second, Batson and Ventis assume that the answers to religious faith are less important than the questions. Thirdly, that openness and complexity is not only associated with the Quest orientation, but is inherent in the intrinsic religious orientation also. Finally, Hood and Morris point out that "Intrinsic commitments are conclusions of faith, . . . Quest or interactional faith commitments are 'in process' and have not reached a definitive conclusion" (p. 394). They conclude that Batson and Ventis are confusing the relationship between process and content in religious faith. Content must never be used to define Process.

However, in a study by Finney and Maloney (1985), testing the structure of religiosity as proposed by Batson and Ventis (1982), they studied a sample of fifty Presbyterian church members, twenty-two males and twenty-eight females, and found moderate support for the three
religious orientations, i.e., the Means, End, and Quest. However, they do not appear to be as independent of each other as Batson and Ventes claimed in their study.

The preceding discussion seems to indicate that one of the greatest tasks confronting those who study religiosity is to arrive at a single meaningful definition of and approach to the study of religiosity. The literature reviewed thus far indicates that theoretical considerations seem quite plausible in the argument, and that easily accessible objective indices of religion can be differentiated from, and probably do not correlate with, personal subjective-type religion. There appears to be no unifying approach to the study of personal religious types.

Furthermore, most of the studies reveal that the findings are usually limited to the populations from which the sample is drawn. Dittes (1969) comments that among heterogeneous samples, institutional religion appears to be related to extrinsic and consensual types of religion while, with homogenous samples, the results seem to infer that committed religion is usually associated with a more personal type of religion.

**Dimensions of Religiosity**

Besides the problem of identifying and labeling personal religion, another issue concerning the measurement of religious commitment and its various dimensions has persisted over the years. Specifically,
should religiosity be considered a unidimensional or a multidimensional phenomenon?

Dittes (1971) noted that studies of a unidimensional nature tended to be external in orientation and were usually characterized by the following conditions:

1. The instruments contain relatively few religion items among other items assessing social attitudes which produce contrasting factors, such scarcity of religious items tend to make the religious items seem relatively clustered.

2. Items typically measured attitudes towards the church and church attendance.

3. Subjects included a representative sample of the culture in general and were usually heterogeneous with respect to religious commitment and affiliation.

4. The samples often consisted of late adolescents, "for whom issues of autonomy versus institutional loyalty and conventional orthodoxy would seem to be especially keen" (pp. 609-610).

Unidimensional Approach

Most earlier researchers seem to adopt the unidimensional approach to their study of religiosity. Leuba (1916) studied a sample of students, scientists, historians, sociologists, psychologists, and philosophers. His religious variable was limited to belief in God and personal immortality. He points out that these variables
were considered the cardinal tenets of Christianity and possibly of every religion.

Among other studies which have adopted a unidimensional approach to the study of religiosity are: Hartshorne and May (1928), whose religious variable dealt with frequency of church attendance; Merton (1940), Harlan (1942), Levinson and Sanford (1944), Allport and Kramer (1946), Speerl (1952), Wilson (1960), Feagin (1964), and Johnson (1978).

Merton (1940) studied a sample of 679 college students from several universities. His results showed that Catholics scored highest on prejudice toward Negroes, followed by Protestants, and lastly, Jews. Harlan (1942) studied four groups of college students and found that with respect to prejudice towards minorities, there was no significant difference between Catholics and Protestants. Levinson and Sanford found that prejudice against Jews was relatively high among all categories of a surveyed sample of 72 females.

Allport and Kramer (1946) studied a sample of 437 undergraduate college students regarding their attitude towards minority groups. Their findings revealed that Catholics who were religious showed a strong bias against Negroes, while Protestants showed less bias. They also found that Jews and individuals lacking religious affiliation were essentially free from prejudice.

Wilson (1960) developed a fifteen-item Extrinsic-
Religious-Value (ERV) scale containing items of two kinds, those corresponding to institutionalized religion and those of instrumental religion. All of the items were treated as a single scale with opposite poles on the same continuum. He found support for treating the items on the scale using "corrected equivalent halves" and reported reliability coefficients ranging from .51 to .86.

To study the same topic, Strickland and Shaffer (1971) utilized items from the Harvard pool of items developed by Allport, in conjunction with Adorno's Facism scale and Rotter's scale measuring belief in external as opposed to internal control of reinforcement. They discovered a negative correlation of -.54 among the scales and concluded that the intrinsic-extrinsic factors were poles on the same continuum. The scales were, therefore, combined onto one overall extrinsic scale. They pointed out that behavior has a definite impact on one's life situations. Religiosity was, therefore, unidimensional.

Victor, Grossman, and Eiseman (1973), in their study of the relationship between church attendance and drug abuse, considered only church membership as the religious variable.

More recently, Murray (1978), in developing a scale designed to measure moral and religious attitudes of adolescents, argued for the use of a unidimensional approach to the study of religiosity. His sample consisted of 1,284 Catholic adolescents. From the results
of his study, he proposed six subscales. Two of these consisted of religious items but are treated as a unitary variable, while the other four subscales measure social attitudes.

**Multidimensional Approach**

The unsatisfactory and often inconclusive results of studies done based on the unidimensional model have prompted many researchers to question whether treating religiosity as a single, discrete, unitary variable was producing the desired results. They argued that it was possible that religiosity consists of not one, but several variables which may have some possible relationship or no relationship at all. Such views were precipitated by the application of more complex definitions to previously studied religious populations, and by the introduction of more complex factor analytic procedures.

One of the first researchers to introduce the concept of multidimensional religiosity was Wach (1944). From his studies of world expressions of religious experience, Wach concluded that religion everywhere was characterized by three expressions: (1) the theoretical or belief system (doctrine), (2) the practical or system of worship (cultus), and (3) the sociological or system of social relationships (communion or fellowship).

Erich Fromm (1950), in his answer to the question "Is psychoanalysis a threat to religion?" delineated four aspects of religion. They are: the experiential, which
relates to the physical world and ways of dealing with it; the ritualistic, which has its roots in a society that shares, and which serves as an indication that the society, as a whole, strives for a common value; semantic, which refers to the common language used by society to express its inner religious experience; and (4) the scientific-magical, which involves explanation of the physical world and practices for coping with it (pp. 99-111).

His study differs from that of Shand (1953) who sought to determine how Protestant ministers define religion. The results of Shand's study revealed four clear dimensions, two which he termed fundamentalistic and two which he termed "belief in brotherhood" and which define broad interpersonal relationships such as brotherliness and love. The first dimension, which defines religion in terms of conversion, scriptures, creeds, and rituals, he called "righteous-formalistic fundamentalist." The second dimension he named "the practical fundamentalist." It defines religion in terms of well-defined behavioral, moralistic trait characteristics. The third dimension he called "belief in brotherhood without Christ," and the fourth, "belief in brotherhood with Christ."

In the same decade that Shand published his study, Fichter (1951, 1954) first published his studies on Catholics. He pointed out that there are four ways of
being religious. Each dimension in the work is based on several divisions: (1) attendance at mass, (2) participation in confession, (3) involvement in church organization, and (4) expressed religious interest. Based on his findings, Fitcher identified four types of Catholics: modal, marginal, nuclear, and dormant.

Glock (1959, 1962), discussing the nature of religious commitment, noted that the confusion surrounding the study of religiosity is due in part to the contradictory findings in the various studies, and also to the lack of consensus on what it means to be religious or what comprises religiosity. In his first study (1959), he proposed four dimensions which he hoped would form the basis for empirical considerations: (1) the experiential, which has to do with feelings; (2) the ritualistic, which deals with religious practices; (3) the ideological, which deals with beliefs; and (4) the consequential, which pertains mainly to works. Later (1962) he added a fifth dimension which he called the intellectual, which refers to religious knowledge.

Working from the conceptual framework proposed by Glock (1959), Fukuyama (1961) studied a sample of 4,000 church members from twelve congregations in seven cities. He renamed Glock's categories (1) creational, (2) cultic, (3) devotional, and (4) cognitive orientations. Fukuyama trichotomized his distributions and found a substantial contingent coefficient of .47 between the creational and
devotional dimensions. In general, he recorded low contingency coefficients, ranging from .12 to .17, among his various dimensions.

Fukuyama further trichotomized his distributions according to whether or not his subjects scored high on none, one, or more than one of his four dimensions. He concluded that the four dimensions are combined into a single meaningful scale and showed a linear correlation with most of his other variables. He found that the more dimensions on which a person scores high, the more likely that person was to be female, older, divorced or widowed, a college graduate of higher socio-economic status, or a nonurban resident. Fukuyama's results confirm Glock's hypothesis that religiosity is best understood when conceived in terms of multidimensions.

In a study confined to one urban area, Lenski (1961) interviewed 654 persons as a representative sample of the Detroit area. His aim was to distinguish between socio-religious groups as opposed to a "type of religious orientation." He proceeded to formulate categories within each of these distinctions. Accordingly, he formulated four categories: the "communal" and "associational," both belonging to socio-economic groups; and two others "doctrinal orthodoxy" and "devotionalism," which he linked with religious orientations.

When a correlation was performed between the communal and the associational measures, he found a zero
correlation within groups of separate denominations as well as within the total sample. He also found that doctrinal orthodoxy correlated with devotionalism slightly, and church attendance correlated significantly with orthodoxy and devotionalism.

Studying a single denomination, Allen and Hites (1961) was able to generate nine factors which they termed: (1) man's relation to the Supreme Being, (2) traditional mores of the church, (3) skepticism, (4) striving for security, (5) family religious life, (6) security through religion, (7) religion and science, (8) secular religion, and (9) humanism. From their analysis of these categories, they concluded that their findings sufficiently supported the idea of religiosity being multidimensional in nature.

Salisbury (1962), using the theoretical framework proposed by Glock, studied a sample of 2,000 Protestant students. His aim was to test the intercorrelatedness of each of Glock's categories. His findings revealed that belief correlated highly with church attendance and emotional religious awakening or crisis experience. There was no measure reported corresponding to knowledge.

Whitham (1961) conducted yet another study on the relationship between religiosity and prejudice. He proposed seven bipolar subdimensions of religiosity: (1) social isolation—social action, (2) conventional morality—liberal morality, (3) ethnocentrism—ecumenity,
(4) externalization—internalization, (5) fundamentalism—
modernism, (6) evangelism—laissez-fairism, and (7)
utilitarianism—nonutilitarianism.

Martin and Nichols (1962) investigated whether
the nonbeliever was more likely to embody the true ideals
of religion than the true believer. They further sought
to ascertain whether an individual who was knowledgeable
concerning his religion was more likely to recognize
inconsistency between belief and practice. Studying a
sample of 163, they administered a religious belief
inventory questionnaire, a religious information scale,
and a personality scale to their sample. They found that
subjects who scored highest on the religious-information
scale showed a significant negative correlation between
belief and information. They also discovered that those
low on knowledge showed a significant positive correlation
between belief and knowledge. They pointed out that the
result of their study emphasizes the importance of
conceptualizing religiosity in terms of multidimensional
structures.

Another study based on Glock's theory on
multidimensional structures is that of Faulkner and DeJong
(1966). They studied a sample of 362 college students at
Pennsylvania State University. They examined the
interrelatedness of the theory and developed items. They
further dichotomized responses on each item within each
dimension for scalability. The results showed that the
ideological dimension yielded a reliability coefficient of .94. The intellectual dimension produced a coefficient of .93; the ritualistic and the experiential dimensions a coefficient of .92 each, and the consequential dimension a coefficient of .90.

Faulkner and DeJong further discovered that the five dimensions showed an interrelatedness as shown by the correlations ranging from .36 to .58. Nevertheless, the degree of relations differed among the various dimensions. Faulkner and DeJong concluded from their study that the diversity of the degree of religious involvement lends support to the theory that religiosity is characterized by several dimensions, some of which are more closely related than others.

Stark and Glock (1968) empirically tested their hypothesis that religiosity is multidimensional. They studied a sample of Northern California church members. In their study, they used four of the original dimensions proposed by Glock (1959, 1962). The consequential dimension was dropped and two other dimensions were added, namely, communal involvement and congregational friendship. Two other secondary measures, ethicalism and particularism, were included. The findings from this study revealed that the dimensions were independent of each other, with the highest correlation between any two dimensions being .57. Orthodoxy proved to be the best predictor of the dimensions of religiosity. Ethicalism
was the poorest predictor and was unrelated to the other dimensions. Intercorrelations among the dimensions were slightly higher for Protestants than Catholics. Glock and Stark believed that their findings confirmed their theory that religiosity is multidimensional.

Another study confirming this theory was conducted by Tapp (1971). He explored the theory of multidimension by studying a sample of 12,146 Unitarian Universalists in Canada and the United States. He divided his sample into high-growth churches, ordinary churches, and fellowships. Using the mean score of each church as an individual, he factor analysed the data. As a result, he proposed eight dimensions: (1) personal beliefs, styles, and values, (2) sound ethical values, (3) church society values and participation, (4) psychological development values, (5) esthetic-reflective-worship values, (6) educational function of the church, (7) the church as a source of personal friendship, and (8) intrasectarian affirmations.

Pursuing the idea that religiosity is multidimensional, Kuhrie (1971) drew upon Glock's (1962) model and studied a sample of 490 college students. The completed questionnaires from 423 respondents were analyzed along with a composite religious scale. Kuhrie found that individuals give expression to their religious orientation in different ways: some dimensions showed a greater degree of religious involvement than others. He
concluded that a multidimensional rather than a unidimensional approach to the study of religiosity "would make possible a more adequate and comprehensive understanding of religious involvement" (p. 68).

Also attempting to establish the theory of multidimensionality, Finney (1978) conducted a telephone survey of 493 residents in the state of Washington. His study resulted in the proposal of six dimensions which form the basis of his empirical consideration. They are: (1) ritual, (2) practice, (3) knowledge, (4) experience, (5) belief, and (6) devotional practice. The interpretation of his data revealed the importance of the collective, ritualistic church setting for the generation of personal religious experience, patterns of religious orthodoxy, and private religious activity. His study was also successful in showing that religiosity is multidimensional.

Critiques of Multidimensional Studies

The theory of multidimensional measure in religiosity has not been without its critics. Weigert and Thomas (1969) argue that in terms of content validity, many of the items used by Faulkner and DeJong (1966) are not distinctly differentiated, in spite of the fact that they meet the minimum criteria for scalability. Weigert and Thomas point out that three of the five dimensions, knowledge, ritual, and experience, are somewhat akin to the "believe opine view" which affects the ideological
dimension to a great extent. They point to their own findings as proof that Faulkner and DeJong's categories lack consistency conditions. They do acknowledge, however, that religiosity should be approached from a multidimensional standpoint rather than a unidimensional one.

Another critique of Faulkner and DeJong's findings is that of Gibbs and Crades (1970). They note that items on two of the dimensions (the experiential and the consequential) did not measure the dimensions as defined by Glock and Stark (1965). They criticize the high correlation among the dimensions and the lack of criteria for determining whether the results prove that religiosity is multidimensional or unidimensional. Gibbs and Crades, therefore, attempt to scale the dimensions as delineated by Glock and Stark (1965) by including in their measurement of the consequential dimension, items without reference to religion and two experiential items measuring perceived contact with the supernatural. The intellectual dimension was excluded because it fails to discriminate. The results of their study, however, prove that religiosity is characterized by several dimensions, with belief being the most persuasive, even with improved items in the experiential and consequential.

By far, the strongest criticism has come from Clayton and Gladden (1974) who suggest that the 5-D scales, with the exception of the consequential, measure
different aspects of ideological or belief commitment. In order to prove their theory, they studied two samples of earlier studies done by Clayton, 1967 and 1970. Their findings reveal that the ideological dimension accounted for between 78 to 83 percent of the variance in the two studies. A second order factor analysis was done which revealed the interdependence of the scales and the predominance of one general factor—the ideological. They concluded that religiosity is not multidimensional but consists of one factor only, the ideological commitment, with experience and practice being evidence of the strength of, or direction of, commitment at the belief level.

Nudelman (1971) argues that the method utilized by Stark and Glock (1968) was empirically inadequate. Accordingly, he factor analyzed the data from the Stark and Glock (1968) study. The results indicate that there are only two major dimensions among the group studied, namely, devotion, including orthodoxy and devotional or private components of religiosity; and participation, including ritualism, communal involvement, and friendship. He also included a number of other variables but found that they only served as measures of both dimensions.

Another critic of the multidimensional measures in religiosity is Davidson (1975), who cites many inconsistencies in past research based on Glock's conceptualization. He studied a sample of Baptists and
Congregationalists with his instruments being sent to the working class and the middle class of both denominations, He superimposed a liberal/conservative distinction among the five dimensions of Glock. The result revealed ten dimensions within the five: (1) vertical belief, (2) horizontal belief, (3) private practice, (4) public practice, (5) religious knowledge, (6) intellectual sensitivity, (7) experiential desirability, (8) religious experience, (9) personal consequence, and (10) social consequence.

Finally, Brown and Forgas (1980), objecting to the traditional approaches to the study of religiosity, asked their subjects to generate a list of religious ideas and concepts. The list included thirty-three statements which were rated by a second sample. They divided the thirty-three statements into sixteen bipolar scales. The results were analysed and a three dimensional solution emerged, contrasting institutional versus individual religious orientation. Their work is important in that it reemphasizes the multidimensional nature of religiosity.

**Correlates of Religiosity**

In attempting to discover the possible relationship between parent religiosity and the religiosity of adolescents, certain intervening or independent variables that may influence the dependent variable must be taken into consideration. For this
reason, three variables are reviewed: age, religious affiliation, and sex.

Age and Religiosity

In a study of Catholics, Fitcher (1954) divided 8,363 white, urban Catholic parishioners into groups by ten-year age categories. He found that those in the category from ages 10 to 19 years showed the highest percentage of religious observance; a sharp decline was evident for those within the 21-29 category; and thereafter, a steady increase in religious observance was noted as age increased. He pointed out that Catholics tend to be very religious during adolescence and postadolescence, but thereafter, they tend to become careless, gradually returning to religious commitment as age increases.

Moberg (1965) based his study on religiosity and age on Glock's five dimensional model. His findings indicate that ritualistic behavior tends to diminish with increasing age; at the same time, religious attitudes and feelings tend to increase among people who have a knowledge of religion. He points out that religion as a set of extra domicillary rituals apparently decreases with age while the internal personal link with man's relationship to God apparently increases among religious persons.

Stark (1968) studied the relationship between aging, church attendance, and membership in voluntary

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organizations. He concluded that the relationship between old age and piety was largely confined to private devotionalism, religious affiliation, and belief in immortality.

In studying the relationship between aging, church attendance, and membership in voluntary organizations, Bahr (1970) studied a sample of 600 males from three different socio-economic strata. Through his life-history interviews, it was revealed that the largest percentage of church attendance (50-70%), came from those between 15 and 35 years, and 50 percent from those between 15 and 40 years, with the percentage gradually decreasing as age increases.

Also in his study, Bahr (1970) reviewed four types of models of research relating to age and church attendance. These models he termed:

1. **The traditional model**, which advocates a sharp decline of religious activity for those between 18 years of age and its lowest point at 35 years; thereafter, increasing until old age

2. **The stability model**, which proposes that there is no relationship between aging and church attendance

3. **The family-cycle model**, which states that religious attendance increases after marriage, reaches its peak when children attend Sunday school, and declines
after they have passed Sunday school age

4. The disengagement model, which is based on the idea of the mutual severing of ties which occurs as age increases and the individual can no longer attend religious services.

Argyle and Beit-Hallahmi (1975), in a review of studies on religiosity, compared various studies done on adolescent religiosity in the United States and Great Britain and noted that, in both countries, adolescents had a higher percentage of church attendance than adults. They noted, however, that the level of adolescents' beliefs was much lower than that of adults.

Finally, in studying the relationship between age and religiosity, Hoge and Carroll (1978) found that across sexes in age groups ranging from 21 to 70 years, church attendance rose quite linearly. They also found that organizational participation varied across age groups with those in the 30 to 39 age group scoring highest, and next to them the 60 to 69 age group. Those 70 years and over scored lowest with the 21 to 29 age group next. The amount of finance contributed to the church showed a curvilinear relationship with the youngest and oldest age groups contributing less than any of the other groups. They concluded that age should be interpreted as a categorical variable depicting particular changes in the modal middle-class life-style.

The adolescent period of development is also
identified as one of religious awakening and "conversion" or, as Argyle and Beit-Hallahmi (1975) point out, one of "heightened commitment to an already known religious belief system" (p. 59). Many "conversions" seem to take place between the ages of 10 and 20 years, though "conversions" do occur later.

Clark (1929) studied a group of 2,000 cases and found that the average "conversion" age was 12.8 years with a mode of 12 years. Argyle and Beit-Hallahmi (1975) claim that the modal age for British adolescent converts from a Billy Graham crusade was 15 years.

In keeping with the idea that adolescence is a period of doubt and the establishment of values, several researchers (Beales, & Willets, 1967; Bese 1929; MacLean, 1930) have found that during adolescence the individual begins to question the blind acceptance of religion.

Kuhlen and Arnold (1944) studied a sample of 500 subjects aged 12, 15, and 18 years. The results of their study revealed that many of the traditional religious beliefs are discovered between the ages of 12 and 18 years; beliefs become more abstract and less concrete, and adolescents were more concerned about such topics as "sin," "heaven and hell," "science versus religion," and "life after death."

Finally, adolescents attended church fairly regularly during the early stage of adolescence. During this time they are genuinely interested in religious
matters. However, Horton (1940) found a decline in church attendance of American high-school students during their senior year. Mereton (1944) also found similar results in England in a study on subjects of the same age—15 to 19 years.

Religious Affiliation

Religious affiliation is often investigated as an intervening variable in studies done in religiosity. Often the comparison is between three faith groups: Catholics, Protestants, and Jews.

Greeley (1963), working with a broad range of attitudes and personal characteristics, undertook to isolate the influence of religion on such variables. He argued that if there is any difference between Catholics, Protestants, and Jews which can be attributed to religion, the difference would be greater among those regarded as more religious within their tradition. He found that there was some difference between certain Protestants, e.g., those who plan to teach, and other denominations. However, among the three faith groups, many of the characteristics included in his study showed no relation to his religiosity measure.

Faulkner and DeJong (1966), in their study of 362 students from three denominations: Catholics, Protestants, and Jews, found that the correlations between religious affiliation and the five dimensions for Catholics was significant on all of the five dimensions at the .05 level.
Lutherans, in the Protestant group, were significant on only three of the dimensions; the same was true of scales intercorrelation between Jews and Catholics; Catholics and Protestants; Lutherans and Presbyterians; Lutherans and Jews; and Jews and Presbyterians.

Klemmack and Cardwell (1980) studied a sample of 277 college students in the southeastern United States. From this sample, they performed group analysis on 39 Catholics, 64 Methodists; 37 Baptists, and 55 nonaffiliates. The remaining 72 were divided among several other denominations and were excluded from the analysis.

The results of their factor analysis obtained from a correlation matrix of twenty-three items produced four matrices consisting of four different concepts or types of religious commitment: religious beliefs, religious effects, youth ritualism, and adult ritualism. Baptists and Catholics had five factors instead of four. They also found that belief for the Protestant is not the same as belief for the Catholic. They point out that apparently the Protestant, when considering belief, also considers its effect on his behavior, while the Catholic considers it relative to the rituals of the church. When considering the ritualism dimension, the case is even clearer. Adult ritualism for Catholics encompasses a much broader range of behaviors than it does for Protestants. However, youth ritualism is a much broader concept for Protestants than for Catholics. (p. 56)

They conclude that the intensity of religiousness does have some relationship to religious affiliation.
This may be due to the aspects of religiosity emphasized by the values of the group.

Several studies (Adorno, Frenkel-Brunswik, Levinson, & Sandord 1950; Pinkney, 1961; Stouffer, 1955; Williams, 1964) have all reported no difference among religious groups.

Finally, in a study of motives for participating in religion, Gorlow and Schroeder (1968) studied a sample of 175 active church members consisting of clerical and lay members of several Protestant and Roman Catholic churches in Pennsylvania. They argued that given a wide range of reasons for participation in church activities, "individuals would cluster themselves into meaningful groups--'religious types'--sharing similar constructions about the religious experience" (p. 119). Gorlow and Schroeder hypothesized that the extent to which one belonged to a type would be related to religious affiliation among the variables.

The results of their factor analysis revealed that Catholics appeared to be prominent on four of the eight factors obtained from their factor analysis. They are labeled under factor I as "humble servants of God;" factor IV labeled "moralists;" factor V as "the God seekers;" and factor VIII, as "the religious eggheads." Protestants were dominant on factors II and VI, "self improvers" and "the socially oriented servants of God,"
respectively. Factors III, "family guidance seekers," and VII were not readily identifiable.

**Sex**

Argyle and Beit-Hallahmi (1975) point out that the differences between men and women in their religious belief and behavior is considerable. According to them, women appear to be more religious than men on several criteria. They point out that in terms of church membership, women outnumber men by 5.52 million, i.e., 20.13 for men and 25.65 for women in the 1936 British census data.

On other variables such as church attendance, prayer, beliefs, and mystical experiences, women scored consistently higher on all four variables. Back and Baoque (1970) reported that women reported more instances of intense religious experience than men, while Cox (1967) and Wright and Cox (1971) found that girls were more likely to describe God in terms of "loving," "comforting," and "forgiving," while boys viewed God as being a "supreme power," "a driving force," and "a planner and controller."

Faulkner and DeJong (1966) found that on four of their five dimensions (intellectual, ideological, ritualistic, and consequential), women scored consistently higher than men, thereby giving credence to the view that women were more religious than men. King (1967) and King and Hunt (1969) reported in their study of religiosity...
that women scored higher on all dimensions, across denominations, than men.

Fukuyama (1961) reported that in his study, women were more religious than men on three of his four dimensions: cultic, creedal, and devotional dimensions. Men were more religious on the knowledge dimension.

Hammond (1961) studied a group of Congregationalists and found that females tended to be more conservative in their religious beliefs than males. He found that males like to argue about religion and doubt religious beliefs as their training in science increases.

There are a few other studies which have found some differences between male and female religiosity (Cardwell & Lindsey 1980; Cline & Richards, 1965; Gans, 1967; Putney & Snell, 1961). Cardwell and Lindsey (1980) studied a sample of 580 Mormons—236 females and 344 males to seek to identify patterns which distinguish males from females. Using Glock's five-dimensional model of religiosity, they found that while both groups produce five factors from their factor analysis, they appear to have four factors in common. These are identified as: (1) religious ritualism, adult emphasis; (2) religious ritualism, youth emphasis; (3) religious belief; and (4) religious experience. The researchers concluded that the difference which appears in the study may be due to different emphasis. They argued that "It seems unreasonable to assume that the various dimensions of
religiosity are equivalent between sexes within the Mormon denomination" (p. 127).

Cline and Richards (1965) also studied a group of Mormons and found the males differing from the females in that the females scored higher than their male counterparts on such variables as belief, convictions, activities, conforming to beliefs, and knowledge about religion.¹

Gans (1967) studied a group of males and females from Boston's West End and found that males identify more with religion than with religious affiliation, whereas females tend to identify more with religious affiliation than with religion. He concluded that males may have a broader perspective than females, that they may be more concerned with unaffiliated or nonaffiliated religion, and with societal or maybe cosmic religion.

Finally, Putney and Snell (1961) studied a group of male and female students and found that females were higher on such religious variables as orthodoxy, and that they valued religious self-definitions more than their male counterparts. However, both groups appeared to be equal in their missionary zeal.

Religiosity and Parent-Child Relations

Many studies have pointed out the importance of

¹Cline and Richards' study was contradicted by Cardwell and Lindsey (1974) who found that among Mormons, males tended to score higher than females.
parent-child relationships in the development of the moral
and religious attitudes of children (Devereaux,
Bronfenbrenner, & Suci, 1962; Glidewell, 1961). Glidewell
(1961) underscores the importance of the parents when he
states that "the influence of parental attitudes on the
development and behavior of children is both pervasive and
critical . . ." (p. ix). Lenski (1961) also states that

One's earliest years, so crucial in the development
of personality, and in the establishment of behavior
patterns are normally spent in the family group . . .
During this period the child's chief relations are
with his mother, whose contact with the outside world
is far more limited than the father. (p. 18)

Researchers before Lenski were aware of the
importance of family relations in fostering religious
development. Newcomb and Svehla (1937) administered
Thurstone scales to parents and children ranging in age
from 14 to 38 years, and taken from 549 families. They
found a correlation of .60 between the religious attitudes
of parents and children. They also found that the most
important influence on children's religious belief were
"parents," "home," and "mother."

Gorer (1955) and Srole (1962) found that the
religious practices of parents affected the training of
their children, e.g., whether or not their children were
taught to pray; but had very little effect on whether or
not they sent their children to religious education
programs. Srole further pointed out that the
effectiveness of socialization is often related to the
amount of emphasis placed on religious training.
Studies by Bell (1938), by Allport, Gillespie, and Young (1948), and by Stark (1968) noted that the effects of parental attitudes and beliefs on the religious attitude of children varies with denominations as does the effectiveness of parental religious training. Bell (1938) found that the percentage of young adults who reported the same religious affiliation as their parents was 92.7 percent among Catholics, 69 percent among Protestants, and 62 percent among Jews. Allport, Gillespie, and Young (1948) found that, for their sample, it was 85 percent among Catholics and 40 percent for both Protestants and Jews.

Later researchers have also revealed the importance of parents in the development of religious attitudes. Landis (1960) studied a sample of 2,654 family members in order "to examine in more detail some of the characteristics of religious and non-religiously oriented homes as they seemed to be revealed through parent-child relationships and attitudes held by parents" (p. 341).

For the study, Landis hypothesized that, in any culture, the stable and conventional subscribe to some religious faith and have more stability in marriage. He also stated that parents who are religious pass on their religious and social heritage to their children; that closeness of parents and a higher conception of self would be characteristic of such children. Included in his hypothesis is the idea that there would be a positive
relationship between religiousness and (a) marriage and (b) transmission of family and social values within each of the major faiths of society.

The results of his study upheld all of his hypotheses. The religiousness of parents was closely related to children's reported feelings of closeness to their parents. In addition, females reported feeling closer to parents than males. Father's religiousness was positively associated with the children's reported feelings of closeness with parents. Furthermore, children from devout homes had a higher conception of self than those from nonreligious homes.

Cline and Richards (1965) found, from a sample of 155 individuals, that the degree of religiousness of one's parents is significantly related to the quality of family relationships. This is particularly true when the father is religious. Daughters tend to benefit more from this relationship than sons. The father's religiousness was positively related to husband-wife relationships. It was also discovered that the religiousness of the mother often increases the likelihood of her children, particularly her sons, being religious. A positive relationship existed between the religiousness of parents and that of their children, even in cases where the relationship between both groups was weak.

More recent studies (Acock & Bengston, 1978; Bengston & Troll, 1978; Greeley, 1972; Hoge, Petrillo, &

Weiting (1971, 1975) reported correlations on three factors from his studies of the formation of ideologies and belief systems of adolescents. The first factor of parent-child relations yielded a correlation of .41, while the other two factors yielded correlations of .27 and .31, respectively. The family's influence on all three dimensions of religiosity was reported to be statistically significant.

Johnson (1978) obtained similar results when he investigated the relationship between students' religious commitment and perceived parental religiosity, and family warmth and acceptance. He reported all of his factors as statistically significant and concluded that parent influence is important in the shaping of children's religious behavior.

In other studies, Weigert and Thomas (1970a, 1970b) and Thomas et al. (1974) studied a cross-cultural sample using parental control/support as their independent variables. They also used Glock's religiosity model as a measurement of the religiosity variable. They found that those with the highest degree of support and control scored highest on three of the religious factors. They
reported correlations of .59 for church satisfaction, .69 for teacher evaluation, and .37 for religious practice.

Dudley (1977), in a study of teenage religious attitudes, found that one of the main contributing factors to teenage alienation from religion is the inconsistency between parental belief and practice.

In attempting to find the role of parents in the transmission of religious and social values, Hoge, Petrillo, and Smith (1982) investigated a sample of 254 families having adolescents with an average age of 16 years. Their findings revealed that the younger age of parents, parent's agreement on religious beliefs, and good parent-child relations enhance religious value transmission. Their findings supported Nelson's (1981) findings which indicated that parental harmony and agreement on religion, as well as family relations, are important factors in the transmission of religious values from one generation to another.

Summary

The literature reviewed in this chapter deals with religiosity under three main headings. First, the discussion concerned defining personal religious orientations. The literature reviewed pointed to the fact that, in spite of the varied findings of the various studies, a serious attempt is being made to identify and distinguish (1) religion in its more overt, explicit, subjective, and diffused state; (2) or religion as it is
known and associated with institutional acceptance; or (3) religion that is mature, personal, internalized, and suffused. Two opposing theories were offered as explanations in this discussion: religion as a dichotomous variable, relating to Allport's intrinsic-extrinsic concept and to Allen and Spilka's committed and consensual religious orientations; and religion as a trichotomous variable, relating to Fleck's extrinsic religion, consensual religion, and committed religion and to Batson and Ventis' religion as a means, an end, and a quest. The problem with the trichotomous approach to the study of personal religion is that it lacks adequate empirical data to be accepted as a viable alternative to the dichotomous view of personal religious orientation.

Second, the study reviewed literature defining religiosity as unidimensional or multidimensional. Thus far, the vast majority of research has upheld the use of multidimensional measures in the study of religiosity. What may be noted in these various studies is that they lack a unifying approach to what constitutes religiosity or how religiosity is to be defined.

Third, the literature relating to religiosity and such correlates as age, religious affiliation, and sex was reviewed. The vast majority of studies reviewed seem to support the idea that religiosity is related to the correlates mentioned above, with the exception of
religious affiliation, where researchers seem to be divided on its importance in relation to religiosity.

Finally, the literature relating to religiosity and parent-child relations was reviewed. All studies pointed to the importance of parental attitudes and parent relationships with their children in fostering and developing religious attitudes and beliefs. However, it is to be noted that no study has attempted to determine the relationship between adolescent religiosity and their perception of parental behavior toward them. This current study was intended to fill this vacuum.
CHAPTER III

METHODOLOGY

Design of the Study

This study employed a correlational design. It sought to determine: (1) the relationship between the dimensions of adolescents' religiosity and parental behavior and (2) the relationship between the dimensions of adolescents' religiosity and three predictor or independent variables: (a) age, (b) sex, and (c) religious affiliation.

The Population and the Sample

The population investigated consisted of 1,983 adolescents between the ages of 14 and 17 years, attending fifteen secondary schools in forms three and four in Antigua and Barbuda.

In order to be eligible to participate in this study, participants had to meet three criteria: (1) be an adolescent between the ages of 14 and 17 in forms three and four; (2) reside in the state of Antigua and Barbuda between November 2, 1984, and November 14, 1984; and (3) reside or have resided with both parents for at least six months during the preceding twelve months.
**Sample Size and Procedures**

In order to establish the parameters of this study, a minimum sample size was established. This was computed by means of power analysis (Cohen, 1975). In power analysis, there are four major parameters: (1) the level of significance or alpha; (2) the estimated variance of the criterion variable; (3) the sample size (N); and (4) the effect size (ES).

For this study, the alpha level of significance was set at .05, which means that the probability of rejecting by chance the null hypothesis was five in one hundred. The population effect size was $R^2 = .15$, and the power desired was .90, i.e., the probability of retaining by chance a false null hypothesis was only 10 percent. The minimum sample size required for an $R^2$ of .15 and a power of .90 is 264. However, in order to ensure that the minimum sample was attained, 400 triads of the instrument(s) were distributed.

In order to ensure representativeness of the population, the method of purposive sampling was utilized. This method of sampling was employed for several reasons: (1) the difficulty in obtaining a list of all eligible adolescents attending secondary schools in Antigua and Barbuda, (2) the difficulty of getting all of the sample in one place to administer the instruments; (3) the difficulty of reaching the subjects by mail and gaining a maximum amount of return on the completed instruments, and
(4) the ease of supervising the administration of the instrument.

The fifteen available secondary schools were divided into two categories: (1) public secondary, of which there were eight, and (2) private secondary, of which there were seven. All the private secondary schools were located within the city of St. Johns; four of the public secondary schools were located in rural areas, and four in the city of St. Johns. The majority of the population, 1,447 or 73 percent, attended the eight public schools, 536 or 27 percent attended the seven private schools.

A total of 280 adolescents of the total sample was chosen from four of the eight public secondary schools. From the private secondary schools a total of 120 adolescents of the total sample was chosen. Of the 280 chosen from the public secondary schools, 69 were excluded from the final analysis due to missing data on the returns, while for the private secondary schools a total of 17 were excluded because of missing data. A total of 314 triads were included in the analysis, a total of 79.5 percent of the original sample. Table 1 presents a summary of the total sample by age, sex, and religious affiliation.

The sample distribution reveals that the 14 year age category accounted for approximately 32 percent of
<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Sex</th>
<th>N</th>
<th>Religious Affiliation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 years</td>
<td>102</td>
<td>Females</td>
<td>221</td>
<td>Anglicans</td>
<td>85</td>
</tr>
<tr>
<td>15 years</td>
<td>67</td>
<td>Males</td>
<td>93</td>
<td>Methodists</td>
<td>27</td>
</tr>
<tr>
<td>16 years</td>
<td>66</td>
<td></td>
<td></td>
<td>Moravians</td>
<td>51</td>
</tr>
<tr>
<td>17 years</td>
<td>79</td>
<td></td>
<td></td>
<td>Roman Catholics</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Seventh-day Adventists</td>
<td>40</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Other</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No Affiliation</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>314</td>
<td>314</td>
<td>314</td>
<td></td>
<td>314</td>
</tr>
</tbody>
</table>

the total sample; 15-year olds, approximately 22 percent; 16-year olds, approximately 21 percent; and 17-year olds, approximately 25 percent. For the sex category, the sample consisted of 93 males, or 29.6 percent, and 221 females, or 70.3 percent. The largest group represented in the religious affiliation category were Anglicans who accounted for 27 percent of the total sample; these were followed by the "Other" category consisting of various Evangelical groups, with approximately 22 percent. Moravians accounted for 16 percent; Seventh-day Adventists, 13 percent; Roman Catholics, 11 percent; and
Methodists 9 percent. Those responding to the "No religious affiliation" category represented only 2.33 percent of the total sample.

Instrumentation

To measure the variables involved, it was necessary to select two appropriate instruments. Many published scales were consulted (Faulkner & Dejong, 1966; Stark & Glock, 1968; Heilbrun, 1964, 1973; Shaefer, 1965; Robinson & Shaver, 1973). The two instruments selected to gather the data for this study were the Basic Religiosity and Composite Scales from King and Hunt (1975), to measure the religious variables, and the Bronfenbrenner Parent Behavior Questionnaire (Bronfenbrenner, 1961; Devereaux, Bronfenbrenner, & Suci, 1962; Devereaux, Bronfenbrenner, & Rodgers, 1969; Seigelman, 1963), used to measure adolescents' perception of parental behavior.

The questionnaires were numbered from 001 to 400 and were matched so that each student response on the religiosity scales was matched with his/her response on the parental (paternal and maternal) behavior questionnaire, thereby forming a triad of 1 religiosity, 1 paternal, and 1 maternal for each respondent.

The Religiosity Instrument

The instrument "Measuring the Religiosity Variable," developed by King and Hunt (1975), was chosen for four reasons: (1) the items covered a wide range of
beliefs and attitudes which, according to Robinson and Shaver (1973), "is quite helpful in identifying the phenomenon under consideration"; (2) the instrument was developed from a sample of actual church members covering a wide range in age, sex, education, and socio-economic status, and, according to several studies (King, 1967, 1970; King & Hunt, 1969, 1975) indicated great support for multidimensionality; (3) King and Hunt conducted three separate testings of the instruments, spanning an eight-year period, from which the evidence for the validity and reliability of the instrument was established; and (4) according to Clark (1979), their instrument presents a more complete approach to the study of multidimensionality of religiosity than previous studies, e.g., Faulkner and Dejong (1966), Clayton (1974), and Lenski (1961).

Clark (1979, pp. 28-29) comments on King and Hunt's dimensions by stating that

the dimensions subsets may be identified along the lines established in earlier research, one pertaining to the personal-meaning aspect and the other to the social-belonging aspect. These two subsets and their differing social and psychological correlates, . . . are central to the study of religiosity. (p. 28, 29)

The original instrument (King & Hunt, 1975) contained thirteen variables or dimensions—ten religious and three cognitive-style variables. The Basic Religiosity scales consisted of seven religious variables or dimensions: (1) **Creedal Assent**, which has to do with basic Christian beliefs; (2) **Devotionalism**, which has to do with one's relationship to God and one's prayer life;
(3) **Church Attendance**, which relates to frequency of church attendance and to frequency of communion; (4) **Organizational Activity**, relating to frequency of participation in, and satisfaction derived from, congregational involvement; (5) **Financial Activity**, relating to the amount or percentage of income contributed to the church budget; (6) **Religious Despair** which has to do with attitude toward life and the meaningfulness of religion; and (7) **Orientation to Growth and Striving**, which relates to orientation to religion or types of motivation for religious behavior.

The Composite Religious Scales consist of three variables or dimensions: (1) **Salience: Behavior**, which deals with overt religious behavior and the frequency of certain actions, e.g., sharing, trying to "convert" someone, reading church publications, and seeking guidance on "social issues"; (2) **Salience: Cognition**, which relates to salience of religion in thoughts and feelings; and (3) **The Active Regulars**, which measures "frequency of church attendance and of receiving Communion with others measuring amount, percentage, and regularity of financial contributions" (King & Hunt, 1972a, p. 33).

The Cognitive Variables were not used in this study because upon close examination of the items, and the thrust of the study, they were judged to be inappropriate and not consistent with the objectives of the study.
King and Hunt (1975) reported item-scales reliabilities ranging from a low of .42 on one item of the Creedal Assent dimension, "I believe honestly and wholeheartedly in the doctrines and teachings of the church," to a high of .79 on "How often do you pray in places other than at church?" on the Devotionalism index. They also reported dimension reliabilities ranging from a low of .73 on the Financial Support dimension to a high of .86 on the Active Regulars dimension. Intercorrelations among Scales ranged from a high of .82 between the Growth and Striving dimension and Salience: Cognition to a low of .03 between Creedal Assent and Devotionalism dimensions. The combined Scales contained 47 items.

All of the items included for this study were used exactly as they appear in King and Hunt (1975) with the exception of Item 2 where the words "or Saturday" were added in parenthesis, so that the item reads, "During the last year, how many Sundays (or Saturdays) per month on the average have you gone to worship service?" Table 2 presents a summary of the scales intercorrelation internal consistency reliabilities forming the ten dimensions from the Basic Religiosity and Composite Scales of King and Hunt (1975).

**Scoring of the Items**

In order to properly interpret the items it is necessary to know how they were scored for statistical analysis. Items 1 to 10 were scored from a high of 4 to a
<table>
<thead>
<tr>
<th>The Scales</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
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<tr>
<td>Creedal Assent</td>
<td>1</td>
<td>.84</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Devotionalism</td>
<td>2</td>
<td>.03</td>
<td>.84</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Church Attendance</td>
<td>3</td>
<td>.34</td>
<td>.36</td>
<td>.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Activity</td>
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<td>.34</td>
<td>.37</td>
<td>.19</td>
<td>.81</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td>.30</td>
<td>.33</td>
<td>.63</td>
<td>.49</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth and Striving</td>
<td>6</td>
<td>.54</td>
<td>.72</td>
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<td>-.19</td>
<td>-.22</td>
<td>-.16</td>
<td>-.36</td>
<td>.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salience: Behavior</td>
<td>8</td>
<td>.39</td>
<td>.58</td>
<td>.44</td>
<td>.54</td>
<td>.42</td>
<td>.76</td>
<td>-.26</td>
<td>.80</td>
<td></td>
</tr>
<tr>
<td>Salience: Cognition</td>
<td>9</td>
<td>.75</td>
<td>.80</td>
<td>.39</td>
<td>.41</td>
<td>.38</td>
<td>.82</td>
<td>-.49</td>
<td>.59</td>
<td>.84</td>
</tr>
<tr>
<td>Active Regulars</td>
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<td>.38</td>
<td>.42</td>
<td>.87</td>
<td>.85</td>
<td>.71</td>
<td>.56</td>
<td>-.22</td>
<td>.62</td>
<td>.48</td>
</tr>
</tbody>
</table>

Note: Internal consistency reliabilities form the main diagonal.
low of 1 in descending order, with 4 representing a more religious response and 1 a less religious response. Each item in this category had four responses. Items 11 to 23 also each had four responses. They were: (a) Regularly, (b) Fairly frequently, (c) Occasionally, and (d) Seldom or Never. These items were also scored in descending order from 4 to 1 with a score of 4 assigned to the Regularly category and 1 being assigned to the Seldom or Never category. Items 24 to 47 were also scored on a continuum of 1 to 4. The responses for these items were: (a) Strongly Agree, (b) Agree, (c) Disagree, and (d) Strongly Disagree. A score of 4 was assigned to the Strongly Agree response, and a score of 1 to the Strongly Disagree response.

Properties of the Scale

In analyzing the data, a very important feature of the scale concerns the dispersion of the possible range of scores. This enables the researcher to determine whether the sample scores are symmetrically distributed on each of the dimensions of the scale. Table 3 presents the dimensions, number of items, possible range of scores, and the actual range of sample scores, median, means, and standard deviation. The means and standard deviations have been rounded to three decimal places.

The data from table 3 reveal that the maximum possible score on the creedal assent dimension was 28 while the minimum was 7; the actual range of scores
<table>
<thead>
<tr>
<th>Religious Dimensions</th>
<th>No. of Items</th>
<th>Range of Scores Possible/Actual</th>
<th>Medians</th>
<th>Means</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creedal Assent</td>
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<td>7-28</td>
<td>7-28</td>
<td>26</td>
<td>24.752</td>
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<tr>
<td>Devotionalism</td>
<td>5</td>
<td>5-20</td>
<td>5-20</td>
<td>16</td>
<td>15.331</td>
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<tr>
<td>Church Attendance</td>
<td>3</td>
<td>3-12</td>
<td>3-12</td>
<td>9</td>
<td>8.783</td>
</tr>
<tr>
<td>Organizational Activity</td>
<td>6</td>
<td>6-24</td>
<td>7-23</td>
<td>15</td>
<td>15.178</td>
</tr>
<tr>
<td>Financial Support</td>
<td>5</td>
<td>5-20</td>
<td>5-20</td>
<td>14</td>
<td>13.503</td>
</tr>
<tr>
<td>Religious Despair</td>
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<td>7-28</td>
<td>7-26</td>
<td>15</td>
<td>15.191</td>
</tr>
<tr>
<td>Growth and Striving</td>
<td>6</td>
<td>6-24</td>
<td>6-24</td>
<td>17</td>
<td>16.303</td>
</tr>
<tr>
<td>Salience: Behavior</td>
<td>7</td>
<td>7-28</td>
<td>7-29</td>
<td>13.50</td>
<td>14.360</td>
</tr>
<tr>
<td>Salience: Cognition</td>
<td>8</td>
<td>8-32</td>
<td>8-32</td>
<td>26</td>
<td>25.373</td>
</tr>
<tr>
<td>The Active Regulars</td>
<td>10</td>
<td>10-40</td>
<td>10-40</td>
<td>23</td>
<td>27.277</td>
</tr>
</tbody>
</table>
indicates that the scores were spread out on all of the dimensions.

For the remaining dimensions the actual scores ranged from a low of 5 to a high of 20 on the devotion-ism dimension; 3-12 on church attendance; 7-23 on organizational activity; 5-20 on financial support; 7-26 on religious despair; 8-24 on orientation to growth and striving; 7-28 on salience: behavior; 8-32 on salience: cognition; and 10-40 on the active regulars.

The means and medians help to identify where the majority of scores lie and to determine if the dimensions are symmetrical in distribution. However, the information provided in table 3 indicates that none of the dimensions are symmetrical or evenly distributed, most were skewed; i.e., the majority of the scores on all of the dimensions extended to one side of the median value.

The Parental Behavior Instrument

The second instrument selected for this study was the Bronfenbrenner Parent Behavior Questionnaire (Bronfenbrenner, 1961; Devereaux, Bronfenbrenner, & Suci, 1962; Devereaux, Bronfenbrenner, & Rodgers, 1969; Seigelman, 1965). This instrument was chosen for two reasons: (1) It has a wide range of behaviors exhibited by parents, and (2) the instruments have been used in two cross-cultural studies described below. This questionnaire was used to measure parental behavior as perceived by the adolescents.
The original scale was developed by Bronfenbrenner (1961) and was originally known as "Parent-Activity Inventory." There were twenty original variables classified under two broad headings: "expressive functions, typically associated with the mother and including such variables as nurture, affection, indulgence, etc.; and instrumental functions traditionally associated with the father, for example, physical punishment, power, principled discipline, etc." (p. 242). Bronfenbrenner did not report any reliabilities for this scale.

The instruments were used in two cross-cultural studies by Devereaux, Bronfenbrenner, and Suci (1962) and Devereaux, Bronfenbrenner, and Rodgers (1969). The authors have pointed out that the idea of having the child rate the child-rearing practices of his/her parents provides more reliable data than vice versa. They claim that there is evidence of high reliabilities in their studies, but did not actually report any for their 1962 study.

However, evidence of reliability and validity on their instrument is reported by Seigelman (1963) who studied a sample of 212 fourth- to seventh-grade boys (81) and girls (131). Seigelman analyzed fifteen of Bronfenbrenner's original twenty variables with forty-five items. Responses were arranged on a five-point scale with
choices on some items being: "in every case," "in most cases," "sometimes," "seldom," and "never."

A factor analysis was done on male-father, male-mother, female-father, and female-mother relationships. Three factors (compared to the four reported by Devereaux, Bronfenbrenner, & Suci, 1962) emerged which accounted for 62 percent of the variance. The factors were: factor I, "Loving"; factor II, "Punishment"; factor III, "Demanding." Siegelman (1963) reports Kuder-Richardson reliabilities ranging from a low of .26, "affective punishment," to a high of .83, "instrumental companionship" for male-father, and from .23, "indulgence" to .70, "affiliative companionship" for male-mother. For female-father he reports reliabilities of .55, "protectiveness" to .88, "deprivation of privileges," and for female-mother a low of .33, "protectiveness" to a high of .75, "affective reward."

The mean reliabilities for all BPB scales were .58 for male-father, .45 for male-mother, .68 for female-father, and .51 for female-mother. The combined scale reliability on all three factors for the total sample ranged from a low of .70 on female-mother factor III to a high of .91 for male-father on factor I.

The items used in this study were taken from a later study by Devereaux, Bronfenbrenner, and Rodgers (1969). Their instruments included fourteen of the original twenty variables (in contrast to Siegelman's fifteen)
and thirty items. The fourteen variables are divided into four categories or dimensions: (1) Parental supporting behavior—nurturance, principled discipline, instrumental companionship, consistency of expectation, encouragement of autonomy, and indulgence; (2) Parental controlling behavior—control and protectiveness; (3) Parental demanding behavior—prescription of responsibilities, and achievement demands, and (4) Parental punishing behavior—affective punishment, deprivation of privileges, scolding, and physical punishment.

From their 1969 study, Devereaux, Bronfenbrenner, and Rodgers (1969) report correlation coefficients for children's rating of their parents (mother and father) ranging from a low of .40 to a high of .60.

Scoring of the Items

In order to properly interpret the items it is necessary to know how they were scored for statistical purposes. Items 1-10 and 13-14 had five responses—"Never," "Only Once in a While," "Sometimes," "Usually," and "Almost Always," and were scored on a continuum of 1 (Never) to 5 (Almost Always). Items 15, 16, 18-22, and 30 had responses of "Never," "Only Once in a While," "Sometimes," "Often," and "Very Often." These were also scored on a continuum from 1 (Never) to 5 (Very Often). Items 11, 12, 17, and 23-29 had responses of "Never," "Only Once or Twice a Year," "About Once a month," "About
Once a Week," and "Almost Every Day." These were scored on a continuum from 1 (Never) to 5 (Almost Every Day).

Properties of the Scale

An important aspect of the scale concerns the distribution of the scores. This provides an overview of the scale as to whether the sample scores are symmetrically distributed or not on each of the dimensions. Table 4 presents a summary of the variables, the number of items in each variable and dimension, the range of scores—actual and possible, the medians, means, and standard deviations for both mother and father.

The data from table 4 reveal that the total range of scores for the six variables on the Supporting dimension was from a low of 13 to a high of 65. Within this dimension the possible range of scores on each variable is: nurturance, 3-15; principled discipline, 2-10; instrumental companionship, 2-10; consistency of expectation, 2-10; encouragement of autonomy 2-10; and indulgence, 2-10.

For the Demanding dimension, the possible range of scores is prescription of responsibilities, 2-10 and achievement demands 2-10; while on the Controlling dimension the possible range of scores are control, 2-10 and protectiveness, 2-10.

Finally on the Punishing dimension, for affective punishment the possible range of scores is 2-10, deprivation of privileges, 2-10, scolding 2-10, and
**TABLE 4**

MEANS AND DISPERSION OF SCORES ON PARENTAL BEHAVIOR QUESTIONNAIRE
FOR MOTHERS' AND FATHERS'

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>No. of Items</th>
<th>Range of Scores Possible</th>
<th>Range of Actual Scores</th>
<th>Medians 1*</th>
<th>Means 1</th>
<th>Standard Deviations 1</th>
<th>Medians 2**</th>
<th>Means 2</th>
<th>Standard Deviations 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supporting</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1. Nurturance</td>
<td>3</td>
<td>3-15</td>
<td>3-15</td>
<td>12</td>
<td>9</td>
<td>11.000</td>
<td>9.359</td>
<td>2.906</td>
<td>3.349</td>
</tr>
<tr>
<td>2. Principled Discipline</td>
<td>2</td>
<td>2-10</td>
<td>2-10</td>
<td>7</td>
<td>6</td>
<td>6.894</td>
<td>6.219</td>
<td>1.911</td>
<td>2.377</td>
</tr>
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<td>3. Instrumental Companionship</td>
<td>2</td>
<td>2-10</td>
<td>2-10</td>
<td>8</td>
<td>6</td>
<td>7.474</td>
<td>5.085</td>
<td>2.359</td>
<td>2.633</td>
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<td>4. Consistency of Expectation</td>
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<td>2-10</td>
<td>2-10</td>
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<td>8</td>
<td>8.035</td>
<td>7.547</td>
<td>1.517</td>
<td>1.904</td>
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<td>5. Encouragement of Autonomy</td>
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<td>2-10</td>
<td>2-10</td>
<td>7</td>
<td>6</td>
<td>6.796</td>
<td>6.382</td>
<td>1.914</td>
<td>2.129</td>
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<td>6. Indulgence</td>
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<td>2-10</td>
<td>2-10</td>
<td>8</td>
<td>7</td>
<td>7.410</td>
<td>7.057</td>
<td>1.368</td>
<td>1.875</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>7. Prescription of Responsibilities</td>
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<td>2-10</td>
<td>6-10</td>
<td>9</td>
<td>9</td>
<td>9.238</td>
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<td>1.927</td>
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<td>2-10</td>
<td>2-10</td>
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<td>8</td>
<td>8.338</td>
<td>7.531</td>
<td>1.773</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Control</td>
<td>2</td>
<td>2-10</td>
<td>2-10</td>
<td>7</td>
<td>6</td>
<td>6.634</td>
<td>5.710</td>
<td>1.789</td>
<td>1.958</td>
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<td>2-10</td>
<td>2-10</td>
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<td>5.525</td>
<td>4.933</td>
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<td><strong>Punishing</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>11. Affective Punishment</td>
<td>2</td>
<td>2-10</td>
<td>2-10</td>
<td>6</td>
<td>5</td>
<td>5.812</td>
<td>5.121</td>
<td>1.993</td>
<td>2.023</td>
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<tr>
<td>12. Deprivation of Privileges</td>
<td>2</td>
<td>2-10</td>
<td>2-10</td>
<td>3</td>
<td>2</td>
<td>3.990</td>
<td>3.300</td>
<td>2.145</td>
<td>1.912</td>
</tr>
<tr>
<td>13. Scolding</td>
<td>2</td>
<td>2-10</td>
<td>2-10</td>
<td>6</td>
<td>4</td>
<td>5.585</td>
<td>4.509</td>
<td>2.291</td>
<td>2.228</td>
</tr>
<tr>
<td>14. Physical Punishment</td>
<td>3</td>
<td>3-15</td>
<td>3-12</td>
<td>5</td>
<td>4</td>
<td>5.828</td>
<td>4.843</td>
<td>2.235</td>
<td>2.076</td>
</tr>
</tbody>
</table>

* = mother; ** = father
physical punishment, 3-15. The means and the medians on all variables (maternal and paternal) were very close to each other, though the means for the maternal variables were consistently higher than the means on the paternal variables which does seem to suggest that more students rated their mother as displaying certain types of behavior more frequently than their fathers. It is to be noted also, that in almost every case the standard deviation for the father was consistently higher than the standard deviation for the mother. This means that the scores on the paternal dimensions have a wider dispersion on all but three of the parental dimensions.

**Hypotheses of the Study**

The following hypotheses were tested and are stated in null form:

1. There is no significant multiple correlation between the creedal assent dimension of adolescents' religiosity and a combination of the three predictor variables, age, sex, and religious affiliation.

2. There is no significant multiple correlation between the devotional dimensions of adolescents' religiosity and a combination of the three predictor variables, age, sex, and religious affiliation.

3. There is no significant multiple correlation between the religious despair dimension of adolescents' religiosity and the three predictor variables.

4. There is no significant multiple correlation
between the orientation to growth and striving dimension of adolescents' religiosity and the three predictor variables.

5. There is no significant canonical correlation between the congregational involvement dimensions (church attendance, organizational activity, and financial support) of adolescents' religiosity and the three predictor variables.

6. There is no significant canonical correlation between the composite religious dimensions of adolescents' religiosity (salience: behavior, salience: cognition, and the active regulars), and a combination of the three predictor variables—age, sex, and religious affiliation.

7. There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and a combination of predictor variables, age, sex, and religious affiliation.

8. There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of paternal supporting behavior, i.e., nurturance, instrumental companionship, consistency of expectation, principled discipline, encouragement of autonomy, and indulgence.

9. There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of paternal controlling behavior,
i.e., control and protectiveness.

10. There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of paternal demanding behavior, i.e., prescription of responsibilities and achievement demands.

11. There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of paternal punishing behavior, i.e., affective punishment, deprivation of privileges, scolding, and physical punishment.

12. There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of paternal behavior.

13. There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of maternal supporting behavior, i.e., nurturance, instrumental companionship, consistency of expectation, principled discipline, encouragement of autonomy, and indulgence.

14. There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of maternal controling behavior, i.e., control and protectiveness.

15. There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of maternal demanding behavior,
i.e., prescription of responsibilities and achievement demands.

16. There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of maternal punishing behavior, i.e., affective punishment, deprivation of privileges, scolding, and physical punishment.

17. There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of maternal behavior.

Data Gathering Procedures

In the month of November 1984, the researcher visited the Chief Education Officer in the State of Antigua and Barbuda to acquaint him with the nature of the study and to obtain his permission to gather data from several of the government secondary schools.

Four of the eight public schools and seven non-public schools (see appendix 3 for breakdown of schools and the number of respondents selected) provided the sample for the study. All of the non-public schools were included in the sample due to their small enrollments. The selection of the four public secondary schools was based on the geographic location of the schools, with one each being chosen from the following geographic locations east, west, northwest and southwest. This, it seems, would ensure adequate representation of a broad cross-section of the population being investigated.
Two visits were made to each school. During the first visit the principals were acquainted with the nature of the research, and their cooperation was obtained. They were asked to administer the instruments and to set aside at least three class periods on different days for the completion of the instruments. The second visit was to collect the completed instruments.

The instruments were completed over a ten-day period with a minimum of two days separating the administration of the first instrument and that of the second. The instrument measuring adolescent religiosity was administered first. The Parent Behavior instrument was administered twice, once for the father, and once for the mother. This necessitated the changing of the pronoun from "he" to "she." Apart from this, the mother's questionnaire was identical to the "father's."

In order to ensure that only eligible adolescents would participate in the study, a demographic questionnaire was developed and administered prior to the administration of the first instrument. This questionnaire included requests for information on such variables as age, sex, and religious affiliation. Information was also sought on the length of time the respondent had resided with both parents. Respondents who did not meet the criteria specified at the beginning of the chapter were excluded from further participation in the study.
Data Analysis

The data from this study were analyzed utilizing two methods of analysis. The first method of analysis was multiple regression to determine how well the predictor variables in linear combination correlated with the dependent variable. This enabled the researcher to determine how much influence each independent variable exerted on the dependent variable when the influence all of the independent variables have in common was partialed out. Hypotheses 1, 2, 3, and 4 were analyzed using this method.

The second method of analysis was canonical correlation analysis. This method enabled the researcher to determine the relations between sets of independent and sets of dependent variables. Hypotheses 5-17 were analyzed using this method.

Summary

In this chapter the research design employed in this study was presented. The population and sample, sample size and sampling procedures, instrumentation, hypotheses of the study, data gathering procedures, and finally, the methods of analysis used in analyzing the data were explained.
CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

The main purpose of this study was to investigate the relationship between the ten dimensions of adolescents' religiosity and thirty-one independent variables. Fourteen paternal, fourteen maternal, and three predictor variables: age, sex, and religious affiliation were included. This chapter presents the findings relative to the hypotheses for the study.

Coding of the Predictor Variables

In order to properly score and analyze the predictor variables, a system of coding was employed. First, the variable "sex" was treated as a dichotomous variable and was coded 1 = males and 2 = females. The variable "age" was treated as a continuous variable. The third variable, "religious affiliation," was comprised of six dummy vectors. In vector 1 all subjects who were Anglicans were assigned a value of 1, while all other subjects were assigned 0. In vector 2 all subjects who were Methodists were assigned a value of 1, while all others were assigned 0. In vector 3 all subjects who were Moravians were assigned a value of 1, while all others were assigned 0. In vector 4 all subjects who were Roman...
Catholics were assigned a value of 1, while all others were assigned 0. In vector 5 all subjects who were Seventh-day Adventists were assigned a value of 1, while all others were assigned 0. In vector 6 all subjects who were Evangelicals ("other") were assigned a value of 1, while all others were assigned 0.

**Correlation between Religiosity and Independent Variables**

The BMDP2R computer program provided a correlation matrix of variables used in this study. Tables 5, 6 and 7 present the correlation matrix of all independent variables with the ten dimensions of religiosity (dependent variables). The data from table 5 reveal that age correlated significantly with five religious dimensions—the active regulars and organizational activity at the .001 level, financial support and church attendance at the .01 level, and salience: behavior at the .05 level.

Sex correlated significantly with three religious dimensions—creedal assent and church attendance at the .01 level, and the active regulars at the .05 level. The combination of six dummy variables (Anglicans, Methodists, Moravians, Roman Catholics, Seventh-day Adventists, and Evangelicals [other]) comprising the religious affiliation variable produced significant multiple correlations, obtained through the BMDP2R program, with six religious dimensions: church attendance, organizational activity
### TABLE 5

**Correlation Matrix of Religiosity Variables with Age, Sex, and Religious Affiliation**

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-.076</td>
<td>.004</td>
<td>-.133</td>
<td>-.171</td>
<td>.151</td>
<td>.058</td>
<td>-.055</td>
<td>-.101</td>
<td>-.015</td>
<td>-.196</td>
</tr>
<tr>
<td>Sex</td>
<td>.155</td>
<td>.061</td>
<td>.138</td>
<td>.089</td>
<td>.050</td>
<td>.076</td>
<td>.009</td>
<td>.049</td>
<td>.193</td>
<td></td>
</tr>
<tr>
<td>Religious Affiliation</td>
<td>.245</td>
<td>.197</td>
<td>.332</td>
<td>.293</td>
<td>.155</td>
<td>.157</td>
<td>.187</td>
<td>.265</td>
<td>.211</td>
<td>.281</td>
</tr>
</tbody>
</table>

*** Significant at the .001 level  
** Significant at the .01 level  
* Significant at the .05 level  
+ Multiple Correlations

1. Creedal Assent  
2. Devotionalism  
3. Church Attendance  
4. Organizational Activity  
5. Financial Support  
6. Religious Despair  
7. Orientation to Growth and Striving  
8. Salience: Behavior  
9. Salience: Cognition  
10. The Active Regulars
saliency: behavior, and the active regulars correlated significantly at the .001 level, while creedal assent and salience cognition correlated significantly at the .01 level.

The results from table 6 reveal that for the maternal variables, creedal assent correlated significantly with nine maternal variables: achievement demands and instrumental companionship at the .001 level; consistency of expectations, prescription of responsibilities, and physical punishment at the .01 level. and nurturance, indulgence, control and scolding at the .05 level.

Devotionalism correlated significantly with one maternal variable: physical punishment at the .01 level. Three of the religious dimension variables were categorized as congregational involvement dimensions. They are church attendance, organizational activity, and financial support. Within this category, church attendance correlated significantly with maternal variables, control, at the .001 level; affective punishment at the .01 level, and protectiveness at the .05 level.

Organizational activity correlated significantly with three religious dimensions: prescription of responsibilities, scolding, and physical punishment at the .05 level. Financial support did not correlate significantly with any of the maternal variables.
7.43LE o

**Table 6**

**Correlation Matrix of Ten Religiosity Variables with Fourteen Maternal Variables**

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurturance</td>
<td>-112</td>
<td>-.004</td>
<td>.081</td>
<td>.079</td>
<td>.038</td>
<td>.022</td>
<td>.017</td>
<td>-.001</td>
<td>.068</td>
<td>.081</td>
</tr>
<tr>
<td>Principled Discipline</td>
<td>.042</td>
<td>.006</td>
<td>.023</td>
<td>.034</td>
<td>.032</td>
<td>-.032</td>
<td>.019</td>
<td>-.014</td>
<td>.052</td>
<td>.015</td>
</tr>
<tr>
<td>Instrumental Companionship</td>
<td>.171</td>
<td>.086</td>
<td>.075</td>
<td>.070</td>
<td>.043</td>
<td>.024</td>
<td>.132</td>
<td>.060</td>
<td>.172</td>
<td>.060</td>
</tr>
<tr>
<td>Consistency of Expectations</td>
<td>.154</td>
<td>.045</td>
<td>.084</td>
<td>.031</td>
<td>.007</td>
<td>.103</td>
<td>-.030</td>
<td>-.062</td>
<td>.040</td>
<td>.030</td>
</tr>
<tr>
<td>Encouragement of Autonomy</td>
<td>.041</td>
<td>.035</td>
<td>.080</td>
<td>.031</td>
<td>.029</td>
<td>-.065</td>
<td>-.010</td>
<td>-.031</td>
<td>.061</td>
<td>.038</td>
</tr>
<tr>
<td>Indulgence</td>
<td>.096</td>
<td>.025</td>
<td>-.016</td>
<td>.073</td>
<td>.039</td>
<td>.120</td>
<td>.064</td>
<td>-.012</td>
<td>.092</td>
<td>.040</td>
</tr>
<tr>
<td>Prescription of Responsibilities</td>
<td>.140</td>
<td>.070</td>
<td>.035</td>
<td>.096</td>
<td>.068</td>
<td>-.100</td>
<td>.080</td>
<td>.031</td>
<td>.115</td>
<td>.078</td>
</tr>
<tr>
<td>Achievement Demands</td>
<td>.202</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>.106</td>
<td>.089</td>
<td>.167</td>
<td>.051</td>
<td>.033</td>
<td>.074</td>
<td>.092</td>
<td>.022</td>
<td>.063</td>
<td>.096</td>
</tr>
<tr>
<td>Protectiveeness</td>
<td>.007</td>
<td>.006</td>
<td>.103</td>
<td>.014</td>
<td>.030</td>
<td>.077</td>
<td>.038</td>
<td>.013</td>
<td>-.003</td>
<td>.081</td>
</tr>
<tr>
<td>Effective Punishment</td>
<td>.082</td>
<td>.035</td>
<td>.140</td>
<td>.006</td>
<td>.060</td>
<td>.085</td>
<td>.003</td>
<td>.004</td>
<td>.042</td>
<td>.097</td>
</tr>
<tr>
<td>Deprivation of Privileges</td>
<td>.092</td>
<td>.014</td>
<td>.001</td>
<td>.066</td>
<td>.045</td>
<td>.042</td>
<td>.080</td>
<td>.101</td>
<td>-.004</td>
<td>.049</td>
</tr>
<tr>
<td>Scolding</td>
<td>.107</td>
<td>-.051</td>
<td>.030</td>
<td>-.124</td>
<td>-.040</td>
<td>.110</td>
<td>-.044</td>
<td>-.112</td>
<td>-.034</td>
<td>-.065</td>
</tr>
<tr>
<td>Physical Punishment</td>
<td>.184</td>
<td>.142</td>
<td>.013</td>
<td>.103</td>
<td>-.021</td>
<td>.013</td>
<td>.137</td>
<td>.109</td>
<td>.108</td>
<td>.034</td>
</tr>
</tbody>
</table>

---

**Notes:**
- **Significant at the .001 level**
- **Significant at the .01 level**
- **Significant at the .05 level**

**Religious Dimensions:**
1. Credal Assent
2. Devotionalism
3. Orientation to Church Attendance
4. Organizational Activity
5. Financial Support
6. Religious Despair
7. Growth and Striving
8. Salience: Behavior
9. Salience: Cognition
10. Act Attenders
The religious despair dimension correlated significantly with four maternal variables at the .05 level: consistency of expectations, indulgence, prescription of responsibilities, and scolding. The orientation to growth and striving dimension correlated significantly with two maternal variables: instrumental companionship and physical punishment correlated significantly at the .01 level.

For the remaining variables, salience: behavior correlated significantly at the .05 level with three of the maternal variables in the punishing dimension: deprivation of privileges, scolding, and physical punishment; salience: cognition correlated significantly with four variables: instrumental companionship at the .001 level, achievement demands at the .01 level, and prescription of responsibilities and physical punishment at the .05 level. Finally, the active regulars correlated with two maternal variables: control and affective punishment at the .05 level.

The information from table 7 indicates that the creedal assent dimension correlated significantly with paternal protectiveness and physical punishment at the .05 level. Devotionalism did not significantly correlate with any of the paternal variables; church attendance correlated with two paternal variables, affective punishment and protectiveness at the .01 and .05 levels respectively. Organizational activity correlated significantly with
<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Religious Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Nurturance</td>
<td>-.002</td>
</tr>
<tr>
<td>Principled Discipline</td>
<td>.049</td>
</tr>
<tr>
<td>Instrumental Companion</td>
<td>.039</td>
</tr>
<tr>
<td>Consistency of Expectations</td>
<td>.007</td>
</tr>
<tr>
<td>Encouragement of Autonomy</td>
<td>.058</td>
</tr>
<tr>
<td>Indulgence</td>
<td>.002</td>
</tr>
<tr>
<td>Prescription of</td>
<td>.039</td>
</tr>
<tr>
<td>Responsibilities</td>
<td>.005</td>
</tr>
<tr>
<td>Achievement Demands</td>
<td>.027</td>
</tr>
<tr>
<td>Control</td>
<td>.094</td>
</tr>
<tr>
<td>Protectiveness</td>
<td>.079</td>
</tr>
<tr>
<td>Affective Punishment</td>
<td>-.065</td>
</tr>
<tr>
<td>Deprivation of Privileges</td>
<td>.013</td>
</tr>
<tr>
<td>Scolding</td>
<td>-.112</td>
</tr>
</tbody>
</table>

** Significant at the .01 level
* Significant at the .05 level

Religious Dimensions
1. Creedal Assent
2. Devotionalism
3. Church Attendance
4. Organizational Activity
5. Financial Support
6. Religious Despair
7. Orientation to Growth and Striving
8. Salience: Behavior
9. Salience: Cognition
10. The Active Regulator
paternal control and affective punishment at the .05 level while financial support correlated significantly with consistency of expectation at the .05 level. Religious despair correlated significantly with one paternal variable, achievement demands at the .05 level. Orientation to growth and striving correlated with paternal indulgence at the .05 level. Salience: behavior did not significantly correlate with any of the paternal variables. The salience: cognition dimension correlated with three paternal variables: affective punishment at the .01 level, and nurturance and control, at the .05 level. Finally the active regulars dimension did not significantly correlate with any of the paternal variables.

The strongest relationship between the religious dimensions and the maternal variables was between maternal achievement demands and creedal assent, .20. This dimension (creedal assent) also had more significant correlations with the maternal variables than any other religious dimension. For the paternal variables, the strongest relationship existed between paternal affective punishment and salience: cognition religious dimension, .132. The correlations which emerged between adolescents' religiosity and the parental variables point to the degree of relationship that exists between adolescents' perception of parental behavior and their religiosity.
These relationships were often weak and at best the relationship may be described as relative.

Concerning the predictor variables, age correlated at -.196 with the active regulars dimensions; sex correlated at .155 with creedal assent. However, the strongest relationship emerged between the religious affiliation variables and the ten dimensions; with a multiple correlation of .332 between the church attendance dimension and religious affiliation.

**Testing of Null Hypotheses 1-4**

The BMDP2R computer program was used for analyzing the data relative to hypotheses 1 to 4. For this analysis, the dependent variables were specified along with the F for entering and removing (F=0.00, 0.00) a variable from the equation. This low level was specified to ensure that all of the variables enter the analysis at each step.

For the analysis, variables were entered according to their importance or contribution to the $R^2$ at each step of the analysis: e.g., for hypothesis 1, religious affiliation contributed the most to the $R^2$, then sex contributed the most in addition to religious affiliation, and finally, age. Therefore, the variables were entered in the above-mentioned order for hypothesis 1.

The BMDP2R program provides multiple correlation, degrees of freedom, and F-Ratio for each step of the analysis. However, it is the contribution to the $R^2$ made
by each variable, or in combination with another
independent variable, which determines the importance of
the variable to the equation in predicting adolescents'
religiosity. The $R^2$ is also the cumulative proportion of
variance of the dependent variable being predicted at each
stage of the analysis by the independent variables.

Throughout the testing of hypotheses 1 to 4, the
$R^2$ is used, which is an additive value, instead of the
Multiple R or multiple correlation coefficients which is
the measure of association between a dependent variable
and two or more independent variables which is not an
additive value. Neither the multiple R nor F-Ratio
carries a sign to indicate the direction of the relationship
between the dependent and independent variable.
Therefore, the unstandardized coefficients which carry a
sign are used in the interpretation of the results.

**Testing of Null Hypothesis 1**

**Hypothesis 1.** There is no significant multiple
correlation between the creedral assent dimension of
adolescents' religiosity and a combination of predictor
variables; age, sex, and religious affiliation.

**Test of Significance.** Table 8 presents a summary
of the testing of hypothesis 1, with multiple correlation
coefficients (MR), multiple $R^2$, increase in $R^2$, degrees of
freedom, and F-Ratio for each step in the analysis.

The data from table 8 reveal that religious
affiliation as a single variable contributed 5.99 percent
TABLE 8

SUMMARY OF THE CONTRIBUTIONS OF AGE, SEX, AND RELIGIOUS AFFILIATION TO THE $R^2$ OF THE CREEDAL ASSENT DIMENSION

<table>
<thead>
<tr>
<th>No. of Variables in Each Step</th>
<th>MR</th>
<th>$R^2$</th>
<th>df</th>
<th>F</th>
<th>Increase in $R^2$</th>
<th>F</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Religious Affiliation</td>
<td>.2447</td>
<td>.0599</td>
<td>6/307</td>
<td>3.26**</td>
<td>.0599**</td>
<td>3.26**</td>
<td>6/307</td>
</tr>
<tr>
<td>2 Sex and Religious Affiliation</td>
<td>.2904</td>
<td>.0844</td>
<td>7/306</td>
<td>4.03**</td>
<td>.0245**</td>
<td>8.18**</td>
<td>1/306</td>
</tr>
<tr>
<td>3 Age, Sex, and Religious Affiliation</td>
<td>.2935</td>
<td>.0861</td>
<td>8/305</td>
<td>3.59**</td>
<td>.0018</td>
<td>.59</td>
<td>1/305</td>
</tr>
</tbody>
</table>

**Significant at the .01 level
of the cumulative variance of the creedal assent dimension, with 6 and 307 degrees of freedom,¹ and an F-Ratio of 3.26. The contribution made by this variable to the R² is significant at the .01 level. When sex is added at the second step, there is an increase in the R² of 2.45 percent which represents the contribution made by sex to the R², with an F-Ratio of 8.18 and 1 and 306 degrees of freedom. The contribution made by sex to the R² is significant at the .01 level.

Finally, at the third step, age is added to the equation; however, this variable added only 1.8 percent to the R² and was not significant. The data further reveal that the cumulative proportion of variance of the three predictors is 8.61 percent, with sex and religious affiliation in combination predicting 8.44 percent of the total variance. It is to be observed that the R² contributed by the two significant independent variables were quite low with a large proportion of the variance of the creedal assent dimension remaining unexplained.

Regression Coefficients. Table 9 presents the unstandardized regression coefficients for the significant combination of sex and religious affiliation for step 2 of the analysis. The signs of the regression coefficients presented in table 9 indicate that females tended to score

¹Six degrees of freedom are used here because the six dummy variables signifying religious affiliation were entered all together in the analysis at the first step.
TABLE 9
REGRESSION COEFFICIENTS FOR COMBINATION OF SEX AND RELIGIOUS AFFILIATION PREDICTING THE CREEDAL ASSENT DIMENSION

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y-Intercept</td>
<td>20.587</td>
</tr>
<tr>
<td>Sex</td>
<td>1.191</td>
</tr>
<tr>
<td>Religious Affiliation</td>
<td></td>
</tr>
<tr>
<td>Anglicans</td>
<td>1.970</td>
</tr>
<tr>
<td>Methodists</td>
<td>2.643</td>
</tr>
<tr>
<td>Moravians</td>
<td>1.433</td>
</tr>
<tr>
<td>Roman Catholics</td>
<td>1.029</td>
</tr>
<tr>
<td>Seventh-day Adventists</td>
<td>3.749</td>
</tr>
<tr>
<td>Other (Evangelicals)</td>
<td>2.519</td>
</tr>
</tbody>
</table>

higher on this dimension than males (where males = 1, females = 2).

Overall, those who identified themselves as Seventh-day Adventists tended to score higher on the creedal assent dimension than those who identified themselves as having no religious affiliation. Furthermore, adolescents who identified themselves as belonging to a religious denomination tended to score higher on this dimension than those with no religious affiliation. Table 9 presents the evidence for these conclusions where the "no religious affiliation" group, represented by the Y-intercept had an unstandardized coefficient of 20.587 or a raw score mean of 20.587; while at the other extreme Seventh-day Adventists had an unstandardized coefficient of +3.748. The mean of this
group was 3.748 points higher than the no-religious-affiliation group, i.e., while the mean for the no-religious-affiliation group was 20.587, the mean Seventh-day Adventist group would be \((20.587 + 3.748) = 24.335\). Overall, the means for each religious-affiliation group were consistently higher than the no-religious-affiliation group.

In summary, from the analysis of this hypothesis, the best combination predicting the creedal assent dimension was sex and religious affiliation where males tended to score lower than females on this dimension, and where this combination accounted for a significant proportion of the variance, though, the amount of variance predicted was quite low. The null hypothesis is therefore rejected.

**Testing of Null Hypothesis 2**

**Hypothesis 2.** There is no significant multiple correlation between the devotionalism dimension of adolescents' religiosity and a combination of predictor variables—age, sex, and religious affiliation.

**Test of Significance.** Table 10 presents a summary of the testing of hypothesis 2, with multiple correlation coefficients (MR), multiple \(R^2\), increase in \(R^2\), degrees of freedom, and F-Ratio for each step of the analysis.

For this hypothesis, the variables were entered in the following order: religious affiliation contributed the most to the \(R^3\), next sex contributed the most in
TABLE 10

SUMMARY OF THE CONTRIBUTIONS OF AGE, SEX, AND RELIGIOUS AFFILIATIONS TO THE $R^2$ OF THE DEVOTIONALISM DIMENSION

<table>
<thead>
<tr>
<th>No. of Steps</th>
<th>Variables in Each Step</th>
<th>MR</th>
<th>$R^2$</th>
<th>df</th>
<th>F</th>
<th>Increase in $R^2$</th>
<th>F</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Religious Affiliation</td>
<td>.1965</td>
<td>.0385</td>
<td>6/307</td>
<td>2.05</td>
<td>.0385</td>
<td>2.05</td>
<td>6/307</td>
</tr>
<tr>
<td>2</td>
<td>Sex and Religious Affiliation</td>
<td>.2070</td>
<td>.0429</td>
<td>7/306</td>
<td>1.96</td>
<td>.0043</td>
<td>1.36</td>
<td>1/306</td>
</tr>
<tr>
<td>3</td>
<td>Age, Sex, and Religious Affiliation</td>
<td>.2090</td>
<td>.0437</td>
<td>8/305</td>
<td>1.74</td>
<td>.0008</td>
<td>.26</td>
<td>1/305</td>
</tr>
</tbody>
</table>
addition to religious affiliation, and finally age.

The data from table 10 reveal that at no stage of the analysis did any of the variables significantly predict the devotionalism dimension.

In summary, none of the variables in combination with each other significantly predicted the devotionalism dimension of religiosity among adolescents in Antigua and Barbuda. The null hypothesis is therefore retained.

Testing of Null Hypothesis 3

Hypothesis 3. There is no significant multiple correlation between the religious-despair dimension of adolescents' religiosity and a combination of predictor variables—age, sex, and religious affiliation.

Test of Significance. For this hypothesis, the variables were entered into the equation according to their contribution to the $R^2$, thus religious affiliation which contributed the most to the $R^2$ was entered first into the equation, sex contributed most to the $R^2$ in addition to religious affiliation and was entered second, and finally age was entered into the equation.

Table 11 presents a summary of the results for the testing of hypothesis 3, with multiple correlations for each step on the analysis, multiple $R^2$, increase in $R^2$, degrees of freedom, and F-Ratio for each step in the analysis.

The results from table 11 reveal that none of the predictor variables selected for this hypothesis
**TABLE 11**

**SUMMARY OF THE CONTRIBUTIONS OF AGE, SEX, AND RELIGIOUS AFFILIATION TO THE $R^2$ OF THE RELIGIOUS DESPAIR DIMENSION**

<table>
<thead>
<tr>
<th>No. of Steps</th>
<th>Variables in Each Step</th>
<th>MR</th>
<th>$R^2$</th>
<th>df</th>
<th>F</th>
<th>Increase in $R^2$</th>
<th>F</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Religious Affiliation</td>
<td>.1565</td>
<td>.0245</td>
<td>6/307</td>
<td>1.29</td>
<td>.0245</td>
<td>1.29</td>
<td>6/307</td>
</tr>
<tr>
<td>2</td>
<td>Sex and Religious Affiliation</td>
<td>.1632</td>
<td>.0266</td>
<td>7/306</td>
<td>1.20</td>
<td>.0021</td>
<td>.67</td>
<td>1/306</td>
</tr>
<tr>
<td>3</td>
<td>Age, Sex and Religious Affiliation</td>
<td>.1685</td>
<td>.0284</td>
<td>8/305</td>
<td>1.11</td>
<td>.0018</td>
<td>.56</td>
<td>1/305</td>
</tr>
</tbody>
</table>
significantly predict the religious-despair dimension of religiosity among adolescents in Antigua and Barbuda. The null hypothesis is therefore retained.

Testing of Null Hypothesis 4

Hypothesis 4. There is no significant multiple correlation between the orientation to growth-and-striving dimension of adolescents' religiosity and a combination of predictor variables--age, sex, and religious affiliation.

Test of Significance. For the testing of hypothesis 4, the variables were entered in the following order based on their contribution to the $R^2$: first religious affiliation was entered, followed by sex which contributed the most to the $R^2$ in addition to religious affiliation, and, finally, age was added to the equation. Table 12 presents a summary of the testing of hypothesis 4, with multiple correlation coefficients (MR), multiple $R^2$, increase in $R^2$, degrees of freedom, and F-Ratio for each step in the analysis.

The results from table 12 reveal that none of the predictor variables involved in the testing of this hypothesis contributed significantly to the $R^2$.

In summary, the predictor variables selected for this hypothesis did not significantly predict the orientation to growth-and-striving dimension of religiosity among adolescents in Antigua and Barbuda. The null hypothesis is therefore retained.
<table>
<thead>
<tr>
<th>No. of Steps</th>
<th>Variables in Each Step</th>
<th>MR</th>
<th>$R^2$</th>
<th>df</th>
<th>F</th>
<th>Increase in $R^2$</th>
<th>F</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Religious Affiliation</td>
<td>.1873</td>
<td>.0351</td>
<td>6/307</td>
<td>1.86</td>
<td>.0351</td>
<td>1.86</td>
<td>6/307</td>
</tr>
<tr>
<td>2</td>
<td>Sex and Religious Affiliation</td>
<td>.2032</td>
<td>.0413</td>
<td>7/306</td>
<td>1.88</td>
<td>.0062</td>
<td>1.99</td>
<td>1/306</td>
</tr>
<tr>
<td>3</td>
<td>Age, Sex, and Religious Affiliation</td>
<td>.2054</td>
<td>.0422</td>
<td>8/305</td>
<td>1.68</td>
<td>.0009</td>
<td>.29</td>
<td>1/305</td>
</tr>
</tbody>
</table>
In analyzing hypotheses 5 through 17, the method of canonical correlation was employed. This is a correlation between a linear combination of two sets of variables, usually a linear combination of a set of independent and dependent variables. This type of analysis yields a canonical R which is the maximum correlation which may be obtained between two sets of variables. The canonical $R^2$ is the amount of variance shared by the variables in linear combination.

Canonical correlational analysis also yields several functions. The number of functions is equal to the number of variables in the smaller set, i.e., if the dependent variables constitute the larger set and the independent the smaller set, then the number of functions and canonical correlations will equal the number of independent variables of the smaller set. The BMDP6M program which was used in the analyses 5 through 17 also yields a chi-square test of significance for each function along with the degrees of freedom and probability level.

It may be noted that the first canonical R is usually the largest. The entire process is repeated on the two groups of residual variables so that the correlation between the two sets of variables is maximized.

**Canonical Weights.** The BMDP6M program yields sets of canonical weights which are utilized in the
interpretation of the results. Canonical weights are partialled regression coefficients, each being the maximum net contribution of each variable in the context of the other variables in the group. The results yield canonical variates $x$ and $y$, which are the least squares estimate; therefore, they correlate maximally with each other. In the interpretation of the results of the canonical weights, only the highest canonical weights will be interpreted; however, canonical weights within close proximity of the highest weights will also be considered in the interpretation.

**Testing of Null Hypothesis 5**

**Hypothesis 5.** There is no significant canonical correlation between congregational involvement dimensions (church attendance, organizational activity, and financial support) of adolescents' religiosity and the predictor variables age, sex, and religious affiliation.

**Test of Significance.** Table 13 presents the results of testing hypothesis 5 with canonical correlation coefficients for each set of equations, number of functions, proportion of variance shared, chi square, degrees of freedom, and probability level related to the chi square.

The data in table 13 reveal that there are two significant canonical correlations. The first canonical correlation with a chi square of 82.12, and 60 degrees of freedom is significant at the .05 level, while the second
### TABLE 13

CANONICAL CORRELATIONS BETWEEN THE THREE DIMENSIONS OF CONGREGATIONAL INVOLVEMENT VARIABLES AND PREDICTOR VARIABLES

<table>
<thead>
<tr>
<th>Number of Functions</th>
<th>Canonical Corr. Coeff.</th>
<th>Proportion of Shared Variance</th>
<th>Approximate Chi Square</th>
<th>df</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.388</td>
<td>.151</td>
<td>82.12</td>
<td>60</td>
<td>.000</td>
</tr>
<tr>
<td>2</td>
<td>.250</td>
<td>.067</td>
<td>31.91</td>
<td>14</td>
<td>.004</td>
</tr>
<tr>
<td>3</td>
<td>.184</td>
<td>.034</td>
<td>10.52</td>
<td>6</td>
<td>.104</td>
</tr>
</tbody>
</table>
canonical correlation with a chi square of 31.91 and 14
degrees of freedom is also significant at the .05 level. The null hypothesis is therefore rejected.

The findings indicate that the congregational involvement dimensions of religiosity as composed of the three variables (church attendance, organizational activity, and financial support) is significantly related to the predictor variables of age, sex, and religious affiliation. The data also reveal that the first canonical function produced a canonical correlation of .388 and accounted for 15.1 percent of the shared variance. The second produced a canonical correlation coefficient of .259 and accounted for 6.7 percent of the shared variance. The third function was not significant.

Canonical correlation analysis also yields canonical function weights associated with each of the variables constituting the pair of equations for each function. Table 14 presents the first function weights associated with the dependent variables of the first set (variables on the left) and of the independent variables of the second set (variables on the right).

The data from table 14 reveal that church attendance is the primary variable composing the dependent set, and religious affiliation, comprising such groups as Seventh-day Adventists, and Evangelicals (Others) is the primary variable comprising the independent set.

From the weights presented in table 14 the
<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Weights</th>
<th>Independent Variables</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Church Attendance</td>
<td>.795</td>
<td>Age</td>
<td>-.253</td>
</tr>
<tr>
<td>Organizational Activity</td>
<td>.460</td>
<td>Sex</td>
<td>.364</td>
</tr>
<tr>
<td>Financial Support</td>
<td>-.190</td>
<td>Religious Affiliation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Anglicans</td>
<td>.206</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methodists</td>
<td>.287</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moravians</td>
<td>.475</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Roman Catholics</td>
<td>.488</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Seventh-day Adventists</td>
<td>1.068</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other (Evangelicals)</td>
<td>.699</td>
</tr>
</tbody>
</table>
conclusion may be drawn that adolescents who reported their religious affiliation as being Seventh-day Adventists and Evangelicals reported a greater frequency of church attendance than Anglicans, Moravians, Roman Catholics, and Methodists. Seventh-day Adventists attended church more regularly than any other denomination.

Table 15 presents second canonical function weights associated with the dependent variables of the first set (variables on the left) and of the independent variables of the second set (variables on the right).

The data from table 15 reveal that organizational activity and church attendance are the primary variables of the dependent set, and religious affiliation, comprising Roman Catholics and Moravians, the variable of the independent set.

Therefore, it may be concluded that adolescents who identified themselves as Moravians tended to rate themselves high on organizational activity but low on church attendance, while adolescents who identified themselves as Roman Catholics tended to rate themselves high on church attendance and low on organizational activity.

Testing of Null Hypothesis 6

Hypothesis 6. There is no significant canonical correlation between the composite dimensions (salience: behavior, salience: cognition, and the active regulars) of
<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Weights</th>
<th>Independent Variables</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Church Attendance</td>
<td>-.800</td>
<td>Age</td>
<td>-.209</td>
</tr>
<tr>
<td>Organizational Activity</td>
<td>1.060</td>
<td>Sex</td>
<td>-.087</td>
</tr>
<tr>
<td>Financial Support</td>
<td>-.074</td>
<td>Religious Affiliation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Anglicans</td>
<td>-.255</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methodists</td>
<td>.161</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moravians</td>
<td>.414</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Roman Catholics</td>
<td>-.771</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Seventh-day Adventists</td>
<td>-.282</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other (Evangelicals)</td>
<td>.294</td>
</tr>
</tbody>
</table>
adolescents' religiosity and the three predictor variables of age, sex, and religious affiliation.

**Test of Significance.** Table 16 presents a summary of the testing of hypothesis 6, with canonical correlation coefficients for each set of equations, number of functions, proportion of variance shared, chi square, degrees of freedom, and probability level related to the chi square.

The data from table 16 indicate that one canonical correlation with a chi square of 59.97 and 24 degrees of freedom is significant at the .05 level. The null hypothesis is therefore rejected.

The findings indicate that the composite religious dimensions as composed of the combination of three variables (salience: behavior, salience: cognition, and the active regulars) is significantly related to the predictor variables of age, sex, and religious affiliation. The only significant function with a canonical correlation of .347 accounted for 12.1 percent of the shared variance. The remaining two functions were not significant.

Table 17 presents the first function weights associated with the dependent variables of the first set (variables on the left) and independent variables of the second set (variables on the right). The data presented in table 17 indicate that the active regulars is the primary variable constituting the dependent set, while
TABLE 16

CANONICAL CORRELATIONS BETWEEN THE THREE COMPOSITE VARIABLES AND THREE PREDICTOR VARIABLES

<table>
<thead>
<tr>
<th>Number of Functions</th>
<th>Canonical Corr. Coeff.</th>
<th>Proportion of Shared Variance</th>
<th>Approximate Chi Square</th>
<th>df</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.347</td>
<td>0.121</td>
<td>59.97</td>
<td>24</td>
<td>0.000</td>
</tr>
<tr>
<td>2</td>
<td>0.209</td>
<td>0.044</td>
<td>20.40</td>
<td>14</td>
<td>0.118</td>
</tr>
<tr>
<td>3</td>
<td>0.147</td>
<td>0.021</td>
<td>6.66</td>
<td>6</td>
<td>0.353</td>
</tr>
</tbody>
</table>
TABLE 17
FIRST CANONICAL FUNCTION WEIGHTS ASSOCIATED WITH THE COMPOSITE
DIMENSIONS AND PREDICTOR VARIABLES

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Weights</th>
<th>Independent Variables</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salience: Behavior</td>
<td>.341</td>
<td>Age</td>
<td>-.443</td>
</tr>
<tr>
<td>Salience: Cognition</td>
<td>.153</td>
<td>Sex</td>
<td>.219</td>
</tr>
<tr>
<td>The Active Regulars</td>
<td>.843</td>
<td>Religious Affiliation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Anglicans</td>
<td>-.087</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methodists</td>
<td>-.032</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moravians</td>
<td>.273</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Roman Catholics</td>
<td>.054</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Seventh-day Adventists</td>
<td>.788</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other (Evangelicals)</td>
<td>.337</td>
</tr>
</tbody>
</table>
religious affiliation—comprising Seventh-day Adventists, is the variable comprising the independent set. From this data, one may conclude that adolescents who identified themselves as Seventh-day Adventists tended to rate themselves higher on the active regular dimension as opposed to those not belonging to this group.

Testing of Null Hypothesis 7

Hypothesis 7. There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and the predictor variables age, sex, and religious affiliation.

Test of Significance. Table 18 presents the summary of the testing of hypothesis 7 with canonical correlations for each set of equations, number of functions, proportion of variance shared, chi square, degrees of freedom, and probability level related to the chi square.

The data from table 18 reveal that there are two significant canonical correlations. The first canonical correlation, with a chi square of 164.77 and 80 degrees of freedom, is significant at the .05 level, while the second canonical correlation with a chi square of 97.92 and 63 degrees of freedom, is also significant at the .05 level. The null hypothesis is therefore rejected.

The above finding indicates that religiosity as composed of ten dimensions is significantly related to the independent variables of age, sex, and religious
<table>
<thead>
<tr>
<th>Number of Functions</th>
<th>Canonical Corr. Coeff.</th>
<th>Proportion of Shared Variance</th>
<th>Approximate Chi Square</th>
<th>df</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.445</td>
<td>.198</td>
<td>164.77</td>
<td>80</td>
<td>.000</td>
</tr>
<tr>
<td>2</td>
<td>.373</td>
<td>.139</td>
<td>97.92</td>
<td>63</td>
<td>.003</td>
</tr>
<tr>
<td>3</td>
<td>.271</td>
<td>.074</td>
<td>52.40</td>
<td>48</td>
<td>.307</td>
</tr>
<tr>
<td>4</td>
<td>.196</td>
<td>.038</td>
<td>29.19</td>
<td>35</td>
<td>.744</td>
</tr>
<tr>
<td>5</td>
<td>.191</td>
<td>.033</td>
<td>17.28</td>
<td>24</td>
<td>.836</td>
</tr>
<tr>
<td>6</td>
<td>.132</td>
<td>.017</td>
<td>7.20</td>
<td>15</td>
<td>.952</td>
</tr>
<tr>
<td>7</td>
<td>.061</td>
<td>.004</td>
<td>1.90</td>
<td>8</td>
<td>.984</td>
</tr>
<tr>
<td>8</td>
<td>.050</td>
<td>.003</td>
<td>.76</td>
<td>3</td>
<td>.858</td>
</tr>
</tbody>
</table>
affiliation, and that the first significant function with a canonical correlation of .445 accounted for 19.8 percent of the shared variance, and the second function with a canonical correlation of .373 accounted for 13.9 percent of the shared variance. The remaining functions were not significant at the established level.

Tables 19 and 20 present the weights associated with the first and second function for the dependent variables of the first set (variables on the left) and independent variables of the second (variables on the right).

The weights presented in table 19 reveal that salience: cognition and creedal assent dimensions are the primary variables constituting the dependent set, while religious affiliation, comprising such groups as Seventh-day Adventists and Evangelicals, is the primary variable constituting the independent set.

The canonical function weights indicate that among the adolescents sampled, Seventh-day Adventists, and Evangelicals tended to rate themselves lower on the salience:cognition dimension, while at the same time they tended to rate themselves high on creedal assent.

Table 20 presents the results of the second canonical function weights. The data from the second canonical function reveal that the orientation to growth and striving, organizational activity, salience: behavior, and church attendance are the primary dimensions of the
<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Weights</th>
<th>Independent Variables</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creedal Assent</td>
<td>.624</td>
<td>Age</td>
<td>-.314</td>
</tr>
<tr>
<td>Devotionalism</td>
<td>.028</td>
<td>Sex</td>
<td>.391</td>
</tr>
<tr>
<td>Church Attendance</td>
<td>.329</td>
<td>Religious Affiliation</td>
<td></td>
</tr>
<tr>
<td>Organizational Activity</td>
<td>.371</td>
<td>Anglicans</td>
<td>.179</td>
</tr>
<tr>
<td>Financial Support</td>
<td>-.347</td>
<td>Methodists</td>
<td>.356</td>
</tr>
<tr>
<td>Religious Despair</td>
<td>-.051</td>
<td>Moravians</td>
<td>.473</td>
</tr>
<tr>
<td>Growth and Striving</td>
<td>.117</td>
<td>Roman Catholics</td>
<td>.311</td>
</tr>
<tr>
<td>Salience: Behavior</td>
<td>.175</td>
<td>Seventh-day Adventists</td>
<td>.962</td>
</tr>
<tr>
<td>Salience: Cognition</td>
<td>-.660</td>
<td>Other (Evangelicals)</td>
<td>.768</td>
</tr>
<tr>
<td>The Active Regulars</td>
<td>.443</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dependent Variables</td>
<td>Weights</td>
<td>Independent Variables</td>
<td>Weights</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------</td>
<td>-----------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Creedal Assent</td>
<td>-.533</td>
<td>Age</td>
<td>.152</td>
</tr>
<tr>
<td>Devotionalism</td>
<td>.453</td>
<td>Sex</td>
<td>-.225</td>
</tr>
<tr>
<td>Church Attendance</td>
<td>.094</td>
<td>Religious Affiliation</td>
<td></td>
</tr>
<tr>
<td>Organizational Activity</td>
<td>-.771</td>
<td>Anglicans</td>
<td>-.199</td>
</tr>
<tr>
<td>Financial Support</td>
<td>-.043</td>
<td>Methodists</td>
<td>-.497</td>
</tr>
<tr>
<td>Religious Despair</td>
<td>-.228</td>
<td>Moravians</td>
<td>.101</td>
</tr>
<tr>
<td>Growth and Striving</td>
<td>-.862</td>
<td>Roman Catholics</td>
<td>.551</td>
</tr>
<tr>
<td>Salience: Behavior</td>
<td>.737</td>
<td>Seventh-day Adventists</td>
<td>.325</td>
</tr>
<tr>
<td>Salience: Cognition</td>
<td>.518</td>
<td>Other (Evangelicals)</td>
<td>-.322</td>
</tr>
<tr>
<td>The Active Regulars</td>
<td>-.041</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
dependent set, and religious affiliation comprising Roman Catholics, and Methodists the primary variable of the independent set. It may be concluded that Roman Catholic adolescents tended to rate themselves high on the salience: behavior and church attendance religious dimensions, while they also rated themselves lower on the orientation to growth and striving and organizational activity religious dimensions. On the other hand, Methodist adolescents tended to rate themselves high on the orientation to growth and striving and organizational activity religious dimensions, but lower on the salience: behavior and church attendance religious dimensions.

**Testing of Null Hypothesis 8**

**Hypothesis 8.** There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of paternal supporting behavior, i.e., nurturance, instrumental companionship, consistency of expectation, principled discipline, encouragement of autonomy, and indulgence.

**Test of Significance.** Table 21 presents the canonical correlation coefficient for each set of equations, the proportion of variance shared, chi square, degrees of freedom, and probability level related to the chi square.

The data from table 21 reveal that none of the canonical correlations were statistically significant at the established level of significance for this study.
## TABLE 21

**CANONICAL CORRELATIONS BETWEEN THE TEN DIMENSIONS OF RELIGIOSITY AND SIX PATERNAL SUPPORTING VARIABLES**

<table>
<thead>
<tr>
<th>Number of Functions</th>
<th>Canonical Corr. Coeff.</th>
<th>Proportion of Shared Variance</th>
<th>Approximate Chi Square</th>
<th>df</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.256</td>
<td>.065</td>
<td>66.55</td>
<td>60</td>
<td>.262</td>
</tr>
<tr>
<td>2</td>
<td>.220</td>
<td>.048</td>
<td>45.93</td>
<td>45</td>
<td>.433</td>
</tr>
<tr>
<td>3</td>
<td>.206</td>
<td>.042</td>
<td>30.87</td>
<td>32</td>
<td>.524</td>
</tr>
<tr>
<td>4</td>
<td>.179</td>
<td>.032</td>
<td>17.66</td>
<td>21</td>
<td>.671</td>
</tr>
<tr>
<td>5</td>
<td>.126</td>
<td>.016</td>
<td>7.68</td>
<td>12</td>
<td>.809</td>
</tr>
<tr>
<td>6</td>
<td>.096</td>
<td>.009</td>
<td>2.82</td>
<td>5</td>
<td>.728</td>
</tr>
</tbody>
</table>
From the results of this analysis, it may be concluded that there is no significant relationship between a linear combination of adolescents' religiosity and adolescents' perception of paternal supporting behavior. The null hypothesis is therefore retained.

**Testing of Null Hypothesis 9**

**Hypothesis 9.** There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of paternal controlling behavior, i.e., control and protectiveness.

**Test of Significance.** Table 22 presents the results of the testing of hypothesis 9, with canonical correlation coefficients for each set of equations, the proportion of variance shared, chi square, degrees of freedom, and probability level related to the chi square.

The data from table 22 reveal that the first canonical function accounted for 4.9 percent of the total variance, while the second function accounted for a smaller portion, 2.6 percent. The above results indicate that there is no significant canonical correlation between a linear combination of the ten dimensions of religiosity and a linear combination of paternal controlling behavior among adolescents in Antigua and Barbuda. The null hypothesis is therefore retained.

**Testing of Null Hypothesis 10**

**Hypothesis 10.** There is no significant canonical
<table>
<thead>
<tr>
<th>Number of Functions</th>
<th>Canonical Corr. Coeff.</th>
<th>Proportion of Shared Variance</th>
<th>Approximate Chi Square</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.220</td>
<td>.049</td>
<td>23.19</td>
<td>.280</td>
</tr>
<tr>
<td>2</td>
<td>.160</td>
<td>.026</td>
<td>7.92</td>
<td>.543</td>
</tr>
</tbody>
</table>

**CANONICAL CORRELATIONS BETWEEN THE TEN DIMENSIONS OF RELIGIOSITY AND TWO PATERNAL CONTROLLING VARIABLES**

**TABLE 22**
correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of paternal demanding behavior, i.e., prescription of responsibilities and achievement demands.

**Test of Significance.** Table 23 presents a summary of the results of the testing of hypothesis 10, with canonical correlation coefficients for each set of equations, the proportion of variance shared by the two composites, chi square, degrees of freedom, and the probability level related to the chi square.

The results from table 23 reveal that the first pair of canonical variates accounted for 4.0 percent of the shared variance, while the second pair accounted for 2.4 percent of the variance. Because of the data presented in table 23 the conclusion may be drawn that there is no significant canonical correlation between a linear combination of the ten dimensions of religiosity and adolescents' perception of paternal demanding behavior among adolescents in Antigua and Barbuda. The null hypothesis is therefore retained.

**Testing of Null Hypothesis 11**

**Hypothesis 11.** There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of paternal punishing behavior, i.e., affective punishment, deprivation of privileges, scolding, and physical punishment.

**Test of Significance.** Table 24 presents the
TABLE 23
CANONICAL CORRELATIONS BETWEEN THE TEN DIMENSIONS OF RELIGIOSITY
AND TWO PATERNAL DEMANDING VARIABLES

<table>
<thead>
<tr>
<th>Number of Functions</th>
<th>Canonical Corr. Coeff.</th>
<th>Proportion of Shared Variance</th>
<th>Approximate Ch. Square</th>
<th>df</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.199</td>
<td>0.040</td>
<td>19.84</td>
<td>20</td>
<td>0.468</td>
</tr>
<tr>
<td>2</td>
<td>0.155</td>
<td>0.024</td>
<td>7.43</td>
<td>9</td>
<td>0.592</td>
</tr>
</tbody>
</table>
TABLE 24

CANONICAL CORRELATIONS BETWEEN THE TEN DIMENSIONS OF RELIGIOSITY
AND FOUR PATERNAL PUNISHING VARIABLES

<table>
<thead>
<tr>
<th>Number of Functions</th>
<th>Canonical Corr. Coeff.</th>
<th>Proportion of Shared Variance</th>
<th>Approximate Chi Square</th>
<th>df</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.263</td>
<td>.069</td>
<td>41.31</td>
<td>40</td>
<td>.413</td>
</tr>
<tr>
<td>2</td>
<td>.198</td>
<td>.039</td>
<td>19.39</td>
<td>27</td>
<td>.855</td>
</tr>
<tr>
<td>3</td>
<td>.121</td>
<td>.015</td>
<td>7.17</td>
<td>16</td>
<td>.970</td>
</tr>
<tr>
<td>4</td>
<td>.093</td>
<td>.009</td>
<td>2.66</td>
<td>7</td>
<td>.915</td>
</tr>
</tbody>
</table>
results of testing hypothesis 11 with canonical
correlation coefficients for each set of equations, number
of functions, proportion of variance shared, chi square,
degrees of freedom, and probability level related to the
chi square.

The data in table 24 reveal that the first
canonical correlation accounted for 6.9 percent of the
variance; the second accounted for 3.9 percent; the third
accounted for 1.5 percent, and the fourth accounted for
0.9 percent. One may conclude that the four paternal
punishing variables do not correlate significantly with a
linear combination of the dimensions of religiosity among
adolescents in Antigua and Barbuda. The null hypothesis
is therefore retained.

Testing of Null Hypothesis 12

Hypothesis 12. There is no significant canonical
correlation between the ten dimensions of adolescents'
religiosity and adolescents' perception of paternal
supporting, controlling, demanding, and punishing
behavior.

Test of Significance. The results of the testing
of this hypothesis are presented in table 25 with
canonical correlations for each set of equations, number
of functions, proportion of variance shared, chi square,
degrees of freedom, and probability level related to the
chi square.

The summary in table 25 reveals that none of the
## TABLE 25

**CANONICAL CORRELATIONS BETWEEN THE TEN DIMENSIONS OF RELIGIOSITY**
**AND ALL PATERNAL PREDICTOR VARIABLES**

<table>
<thead>
<tr>
<th>Number of Functions</th>
<th>Canonical Corr. Coeff.</th>
<th>Proportion of Shared Variance</th>
<th>Approximate Chi Square</th>
<th>df</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.408</td>
<td>.166</td>
<td>160.32</td>
<td>140</td>
<td>.115</td>
</tr>
<tr>
<td>2</td>
<td>.304</td>
<td>.092</td>
<td>105.73</td>
<td>117</td>
<td>.764</td>
</tr>
<tr>
<td>3</td>
<td>.253</td>
<td>.064</td>
<td>76.64</td>
<td>96</td>
<td>.927</td>
</tr>
<tr>
<td>4</td>
<td>.230</td>
<td>.056</td>
<td>56.64</td>
<td>77</td>
<td>.960</td>
</tr>
<tr>
<td>5</td>
<td>.233</td>
<td>.055</td>
<td>39.41</td>
<td>60</td>
<td>.982</td>
</tr>
<tr>
<td>6</td>
<td>.167</td>
<td>.028</td>
<td>22.53</td>
<td>45</td>
<td>.998</td>
</tr>
<tr>
<td>7</td>
<td>.150</td>
<td>.024</td>
<td>13.93</td>
<td>32</td>
<td>.998</td>
</tr>
<tr>
<td>8</td>
<td>.120</td>
<td>.014</td>
<td>6.54</td>
<td>21</td>
<td>.998</td>
</tr>
<tr>
<td>9</td>
<td>.072</td>
<td>.005</td>
<td>2.16</td>
<td>12</td>
<td>.999</td>
</tr>
<tr>
<td>10</td>
<td>.045</td>
<td>.002</td>
<td>.61</td>
<td>5</td>
<td>.988</td>
</tr>
</tbody>
</table>
canonical Rs were significant at or beyond the .05 level. Therefore the conclusion may be made that the paternal variables in combination do not correlate significantly with a linear combination of the ten dimensions of religiosity among adolescents in Antigua and Barbuda. The null hypothesis is therefore retained.

**Testing of Null Hypothesis 13**

**Hypothesis 13.** There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of maternal supporting behavior, i.e., nurturance, consistency of expectation, principled discipline, instrumental companionship, encouragement of autonomy, and indulgence.

**Test of Significance.** The results of the testing of this hypothesis are presented in table 26 with canonical correlations for each set of equations, number of functions, proportion of variance shared, chi square, degrees of freedom, and probability related to the chi square.

The findings presented in table 26 reveal that none of the canonical correlations were significant at or beyond the .05 level. Therefore, it may be concluded that the maternal variables of the supporting dimension, in combination, do not significantly correlate with the ten dimensions of adolescent religiosity. The null hypothesis is therefore retained.
<table>
<thead>
<tr>
<th>Number of Functions</th>
<th>Canonical Corr. Coeff.</th>
<th>Proportion of Shared Variance</th>
<th>Approximate Chi Square</th>
<th>df</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.282</td>
<td>.080</td>
<td>62.52</td>
<td>60</td>
<td>.387</td>
</tr>
<tr>
<td>2</td>
<td>.254</td>
<td>.05</td>
<td>37.28</td>
<td>45</td>
<td>.786</td>
</tr>
<tr>
<td>3</td>
<td>.165</td>
<td>.027</td>
<td>16.95</td>
<td>32</td>
<td>.986</td>
</tr>
<tr>
<td>4</td>
<td>.124</td>
<td>.015</td>
<td>8.55</td>
<td>21</td>
<td>.992</td>
</tr>
<tr>
<td>5</td>
<td>.085</td>
<td>.007</td>
<td>3.80</td>
<td>12</td>
<td>.987</td>
</tr>
<tr>
<td>6</td>
<td>.072</td>
<td>.005</td>
<td>1.60</td>
<td>5</td>
<td>.902</td>
</tr>
</tbody>
</table>
Testing of Null Hypothesis 14

Hypothesis 14. There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of maternal controlling behavior, i.e., control and protectiveness.

Test of Significance. Table 27 presents the results of testing hypothesis 14, with canonical correlation coefficients for each set of equations, number of functions, proportion of shared variance, chi square, degrees of freedom, and probability level related to the chi square.

The data presented in table 27 indicate that none of the canonical correlation coefficients were significant at the .05 level. The null hypothesis is therefore retained.

The findings of this hypothesis indicate that religiosity as composed of the combination of ten dimensions is not significantly related to the maternal variables on the controlling dimension.

Testing of Null Hypothesis 15

Hypothesis 15. There is no significant canonical correlation between the ten dimension of adolescents' religiosity and adolescents' perception of maternal demanding behavior, i.e., prescription of responsibilities and achievement demands.

Test of Significance. Table 28 presents a summary of hypothesis 15 with canonical correlation
<table>
<thead>
<tr>
<th>Number of Functions</th>
<th>Canonical Corr. Coeff.</th>
<th>Proportion of Shared Variance</th>
<th>Approximate Chi Square</th>
<th>df</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.246</td>
<td>0.060</td>
<td>24.52</td>
<td>20</td>
<td>0.221</td>
</tr>
<tr>
<td>2</td>
<td>0.132</td>
<td>0.017</td>
<td>5.35</td>
<td>9</td>
<td>0.803</td>
</tr>
</tbody>
</table>
### TABLE 28

**CANONICAL CORRELATIONS BETWEEN THE TEN DIMENSIONS OF RELIGIOSITY AND TWO MATERNAL DEMANDING VARIABLES**

<table>
<thead>
<tr>
<th>Number of Functions</th>
<th>Canonical Corr. Coeff.</th>
<th>Proportion of Shared Variance</th>
<th>Approximate Chi Square</th>
<th>df</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.282</td>
<td>.079</td>
<td>34.52</td>
<td>20</td>
<td>.023</td>
</tr>
<tr>
<td>2</td>
<td>.172</td>
<td>.030</td>
<td>9.20</td>
<td>9</td>
<td>.419</td>
</tr>
</tbody>
</table>
coefficients for each set of equations, number of functions, proportion of shared variance, chi square, degrees of freedom, and probability level related to the chi square.

The data in table 28 indicate that one canonical correlation is significant with a chi square of 34.52 and 20 degrees of freedom, and is significant at the .05 level. The null hypothesis is therefore rejected. The findings from table 28 reveal that religiosity as composed of the ten dimensions is significantly related to the maternal demanding variables. The only significant function had a canonical correlation of .282 and accounted for 7.9 percent of the shared variance. The second function was not significant.

Table 29 presents the first function weights associated with the dependent variables (variables on the left) and of the independent variables (variables on the right).

The weights presented in table 29 reveal that the active regulars and financial support are the primary variables of the religious dimensions composing the dependent set, and that maternal achievement demands is the primary independent variable involved in the independent set of the first function. This means that adolescents who reported a high degree of maternal demands for achievement rated themselves high on the active regulars dimensions; they also rated themselves lower on
TABLE 29

FIRST CANONICAL FUNCTION WEIGHTS ASSOCIATED WITH THE DEPENDENT VARIABLES AND MATERNAL DEMANDING VARIABLES

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Weights</th>
<th>Independent Variables</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creedal Assent</td>
<td>.476</td>
<td>Prescription of Responsibilities</td>
<td>.141</td>
</tr>
<tr>
<td>Devotionalism</td>
<td>-.208</td>
<td>Achievement Demands</td>
<td>.959</td>
</tr>
<tr>
<td>Church Attendance</td>
<td>-.455</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Activities</td>
<td>-.087</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Support</td>
<td>-1.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religious Despair</td>
<td>.127</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth and Striving</td>
<td>-.271</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salience: Behavior</td>
<td>-.381</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salience: Cognition</td>
<td>.666</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Active Regulars</td>
<td>1.443</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
the financial support dimension.

**Testing of Null Hypothesis 16**

**Hypothesis 16.** There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of maternal punishing behavior, i.e., affective punishment, deprivation of privileges, scolding, and physical punishment.

**Test of Significance.** Table 30 presents the results of testing hypothesis 16 with canonical correlation coefficients for each set of equations, the number of functions, chi square, the proportion of shared variance, degrees of freedom, and probability level related to the chi square.

The data from table 30 reveal that there is one canonical correlation with a chi square of 60.42 and 40 degrees of freedom, and is significant at the .05 level. The null hypothesis is therefore rejected.

The findings in table 30 reveal that religiosity as composed of the combination of the ten dimensions is significantly related to the maternal variables in the punishing dimension. The first canonical function with a canonical correlation of .291 and a probability level of .020 accounted for 8.5 percent of the variance; the second, third, and fourth functions were not significant.

Table 31 presents the first function weights
**TABLE 30**

CANONICAL CORRELATIONS BETWEEN THE TEN DIMENSIONS OF RELIGIOSITY AND FOUR MATERNAL PUNISHING VARIABLES

<table>
<thead>
<tr>
<th>Number of Functions</th>
<th>Canonical Corr. Coeff.</th>
<th>Proportion of Shared Variance</th>
<th>Approximate Chi Square</th>
<th>df</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.291</td>
<td>.085</td>
<td>60.42</td>
<td>40</td>
<td>.020</td>
</tr>
<tr>
<td>2</td>
<td>.239</td>
<td>.057</td>
<td>33.39</td>
<td>27</td>
<td>.184</td>
</tr>
<tr>
<td>3</td>
<td>.182</td>
<td>.033</td>
<td>15.40</td>
<td>16</td>
<td>.496</td>
</tr>
<tr>
<td>4</td>
<td>.129</td>
<td>.017</td>
<td>5.11</td>
<td>7</td>
<td>.647</td>
</tr>
<tr>
<td>Dependent Variables</td>
<td>Weights</td>
<td>Independent Variables</td>
<td>Weights</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>---------</td>
<td>-----------------------</td>
<td>---------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creedal Assent</td>
<td>.433</td>
<td>Affective Punishment</td>
<td>.396</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Devotionalism</td>
<td>-.096</td>
<td>Deprivation Punishment</td>
<td>-.399</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Church Attendance</td>
<td>.060</td>
<td>Scolding</td>
<td>.858</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Activities</td>
<td>-.627</td>
<td>Physical Punishment</td>
<td>-.272</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Support</td>
<td>.169</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religious Despair</td>
<td>.343</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth and Striving</td>
<td>.066</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salience: Behavior</td>
<td>-.389</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salience: Cognition</td>
<td>-.023</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Active Regulars</td>
<td>-.183</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
associated with the dependent (variables on the left) and independent variables (variables on the right).

The data from table 31 reveal that the primary dimensions of the dependent set (variables on the left) are the congregational involvement dimensions of church attendance, and organizational activity while for the independent variables (variables on the left) the primary variable is scolding.

This function indicates that adolescents who receive more scolding from their mothers tended to rate themselves high on church attendance but lower on the organizational activity religious dimension.

**Testing of Null Hypothesis 17**

**Hypothesis 17.** There is no significant canonical correlation between the ten dimensions of adolescents' religiosity and adolescents' perception of maternal behavior, i.e., supporting, controlling, demanding, and punishing.

**Test of Significance.** Table 32 presents the results of the testing of hypothesis 17, with canonical correlation coefficients for each of the ten sets of equations, number of functions, the amount of variance shared by each set of equations; along with chi square, degrees of freedom, and probability level related to the chi square.

The results presented in table 32 reveal that there is one canonical function significant at the .05
<table>
<thead>
<tr>
<th>Number of Functions</th>
<th>Canonical Corr. Coeff.</th>
<th>Proportion of Shared Variance</th>
<th>Approximate Chi Square</th>
<th>df</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.382</td>
<td>.146</td>
<td>172.47</td>
<td>140</td>
<td>.032</td>
</tr>
<tr>
<td>2</td>
<td>.327</td>
<td>.107</td>
<td>125.18</td>
<td>117</td>
<td>.286</td>
</tr>
<tr>
<td>3</td>
<td>.304</td>
<td>.093</td>
<td>91.14</td>
<td>96</td>
<td>.621</td>
</tr>
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<td>4</td>
<td>.265</td>
<td>.071</td>
<td>61.95</td>
<td>77</td>
<td>.894</td>
</tr>
<tr>
<td>5</td>
<td>.219</td>
<td>.048</td>
<td>39.96</td>
<td>60</td>
<td>.978</td>
</tr>
<tr>
<td>6</td>
<td>.182</td>
<td>.033</td>
<td>25.14</td>
<td>45</td>
<td>.993</td>
</tr>
<tr>
<td>7</td>
<td>.148</td>
<td>.022</td>
<td>15.08</td>
<td>32</td>
<td>.995</td>
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<tr>
<td>8</td>
<td>.122</td>
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<td>3.94</td>
<td>12</td>
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<tr>
<td>10</td>
<td>.063</td>
<td>.004</td>
<td>1.20</td>
<td>5</td>
<td>.945</td>
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</table>
level. The first canonical function yielded a canonical correlation of .382, a chi square of 172.47 and 140 degrees of freedom. This function is significant at the .05 level. The remaining functions were not significant. The null hypothesis is therefore rejected.

From the results presented in table 32 it may be concluded that religiosity as composed of the ten dimensions is significantly related to the maternal independent variables selected for this study. The data also reveal that the first canonical function accounted for 14.6 percent of the shared variance.

Table 33 presents the first canonical function weights associated with the dependent variables of the first set (variables on the left) and the independent variables of the second set (variables on the right).

The weights presented in table 33 indicate that the primary dimension of the dependent variables is creedal assent, while for the independent variables scolding, achievement demands, instrumental companionship, and control are the primary variables. The results from table 33 reveal that adolescents who received more scolding, more achievement demands, more instrumental companionship, and more control from their mother tended to rate themselves high on the creedal assent religious dimension.

Summary

This chapter tested seventeen null hypotheses for
<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Weights</th>
<th>Independent Variables</th>
<th>Weights</th>
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<tr>
<td>Creedal Assent</td>
<td>0.808</td>
<td>Nurturance</td>
<td>0.102</td>
</tr>
<tr>
<td>Devotionalism</td>
<td>-0.031</td>
<td>Principled Discipline</td>
<td>-0.077</td>
</tr>
<tr>
<td>Church Attendance</td>
<td>0.190</td>
<td>Instrumental Companionship</td>
<td>0.364</td>
</tr>
<tr>
<td>Organizational Activity</td>
<td>0.077</td>
<td>Consistency of Expectation</td>
<td>0.174</td>
</tr>
<tr>
<td>Financial Support</td>
<td>-0.107</td>
<td>Encouragement of Autonomy</td>
<td>-0.137</td>
</tr>
<tr>
<td>Religious Despair</td>
<td>0.399</td>
<td>Indulgence</td>
<td>0.242</td>
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<tr>
<td>Growth and Striving</td>
<td>0.346</td>
<td>Prescription of Responsibilities</td>
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<td>Salience: Behavior</td>
<td>-0.359</td>
<td>Achievement Demands</td>
<td>0.368</td>
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<tr>
<td>Salience: Cognition</td>
<td>-0.103</td>
<td>Control</td>
<td>0.341</td>
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<td>The Active Regulars</td>
<td>-0.295</td>
<td>Protectiveness</td>
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<td>Affective Punishment</td>
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<td>0.181</td>
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<tr>
<td>Deprivation of Privileges</td>
<td></td>
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<td>Scolding</td>
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<td>0.383</td>
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<tr>
<td>Physical Punishment</td>
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<td>0.310</td>
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</table>
significant relationships. The results of the testing of these hypotheses reveal that seven null hypotheses were rejected, with significant relationships being obtained at the .05 level and beyond. They are: Hypothesis 1: significant relationship was found between the creedal assent dimension and a combination of age, sex, and religious affiliation. Hypothesis 5: significant canonical correlation was found between the congregational involvement dimensions of church attendance, organizational activity, and financial support and the variables of age, sex and religious affiliation.

In hypothesis 6, significant canonical correlation was found between the composite religious dimensions of salience: behavior, salience: cognition, and the active regulars, and the variables of age, sex, and religious affiliation. On hypothesis 7, two significant canonical correlations were found between the ten dimensions of adolescent religiosity, and the variables of age, sex, and religious affiliation.

Also significant canonical correlations were found between adolescents' religiosity and adolescents' perception of maternal demanding and punishing behavior, and also a combination of the ten dimensions of adolescents' religiosity and a combination of the maternal variables on hypotheses 15, 16, and 17.

No significant multiple correlation was found between the devotionalism dimension of hypothesis 2; the
religious despair dimension of hypothesis 3; the orientation to growth and striving dimension of hypothesis 4, and the variables of age, sex, and religious affiliation. Finally no significant relationship was found between adolescents' religiosity and adolescents' perception of paternal support (hypothesis 8), control (hypothesis 9), demand and punishing (hypotheses 10 and 11), a combination of all paternal variables (hypothesis 12); and between maternal support (hypothesis 13), maternal control (hypothesis 14), and the ten dimensions of adolescents' religiosity.
CHAPTER V

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

This chapter presents the summary, conclusion, and recommendations of the study. The rationale for this study was built on Bandura's theory of social interaction. It was proposed that in order to better understand the influence of parental behavior on the development of adolescents' religiosity, the study should be approached from the perspective of adolescents' perception of parental behavior. The study posited that one of the methods of understanding adolescents' religiosity is from the perspective of family social interaction.

Summary

The summary of this study proceeds as follows: (1) the purpose; (2) overview of related literature; (3) methodology: (a) sample, (b) delimitations, (c) instrumentation; and (4) findings.

Purpose

This study hypothesized that there would be no significant relationship between the ten dimensions of adolescents' religiosity and parental behavior. The purpose of the study, therefore, was to investigate the
relationship between adolescents' religiosity and (a) adolescents' perception of paternal behavior and (b) adolescents' perception of maternal behavior. Another aspect of the study was the investigation of the relationship between the ten dimensions of adolescents' religiosity and the variables of age, sex, and religious affiliation.

Overview of Related Literature

The review of related literature addressed five areas: (1) personal religious orientation—the problem of identification and labeling; (2) the dichotomous and trichotomous view of religious orientations; (3) dimensions of religiosity—unidimensional or multidimensional; (4) age, sex, religious affiliation, and religiosity; and (5) religiosity and parent-child relations.

It was revealed that though religion is as old as man, the problem of identifying and labelling various types of religious orientations has often eluded social scientists. William James (1958) was one of the first psychologists to suggest that religion exercises an important influence on the individual's attitude, personality, and behavior, yet for social scientists it was much easier to formulate and theorize concerning religion but not so easy to prove it empirically.

Perhaps the greatest dilemma, as Dittes (1969, 1971) pointed out, was the differentiation of explicit
from implicit religion, institutionalized religion from
the religion that is personal and committed. Most studies
sought to dichotomize religious orientation but in the
testing of these dichotomies, no clear cut distinction has
emerged. This led others to advocate a trichotomous view
of personal religious orientations. Fleck (1976) proposed
that personal religious orientation be categorized as (1)
extrinsic religion; (2) consensual religion, and (3)
committed religion, while Batson and Ventes (1981)
proposed that personal religious orientation be viewed as
a Means, as an End, and as a Quest.

While the discussion on how to dichotomize
personal religious orientation continued, another
discussion, started by Glock (1949), centered around the
dimensionality of religiosity. Glock argued that religion
has certain universal propositions, and that religion does
not mean the same thing to all men. He argued that
religiosity should not be viewed as unidimensional but
multidimensional in nature. The majority of later studies
seem to uphold this view that religiosity is
multidimensional in nature, though the dimensions may vary
from population to population. This study was grounded on
the theoretical concept that religiosity is
multidimensional in nature.

The literature also pointed out that age and sex
is related to religiosity and that religious devotion was
high among teenagers and older adults. In the area of sex, females were found to be more religious than males.

Finally, the literature regarding parent-child relations and religiosity was considered. The majority of the studies reviewed indicated that the role of parents in the shaping of children's religious attitudes is an important one. Some researchers (e.g., Newcomb & Svehla, 1937) found that the "home," "parents," and "mothers" exercised the most important influence in the development of religious attitudes among children. All of the literature indicated that parents' attitudes toward their children is pivotal and pervasive in the development of the children's personality.

Methodology

Sample. A sample of 400 adolescents between the ages of 14 and 17 years and in forms three and four was selected from eleven of the fifteen secondary schools (four public and seven private) in Antigua and Barbuda. Of the 1,983 adolescents, 73 percent or 1,447 were enrolled in eight public secondary schools and 27 percent or 536 were enrolled in seven private secondary schools. In selecting the sample the method of purposive sampling was employed. A sample of 70 percent was selected from four of the eight public secondary schools while 30 percent was chosen from the seven private secondary schools.

Delimitations. This study was confined to
adolescents between the ages of 14 and 17 years presently studying in forms three and four in secondary schools in Antigua and Barbuda. The results of the study are limited to the population from which the sample was taken.

**Instrumentation.** Because of the nature of the study, two instruments were required to gather the data from the sample. To measure the religious variables, the instruments "Measuring the Religious Variable" by King and Hunt (1975) was used. To measure adolescent perception of parental attitudes towards them, the Bronfenbrenner Parent Behavior Questionnaire was employed. The instrument by King and Hunt measured a wide variety of religious behaviors, beliefs, and attitudes contained in ten dimensions while the Bronfenbrenner Parent Behavior Questionnaire measured a wide variety of parent attitudes contained in four broad dimensions.

**Findings**

For this study, seventeen hypotheses were formulated and tested. Seven of the hypotheses dealt with adolescents' religiosity and the variables of age, sex, and religious affiliation; five hypotheses dealt with adolescents' religiosity and their perception of paternal behavior; and the remaining five dealt with adolescent religiosity and the perception of maternal behavior. Each hypothesis was accepted or rejected based on the alpha level of significance which was .05.

1. **Age.** The variable of age was tested for
possible relationship in seven hypotheses, in combination with sex and religious affiliation. The results of the analysis indicate that when used in combination age produces a meaningful relationship on one of the seven hypotheses in which it was tested; hypothesis 6. However, when used in combination in hypotheses 1-5 and 7, age did not add anything meaningful to the prediction of the various religious dimensions in which it was tested. However, as a single variable, age, did correlate significantly with five religious dimensions, the correlations, however, were very low.

2. Sex. Regarding hypotheses 1 through 4, sex, in combination with religious affiliation, was a good predictor of the creedal assent dimension of hypothesis 1 but not the devotionalism, orientation to growth and striving, and religious despair dimensions of hypotheses 2, 3, and 4. Also, no meaningful relationship was found on hypotheses 5, 6, and 7. On hypothesis 1 females tended to rate themselves higher than males on religious beliefs. Sex proved to be an adequate predictor of only the creedal assent dimension when used in combination with religious affiliation. As a single predictor it predicted only three religious dimensions. Overall sex did not emerge as a strong variable.

3. Religious Affiliation. Six dummy vectors composed the religious affiliation variable which was tested for possible relationship in seven hypotheses.
Together, they proved to be a good predictor of adolescents' religiosity in hypothesis 1 and emerged as the variable with the strongest relationship in hypotheses 5-7. Of the various denominations, Seventh-day Adventists emerged as the religious denomination with the most extreme scores in four of the seven hypotheses, followed by Evangelicals and Roman Catholics with meaningful relationships on two hypotheses; while Methodists and Moravians produced meaningful relationships on one hypothesis. Anglicans did not produce any meaningful relationships on any of the hypotheses in which they were tested.

Generally, Seventh-day Adventist adolescents were more frequent church attenders, agreed with their religious doctrines (creedal assent), practiced more overt forms of religious behavior, and were more active participants in church organizational activities than Evangelicals, Methodists, Anglicans, Moravians, and Roman Catholics.

The findings of this study are consistent with those of Acock and Bengston (1978), Hoge, Petrillo, and Smith (1982), Londis (1960), and Lenski (1960) who also found religious affiliation to be an adequate predictor of religiosity, though the relationship was often weak.

4. Hypotheses 5 through 7 were analyzed with canonical correlation analysis. They tested the relationship between: (a) the congregational involvement
dimensions (church attendance, organizational activity, and financial support) of adolescents' religiosity and the predictor variables: age, sex, and religious affiliation; (b) the composite religious dimensions (salience: behavior, salience: cognition, and the active regulars) of adolescents' religiosity and a combination of predictors: age, sex, and religious affiliation; and (c) the ten dimensions of adolescents' religiosity and a combination of predictors: age, sex, and religious affiliation. The results of the hypotheses are discussed below.

a. Two significant functions were found in hypothesis 5. The results from this hypothesis reveal that the religious affiliation variable comprising Seventh-day Adventists and Evangelicals is significantly related positively to the church attendance religious dimension of adolescents' religiosity on the first significant function. On the second significant function, the highest religious affiliation variable were Roman Catholics and Moravians. The significant religious dimensions were church attendance and organizational activity. On this function Moravians tended to rate themselves high on organizational activity and low on church attendance. On the other hand, Roman Catholics rated themselves high on church attendance and low on organizational activity.

b. One significant function was found in hypothesis 6. The data from this function revealed that
adolescents who identified themselves as Seventh-day Adventists rated themselves as being active regulars, i.e., Seventh-day Adventists had the tendency to not only attend church on a regular basis but to actively participate in church activities, take communion on a regular basis, and make regular financial contributions.

c. Two significant functions were found in hypothesis 7. The data from the first function revealed that the religious affiliation variable constituting Seventh-day Adventist and Evangelicals was positively related to creedal assent, and negatively to relevance of religious thoughts and feelings (salience: cognition) on the first significant function, while on the second significant function Roman Catholics and Methodists were the highest religious affiliation variables. The significant religious variables on this function were the orientation to growth and strivings, organizational activity, the relevance of religious behavior (salience: behavior), and church attendance. Roman Catholics rated themselves high on relevance of religious behavior and church attendance but low on the orientation to growth and striving and organizational activity. Methodists were the opposite of Catholics with regards to the direction of the relationship.

5. Hypotheses 8 through 12 tested the relationship between the ten dimensions of adolescents'
religiosity and the four dimensions of paternal behavior: (a) between the ten dimensions of adolescents' religiosity and adolescents' perception of paternal supporting behavior, (b) between the ten dimensions of adolescents' religiosity and adolescents' perception of paternal controlling behavior; (c) between the ten dimensions of adolescents' religiosity and adolescents' perception of paternal demanding behavior; (d) between the ten dimensions of adolescents' religiosity and adolescents' perception of paternal punishing behavior; and (e) between the ten dimensions of adolescents' religiosity and adolescents' perception of paternal supporting, controlling, demanding, and punishing behavior.

a. None of the canonical functions relating to hypothesis 8 were significant at the established probability level, .05. The conclusion was that adolescents' perception of paternal supporting behavior does not significantly correlate with a combination of the ten dimensions of adolescents' religiosity. A look at the correlation matrix of all variables revealed that three paternal variables on the supporting dimension were significantly related to four of the variables relating to religiosity; these are paternal nurturance which correlated negatively with the salience: cognition dimension, paternal consistency of expectations which correlated positively with organizational activity and financial support. Finally, paternal indulgence
correlated negatively with the orientation to growth and striving dimension.

b. With regards to hypothesis 9, none of the functions extracted from the data were significant at the .05 level. The correlation matrix revealed that the two variables in this dimension, i.e., paternal control and protectiveness—control correlated positively with salience: cognition; protectiveness correlated positively with the creedal assent, and church attendance dimensions. The conclusion was that adolescents' perception of paternal control was not significantly related to the ten dimensions of adolescents' religiosity.

c. For hypothesis 10, no significant function emerged from the data. A look at the correlation matrix revealed that of the two paternal variables in this dimension (prescription of responsibilities and achievement demands), only achievement demands was significant on one religiosity dimension—negatively with religious despair.

d. No significant function emerged from the analysis of hypothesis 11. The data revealed that the combination of the ten religious dimensions of paternal punishing behavior did not significantly correlate with adolescents' religiosity. Also an examination of the data from the correlation matrix revealed that two paternal punishing variables (affective punishment and physical punishment) correlated significantly with at least one
religiosity dimension. The correlations on the paternal dimensions were quite low with the highest being .126 between church attendance and affective punishment and .134 between salience: cognition and affective punishment.

e. No significant function emerged from the ten functions extracted from the analysis of hypothesis 12. The conclusion is made that when all paternal variables are tested together with the ten dimensions of adolescents' religiosity; the percentage of variance accounted for by each function was not sufficient to be significant.

The findings of this hypothesis are supported by Hoge, Petrillo, and Smith (1982) who also found that paternal variables included in their studies produce weak relationships with adolescents' religiosity. They also found that paternal control and support produce weak relationships with adolescents' religiosity. The findings of this study, therefore, support the idea of the relatively weak influence of fathers on adolescents' religiosity.

6. Hypotheses 13 through 17 were also tested by means of canonical correlational analysis. These hypotheses tested for relationship between the ten dimensions of adolescents' religiosity and (a) adolescents' perception of maternal supporting behavior; (b) adolescents' perception of maternal controlling behavior; (c) adolescents' perception of maternal
demanding behavior; (d) adolescents' perception of maternal punishing behavior; and (e) adolescents' perception of maternal behavior (all variables).

a. Hypothesis 13 was tested for significant relationship between the ten dimensions of adolescents' religiosity and their perception of maternal supporting behavior. The data from this analysis revealed that no significant function was extracted from the analysis. This indicates that maternal support, including such variables as nurturance, instrumental companionship, and encouragement of autonomy were not significantly associated with the ten dimensions of adolescents' religiosity.

b. Hypothesis 14 was tested for the relationship between the ten dimensions of adolescents' religiosity and their perception of maternal controlling behavior. The data from this hypothesis revealed that none of the canonical functions extracted from this analysis were significant at the minimum level of acceptability, .05.

c. Hypothesis 15 was tested for the relationship between the ten dimensions of adolescents' religiosity and their perception of maternal demanding behavior. The analysis of the data on this hypothesis indicated that one function was significant at the .05 level. This function indicates that adolescents' perception of maternal demands for achievement is positively related to the active regulars religious dimension. However, they also reported
that this type of maternal behavior was negatively related to their financial support religious behavior.

d. One significant canonical function emerged from the analysis of hypothesis 16. This function indicates that high maternal scolding behavior is positively associated with church attendance and religious beliefs of adolescents' religiosity, while high maternal scolding is negatively related to adolescents participating in activities organized by religious organizations (organizational activity).

e. One significant canonical function emerged from the analysis of hypothesis 17. This function indicates that adolescents who perceive their mothers as being high on scolding, demands for achievement, instrumental companionship and control, reported a high degree of church attendance and ascribing to the religious doctrines (creeds) of their denominations; i.e., maternal scolding, achievement demands, instrumental companionship and control were positively related to adolescents' church attendance and religious beliefs.

Conclusion

From the foregoing study, several conclusions may be made regarding adolescents' religiosity and their perception of parental behavior and how such parental attitudes relate to their own religiosity.

With regards to age it is believed that as the adolescent gets older there is a marked decrease in
religious activities. Younger adolescents are supposed to be more religious than older adolescents. However, this was true in only one instance in this study, where younger adolescents tended to be more active and attend church more regularly than older adolescents.

On the other hand, with regards to sex, females were thought to be more religious than males, e.g., Argyle and Bert-Hallami (1975). Two recent studies (Sloane & Potvin, 1983; Potvin & Sloane, 1985) have found that females were often higher on religious beliefs than males, and that overall, females were more religious than males. In this study females were stronger on religious beliefs than males (hypothesis 1). However, for the remaining hypotheses in which sex was tested there were no clear distinguishing pattern between males and females.

1. In order to come to a conclusion about adolescents' religiosity, the study posited that religiosity among adolescents in Antigua and Barbuda was multidimensional in nature. Hence, ten dimensions were selected and tested for significant relationship. The results of the study indicate that not all of the dimensions proved to be significant when tested with the variables selected for this study.

2. The three demographics or dichotomous variables of age, sex, and religious affiliation correlated on the correlation matrix with one or more dimensions of adolescents' religiosity. Of the three
variables, age was the weakest factor and sex the second weakest. Religious affiliation proved to be the strongest factor both when studied in combination and when studied alone. Therefore, it is safe to conclude that the variables of sex and religious affiliation are related to religiosity among adolescents in Antigua and Barbuda.

For the religious affiliation groups, Seventh-day Adventists had high positive relationships on creedal assent, church attendance, and the active regulars; however, they had negative relationship on the salience: cognition dimension. Roman Catholics had high positive relationships on church attendance, orientation to growth and striving and salience: behavior dimensions, and high negative relationship on the organizational activity dimension.

Methodists had high positive relationships on the creedal assent, organizational activity, and orientation to growth and striving, while they had negative relationships on church attendance and salience: behavior religious dimensions. Evangelicals had high positive relationships on creedal assent and church attendance dimensions, and negative relationship on salience: cognition dimension. Finally, Moravians had high positive relationship on organizational activity and negative relationship on church attendance. Anglicans were not significant on any of the ten religious dimensions.
3. Information from the testing of hypotheses 8 through 17 is as follows:

a. In examining the hypotheses pertaining to adolescents' perception of paternal behavior and its relationship to their religiosity, one notes that none of the hypotheses proved to be significant at the minimum level of significance established for this study.

It was posited earlier that support and control would be positively associated with religiosity, while demanding and punishing would be negatively related to religiosity. Because none of the dimensions of paternal behavior were significantly related to any of the dimensions of adolescents' religiosity, it may be assumed that the perception of adolescents in Antigua and Barbuda of the paternal behavior variables selected for this study did not significantly relate to their religiosity.

One persistent problem raised by other studies, and confirmed in this study, centers around the lack of significant relationship between the paternal variables and adolescents' religiosity. The answer may lie in the role expectations that society has of fathers. One may not conclude from the results that fathers do not participate in family life, rather that in family life in Antigua and Barbuda roles are sharply defined and fathers are generally perceived as being economic providers who seek to fulfill this role faithfully even if that fulfillment requires the neglect of other family roles.
Another reason may be that due to their narrowly defined role, many fathers leave child rearing to mothers who thus perform both the task of managing the household and that of the religious socialization and education of their offspring.

The study posited that there would be positive relationship between adolescents' perception of paternal support and control and adolescents' religiosity, and that there would be negative relationship between adolescents' perception of paternal demands and punishing and adolescents' religiosity. None of the hypotheses were significant.

The question which must be addressed is, why the non-significant relationship of the paternal hypotheses? One reason could be that the kind of paternal variables selected for this study may not be the most important constructs for fostering religious development. Another reason may be that the approach to the study of religiosity undertaken in this study may be inadequate to explain adolescent religiosity.

Furthermore, there may not be sufficient interaction between father and child to be interpretable as having a profound effect on the adolescents' religious development. There are clearly other factors which are important. However, one must not conclude from this study that father's interest in their adolescents' religious development is negligible. Rather, what the results of
the study is showing is that though religiosity may be viewed as an objective psychological construct, the attempt to explain this phenomenon as only a behavioral construct is inadequate.

Perhaps adolescent religiosity may also be not only a learned response based on the interaction between parent and child, but also a direct response of the believer to the call of God. The problem may have been that this study placed too much emphasis on the behavioral aspect while neglecting other constructs such as the place of conversion in the religious experience of the adolescent believer.

The study also raises some serious questions regarding the spiritual nurture of offsprings by parents. Spiritual nurture is though to be vital to the religious life of the believer, hence, parents are instructed to train their children in the fear and admonition of the Lord. This study accepted that supposition, and hence, sought for positive relationship between parental control and support and adolescents' religiosity. The result, however, is not sufficiently clear for interpretation. It is therefore impossible to generalize the findings of this study concerning the effect of parental attitudes (i.e. support, control, demand, and punishment) on adolescents' religiosity.

b. Mothers' attitude and behavior are related to adolescent religiosity among adolescents in Antigua and
Barbuda. Two dimensions of the mother's behavior were significantly related to adolescents' religiosity. They are: (i) demanding and (ii) punishing. On the demanding dimension, the primary variable was maternal achievement demands; this variable indicated that with high demands for achievement from their mothers, adolescents would not only frequently but also actively participate in their church's religious functions or activities (the active regulars). On the other hand, there was a negative relationship between adolescents' financial contributions and maternal demands for achievement, i.e., adolescents who perceive their mothers as being low on demand for achievement, make regular financial contributions to the church as opposed to those whose mothers were high on demands for achievement.

Other variables with which maternal demands for achievement were positively related are creedal assent, and church attendance (hypothesis 17), i.e., according to adolescents' perception, demands for achievements from their mothers is positively related to frequency of church attendance and ascribing to the religious beliefs of the church.

(ii) Maternal Punishing---on this dimension the primary variable is scolding. This variable was positively related to adolescents' ascribing to the religious doctrines of the church, and regularly attending church services. However, there is a negative
relationship between maternal scolding and adolescents' participation in organizational activities.

Two other variables on the supporting and controlling dimensions were positively related to adolescents' religiosity. They are maternal instrumental companionship on the supporting dimension, and maternal control on the controlling dimension. These two variables were related to adolescents' belief and regular attendance at church worship services. The strength of the relationships, though positive, was not as strong when compared to the variables on the punishing dimension. However, it must be noted that when all of the maternal variables are tested together as a whole, then these two variables were of comparable strength, with regards to direction (positively), with the maternal scolding and achievement demands variables.

The pattern which has emerged does seem to suggest that from the adolescents' standpoint, mothers' behavior is related to their religiosity. Such findings appear to be corroborated by Acock and Bengston (1978), and Hoge, Petrillo, and Smith (1982) who found that the maternal variables were often the strongest contributors to explaining adolescents' religiosity.

One reason why maternal demanding and punishing behavior is associated with adolescents' religiosity may be due to the fact that most parents are concerned with the image their children project to the community. Most
parents do not want the community to receive the impression that their household is uncontrollable, hence, when the supporting behaviors failed to produce the desired results, mothers resorted to demands and punishment to achieve conformity. The relationship between maternal demanding and punishing and adolescents' religiosity, therefore, may be more a matter of conformity than one of positive reinforcement.

For maternal supporting behavior, this dimension was expected to relate positively with adolescents' religiosity. The results indicated that only one variable on this dimension produced a meaningful association with adolescents' religiosity; i.e., mothers' instrumental companionship.

Because of the results in testing the hypothesis for this study, any conclusions made are rather tentative. The relationship that emerged between the parental variables and the ten dimensions of adolescents' religiosity may best be described as weak. However, most of the hypotheses sought for a linear relationship and it is quite possible that a curvilinear relationship exists between the two sets of variables.

The results of this study further highlight the problem of looking at one set of variables to predict adolescents' religiosity. There appear to be other related factors which were not taken into consideration in this study. If this is so, then, from whom do adolescents
in Antigua and Barbuda derive their religious belief? What factors are important in fostering positive religious attitudes, beliefs, and behavior?

5. Since the study explained only a small percentage of the variance, maybe there are more salient variables which were not taken into consideration in this study. It may be, also, that one needs to look beyond the influence of the adolescents' parents when studying adolescents' religiosity. The fact that religious affiliation was associated with some of the dimensions of adolescents' religiosity points to the importance of extrafamilial groups which exert some kind of influence on adolescents' religiosity. Such groups may include the peer group with which the adolescent identifies or other members of the adolescent's extended family.

6. Concerning the factors which are important in adolescent religious development, one can only conjecture regarding these factors. However, it is possible that such factors as parental teachings about religion, parental religious practices, and parental agreement on religion are more salient factors than the variables included in this study. Perhaps by investigating these variables together with those used in this study, a greater proportion of the unexplained variance will be reduced.

However, looking at the weak relationship which emerged between the parental variables and adolescent
religiosity, this pattern appears to be consistent with other studies done in the United States; e.g., Connell (1972). In reviewing studies done between 1910 and 1960, Connell (1972) found that there was a consistent pattern of weak correlations between parental attitudes and children's perception of those attitudes as it relates to their behavior, with median correlations of .10 and .20 for fathers and mothers, respectively. This pattern of weak correlations was also consistent in this study, where the correlations ranged from a low of .00 to only a high of .20.

Furthermore, the problem may be in the instruments. It is quite possible that the religious dimensions considered were not salient enough for adolescents to transfer into their own religious values. Further, it may be that the parental attitudes and behaviors being considered were not consistent over a period of time, so adolescents could not adequately associate such behavior with their religious development or religious behavior, attitudes, and beliefs.

A further limitation is placed on the results in that the data for this study consisted of students' self-report of their religiosity and their perception of parental behaviors and attitude, and not actual objective reports by parents. It is also quite possible that the religious attitudes and values of adolescents are not yet
quite established and hence the tendency to perceive negative behaviors where they are probably non-existent.

7. Since in this study, the method of studying adolescents' religiosity through adolescents' perception of the parent-child interaction process provided very little information regarding adolescent religiosity, it may be necessary to employ other methods in assessing adolescents' religiosity.

8. Bandura's theory of social interaction, where adolescent behavior is conditioned by the environment in which the adolescents have been socialized (basically the interaction between parent and child), finds minimal support in this study.

Finally, the results of the study lead one to question the theoretical rationale for this study. It is obvious that the self-reporting measure of one's religiosity is open to bias, so also is the self-perception of parental behavior by adolescents. Thus, caution is necessary in attempting to ascertain by means of this study how adolescents' religiosity is developed.

It is also obvious that the religiosity of adolescents in Antigua and Barbuda cannot be pinpointed through parental support, control, demand, and punishment. Neither can one further assume that there are ten dimensions to adolescents' religiosity, because there was no support for such an assumption in this study. Furthermore, like previous studies, this study did not
support the idea of equal influence among parents on adolescents' religious development. The mother's influence was definitely greater, although this was with regards to the negative behavioral dimensions (i.e. demands and punishment).

A further problem which could have caused the results to appear in the manner in which they did may be due to the instruments and the methodology employed. The religiosity instrument may be salient to measure certain characteristics of the population in North America, but on a whole, it has proven to be unsatisfactory in measuring religiosity among adolescents in Antigua and Barbuda; also it was very difficult to significantly predict adolescents' religiosity from the parental variables of the Bronfenbrunner Parent Behavior Instrument.

Also, the sample may have been more homogeneous than originally thought. The attempt to select a heterogeneous sample through purposive sampling may have resulted in sampling bias which may have carried over into the results of the study. It is now quite clear that a more appropriate method of sampling was desirable, and that instead of self-selection, perhaps stratified random sampling might have produced more positive results.

Moreover, the assumption that traditional religiosity is generalizable across time and space, though minimally supported, should now be reevaluated in the light of the results of this study. However, a further
caution is necessary, for although this study did not produce many significant correlations between adolescents' religiosity and parental behavior, i.e. none on the paternal hypotheses, and three of the maternal hypotheses, it must not be concluded that parents in Antigua and Barbuda have little or no influence on adolescents' religiosity. Rather, this study was exploratory in nature, and therefore other studies are needed before any distinctive conclusion can be made with regard to adolescents' religiosity in Antigua and Barbuda.

**Recommendations**

The results of this study have raised many questions which this study did not address. Consequently, the following recommendations are made for further study.

1. The difficulty in measuring religiosity even among Christian religions within the same culture has been pointed out in earlier studies. Such difficulty was encountered in this study where for some religious denominations significant relationship on only one of the ten dimensions was obtained, while for others no significant relationship was found. Furthermore, not all of the ten religiosity dimensions produced meaningful relationships with the independent variables used in the study. Therefore, any study of religiosity must first take into account the uniqueness of the culture and its interpretation of what constitutes religion. It would be useful if other methods of measuring religiosity were
developed which are more clearly related to the social and cultural milieu that is being studied.

One serious limitation which was placed on this study is the lack of adequate literature on religiosity, in general, and in particular relating to adolescent religiosity in Antigua and Barbuda, or the Caribbean. The study therefore utilized instruments developed in North America. This was done because of a presupposition or assumption held by the researcher that religiosity, as manifested in Antigua and Barbuda is expressed in the same manner as in North America and that it means the same thing to different cultures.

However, this study has indicated that religiosity as manifested in North America and in Antigua and Barbuda may not be similar in their functional manifestation or interpretation of what it means to be religious. The cultural heritage of the population being investigated should be a prime factor for consideration whenever a study of this nature is undertaken. This was not done in this study. Furthermore, the assumption that certain manifestations of religiosity evades cultural distinction proved to be erroneous in this study. It may be that because of the diversity in culture that the meaning of religion is also interpreted differently. The instruments, therefore, which are used to measure religiosity should reflect those cultural nuances in their expression of religion.
2. There is a need for further investigation with regards to: (a) the role of the father in family life in Antigua and Barbuda, (b) the role of the father in the development of an adequate self-concept and personality of adolescents, in Antigua and Barbuda, and (c) the attitudes of fathers toward religion in Antigua and Barbuda.

3. A valuable contribution could be made by selecting other maternal variables, in addition to the variables used in this study, since the maternal variables selected for this study when tested together (hypothesis 17) produced only one significant function, which accounted for 14.6 percent of the explained variance, which reduces the amount of unexplained variance.

4. It would be useful if studies on religiosity were done in other nations of the Caribbean so that a critical mass of literature might slowly emerge which might eventually find key common denominations and differences among the various nations.

5. This study was limited to adolescents living with both parents. Nothing is known concerning adolescents living with single parents or with other relatives. It would be helpful, therefore, if a study of all adolescents could be undertaken and comparisons made among adolescents living with both parents, with a single parent, and with other relatives. Such a study would greatly add to the literature on the role of parents and
significant others in the development of adolescents' religiosity.

6. Three demographic variables—adolescents' age, religious affiliation, and sex were tested in this study for possible relationship with adolescents' religiosity. Of these three, adolescents' religious affiliation proved to be the best predictor of adolescents' religiosity. The study, however, did not investigate the possible relationship between (a) adolescents' age and parental behavior; (b) adolescents' religiosity and parents' age; (c) adolescents' religiosity and parents' religious affiliation. A useful contribution could be made if these areas were to be included in a future study with cross-comparisons made among the various denominations.

7. Recent studies (Acock & Yang, 1984; McDonald, 1977, 1980) in the area of child development have postulated the idea of sex-type identification in the family as well as the idea that typically adolescents identify with the perceived source of power and authority in the family. In respect to the first, sons would identify with their fathers who, in turn, would exercise a great amount of influence on them. The same holds true for daughters identifying with their mothers. On the other hand, the second idea suggests that regardless of the sex, adolescents would identify with the parent who exercises the most authority within the family unit.
Therefore, a valuable contribution could be made towards understanding adolescents' religiosity by investigating the sex link and paternal-power theory of identification.
APPENDIX 1

LETTERS
Chief Education Officer  
Office of Education  
Antigua, West Indies  

Dear Sir,

This is to certify that Eustace Sheppard is a bonafide Postgraduate student at our University, presently at the dissertation stage of his doctoral program. He has been authorized by his guiding faculty committee to gather data for his research project, which involves surveying a selected school population in your country.

We will appreciate any assistance and support you can extend to Mr. Sheppard. If there are any further questions you might have, feel free to write or call: U.S.A 1-616-471-3109.

We are confident that Mr. Sheppard will conduct all his business connected with this research project in an ethical and professionally responsible manner, and accordingly commend him to you.

Sincerely,

George A. Akers, Dean  
School of Education
April 3, 1984

Chief Executive Officer
Office of Education
Antigua, West Indies

Dear Sir:

This is to introduce Mr. Eustace Sheppard, who is a postgraduate student at our University presently at the thesis stage of his doctoral program. He has been authorized by his guiding committee, of which I am chairman, to gather data for his research project, which involves surveying a selected school population in your country.

We will appreciate any assistance and support you can extend to Mr. Sheppard in this research project. Should you have any questions, feel free to write or call: U.S.A. 1-616-471-3477.

We are confident that Mr. Sheppard will conduct all his business regarding this research project in an ethical and professionally responsible manner and accordingly. I commend him to you.

Sincerely,

John B. Youngberg, Chairman
Department of Religious Education
and Educational Foundations

tjt
Drs. Morton B. King & Richard Hunt
Congregational Involvement Study
Southern Methodist University
Dallas, Texas 75222

Dear Drs. King and Hunt

Greetings to you in the name of our Lord and Savior Jesus Christ. First, let me introduce myself. My name is Eustace Sheppard, and I am a doctoral student at Andrews University, located in Berrien Springs, Michigan. I am presently at the dissertation stage of my studies.

My reason for writing to you is to ask for your assistance in a matter of importance. I am using your 1973 Basic Religiosity and Composite scales in my study of the Relationship of Adolescent Religiosity and their perception of their parents behavior towards them. My problem is with the scoring of dimensions 3, 4, and 5, and the items with responses R, FF, 0, SN. I am unable to score these items because in your publications (1968, 1973) you did not indicate how you scored these items.

I would appreciate it very much if you could provide me with the information concerning how you scored the response for the above mentioned items. I need this information in order that I proceed with the analysis of my data and, appreciate a reply to my request as soon as possible.

Sincerely Yours
Eustace Sheppard

copy
1 EMS
1 Department of Research Survey
Dear Eustace Sheppard,

Dr. Hunt and I appreciate your interest in our work. Your letter was forwarded to my retirement home here. Hence this delay in answering.

If you will examine the 1968 Questionnaire as it is reproduced on pp. 85-90 in our monograph Measuring Religious Dimensions, Dallas: Southern Methodist University, 1972 many of your questions should be answered. There you will find the format and alternative answers of all items. Most, but not all, of these items were used in the later study. E.g. the Religious Knowledge items were omitted by the UPCUSA staff.

We did not describe our scoring procedures in detail since many researchers have their own preferences. However, I will try to indicate what we did.

All items have four alternative answers except the Knowledge ones which have six. All the four-answer items were scored the same way, including the "Regularly—Seldom or never" ones. The "most religious" answer was scored four(4). The others were 3, 2, and then 1 for the "least religious." For each respondent, the item score was this number; and his or her scale score was the sum of the item scores. Scale means or medians can be obtained for groups or categories of persons.

The six-answer items all have three correct and three wrong answers. The instructions said to circle all answers believed to be correct. That is, a respondent might circle anywhere from six to no answers. Most circled two to four. The item score was the number of alternatives marked, or not marked, correctly. Therefore, item scores range from zero to six. Most scale scores ranged between 2 and 5.

Since the scales have different numbers of items, comparisons between two or more scale scores requires that they be standardized. Our formula for that is on page 50 of the monograph.

Best wishes for a successful dissertation. Please write me here if you have further questions.

Sincerely,

Morton King
Professor Emeritus

DEPARTMENT OF SOCIOLOGY / 214 - 692-2911
SOUTHERN METHODIST UNIVERSITY / DALLAS, TEXAS 75275

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Mr. Whitfield Harris,  
Chief Education Officer,  
Office of Education,  
Antigua, West Indies.  

Dear Whitfield  

This is just a note to let you know how much I appreciated the assistance provided by you and your team concerning my recent trip to the state to gather data for my dissertation.  

Your principals were very cooperative, and though I have thanked them verbally, I would like for you to convey my heartfelt appreciation for the manner in which they assisted me. Without their help my research project could not have been successful. The following principals have been very helpful to me in my undertakings: Mr. H. Benjamin of the Princess Margaret High School, Miss. I. James of the Ottos Secondary School, Mr. U. Looby of the All Saints Secondary School, and Miss. R. Limerick of the Pares Secondary School.  

From your office staff, the following persons have given me invaluable assistance: Mr. J. Knowles, Assistant Chief Education Officer, Mr. C. Roberts, Assistant Chief Education Officer, and Mrs. E. Lewis, Assistant Chief Education Officer for Secondary Education. Please convey my warmest and sincere thanks for their unselfish assistance.  

Finally, I would like to thank you for the time you spent with me discussing the need for such a study and for the support which you have given. You have been a source of real encouragement. Once again, thank you for making my research project a success.  

Sincerely Yours  
Eustace M. Sheppard  

Garland C-2  
Berrien Springs,  
Michigan 49103  
29 January 1985
The Principals:
Christ The King High School
Geoff Dem Secondary School
Goodwill Academy
Pilgrim High School
Seventh-day-Adventists Secondary
St. Joseph Academy
Sunny Side Tutorial High School

Dear Principals

This letter is to express my deep appreciation for the manner in which you cooperated with me in carrying out my research successfully. Your willingness to cooperate and lend your service in order that I may gather the necessary data for my research project was of great encouragement to me. Once more I would like to thank each of you for the part you have played in making my research a reality. Thank you very much for your cooperation.

Most of you have indicated that you would be interested in the results of my study, and I would like to assure you that when this study is completed and approved by the degree granting institution, that I have made arrangements to have a copy placed in the local Library in St. Johns, as well as in the Library of the University of the West Indies Social Science Department. However, I will be bringing copies of the abstract on my next visit to the state and would be happy to deliver a copy for each of you personally.

Thanks for your cooperation, and may God continue to bless each of you in your duties.

Sincerely Yours

Eustace Sheppard
Eustace Sheppard
Eustace Sheppard
APPENDIX 2

INSTRUMENTS
A STUDY ABOUT THE SOCIAL PSYCHOLOGY
OF RELIGIOUS DEVELOPMENT

Dear Student

You have been chosen to provide information of importance to educational research. The information provided by you will contribute to the study on patterns of religious development.

Your cooperation is essential. Please fill out the questionnaire exactly the way you think. Do not sign your name. The information you provide will be held in strictest confidence. No one else will have access to it, and it will be used for research purposes only.

How to Complete This Questionnaire

Please Note:

1. Read each item carefully.
2. Select the best answer that you would give.
3. Circle the answer chosen. Please observe that there are no right or wrong answers. The researcher is only interested in the answer you give, nothing else.
4. When you have completed the questionnaire, return it to the principal. Do not talk to anyone about your answer as you leave the room.
5. Do not leave any of the questions blank. Double check to make sure that you did not skip any of the questions.

Thank you for your cooperation.
RELIGIOSITY SCALE (King and Hunt, 1975)

Here are some questions mostly about your local congregation and its activities. Please draw a circle around the one answer which seems the most accurate to you. Please remember that there are no right or wrong answers.

1. If not prevented by unavoidable circumstances, I attend church

   More than once a week
   About once a week
   Two or more times a month
   Less than once a month.

2. During the last year, how many Sundays (or Saturdays) per month on the average have you gone to a worship service?

   None
   Once
   Two to three times
   Four or more times

3. How would you rate your activity in the local congregation?

   Very Active
   Active
   Slightly Active
   Inactive

4. List the number of church offices, committees, or jobs of any kind in which you served during the past twelve months.

   None
   One
   Two or Three
   Four or more

5. Last year approximately what percent of your income was contributed to the church?

   1% or less
   2% to 4%
   5% to 9%
   10% or more

6. During the last year, what was the average monthly contribution of your family to the local congregation?

   Under $15
   $15 to $19
   $20 to $49
   $50 or more
7. In proportion to your income, do you consider that your contributions to the church are:

   Generous    Modest
   Substantial Small

8. I make financial contributions to the church:

   In regular planned amounts (weekly, monthly)
   Irregularly but fairly often
   Irregularly and only occasionally
   Seldom or never

9. The amount of time I spend trying to understand my faith is:

   Very much    Above average
   Average      Very little or none

10. During the last year, how often have you made contributions to the church in addition to the general budget and Sunday School?

    Regularly    Seldom
    Occasionally Never

The following questions in this section deal with how often some activity occurs. Please circle the answer which best represents your answer of frequency.

   R = regularly
   FF = fairly frequently
   O = occasionally
   SN = seldom or never

11. How often do you read literature about your faith (or church)? R. FF. O. SN

12. How often do you pray privately in places other than church? R. FF. O. SN

13. How often do you ask God to forgive your sins? R. FF. O. SN

14. When you have decisions to make in everyday life, how often do you find out what God wants you to do? R. FF. O. SN

15. How often have you taken holy communion (the Lord's Supper, the Holy Eucharist) during the past year? R. FF. O. SN

16. How often do you read the Bible? R. FF. O. SN
17. How often in the past year have you shared with another church member the problems and joys of trying to live a life of faith in God? R. FF. O. SN

18. How often do you talk about religion with your friends, neighbors, or fellow workers? R. FF. O. SN

19. How often do you spend evenings at church meetings or in church work? R. FF. O. SN

20. When faced with decisions regarding social problems how often do you seek guidance from statements and publications provided by the church? R. FF. O. SN

21. How often have you personally tried to convert someone to faith in God? R. FF. O. SN

22. How often do you talk with the pastor (or some other official) about some part of the worship service: for example, the sermon, the scripture, choice of hymns, etc? R. FF. O. SN

23. During the last year, how often have you visited someone in need, besides your own relatives? R. FF. O. SN

Now here are some statements about religion. Some people agree with them, some disagree. Please draw a circle around one of the numbers that exactly expresses your views.

1 Strongly Agree
2 Agree
3 Disagree
4 Strongly Disagree

24. I try hard to grow in understanding of what it means to live as a child of God. 1. 2. 3. 4.

25. Church activities are a major source of satisfaction in my life. 1. 2. 3. 4.

26. I believe in God as heavenly Father who watches over me and to whom I am accountable. 1. 2. 3. 4.

27. I try hard to carry my religion into all other dealings in my life. 1. 2. 3. 4.
28. My personal existence seems meaningless and without purpose. 1. 2. 3. 4.

29. I believe that the word of God is revealed in the scriptures. 1. 2. 3. 4.

30. I frequently feel very close to God in prayer during public worship, or at important moments in my daily life. 1. 2. 3. 4.

31. Most of the time my life seems to be out of control. 1. 2. 3. 4.

32. I often wished I had never been born. 1. 2. 3. 4.

33. I believe that Christ is a living reality. 1. 2. 3. 4.

34. My life is often empty, filled with despair. 1. 2. 3. 4.

35. My religious beliefs are what really lie behind my whole approach to life. 1. 2. 3. 4.

36. The communion service often has little meaning to me. 1. 2. 3. 4.

37. I believe that God revealed Himself to man in Jesus Christ. 1. 2. 3. 4.

38. I believe in salvation as release from sin and freedom from sin and freedom for new life in Christ. 1. 2. 3. 4.

39. I enjoy working in activities of the church. 1. 2. 3. 4.

40. Religion is especially important to me because it answers many questions about the meaning of life. 1. 2. 3. 4.

41. I believe in eternal life. 1. 2. 3. 4.

42. I often experience the joy and peace which come from knowing that I am a forgiven sinner. 1. 2. 3. 4.

43. I find myself believing in God some of the time, but not at other times. 1. 2. 3. 4.

44. I keep pretty well informed about my congregation and have some influence on its decisions. 1. 2. 3. 4.

45. I believe honestly and wholeheartedly in the doctrines and teachings of my church. 1. 2. 3. 4.
46. I have given up trying to understand "worship" or to get much out of it.

47. Private prayer is one of the most important and satisfying aspects of my religious experience.
ADOLESCENT DEMOGRAPHIC INFORMATION

My age is:
1. 14 years old
2. 15 years old
3. 16 years old
4. 17 years old

My sex is:
1. Male
2. Female

My Religious Affiliation is:
1. Anglican
2. Methodist
3. Moravian
4. Roman Catholic
5. Seventh-day Adventist
6. Other (specify)_______
7. None

My present class standing is:
1. Form III
2. Form IV

During the past year, how long have you lived with your parents?
1. Less than six months
2. Six months or more.
Thank you for your cooperation. Now that you have completed the questionnaire, please take a few minutes to go through the questions to ensure that you have not omitted any. Afterwards, take your questionnaire to the individual administering the questionnaire. Do not talk to anyone as you leave the room. You have been most helpful.

Thank you!!
BASIC RELIGIOUS AND COMPOSITE SCALES
FROM KING AND HUNTE (1975)

**Creedal Assent Dimension (.84)**

I believe in God as a Heavenly Father who watches over me and to whom I am accountable.

I believe that the Word of God is revealed in the Scriptures.

I believe that Christ is a living reality.

I believe that God revealed Himself to man in Jesus Christ.

I believe in salvation as release from sin and freedom for new life with God.

I believe in eternal life.

I believe honestly and wholeheartedly in the doctrines and teachings of the church.

**Devotionalism (.84)**

How often do you pray privately in places other than at church?

How often do you ask God to forgive your sin?

When you have decisions to make in your everyday life, how often do you try to find out what God wants you to do?

Private prayer is one of the most important and satisfying aspects of my religious experience.

I frequently feel very close to God in prayer; during public worship, or at important moments in my daily life.

**Church Attendance (.82)**

If not prevented by unavoidable circumstances, I attend church: (More than one a week—Twice a year or less).

During the last year, how many Sundays per month on the average have you gone to a worship service? (None/Three or more)
How often have you taken Holy Communion (The Lord's Supper, the Eucharist) during the past year?

Organizational Activity (.81)

How would you rate your activity in your congregation? (Very active-Inactive)

How often do you spend evenings at church meetings or in church work?

Church activities (meetings, committee work, etc.) are a major source of satisfaction in my life.

List the church offices, committees, or jobs of any kind in which you served during the past twelve months (Coded: None—Four or more)

I keep pretty well informed about my congregation and have some influence on its decisions.

I enjoy working in the activities of the Church.

Financial Support (.73)

Last year, approximately what per cent of your income was contributed to the Church (1% or less—10% or more)

During the last year, how often have you made contribution to the church IN ADDITION TO the general and Sunday School? (Regularly—Never)

During the last year, what was the average MONTHLY contribution of your family to your local congregation? (Under $5--$50 or more)

In proportion to your income, do you consider that your contributions to the Church are: (Generous—Small)

I make financial contributions to the Church: (In regular, planned amounts—Seldom or never)

Religious Despair (.79)

My personal existence often seems meaningless and without purpose.

My life is often empty, filled with despair.
I have about given up trying to understand "worship" or get much out of it.

I often wish I had never been born.

I find myself believing in God some of the time, but not at other times.

Most of the time my life seems to be out of my control.

The Communion Service (Lord's Supper, Eucharist) often has little meaning to me.

Orientation to Growth and Striving (.79)

How often do you read the Bible?

How often do you read literature about your faith (or church)? (Frequently--Never)

The amount of time I spend trying to grow in understanding of my faith is: (Very much--Little or none)

When you have decisions to make in your everyday life, how often do you try to find out what God wants you to do?

I try hard to grow in understanding of what it means to live as a child of God.

I try hard to carry my religion over into all my other dealings in life.

The 1968 scale was developed only for Presbyterian-U.S. members. However, similar scales were developed for Methodists and Lutherans-M.S. All other 1968 scales are based on members of all four denominations.

Items indicated by [A-F] appear in Feagin's (1964) scale of Gordon Allport's Intrinsic religion.

Items which have appeared on the preceding scale are indicated by the number of that scale.

COMPOSITE RELIGIOUS SCALE

Salience: Behavior (.80)

How often in the past year have you shared with another church member the problems and joys of trying to live a life of faith in God?
How often do you talk about religion with your friends, neighbors, or fellow workers?

How often have you personally tried to convert someone to faith in God?

How often do you read the Bible?

When faced with decisions regarding social problems how often do you see guidance from statements and publications provided by the Church?

How often do you talk with the pastor (or other official) about some part of the worship service: for example, the sermon, scripture, choice of hymns, etc.?

During the last year, how often have you visited someone in need, besides your own relatives?

Salience: Cognition (.84)

Religion is especially important to me because it answers my questions about the meaning of life.

I try hard to grow in understanding of what it means to live as a child of God.

My religious beliefs are what really lie behind my whole approach to life.

I frequently feel very close to God in prayer, during public worship, or at important moments in my daily life.

I often experience the joy and peace which come from knowing I am a forgiven sinner.

When you have decisions to make in your everyday life, how often do you try to find out what God want you to do?

I believe in god as a Heavenly Father who watches over me and to whom I am accountable.

I try hard to carry my religion over into all my other dealings in life.

The Active Regulars (.86)

(In 1968, called Index of Attendance and Giving)

If not prevented by unavoidable circumstances, I attend church: (More than once a week—Twice a year or less).
How would you rate your activity in your congregation?
(Very active--Inactive)

How often have you taken Holy Communion (The Lord's Supper, the Eucharist) during the past year?

During the last year, how many Sundays per month on the average have you gone to a worship service?

How often do you spend evenings at church meetings or in church work?

Church activities (meetings, committee work, etc.) are a major source of satisfaction in my life.

During the last year, how often have you made contributions to the Church IN ADDITION TO the general budget and Sunday School? (Regularly--Never)

I make financial contributions to the Church: (In regular, planned amounts--Seldom or never)

Last year, approximately what percent of your income was contributed to the Church? (1% or less--10% or more)

During the last year, what was the average MONTHLY contribution of your family to your local congregation?
How to Complete This Questionnaire

Please Note:

1. Read each item carefully.

2. Select the best answer that you would give.

3. Write the answer in the box at the right. Make sure that the answer you choose corresponds to the number you place in the box. Please observe that there are no right or wrong answers. The researcher is only interested in the answer you give, nothing else.

4. When you have completed the questionnaire, return it to the principal. Do not talk to anyone about your answer.

5. Do not leave any of the questions blank. Double check to make sure that you did not skip any of the questions.

Thank you for your cooperation.
Here are a few items concerning your perception of your mother or father's behavior towards you. Please select one of the following statements in each of the questions below, which, in your opinion, best represents your mother or father's behavior. There are no right answers. The researcher is only interested in your opinion. After you have selected your answer, mark the number in the box on the right hand side of your questionnaire.

For example:

She/He finds it difficult to punish me.

1. Never  
2. Only once in a while  
3. Sometimes  
4. Usually  
5. Almost Always

1. She/He comforts and helps when I have troubles.

1. Never  
2. Only once in a while  
3. Sometimes  
4. Usually  
5. Almost Always

2. She/He makes me feel I can talk with her/him about everything.

1. Never  
2. Only once in a while  
3. Sometimes  
4. Usually  
5. Almost Always

3. She/He makes me feel she/he is there if I need him/her.

1. Never  
2. Only once in a while  
3. Sometimes  
4. Usually  
5. Almost Always
4. When she/he punishes me, she/he explains why.

1. Never
2. Only once in a while
3. Sometimes
4. Usually
5. Almost Always

5. When she/he wants me to do something, she/he explains why.

1. Never
2. Only once in a while
3. Sometimes
4. Usually
5. Almost Always

6. I know what she/he expects of me and how she/he wants me to behave.

1. Never
2. Only once in a while
3. Sometimes
4. Usually
5. Almost Always

7. When I do something she/he doesn't like, I know exactly what to expect of her/him.

1. Never
2. Only once in a while
3. Sometimes
4. Usually
5. Almost Always

8. She/He expects me to keep my things in good order

1. Never
2. Only once in a while
3. Sometimes
4. Usually
5. Almost Always

9. She/He wants to know where I am going when I go out.

1. Never
2. Only once in a while
3. Sometimes
4. Usually
5. Almost Always
10. She/He expects me to tell her/him exactly how I spend my pocket money.
   1. Never
   2. Only once in a while
   3. Sometimes
   4. Usually
   5. Almost always

11. She/He helps me with homework or lessons, if there is something I don't understand.
   1. Never
   2. Only once or twice a year
   3. About once a month
   4. About once a week
   5. Almost every day

12. She/He teaches me things I want to learn.
   1. Never
   2. Only once or twice a year
   3. About once a month
   4. About once a week
   5. Almost every day

13. She/He encourages me to try new things on my own.
   1. Never
   2. Only once in a while
   3. Sometimes
   4. Usually
   5. Almost always

14. She/He lets me make my own plans about things I want to do even though I make a few mistakes.
   1. Never
   2. Only once in a while
   3. Sometimes
   4. Usually
   5. Almost always

15. She/He lets me off lightly when I do something wrong.
   1. Never
   2. Only once in a while
   3. Sometimes
   4. Often
   5. Very often
16. She/He cannot bring herself/himself to punish me.
   1. Never
   2. Only once in a while
   3. Sometimes
   4. Often
   5. Very often

17. She/He expects me to help around the house.
   1. Never
   2. Only once or twice a year
   3. About once a month
   4. About once a week
   5. Almost every day

18. She/He keeps after me to do well in school.
   1. Never
   2. Only once in a while
   3. Sometimes
   4. Often
   5. Very often

19. She/He worries that I cannot take care of myself.
   1. Never
   2. Only once in a while
   3. Sometimes
   4. Often
   5. Very often

20. She/He won't let me go places because something might happen to me.
   1. Never
   2. Only once in a while
   3. Sometimes
   4. Often
   5. Very often

21. When I do something she/he doesn't like she/he acts hurt and disappointed.
   1. Never
   2. Only once in a while
   3. Sometimes
   4. Oftenly
   5. Very often
22. She/He punishes me by trying to make me feel guilty and ashamed.
1. Never
2. Only once in a while
3. Sometimes
4. Often
5. Very often

23. She/He punishes me by not allowing me to be with my friends.
1. Never
2. Only or twice a year
3. About once a month
4. About once a week
5. Every day

24. She/He punishes me by not letting me use my favorite things for a while.
1. Never
2. Only or twice a year
3. About once a month
4. About once a week
5. Every day

25. She/He nags at me.
1. Never
2. Only or twice a year
3. About once a month
4. About once a week
5. Every day

26. She/He scolds me.
1. Never
2. Only or twice a year
3. About once a month
4. About once a week
5. Every day

27. She/He slaps me.
1. Never
2. Only or twice a year
3. About once a month
4. About once a week
5. Every day
28. She/He spanks me.
   1. Never
   2. Only or twice a year
   3. About once a month
   4. About once a week
   5. Every day

29. She/He says she/he will give me a spanking if I don't behave better.
   1. Never
   2. Only or twice a year
   3. About once a month
   4. About once a week
   5. Every day

30. She/he keeps after me to do better than other children.
   1. Never
   2. Only once in a while
   3. Sometimes
   4. Often
   5. Very often

Now that you have completed this section of the questionnaire, please take a few moments to go through the questions once more to ensure that you have answered all of the questions. When you are sure that you have not omitted any, take your completed questionnaire to the person administering the questionnaire. Do not talk to anyone, and do not write your name anywhere on this questionnaire. Thank you for your time and cooperation. You have been most helpful.
## Parent Practice Dimensions and Variables

### A. Support

1. **Nurturance**
   - She is comfortable and helps me when I have troubles.
   - She makes me feel I can talk with her about everything.
   - She makes me feel she is there if I need her.
2. **Principled Discipline**
   - When she wants me to do something, she explains why.
3. **Instrumental Companion**
   - She helps me with homework or lessons, if there is something I don't understand.
4. **Consistency of Expectation**
   - She teaches me things I want to learn.
5. **Encouragement of Autonomy**
   - I know what she expects of me and how she wants me to behave.
6. **Indulgence**
   - When I do something I don't like, I know exactly what to expect of her.
7. **Consistency of Expectation**
   - She encourages me to try new things on my own.
8. **Principled Discipline**
   - She lets me make my own plans about things I want to do, even though I might make a few mistakes.
9. **Indulgence**
   - She lets me off lightly when I do something wrong.
10. **Consistency of Expectation**
    - She teaches me things I want to learn.

### B. Demanding

7. **Prescription of Responsibilities**
   - She keeps after me (Eng.: keeps on at me) to do well in school.
8. **Achievement Demands**
   - She keeps after me (Eng.: keeps on at me) to do better than other children.
9. **Control**
   - She wants to know exactly where I am going when I go out.
10. **Protectiveness**
    - She worries that I cannot take care of myself.
11. **Physical Punishment**
    - She nags at me.
12. **Deprivation of Privileges**
    - She spanks me (Eng.: smacks me).
13. **Scolding**
    - She nags at me.
14. **Affective Punishment**
    - She starts me.
15. **Deprivation of Privileges**
    - She gets me.
16. **Prescription of Responsibilities**
    - She scolds me.
17. **Control**
    - She nags at me.
18. **Protectiveness**
    - She worries that I cannot take care of myself.
19. **Physical Punishment**
    - She nags at me.
20. **Deprivation of Privileges**
    - She spanks me (Eng.: smacks me).
21. **Scolding**
    - She nags at me.

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APPENDIX 3

TABLES
**TABLE 34**
SUMMARY OF SECONDARY SCHOOLS WITH TOTAL ENROLLMENT FOR FORMS 3 AND 4 AND TOTAL NUMBERS CHOSEN FROM SCHOOLS

<table>
<thead>
<tr>
<th>Schools</th>
<th>No. Enrolled</th>
<th>No. Participated</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Secondary</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*All Saints</td>
<td>182</td>
<td>70</td>
</tr>
<tr>
<td>Antigua Grammar School</td>
<td>147</td>
<td>--</td>
</tr>
<tr>
<td>Antigua Girls High School</td>
<td>121</td>
<td>--</td>
</tr>
<tr>
<td>Clare Hall Secondary</td>
<td>140</td>
<td>--</td>
</tr>
<tr>
<td>Jennings Secondary</td>
<td>125</td>
<td>--</td>
</tr>
<tr>
<td>*Ottos Comprehensive</td>
<td>250</td>
<td>83</td>
</tr>
<tr>
<td>*Pares Secondary</td>
<td>207</td>
<td>74</td>
</tr>
<tr>
<td>*Princess Margaret Secondary</td>
<td>175</td>
<td>53</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>1,447</td>
<td>280</td>
</tr>
<tr>
<td><strong>Private Secondary</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Christ the King High School</td>
<td>112</td>
<td>25</td>
</tr>
<tr>
<td>*Geffa Dem Secondary School</td>
<td>74</td>
<td>16</td>
</tr>
<tr>
<td>*Goodwill Academy</td>
<td>41</td>
<td>12</td>
</tr>
<tr>
<td>*Pilgrim High School</td>
<td>75</td>
<td>16</td>
</tr>
<tr>
<td>*Seventh-day Adventist Secondary</td>
<td>63</td>
<td>15</td>
</tr>
<tr>
<td>*St. Joseph Academy</td>
<td>104</td>
<td>21</td>
</tr>
<tr>
<td>*Sunny Side Tutorial High School</td>
<td>67</td>
<td>15</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>536</td>
<td>120</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>1,983</td>
<td>400</td>
</tr>
</tbody>
</table>

*Schools from which samples were chosen.*
TABLE 35
MULTIPLE CORRELATION OF ALL INDEPENDENT VARIABLES WITH EACH DIMENSION OF RELIGIOSITY

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>MR</th>
<th>$R^2$</th>
<th>Levels of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creedal Assent</td>
<td>.488***</td>
<td>.239</td>
<td>.000</td>
</tr>
<tr>
<td>Devotionalism</td>
<td>.386</td>
<td>.149</td>
<td>.097</td>
</tr>
<tr>
<td>Church Attendance</td>
<td>.483***</td>
<td>.234</td>
<td>.000</td>
</tr>
<tr>
<td>Organizational Activity</td>
<td>.440**</td>
<td>.202</td>
<td>.001</td>
</tr>
<tr>
<td>Financial Support</td>
<td>.296</td>
<td>.087</td>
<td>.864</td>
</tr>
<tr>
<td>Religious Despair</td>
<td>.435*</td>
<td>.189</td>
<td>.005</td>
</tr>
<tr>
<td>Growth and Striving</td>
<td>.402</td>
<td>.162</td>
<td>.044</td>
</tr>
<tr>
<td>Salience: Behavior</td>
<td>.392</td>
<td>.154</td>
<td>.073</td>
</tr>
<tr>
<td>Salience: Cognition</td>
<td>.466***</td>
<td>.217</td>
<td>.000</td>
</tr>
<tr>
<td>The Active Regulars</td>
<td>.416*</td>
<td>.174</td>
<td>.017</td>
</tr>
</tbody>
</table>

* Significant at the .05 level  
** Significant at the .01 level  
*** Significant at the .001 level
<table>
<thead>
<tr>
<th>The Scales</th>
<th>Correlation Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creedal Assent</td>
<td>1 1.000</td>
</tr>
<tr>
<td>Devotionalism</td>
<td>2 0.41 1.000</td>
</tr>
<tr>
<td>Church Attendance</td>
<td>3 0.22 0.24 1.000</td>
</tr>
<tr>
<td>Organizational Activity</td>
<td>4 0.29 0.44 1.000</td>
</tr>
<tr>
<td>Financial Support</td>
<td>5 0.14 0.72 0.39 1.000</td>
</tr>
<tr>
<td>Religious Despair</td>
<td>6 -0.03 -0.07 -0.06 -0.05 1.000</td>
</tr>
<tr>
<td>Orientation to Growth and Striving</td>
<td>7 0.23 0.60 0.30 0.53 0.33 -0.06 1.000</td>
</tr>
<tr>
<td>Salience:Behavior</td>
<td>8 0.13 0.51 0.31 0.39 0.30 -0.05 0.69 1.000</td>
</tr>
<tr>
<td>Salience:Cognition</td>
<td>9 0.61 0.73 0.29 0.53 0.29 -0.01 0.71 0.45 1.000</td>
</tr>
<tr>
<td>The Active Regulars</td>
<td>0 0.24 0.96 0.74 0.76 0.30 -0.02 0.40 0.53 1.000</td>
</tr>
</tbody>
</table>

TABLE 36
INTERCORRELATION MATRIX OF ALL RELIGIOSITY VARIABLES
<table>
<thead>
<tr>
<th>Religious Dimensions</th>
<th>Alpha Reliability Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creedal Assent</td>
<td>.84</td>
</tr>
<tr>
<td>Devotionalism</td>
<td>.84</td>
</tr>
<tr>
<td>Church Attendance</td>
<td>.82</td>
</tr>
<tr>
<td>Organizational Activity</td>
<td>.81</td>
</tr>
<tr>
<td>Financial Support</td>
<td>.73</td>
</tr>
<tr>
<td>Religious Despair</td>
<td>.79</td>
</tr>
<tr>
<td>Growth and Striving</td>
<td>.79</td>
</tr>
<tr>
<td>Salience: Behavior</td>
<td>.80</td>
</tr>
<tr>
<td>Salience: Cognition</td>
<td>.84</td>
</tr>
<tr>
<td>The Active Regulars</td>
<td>.86</td>
</tr>
</tbody>
</table>
### TABLE 38

**RELIABILITY COEFFICIENT ALPHA OF BRONFENBRENNER PARENT BEHAVIOR INSTRUMENT**

<table>
<thead>
<tr>
<th>Response by Sex</th>
<th>Reliability Coefficient Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female Father</td>
<td>.81</td>
</tr>
<tr>
<td>Female Mother</td>
<td>.69</td>
</tr>
<tr>
<td>Male Father</td>
<td>.86</td>
</tr>
<tr>
<td>Male Mother</td>
<td>.83</td>
</tr>
</tbody>
</table>

Total mean reliability of father's instrument for all respondents .85

Total mean reliability of mother's instrument for all respondents .73
SELECTED BIBLIOGRAPHY


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"Changes in Moral Belief Among Sixth Form Boys and Girls over a Seven Year Period in Relation to Religious Belief, Age, and Sex Differences."

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