

ADOLESCENT PERCEPTIONS OF PARENTAL BEHAVIOR AND
SELF-REPORTS OF INTRINSIC AND EXTRINSIC
RELIGIOSITY: CROSS-SECTIONAL VS.
LONGITUDINAL ANALYSES

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CHAPTER I

INTRODUCTION

While much is known about the current levels of participation by adolescents in various religious activities (e.g., church attendance, youth group attendance), the current religious beliefs of adolescents (e.g., views of God, existence of angels), the current denominational affiliation of adolescents, and the subjective assessment by adolescents of the importance of their religion, less is known about how adolescent religiosity emerges (Regnerus, Smith, & Smith, 2004; Smith, Denton, Faris, & Regnerus, 2002). Previous research on parenting and adolescent religiosity focuses on how parental religiosity relates to adolescent religiosity, with some investigation of parental behaviors as mediators (Simons, Simons, & Conger, 2004). Yet, since adolescents' perceptions of their parents' behaviors relate to a variety of adolescent developmental outcomes (Peterson & Hann, 1999), it is possible that adolescent perceptions of parental behaviors are directly related to adolescent religiosity.

A fundamental issue in the study of religion from social and psychological perspectives is how to define the concept. Beit-Hallahmi and Argyle (1997) describe religion as "a very particular kind of ideology, involving the individual in a unique commitment, in the absence of evidence or rational argument, and in a unique network of relationships, real and imagined" (p. 5). Beit-Hallahmi and Argyle provide a working definition of religion as "a system of beliefs in divine or superhuman power, and practices of worship or other rituals directed toward such a power" (p. 6).

The broad landscape of research in the social psychology of religion is peppered with a variety of terms and measures. Electronic database searches on terms such as religion, religious life, religious experience, religiosity, spirituality, and faith yield long lists of articles numbering in the thousands. Thus, researchers investigating adolescents and religion are challenged to select one area of religion as a focus. The present study focuses on one aspect of religion known as religiosity. According to Reich, Oser, and Scarlett (as cited in Dowling, Gestsdottir, Anderson, von Eye, & Lerner, 2003), religiosity involves “a relation with a particular institutionalized doctrine about a supernatural power, a relation that occurs through affiliation with an organized faith and participation in its prescribed rituals” (p. 254). Religiosity is a multi-dimensional concept that includes attitudes, behaviors, motivations, beliefs, orientations toward the world and to the divine or the holy, proposed answers to existential questions such as death and meaning of life, and associations with other religious and non-religious people (Batson & Ventis, 1982). These definitions of religiosity share at least three key common elements: beliefs and values, intentional behaviors and practices, and important affiliations.

Allport and Ross (1967) propose that one useful approach to understanding religiosity is to focus on an individual’s orientation to or motivation for religiosity. Using this approach, two important motivations are intrinsic and extrinsic religiosity. Intrinsic religiosity is an orientation toward religion focused on internal motivation to live out the precepts of one’s faith, and if possible, to bring one’s life priorities into accord with one’s religious beliefs (Allport & Ross, 1967). Extrinsic religiosity describes an instrumental or utilitarian motivation in which religion is used to satisfy one’s own needs, such as psychological security (Allport & Ross; Kahoe, 1985). The present study focuses on

adolescent reports of intrinsic and extrinsic religiosity as meaningful ways of understanding adolescents' orientation toward religion.

Adolescent religiosity is an important topic to consider because of the important social benefits derived from religious faith and the emotional and psychological well being that accrues to adolescents with a religious faith (Donahue & Benson, 1995; Smith, 2005). Donahue and Benson concluded that religious beliefs serve as constraining factors in antisocial behavior and as contributing variables to adolescent well being and prosocial development. Specifically, Donahue and Benson posited that religion is associated with factors such as the possession of prosocial values and behaviors (such as the importance helping others), mental health measures (such as suicide ideation, suicide attempts, and self-esteem), as well as the avoidance of certain at-risk behaviors (such as suicidal ideation, substance abuse, premature sexual involvement, and other delinquency). King and Furrow's (2004) literature review reached a similar conclusion noting that religiosity both promotes positive development and offers protection against risk behavior.

In a review of previous studies, Smith (2005) found a positive relationship between parental religiosity and adolescent religiosity. Yet, the quality of parent-child relationships is negatively related to later alienation from parental religious values during young adulthood (Dudley, 1978; Hunsberger, & Brown, 1984). Myers (1996) found that moderate parental strictness and high levels of parental support during adolescence were associated with reports of higher religiosity during adulthood. Additionally, Bao, Whitbeck, Hoyt, and Conger (1999) found that adolescent acceptance of parental religious beliefs was moderated by adolescent perception of parental acceptance and support. Despite the evidence that parental behaviors relate to religiosity during young

adulthood, research is needed to examine whether adolescent perceptions of parental behavior early in adolescence directly relates to adolescent religiosity during the early and later years of high school.

Because of the role that adolescent religiosity seems to play in overall adolescent well-being, because of the limited information on how religiosity changes over time, and because of evidence that adolescent perceptions of parental behaviors and adolescent religiosity are related, additional study is needed to consider whether cross sectional or longitudinal models explain more variation in adolescent religiosity. Based on these ideas, the current study examined adolescent reports of four parental behaviors (parental support, parental induction, parental monitoring, and parental punitiveness) and two aspects of religiosity (intrinsic religiosity and extrinsic religiosity) to investigate the relationship between perception of parental behaviors in the early years of high school and current and later religiosity.

Background of the Problem and Rationale

A majority of Americans describe themselves as religious. In a poll conducted by the American National Election Studies (2002), 75% of the respondents said that religion was an important part of their life, 56% said their religion provided “quite a bit” or “a great deal” of guidance in their daily living, and 55% attended church at least monthly. In a study that utilized a large nationally representative sample of 8th, 10th, and 12th-grade students, Wallace, Forman, Caldwell, and Willis (2003) found that 60% of the sample said that religion was an important part of their life, 50% of the adolescents attended

religious services regularly, and the vast majority reported an affiliation with a specific religion.

Research on positive adolescent development and religiosity is a growing area of research focus (Furrow, King, & White, 2004). This research literature concludes that growing up in a religious home and participating in religious communities are positively related to healthy adolescent development (Regnerus et al., 2004). Religious communities hold potential as valuable sources of emotional support and behavioral control conducive to individual growth and development (Thomas & Carver, 1990).

The adolescent years are a period of considerable physical, cognitive, psychological, and social change (Steinberg, 2001). Identity formation is a significant component of healthy adolescent development. Since identity development includes establishing a sense of values and beliefs; identity often includes decisions about religion and its importance (Furrow et al., 2004). Over the past century, scholars identified the adolescent years as an important time for the development of religiosity (Beit-Hallahmi & Argyle, 1997). Therefore, it is important to understand factors associated with adolescent religiosity (Erickson, 1992; Francis & Gibson, 1993).

Although a majority of adolescents report that religion is an important part of their lives, overall religious participation tends to decline through the adolescent years (Smith et al., 2002). In contrast, Beit-Hallahmi and Argyle (1997) note that some studies report an overall decline in religiosity during the adolescent years, while other studies identify adolescence as the peak time for making religious commitments. Beit-Hallahmi and Argyle posit that this apparent contradiction may be an artifact of the use of cross-sectional data which may conceal the simultaneous moving by some adolescents toward

and by other adolescents away from religiosity during this time. More specifically, as adolescents experience an intensified awareness of values, identity, and religious beliefs, there may be areas of religiosity that are higher or lower at particular points in time.

The seemingly contradictory finding about reduced and increased adolescent commitment to religion may be partially explained by exploring how previous research sampled and measured the concept. For example, King, Elder, and Whitbeck (1997), using a sample of 365 white, two-parent families from the Iowa Youth and Families Project that followed rural youth from the 7th to 10th grades, found a significant decline in church attendance. However, they also found a significant increase in the proportion of youth who were involved in church-related activities such as youth group and choir. According to King et al., religiosity seems to remain stable for adolescents over the early adolescent years, but that apparent stability may reflect equal numbers of adolescents becoming more religious and adolescents dropping out of religious activities.

While some research examined the relationship between parental religiosity and adolescent religiosity, fewer researchers have looked at the broader aspects of parent-child relationships and adolescent religiosity over time. According to Whitbeck, Simons, Conger, and Lorenz (1989), children who viewed their parents as competent were more likely to accept their parents' religious values. In addition, Bao et al. (1999) found that adolescents who perceived relationships with their parents to be warm, close, and supportive were more likely to conform to parental religious values. Allport (1960) believed that the development of intrinsic religiosity in children was associated with being raised in an environment characterized by trust and security that allowed for reciprocity as children matured.

Himmelfarb (1979) suggested that one mechanism for parental influence on adolescent religiosity was “channeling” children into groups and activities that emphasized the parents’ own religious values. Himmelfarb studied Jewish families and concluded that parents often directed their children into groups and activities that served to reinforce the values taught in the home. Cornwall (1988) also found this pattern of channeling among a sample of Mormons. The channeling reinforced the values taught in the home and solidified the connections with the religious community and set a pattern for future activity that in turn strengthened the connection to the community. Martin, White, and Perlman (2003) retested the channeling concept and confirmed that faith maturity was directly related to influences from peers, congregations, and parents. While Cornwall concluded that primacy of religious influence might shift from parents to peer group, Martin et al.’s research supports the work of Myers (1996) who argued that parental influences on adolescent religiosity have “considerable staying power even as off-spring move out of the home and form independent households” (p. 864).

Researchers have found that an authoritative parental style, characterized by both moderate levels of parental control and high levels of parental support, assisted children and adolescents in developing psychosocial maturity, a willingness to cooperate with peers and adults, an attitude of responsible independence, and values and skills that foster academic success (Robinson, Mandleco, Olsen, & Hart, 1995). Giesbrecht (1995) found correlations between this same set of parental variables(authoritative, supportive, and non-permissive) and adolescent intrinsic religiosity. Authoritative, supportive, and non-permissive parenting make it more likely that adolescents and parents will co-construct a religiosity that will be motivated by internal desires rather than external compliance

(Potvin & Sloane, 1985). The eventual goal of adolescent internalization of religious values could be short-circuited by parent-child relations that are characterized by too much control (Potvin & Sloane). In short, according to Giesbrecht, “authoritative and non-permissive parenting appeared to be key elements in explaining adolescent intrinsic commitment, and their absence was related to adolescent religiosity as a source of psychological or social benefit” (p. 235).

Parental behaviors appear to be directly related to adolescent religiosity (Gunnoe, & Moore, 2002; Hyde, 1990). Ozorak (1989) found a connection between adolescents’ willingness to accept and embrace parental values and measures of closeness in the parent-child relationship and parental management strategies. Smith (2005) found that adolescents who reported more positive relationships with their parents were also more likely to report greater religious devotion. One way to conceptualize the relationship between parental behaviors and adolescent religiosity focuses on symbolic interaction theory.

Theoretical Framework

Symbolic Interaction Theory and Adolescent Religiosity

Scholars using symbolic interaction theory propose that we are not born with a sense of self but rather develop a sense of self through symbolic communication with the closest and most significant people in our lives and through interaction with the broader social environment (Steinmetz, 1999). While symbolic interaction theory assumes that infants are born asocial, social influence enters their lives from their earliest social interactions (LaRossa & Reitzes, 1993). Mead (1934) suggested that meaning was first

associated with social actions as children interacted with significant others (such as parents). Social actions that develop meaning in primary relationships are later incorporated into interactions with generalized others (or relationships beyond the primary relationships).

Mead (1934) saw the self as developing in two stages: the stages of play and game. In the play stage, a child takes on one role after another and performs each role as they encounter it in their environment. The symbols and gestures are used by the child, often without understanding. In the game stage, children understand the various roles of all the members of the group and are able to place themselves in relationship to the others and use symbols and gestures as the others would use them. The group into which individuals place themselves is known as the “generalized other.” According to Mead, “it is in the form of the generalized other that the social process influences the behavior of the individuals involved in it . . . the community exercises control over the conduct of its individual members” (p. 155). Further, the meanings associated with social interactions combine over time to provide a sense of self. McCall and Simmons (1982) suggested that individuals gradually develop a sense of self that forms the core identity for future social interactions.

According to symbolic interaction theory, children are socialized toward a coherent sense of self and identity (LaRossa & Reitzes, 1993). One key part in the process of socialization involves learning roles that are valued by the specific set of social relationships in a person’s life (Steinmetz, 1999). Socialization, however, is more than being taught conformity to or memorization of societal expectations and roles; it is a complex process in which children participate in the formation of a personal identity and

actively learn a variety of roles (LaRossa & Reitzes). Once a core identity (or sense of self) is developed, people are motivated to act certain ways in order to maintain the consistency of that sense of self (LaRossa & Reitzes). Specifically, this sense of self is linked in the research literature to conformity, interpersonal attraction, moral behavior, educational orientations, and various aspects of personality and mental health (LaRossa & Reitzes).

A sense of self is developed in social interaction with people who are close, who are deemed important, who are valued, and who are seen as significant to one's physical and emotional well-being (Whitbeck & Gecas, 1988). The relationships that are most valued and the people on whom a person most depends for survival and approval are likely to be the most powerful socialization agents in their lives (Steinmetz, 1999). Parents, therefore, play a critical part in the process of identity formation, including the processes of establishing religiosity. The expressions of worth and value youth hear in interaction with their parents are important to a child's sense of self-worth (Peterson & Hann, 1999). In contrast, when coercion and inconsistent control characterize the child's interactions with parents, self-doubt and insecurity are more likely to arise (Peterson & Hann).

Using symbolic interaction theory as the conceptual framework for the current research is consistent with previous explanations of the relationship between adolescent perception of parental behaviors and adolescent religiosity. Dudley (1978) indicated that alienation from religion reflects the rejection of parents and authority figures rather than the rejection of doctrine and beliefs. According to Dudley, alienation from religion was

positively correlated with authoritarianism and harsh relationships with parents and authority figures.

Giesbrecht (1995) observed that “adolescents with a strong sense of personal identity are able to establish positive identifications with parents and freely and consciously internalize parental religious values” (p. 229). While living with parents, children do much more than just learn a set of behaviors that may or may not be religious in nature. Adolescents engage in the process of establishing an overall sense of self within which religious behaviors and attitudes may or may not play a significant role. According to symbolic interaction theory, the desire to have and maintain a consistent sense of self serves as a powerful motive for behavior (LaRossa & Reitzes, 1993).

In a sample of adults, Willits and Crider (1989) found that the relationship of parental behaviors to adolescent and then young adult religiosity changed over time. They concluded that it was the current social location of the respondents rather than earlier socialization that was the more salient issue related to adult religiosity. This is consistent with symbolic interaction theory which would affirm that the strongest influences in people’s lives are those which are most important at the moment (Mead, 1934). Using data on adults gathered from the General Social Survey, Ploch and Hastings (1998) found that the current social location of the respondents explained current religious behavior to a greater extent than did social history. Martin et al. (2003) analyzed data on adolescent religiosity from 2,379 adolescents (grades seven to twelve) representing several major U.S. Protestant denominations and explored the adolescents’ interactions with church, parents, and peers. The data suggested that religiosity had a

significant direct relationship with all three variables. Martin et al. also found no indication of a decline in parental influence on religiosity during the adolescent years.

Using symbolic interaction theory, extrinsic religiosity can be explained, in part, as expectations experienced by an individual as part of their social context. According to Stryker (1980), “persons who act in the context of organized patterns of behavior, i.e., in the context of social structure, name one another in the sense of recognizing one another as occupants of positions. When they name one another, they invoke expectations with regard to each other’s behavior” (p. 54). The expectations embedded within families will differ depending upon how much variety is allowed by the role flexibility of the family. Again, according to Stryker, “some structures are open, others relatively closed with respect to novelty in roles and in role enactments or performances. All structures impose some limits on the kinds of definitions that may be called into play and thus limit the possibilities for interaction” (p. 55).

Intrinsic religiosity is formed, like extrinsic religiosity, in the context of interactive situations (Stryker, 1980). Intrinsic and extrinsic religiosity differ in their definition of the situation. The person reporting high intrinsic religiosity acts based on internalized expectations based in their sense of self that has developed over time in their interactions with others. The person reporting high extrinsic religiosity is more likely to act based on their perception of the expectations implicit in their definition of the situation and sometimes in conflict with their sense of self. According to Stryker, “since societies are complex and differentiated systems, persons are typically categorized in terms of multiple positions at least some of which are likely to provide conflicting or contradictory cues to behavior and consequently acquire no clear expectations or means

of organizing responses” (p. 58). The adolescent may find themselves with contradictory role expectations in their family and in their broader network. Extrinsic compliance with the role expectations of parents could be a tool to maintain a sense of self and a connection with other important groups.

Intrinsic religiosity, like extrinsic religiosity, develops through socialization. Socialization is the process by which a person becomes “incorporated into organized patterns of interaction” (Stryker, 1980, p. 63). Socialization serves a social control function, but it also is the process by which a person incorporates appropriate societal roles into a sense of self, and in turn has the behavior associated with those roles validated (Stryker). When an individual is acting out of their intrinsic religiosity, there is less likelihood of role conflict between the demands of the situation and their internalized self.

Symbolic interaction theory may also give some insight into how religiosity changes over time and between situations. It is likely that when intrinsic religiosity is present that it possesses greater identity salience. Individuals live in complex environments and are called on to play many roles. However, according to Stryker (1980), there is a core self that has a stable set of meanings and that provides some stability to the personality. Individuals may move in and out of certain roles, but the various identities associated with those roles are placed into a hierarchy where the higher the identity salience, the more likely the identity will emerge in situations (McCall & Simmons, 1978). It is likely that as intrinsic religiosity develops in a person that it is assigned high identity salience because it is not associated as much with the situation but with decisions related to the core self. So while different situations might invoke different

aspects of identity, this intrinsic religiosity would remain somewhat consistent and salient. It is also likely that extrinsic religiosity possesses lower identity salience. Given the motivations driving extrinsic religiosity (e.g., utility, need satisfaction, convenience), it is expected that extrinsic religiosity is more a product of the situation in which a person is located at any moment. As the situation changes, other values might displace extrinsic religiosity for the moment in identity salience

In the current study, guided by symbolic interaction theory, it was expected that adolescent perceptions of parental support and parental control, rather than observer or parental report, would explain variation in adolescent religiosity and so data was only gathered from the sample of adolescents. According to White and Klein (2002), “symbolic interactionism, more than any other of the family theories, calls for paying attention to how events and things are interpreted by actors” (p.88). A central premise of symbolic interaction theory is the “definition of the situation.” According to this idea, people respond to situations as they define them rather than on objective reality (Burr, Leigh, Day, & Constantine, 1979). Thus, adolescents respond to their perceptions of parental behaviors rather than to the actual parental behaviors. Previous research on parent-child relations also supports using symbolic interaction to understand how children respond to their perceptions of parents (Peterson & Rollins, 1987).

In summary, adolescents’ reports of their intrinsic and extrinsic religious motivations are very likely related to how they view themselves in relationship to their parents and family. If they feel supported and nurtured instead of pressured and devalued, and if they live within a family structure that promotes independence, well-being and confidence, then they are more likely to demonstrate maturity in a number of areas

including the development of intrinsic religiosity. By contrast, if the adolescent lives within a family environment characterized by punitiveness, harshness, and externally motivated conformity to other parental values and expectations, then they are more likely to develop an externally motivated religiosity.

Parental Behaviors: Theory and Research

Parents use a range of behaviors and strategies to socialize their children. Peterson and Hann (1999) noted that two major categories of parental behaviors are evident in the research literature: parental support and parental control. *Parental support* encompasses variables such as warmth, closeness, and physical affection. According to Peterson and Hann, parental support is positively associated with a range of favorable outcomes in children and adolescents. In general, parental support appears to be a key component of parenting that promotes the development of social competence or the ability to function effectively in the family and broader social environment.

A second dimension of parental behavior, *parental control*, includes the strategies parents use to provide guidance or to influence their offspring (Peterson & Hann, 1999). Significant research attention has focused on the strategies of parental control that are related to the development of social competence. The three parental control variables examined in the current study are induction, punitiveness, and monitoring.

When using induction, parents attempt to control their children through giving information and explaining consequences and possible impacts their personal choices might have on others. When using this strategy, parents try to nurture an internal

motivation and locus of control, win voluntary compliance, and aid the child in developing a sense of self-efficacy (Rollins & Thomas, 1979).

In another form of parental control, parental punitiveness, parents rely on power-assertive techniques such as applying considerable external pressure and coercion with the child to obtain compliance and conformity (Rollins & Thomas, 1979). Parental punitiveness may involve assertive behaviors such as physical force, threats, and/or the deprivation of privileges and tends to encourage children to comply with parental expectations due to external pressure rather than complying based upon an internalization of parental values (Eisenberg & Murphy, 1995).

The third parental control behavior examined in the current study is monitoring. Parental monitoring is a control attempt that involves efforts by parents to carefully supervise their children's schedules, their peer associations, and their movement in the neighborhood and beyond (Peterson & Hann, 1999). Stattin and Kerr (2000) discussed three strategies by which parents might gather information from their children regarding their lives: direct parental supervision of behavior, parental solicitation of information from children, and voluntary self-disclosure by the children of information. Parental monitoring communicates to youth that parents are interested in their friends, activities, and interests and relates to a variety of positive outcomes in adolescents.

Purpose of the Study

Common in the research literature on adolescent religiosity are studies offering a demographic assessment of religious activity, studies demonstrating a connection between parental religiosity and adolescent religiosity, and studies demonstrating a

connection between religiosity and a range of personal wellness variables (Donahue & Benson, 1995; Martin et al., 2003; Smith, 2005). While several studies compared older adolescents to younger adolescents, few have utilized a longitudinal design to track religiosity over time in the same sample (Regnerus et al., 2004; Smith et al., 2002). Further, previous research has not examined the differences between cross-sectional and longitudinal models of the relationship between perception of parental behaviors and adolescent religiosity. In order to address these deficiencies, the present study examined cross-sectional and longitudinal models of how selected demographic and perception of parental behaviors related to variation in adolescent intrinsic and extrinsic religiosity during the early and later years of high school. Further, the current study examined the extent to which adolescent religiosity was stable or changed from the early to the later years of high school.

Importance of the Study

Studying how selected demographic factors and adolescent perceptions of parental behaviors relate to adolescent reports of intrinsic and extrinsic religiosity using cross-sectional and longitudinal models begins to address King et al.'s (1997) concern that scholars know "surprisingly little about developmental patterns of religious practice and belief" across the adolescent years (p. 447). Although several studies demonstrated a connection between parental religiosity and adolescent religiosity, little research has connected different parental behaviors with variation in adolescent religiosity. Parents who value nurturing their children into independence and responsibility must adjust their use of support and control over time in order to accomplish their goal. In the area of

religiosity, relinquishing control can produce significant anxiety. Gaining insight into how parental behaviors and adolescent religiosity are related over time will help parents time their use of behaviors more effectively.

Previous research has often relied on single dimension or frequency-count measures of religiosity and cross-sectional research design. This dissertation extends previous research by using a scale that measures two-dimensions of religiosity and that has previously established and satisfactory reliabilities, and by using both cross-sectional and longitudinal methodology.

This study offers benefits to parents who wish to encourage religiosity in their adolescents by helping them understand the importance of the connection between adolescent perceptions of the overall parent-child relationship and the more specific adolescent perceptions of the overall parent-child relationship and the more specific adolescent perceptions of the overall parent-child relationship. This study also holds benefits for church and other religious leaders by alerting them to the importance of overall parent-child relationships in religious socialization. This study will help religious leaders by clarifying targets for educational and other interventions to assist parents in the task of nurturing the religious faith of their adolescents.

One practical benefit of this study for parents is a better understanding of adolescents' perception of which parental behaviors are most related to the development of religiosity. The results will benefit churches as they plan family enrichment and parent education programs and as they establish expectations for the progression of adolescent religious development. In addition, this research will help strengthen the case for further development of better conceptualizations of the multi-dimensional concept of adolescent religiosity.

Research Questions

Using symbolic interaction theory and existing scholarship on parental behaviors and adolescent religiosity, four research questions were established. Each research question is stated below.

Research Question One. Will adolescents report changes in their intrinsic and extrinsic religiosity between their early and their later years of high school?

Research Question Two. Are there gender of adolescent differences in reports of intrinsic and extrinsic religiosity during the early and later years of high school?

Research Question Three. Will adolescent perceptions of fathers' and mothers' parental behaviors relate to adolescent reports of intrinsic and extrinsic religiosity during the early years of high school?

Research Question Four. Will adolescent perceptions of fathers' and mothers' parental behaviors during the early years of high school relate to adolescent reports of intrinsic and extrinsic religiosity during the later years of high school?

Research Models and Conceptual Hypotheses

The present study examines the research questions using the research models and conceptual hypotheses described below.

Conceptual Hypotheses for Research Question One

Research question one involves the longitudinal question of whether adolescents will report changes in intrinsic and extrinsic religiosity between Time 1 (9th or 10th-grade) and two years later at Time 2 (11th or 12th-grade). Two conceptual hypotheses (Conceptual Hypotheses 1-2) were developed to examine research question one.

Conceptual Hypothesis One (CH₁). Adolescents will report higher intrinsic religiosity during the later years than during the early years of high school.

Conceptual Hypothesis Two (CH₂). Adolescents will report lower extrinsic religiosity during the later years than during the early years of high school.

Conceptual Hypotheses for Research Question Two

Research question two involves the cross sectional examination of whether gender of adolescent differences in adolescent reports of intrinsic and extrinsic religiosity are evident at either Time 1 (9th or 10th-grade) or Time 2 (11th or 12th-grade). Four conceptual hypotheses (CH₃ through CH₆) were developed to test this question.

Conceptual Hypothesis Three (CH₃). During the early years of high school, girls will report higher intrinsic religiosity than boys.

Conceptual Hypothesis Four (CH₄). During the early years of high school, girls will report higher extrinsic religiosity than boys.

Conceptual Hypothesis Five (CH₅). During the later years of high school, girls will report higher intrinsic religiosity than boys.

Conceptual Hypothesis Six (CH₆). During the later years of high school, girls will report higher extrinsic religiosity than boys.

Conceptual Hypotheses for Research Question Three: Cross Sectional Analysis of Perception of Parental Behaviors, and Adolescent Religiosity

Research question three uses cross-sectional examination of adolescent reports of parental behaviors at Time 1 (9th or 10th-grade) and adolescent reports of intrinsic and

extrinsic religiosity at Time 1 (9th or 10th-grade). Two research models were developed to test research question three: one for intrinsic religiosity and one for extrinsic religiosity.

Model 1 (see Figure 1) was developed to examine how adolescent reports of parental behaviors at Time 1 (9th or 10th-grade) relate to reports of intrinsic religiosity at Time 1 (9th or 10th-grade). Four primary conceptual hypotheses (Conceptual Hypotheses 7-10) were included in Model 1 (see Figure 1). In addition, CH₃ was included in the research model to control for possible gender of adolescent differences in the model (see Figure 1).

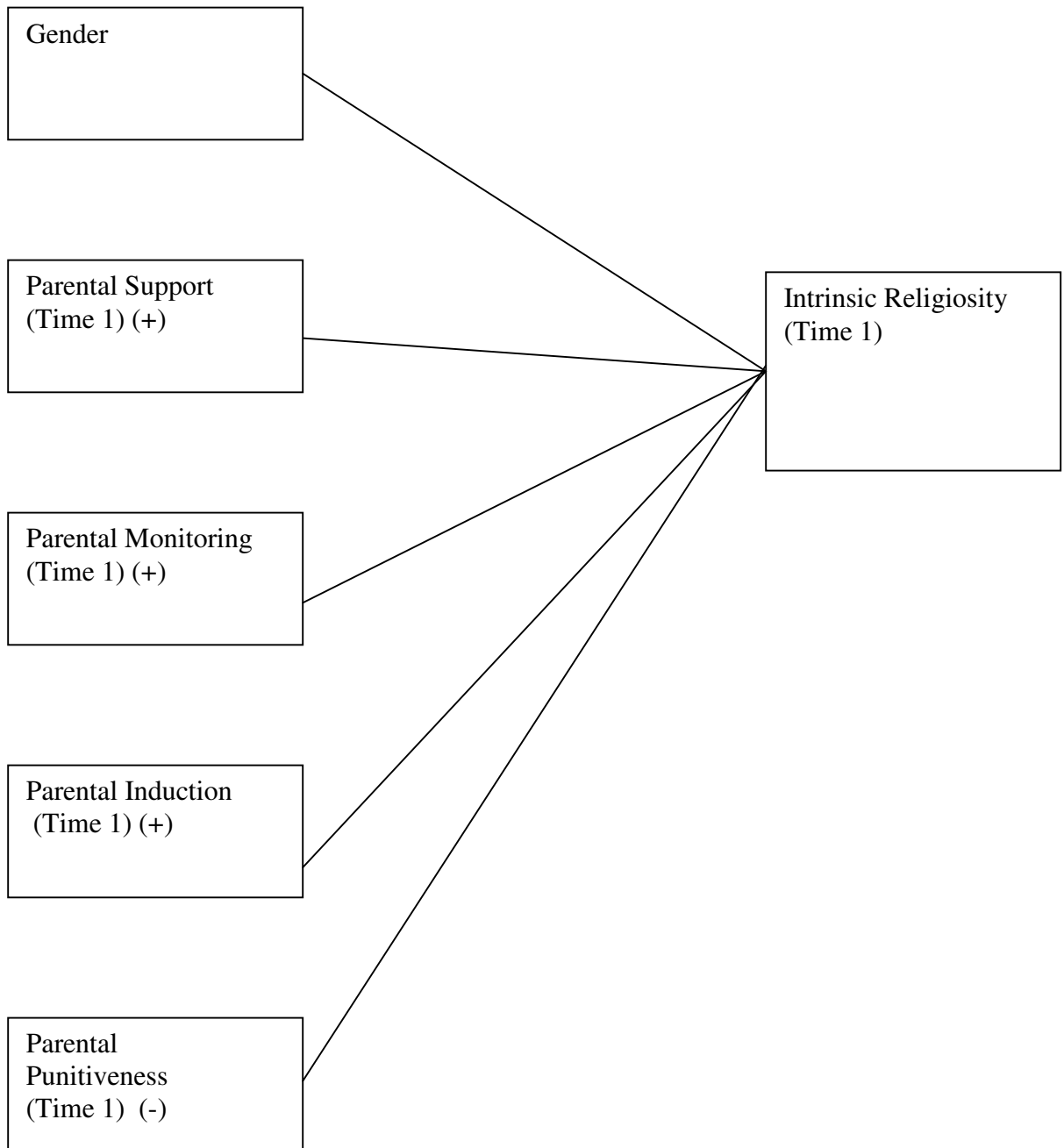
Conceptual Hypothesis Seven (CH₇). During the early years of high school, adolescent reports of fathers' and mothers' support will be positively related to reports of intrinsic religiosity.

Conceptual Hypothesis Eight (CH₈). During the early years of high school, adolescent reports of fathers' and mothers' monitoring will be positively related to reports of intrinsic religiosity.

Conceptual Hypothesis Nine (CH₉). During the early years of high school, adolescent reports of fathers' and mothers' induction will be positively related to reports of intrinsic religiosity.

Conceptual Hypothesis 10 (CH₁₀). During the early years of high school, adolescent reports of fathers' and mothers' punitiveness will be negatively related to reports of intrinsic religiosity.

Figure 1. Model 1: Time 1 Intrinsic Religiosity and Time 1 Parental Behaviors



Model 2 (see Figure 2) was developed to examine how adolescent reports of parental behaviors at Time 1 (9th or 10th-grade) relate to reports of extrinsic religiosity at Time 1 (9th or 10th-grade). Four primary conceptual hypotheses (Conceptual Hypotheses 11-14) were included in Model 2 (see Figure 2). In addition, CH₃ was included in the research model to control for possible gender of adolescent differences in the model (see Figure 2).

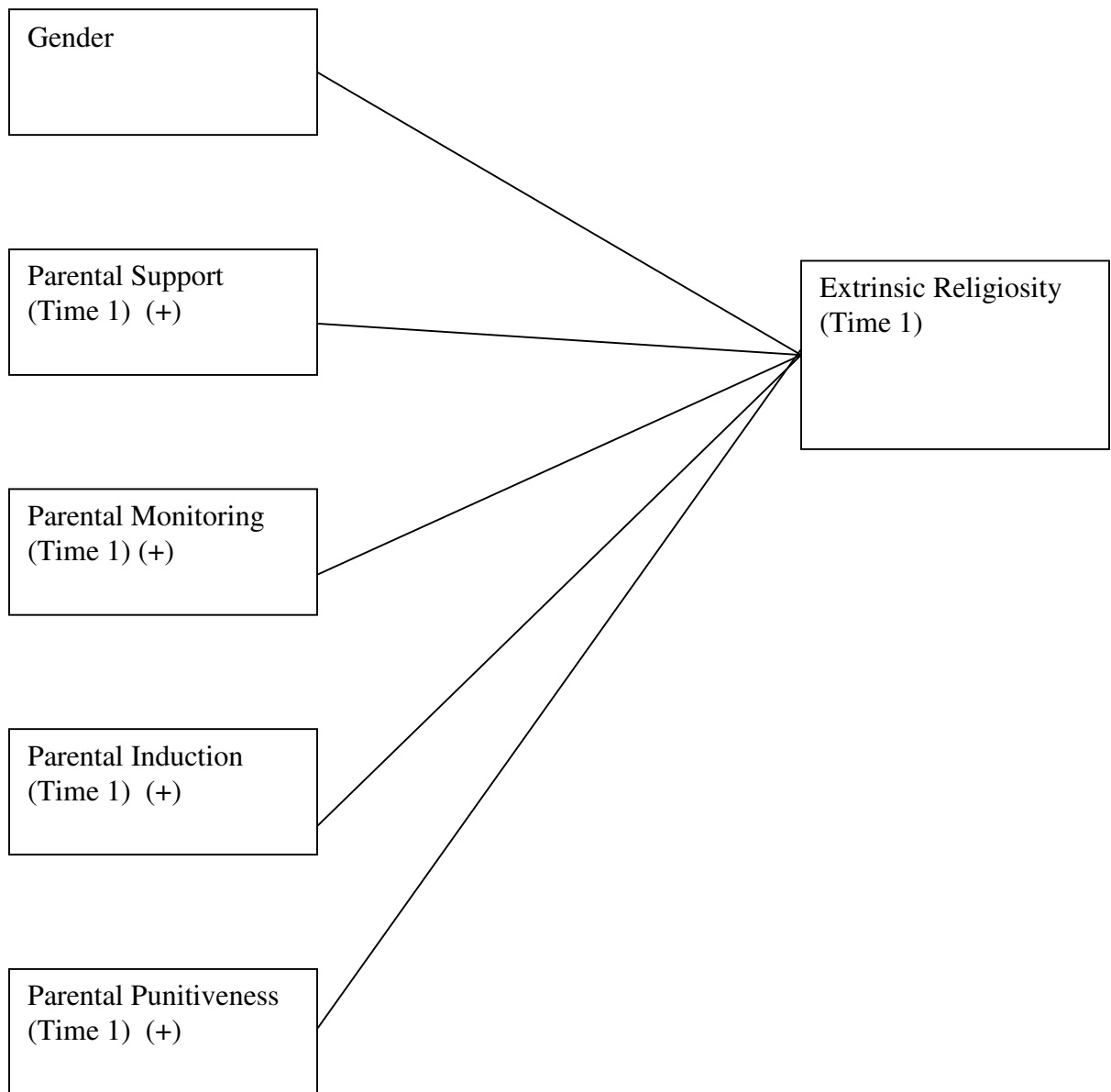
Conceptual Hypothesis 11 (CH₁₁). During the early years of high school, adolescent reports of mothers' and fathers' support will be positively related to reports of extrinsic religiosity.

Conceptual Hypothesis 12 (CH₁₂). During the early years of high school, adolescent reports of mothers' and fathers' monitoring will be positively related to reports of extrinsic religiosity.

Conceptual Hypothesis 13 (CH₁₃). During the early years of high school, adolescent reports of mothers' and fathers' induction will be positively related to reports of extrinsic religiosity.

Conceptual Hypothesis 14 (CH₁₄). During the early years of high school, adolescent reports of mothers' and fathers' punitiveness will be positively related to reports of extrinsic religiosity.

Figure 2. Model 2: Time 1 Extrinsic Religiosity and Time 1 Parental Behaviors



Conceptual Hypotheses for Research Question Four: Longitudinal Analysis of Perception of Parental Behaviors, and Adolescent Religiosity

Research question four uses longitudinal examination of adolescent reports of parental behaviors at Time 1 (9th or 10th-grade) and adolescent reports of intrinsic and extrinsic religiosity at Time 2 (11th or 12th-grade). Two research models and corresponding conceptual hypotheses were developed to test research question four. Model 3 (see Figure 3) was developed to examine how adolescent reports of parental behaviors at Time 1 (9th or 10th-grade) relate to reports of intrinsic religiosity at Time 2 (11th or 12th-grade). Four primary conceptual hypotheses (Conceptual Hypotheses 15-18) were included in Model 3 (see Figure 3). In addition, CH₃ was included in the research model to control for possible gender of adolescent differences in the model (see Figure 3).

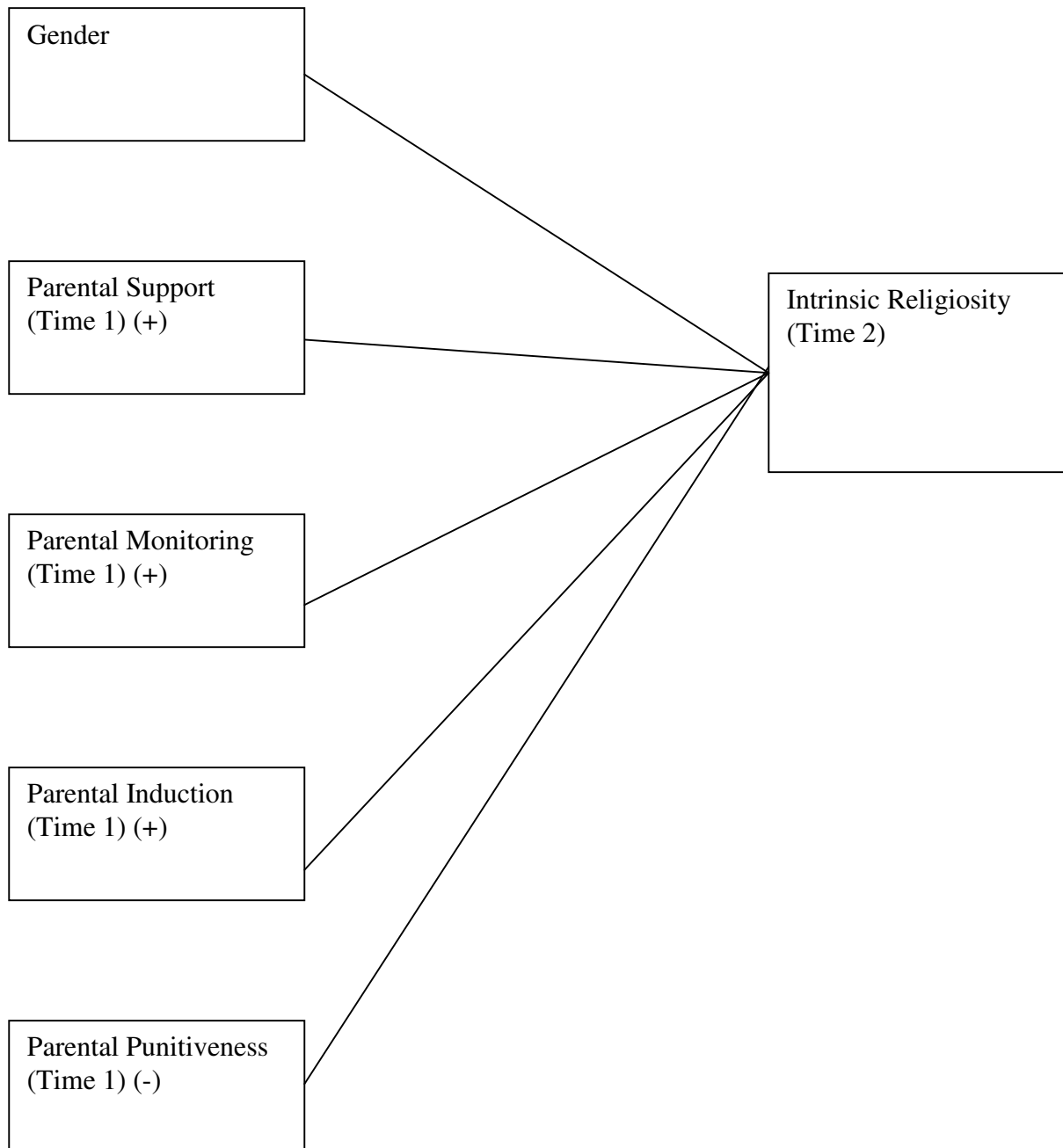
Conceptual Hypothesis 15 (CH₁₅). Adolescent reports of fathers' and mothers' support during the early years of high school will be positively related to reports of intrinsic religiosity in the later years of high school.

Conceptual Hypothesis 16 (CH₁₆). Adolescent reports of fathers' and mothers' monitoring during the early years of high school, will be positively related to reports of intrinsic religiosity in the later years of high school.

Conceptual Hypothesis 17 (CH₁₇). Adolescent reports of fathers' and mothers' induction during the early years of high school will be positively related to reports of intrinsic religiosity in the later years of high school.

Conceptual Hypothesis 18 (CH₁₈). Adolescent reports of fathers' and mothers' punitiveness during the early years of high school will be negatively related to reports of intrinsic religiosity in the later years of high school.

Figure 3. Model 3: Time 2 Intrinsic Religiosity and Time 1 Parental Behaviors



Model 4 (see Figure 4) was developed to examine how adolescent reports of parental behaviors at Time 1 (9th or 10th-grade) relate to reports of extrinsic religiosity at Time 2 (11th or 12th-grade). Four primary conceptual hypotheses (Conceptual Hypotheses 19-22) were included in Model 4 (see Figure 4). In addition, CH₃ was included in the research model to control for possible gender of adolescent differences in the model (see Figure 4).

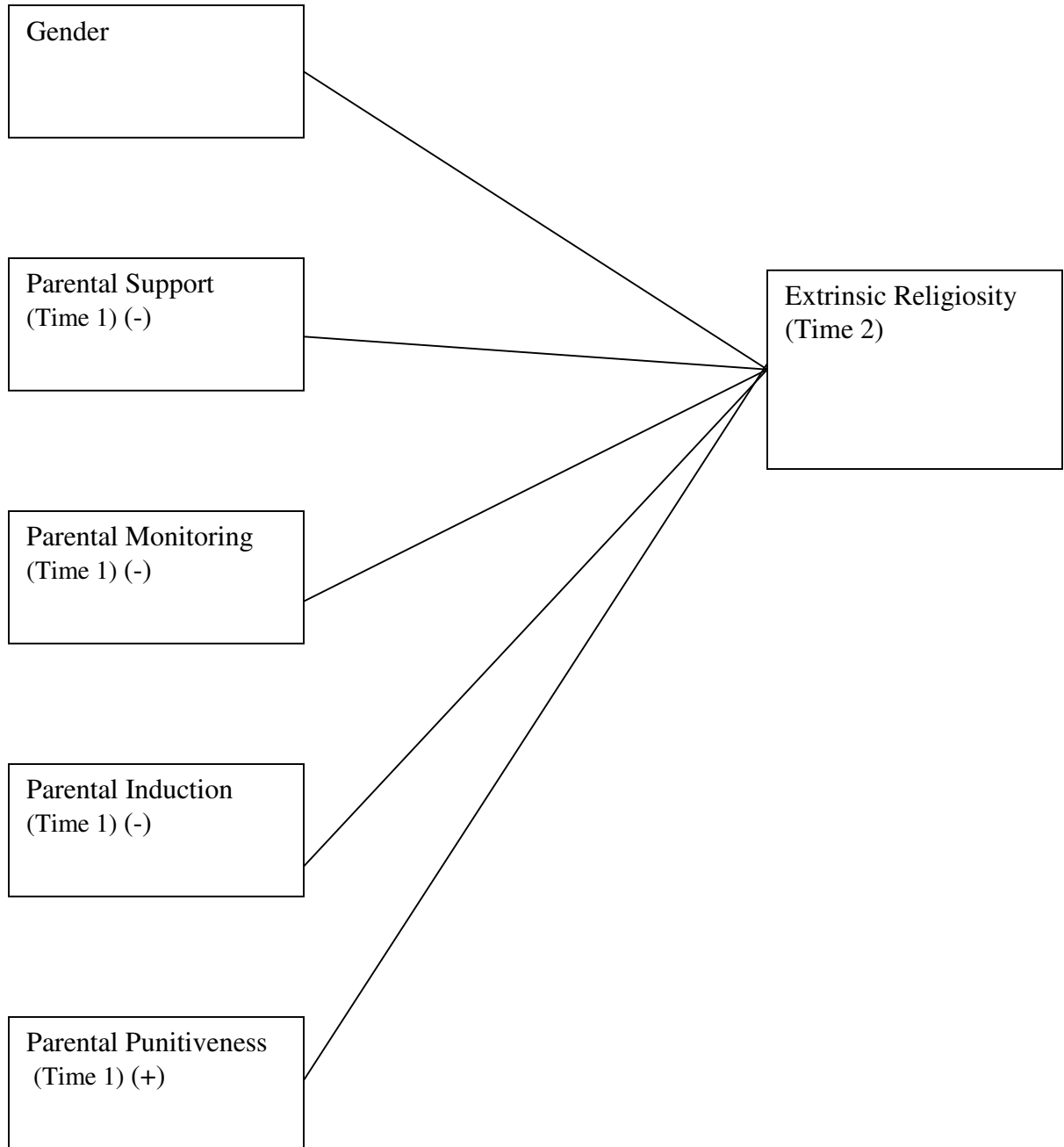
Conceptual Hypothesis 19 (CH₁₉). Adolescent reports of mothers' and fathers' parental support in the early years of high school will be negatively related to reports of extrinsic religiosity in the later years of high school.

Conceptual Hypothesis 20 (CH₂₀). Adolescent reports of mothers' and fathers' parental monitoring in the early years of high school will be negatively related to reports of extrinsic religiosity in the later years of high school.

Conceptual Hypothesis 21 (CH₂₁). Adolescent reports of mothers' and fathers' parental induction in the early years of high school will be negatively related to reports of extrinsic religiosity in the later years of high school.

Conceptual Hypothesis 22 (CH₂₂). Adolescent reports of mothers' and fathers' parental punitiveness in the early years of high school will be positively related to reports of extrinsic religiosity in the later years of high school.

Figure 4. Model 4: Time 2 Extrinsic Religiosity and Time 1 Parental Behaviors



Theoretical and Conceptual Limitations

Although some gaps were filled in the current research on parental behaviors and adolescent religiosity with this study, certain conceptual and theoretical limitations persist. Regarding symbolic interaction theory, even proponents of the theory mention its limits regarding a failure to adequately explain or give room to human emotions (White & Klein, 2002; LaRossa & Reitzes, 1993). The absence of emotion in the theory is a drawback particularly with a subject as potentially sensitive as religiosity.

One of the strengths of symbolic interaction theory is that it provides information about how interactions with others influence us (Burr et al., 1979). However, a potential drawback of the current study, especially given the symbolic interaction theory framework, is a design that does not account for the possibilities of bi-directional and reciprocal influences of parents and children. In addition, the design did not account for influences on adolescent religiosity beyond the parent-child relationship such as peers, church, or culture.

While many previous studies examining adolescent religiosity relied on cross-sectional designs, a strength of this study is the use of a longitudinal design. However, gathering data over time increases the possibility of introducing error at the points of data collection and data coding. Additionally, sample attrition challenges generalizability because of the possibility that those who did not take the survey at Time 2 differ in significant ways from those who did take the survey.

Finally, studies of religiosity face the challenge of adequately defining and measuring this complex and multi-dimensional concept. Even though the measures of

intrinsic and extrinsic religiosity have been used often with sufficient reliability, they still fail to completely address all the important aspects of religiosity.

Conceptual Definition of Terms

Cross-Sectional Methodology. In a cross-sectional design, data are collected at one point in time, usually across a range of demographic variables such as age or education, with a goal of determining the association between variables (Schutt, 1999).

Extrinsic Religiosity. An orientation toward religion with a more instrumental or utilitarian motivation in which religion is used to satisfy one's own needs, such as psychological security (Allport & Ross, 1967; Kahoe, 1985). According to Spilka (1991), "extrinsics employ their religion opportunistically for security and personal advantage. . . . This was a religion of convenience to be called upon when it serves some immediate purpose, particularly confrontation with crisis" (p. 928).

Intrinsic Religiosity. Internal motivation to live out the precepts of one's faith, and if possible, to bring one's life priorities into accord with one's religious beliefs (Allport & Ross, 1967). According to Spilka (1991), "youth who embrace a committed intrinsic faith emphasize moral principle and a search for truth. They evidence an altruistic-humanitarian, world-minded viewpoint, and oppose prejudice and other forms of social injustice" (p. 928).

Longitudinal Methodology. In a longitudinal design, data are collected at multiple points in time (Schutt, 1999) with the intent of describing patterns of change or perhaps even assessing the possible direction and magnitude of causal relationships among variables (Menard, 1991).

Parental Control. Parental control refers to mothers' or fathers' efforts to provide guidance or to influence their adolescents' behavior (Peterson & Hann, 1999).

Parental Induction. Positive induction is a strategy of firm parental control that emphasizes the communication of clear expectations and the rationale behind those expectations (Peterson & Hann, 1999). The intention of this strategy is to communicate parental rules, boundaries, and/or expectations as well as to offer correction in a way that would foster internalization of the rules, understanding of the reasons for the rules, and realization of the potential positive or negative impact behavior might have on others (Peterson & Hann).

Parental Monitoring. Parental monitoring is a control attempt that involves efforts by parents to carefully supervise their children's schedules, their peer associations, and their movement in the neighborhood and beyond (Peterson & Hann, 1999). This supervision requires that the parents set clear expectations regarding what can and cannot be done and that they carefully follow-up to determine compliance with expectations (Peterson & Hann).

Parental Punitiveness. Parental control behaviors that involve the direct and sometime arbitrary use of force and power and that can include both psychological and physical parental over-control (Peterson & Rollins, 1987). Parents using this type of control seek to force children to comply with expectations using strategies such as hitting, threatening, or yelling (Peterson & Leigh, 1990).

Parental Support. Parental support refers to mothers' or fathers' behaviors that encourage or affirm by showing affection, acceptance, and companionship as well as

verbal and nonverbal expressions of warmth, rapport, and value (Peterson & Hann, 1999; Rollins & Thomas, 1979).

Religiosity. Religiosity is often viewed as both a personal and a social matter surrounded by social sources (Regnerus et al., 2004). Religiosity is a multi-dimensional concept that includes but is not limited to particular behaviors, motivations for behaviors, particular beliefs and orientations toward the world and to the divine or the holy, proposed answers to existential questions such as death and meaning of life, and associations with other religious and non-religious people (Batson & Ventis, 1982). The current study extends the previous research on intrinsic and extrinsic orientation by connecting them to parental behaviors in a longitudinal design.

Summary

Chapter I presents an introduction to the study, background of the problem, theoretical framework, purpose of the study, definition of terms, research questions, research models, conceptual hypotheses, theoretical and conceptual limitations, and importance of the study that served as the focus of this dissertation. Subsequent chapters include (a) a review of relevant literature on religiosity, parental behaviors, and selected demographic factors associated with adolescent religiosity (Chapter II), (b) the method, operational hypotheses, and the limitations of the current study (Chapter III), (c) the results of the statistical testing the operational hypotheses (Chapter IV), and (d) a discussion of the research findings in relation to theory, and research implications of the findings for practice and future research (Chapter V).

CHAPTER II

REVIEW OF LITERATURE

Overview

The goal of this study was to examine cross-sectional and longitudinal models of how gender of the adolescent and adolescent perceptions of parental behaviors relate to variation in adolescent religiosity during the early and later years of high school. The current chapter provides a review of selected scholarship supporting the need for the study proposed in Chapter I. Specifically, the literature review covers the following topics (a) adolescent religiosity as an aspect of adolescent well being, (b) the strengths and weaknesses of the measures for intrinsic and extrinsic religiosity, (c) selected demographic factors that may explain variation in adolescent religiosity, and (d) selected parental behaviors and their relation to adolescent religiosity.

Adolescent Religiosity and Adolescent Well Being

Adolescent well being is generally conceptualized by researchers in two primary ways: (a) the absence of symptoms of mental, physical, or emotional distress and (b) the presence of positive mental, physical, or emotional traits and/or prosocial attitudes, behaviors, or coping skills (Shek, 1998). Researchers examining the negative side of adolescent well being have examined traits such as aggression, criminality (e.g., violence, theft, gang involvement), risky sexual behavior, mood disorders (e.g., depression, bipolar disorder), poor decision-making, impaired identity formation, poor school performance,

distressed family functioning, negative peer interaction, eating disorders, and poor school achievement (Eisenberg & Fabes, 1998; Steinmetz, 1999). Indicators believed to be indicative of the positive development of adolescent well being include life satisfaction, expressed meaning in life, a sense of self-worth, a positive view of the future, self-efficacy, social competence, altruism, empathy, sympathy, positive self-esteem, volunteering, autonomy, sharing, perspective-taking, and intrinsic motivation for helping behaviors (Eisenberg & Fabes; Steinmetz).

Previous research supports a positive relationship between the social and psychological well being of adolescents and a healthy and positive religious faith (King & Furrow, 2004; Furrow et al., 2004). King and Furrow conclude that the promotion of positive adolescent development may emerge, in part, through the positive and intergenerational social ties present in religious communities as well as through the expectation of compliance with an ethical code.

After reviewing the research literature on adolescents and religiosity, Donahue and Benson (1995) concluded that religiosity is generally recognized as a constraining factor in antisocial behavior and a contributing variable to adolescent well being and prosocial development. Smith (2003) reported that various religious measures (especially church attendance and expressed importance of religious faith) were inversely related to a range of adolescent risks such as juvenile drug, alcohol, tobacco use, delinquency, suicide ideation, suicide attempts, depression, and hopelessness. In addition, Smith reviewed multiple studies that noted connections between religiosity and adolescent health-enhancing behaviors such as diet, exercise, sleep, dental hygiene, and seatbelt use.

Dowling et al. (2004) found a positive connection between religiosity and adolescent reports of a positive orientation to the future, a positive identity, positive engagement with school, and the presence of a positive internal moral compass. King and Furrow (2004) summarized their review of research by noting religion contributed positively to adolescent well-being and served as a catalyst to positive development.

There was a consensus among the reviewed articles that religiosity serves to constrain premarital sexual activity (DiBlasio & Benda, 1990; Jensen, Newell, & Holman, 1990; Lock & Vincent, 1995; Thornton & Camburn, 1989). Adolescents who value highly their religion and attend church frequently possess less permissive attitudes and were less experienced sexually (Thornton & Camburn). In a study of 2,143 adolescents between the ages of 14 and 19 from the Church of Latter Day Saints, Chadwick and Top (1993) found that private religious behavior (e.g., reading scriptures, praying privately, and reading church magazines and books) and feelings of integration and acceptance into a body of believers helped constrain adolescents from engaging in delinquent acts against others, participating in victimless delinquent behaviors, and committing delinquent acts against property. The influence of friends and peers was the strongest factor, but religiosity contributed significantly to understanding delinquency.

The benefits of religiosity extend into the social networks of adolescents. King and Furrow (2004) tested the hypothesis that the social resources associated with religion explained the relationship between religion and moral development among adolescents. Data was collected using a 190-item self-report questionnaire from 1,396 adolescents between the ages of 13 and 19 in an urban public high school in the Los Angeles metropolitan area. King and Furrow's findings suggest that religious adolescents engage

in more significant interaction with an intergenerational community that not only teaches ethical standards but also embodies and enacts those standards within a supportive community.

Smith (2005) reported the findings from research conducted by the National Study of Youth and Religion between 2002 and 2003. Using a random-digit-dial method, 3,290 teenagers between ages 13 and 17 were interviewed. Follow-up interviews were done with a subsample of 267 of the adolescents. Smith reported that actively religious teens are less likely to get into trouble (e.g., smoke cigarettes, drink alcohol, cut class, exhibit bad temper, earn poor grades), are more likely to be better consumers of media (e.g., watch TV less frequently, watch fewer violent movies, view pornography less frequently), are more likely to demonstrate restraint sexually (e.g., value waiting until marriage for sex, engage in fewer sexual encounters during adolescent years), are more likely to report greater emotional well-being (e.g., more positive feelings about their body and physical appearance, fewer feelings of sadness and depression, more feelings of meaningful life and positive future), and more likely to report positive ties to adults (e.g., more likely to feel comfortable talking to adults other than parents, less likely to spend afternoons without adult supervision, have a larger network of supportive adults from whom to seek advice). In summary, across a wide range of both positive traits and negative risk factors, religious adolescents are doing noticeably better than adolescents who are disengaged from religion (Smith).

Measuring Religiosity: Intrinsic and Extrinsic Motivation

This review of literature found that studies that include religiosity as a variable were dominated by three approaches to measurement: (a) questions designed to assess the participants' subjective experience of their religious experience, (b) frequency counts of various religious behaviors (e.g., church attendance, prayer, talking to minister, Bible study), and/or (c) a combination of both subjective experiences and frequencies of religious behaviors. The Religious Orientation Scale (Allport & Ross, 1967) that measures intrinsic and extrinsic religiosity falls into the third category because it asks both about the subjective experience of religion and the related behaviors. According to a review of literature done by Trimble (1997), the dimensions of intrinsic and extrinsic religiosity and the Religious Orientation Scale are among the most used strategies for conceptualizing and measuring religiosity. While these instruments have their detractors, they have produced acceptably reliable and valid data over the years of their use (Burriss, 1999; Donahue, 1985; King & Crowther, 2004; Kirkpatrick & Hood, 1990).

The early work on intrinsic and extrinsic religiosity grew out of a perceived contradiction between religiosity and a connection with measures of prejudice, intolerance, and authoritarianism (Batson & Ventis, 1982). In early work, Allport (1960) divided religiosity into two categories: mature and immature. Immature religiosity led one to seek self-gratification and avoid being very reflective (Allport). Mature religiosity, on the other hand, was well differentiated, connected with consistent and positive moral choices, and was the product of complex and critical reflection (Allport). From these conceptualizations, religious people would fall into two categories: those who lived their religion and those who used their religion (Hill & Hood, 1999).

The early work on extrinsic religiosity grew out of research on authoritarian personalities, such as people who were drawn to Nazism (Batson & Ventis, 1982). Maltby and Day (2004) found a significant connection between extrinsic religiosity and negative religious coping as well as with less healthy non religious coping behaviors (mental and behavioral disengagement and denial). Even though extrinsic religiosity has been connected with prejudice, dogmatism, and fear of death, Pargament et al. (1990) found that even the person with extrinsic motivation who “uses” their religion may derive some benefits when confronting negative events. In addition, using religion for self-development, intimacy, and emotional sustenance may yield very different results than using religion for social status or instrumental gain (Pargament et al.).

To examine the components of religiosity from an empirical perspective requires the ability to measure the dimensions of religiosity. Allport and Ross (1967) suggested that a key element in religiosity was the motive or purpose behind an individual’s religiosity. Their work produced a self-report instrument that measured the intrinsic (mature) and extrinsic (immature) dimensions of religiosity. Initially, intrinsic religiosity and extrinsic religiosity were conceptualized as two poles of a continuum. Intrinsic religiosity was on one end of the continuum encompassing an internalized motivation to live out the precepts of one’s faith and, if possible, to bring one’s life priorities into accord with one’s religious beliefs (Allport & Ross). Extrinsic religiosity, on the other hand, was seen as a more instrumental or utilitarian motivation in which religion was used to satisfy one’s own needs, such as psychological security (Allport & Ross; Kahoe, 1985). Although Allport’s original conceptualization placed extrinsic and intrinsic

religiosity on one continuum, later research pointed out that the two dimensions actually might be independent factors (Kahoe, 1985).

The importance of intrinsic and extrinsic religiosity in the lives of adolescents was pointed out by Spilka (1991). According to Spilka, the committed-intrinsic religious adolescent would be characterized by altruism and would oppose prejudice and other forms of social injustice. In addition, committed-intrinsic religiosity would serve as a moral center from which the adolescent would avoid using drugs or engaging in risky sexual activity (Spilka). The adolescent with an extrinsic-consensual orientation would be more opportunistic and utilitarian with their religiosity. According to Spilka, “this is a religion of convenience to be called upon when it serves some immediate purpose, particularly confrontation with crisis” (p. 928).

The concepts of intrinsic and extrinsic religiosity as well as the Religious Orientation Scale used to measure the concepts have been criticized for both conceptual limitations and psychometric inadequacies (Burriss, 1999). In reading the scale, it is clear that the language possesses a Christian bias because it uses questions that ask about “church,” “God,” and “Bible.” In addition, Kirkpatrick (1989) found that the extrinsic religiosity scale subdivides into social oriented and personal oriented extrinsicness.

The seminal work discussing the psychometric concerns of the scales was done by Donahue (1985). Donahue expressed concerns that the Religious Orientation Scale needed more work to insure scale reliabilities across diverse samples (e.g., different ages, nonreligious) and to insure that the test was not subject to the error of response set answers. Donahue also reported that there was evidence that women scored higher on intrinsic religiosity than men but that there was no evidence of a difference by gender on

extrinsic religiosity. In addition, even though theoretically the concepts of intrinsic and extrinsic religiosity should be uncorrelated or negatively correlated, there are some people who score high on both scales. Allport (1960) used the term “muddlehead” to describe these people, other researchers have described them as the “indiscriminately pro-religious” (Hill & Hood, 1999).

Even with the limitations, Donahue (1985) concluded that “intrinsic religiousness serves as an excellent measure of religious commitment, as distinct from religious belief, church membership, liberal-conservative theological orientation, and related measures” (p. 415). Donahue also concluded that extrinsic religiousness “does a good job of measuring the sort of religion that gives religion a bad name” because of its correlation with prejudice, dogmatism, trait anxiety, and fear of death (p. 416).

Selected Demographic Factors and Their Importance To Understanding Adolescent Religiosity

The Relationship of Age and Religiosity

Age is often identified as a factor associated with the development of religiosity. Even though religious conversion (e.g., change from no religious belief to strong belief, change from no religious behavior to significant religious behavior) and/or public commitment (e.g., baptism, confirmation) may occur at any time during one’s life, it is quite often an adolescent phenomenon (Beit-Hallahmi, & Argyle, 1997; Johnstone, 1997; Smith et al., 2002; Spilka, Hood, & Gorsuch, 1985). Religiosity is strongly influenced by the social environment, but it is also a response to developmental issues common to

adolescents: internal pressures, existential questions, dissatisfaction, and a desire to explain and understand life (Batson & Ventis, 1982; Regnerus et al., 2004).

Most research reports an overall decline in religiosity during the adolescent years (Smith et al., 2002). Among the list of explanations for the decline in religiosity are issues such as increased autonomy from the authority of religious parents, increased participation in paid jobs that may compete with religious activities for time, and expansion of available alternative social and recreational activities (Smith et al.). In addition to changes over time that are related to adolescent development, there is the simultaneous shift as a culture away from religion or toward expressions that are increasingly pluralistic (Smith et al.).

Ozorak (1989) suggested there may be a polarization in religiosity during the adolescent years. Ozorak asked a sample of mostly white suburban Boston high school students that included 50 boys and 56 girls from the 9th grade, 71 boys and 79 girls from the 11th and 12th grades, and 55 young men and 79 young women who had graduated within the past three years, how their religious affiliations had changed over the past several years. Ozorak found confirmation of the polarization hypothesis in that the moderate to low religious adolescents had a tendency to report a reduction in religiosity over the past few years while the high religious adolescents had a tendency to report an increase in religiosity over the past few years.

In a review of literature on the religiosity of adolescents spanning the years 1970-1986, Benson, Donahue, and Erickson (1989) reported that several studies noted a steady decline in religious behaviors and attitudes among adolescents ages 10-18. This finding was consistent whether the focus was on early adolescence (ages 10-14) or later

adolescence and high school years (ages 15-18). One explanation of the decline in religiosity was a rejection of the images of religion from earlier in childhood that were more concrete and no longer satisfying or compelling in the older adolescents' increasingly complex world. Another explanation for the decline in religiosity was related to how the construct was measured. This explanation was supported by the fact that measures of religious practice showed more decline than did measures of religious importance (Benson et al.).

In addition to the common finding of a negative correlation between age and religiosity, Sloane and Potvin (1983), using a national probability sample of 1,121 adolescents aged 13-18, also found an age by denomination interaction; the negative correlation held true among Baptists, Catholics, and mainline Protestants, but a negative correlation between age and religiosity was not significant among adolescents from sectarian groups (Pentecostal, Holiness, and Mennonites).

Changes, or more specifically, declines, in religiosity may be an artifact of sampling and measurement. Using a longitudinal sample of college students, Foster and LaForce (1999) found no change in intrinsic religiosity between the freshman and senior years among a sample of students who stayed at that particular college for all four years of their undergraduate education. By contrast, Foster and LaForce found that the scores on the extrinsic religiosity scale for this same group of students dropped significantly ($p < .001$) from a mean of 27.87 in their freshman year to a mean of 24.89 in their senior year. One limitation in the sample was that the researchers started with 402 freshmen students but only 221 of that original group continued their enrollment through their senior year. In addition, the researchers were able to gather data on only 94 (43%) of the

seniors who remained enrolled for all four years. The researchers sought to contact the students who were no longer enrolled and gathered data from 35 subjects or 19.7% of those who had not persisted in their enrollment in the same school. For that group of students the scores on intrinsic religiosity rose slightly from a mean of 18.2 in their freshman year to a mean of 20.42 in their senior year ($p < .05$). There was no statistical difference in the extrinsic religiosity scores. Foster and LaForce (1999) offered the explanation that it was possible that the drop in extrinsic religiosity scores for those students who persisted in enrollment was a positive development. Those students who were enrolled in this Christian liberal arts university were getting the chance to explore their own faith and make decisions for themselves and consequently their need or desire to use their religiosity for utilitarian purposes was reduced. If the students started their college career with an undifferentiated positive view of everything religious, then this opportunity to critically examine their faith would have led to a more mature and more differentiated view of the many dimensions of religiosity and may have led to the reduced score on the extrinsic religiosity scale.

Potvin and Lee (1982) found support for the hypothesis that different dimensions of religiosity change in different ways over time. Their data supported the premise that young adolescents (age 13 to 14) were relatively compliant and accepted as true and right the practices and rituals of their parents' religion. Potvin and Lee also claimed that middle adolescents (age 15 to 16) were likely to encounter some disturbances when they found that their beliefs were no longer neat and arranged in an easy order. These middle adolescents, then, were more likely to co-construct a worldview with the help of their peer group. These new meanings influenced their practices in ways that would confirm or

disconfirm their previously held beliefs and practices. By age 17 to 18 the adolescents had co-constructed a religious life style and established practices that had an impact on their internal meanings. Their practice or non-practice of religiosity was now more autonomous than it was at age 13 to 14 when they were primarily based on compliance to parental wishes.

In summary, while many studies report that religiosity declines during the adolescent years, that finding must be tempered by the possibility that highly religious adolescents may change differently than less religious adolescents. In addition, different aspects of religiosity may decline while, simultaneously, other aspects of religiosity in the same adolescent may increase. In the current study, it was expected that extrinsic religiosity would be higher among the 9th and 10th graders (mean age 14.7) than among the 11th and 12th graders (mean age 16.8). It was also expected that extrinsic religiosity would decrease as the students became older and began to take the lead in constructing their own religious values independently from their parents and family. In addition, it was expected that intrinsic religiosity would not decrease over time because even though the adolescents might be less active religiously, the behaviors they were committed to would be ones that were personally meaningful and important and not ones that were being externally enforced.

The Relationship of Gender and Religiosity

In a review of research on religiosity that covered the years 1994-1999, Donelson (1999) found that women attend religious services and activities more often, pray more often, report more intense religious experiences, regard religion more favorably, feel closer to God, are more likely to express need for a religious dimension in their daily

lives, and are more involved in religious social activities. Donelson's review was not focused on the adolescent years, but Smith et al. (2002) reported that adolescent girls are more religiously active than boys and that their tendencies mirror the patterns of religious variation among adult men and women.

In a review of literature by Benson et al. (1989), a similar trend of higher religiosity among adolescent girls' than adolescent boys' was found, especially when the studies focused on behaviors (e.g., worship attendance, prayer). The gender gap disappeared, however, when belief content rather than public and private behaviors were considered.

Some have explained the difference in the religiosity of males and females through the comparison of personality and socialization patterns (Beit-Hallahmi & Argyle, 1997). The differences may be related to innate differences in aggressiveness and the desire and ability to nurture and maintain emotional connectedness (Beit-Hallahmi & Argyle). Some theorists have attributed the differences in religiosity to females having lower levels of education and higher levels of superstition and expressiveness (Beit-Hallahmi & Argyle). Along with innate personality differences, higher female religiosity has been attributed to personality and overall expectation differences associated with socialization. One personality trait associated with gender and religiosity is risk tolerance (Miller & Hoffman, 1995). Miller and Hoffman, using a subsample from a nationally representative survey of high school seniors, found that males and females who had greater risk aversion were also higher in religiousness. In the study, females reported being less risky but more religious, however in both males and females, risk was significantly associated with religiosity.

In summary, there have been two general explanations for the higher religiosity among females. First, it is argued that females are socialized to be more submissive, passive, obedient, and nurturing (Miller & Hoffman, 1995). Secondly, it is argued that the structural position of women in society (e.g., lower participation in the labor force) offer them time, opportunity, and encouragement to engage in religion (Miller & Hoffman). Religion has even been viewed by some as a division of household labor in which the female was more skilled (Donelson, 1999). While there are consistent findings across many studies that females are more religious than males, the reasons for the differences are not completely clear (Smith, 2005).

Parental Behaviors and Adolescent Religiosity

Parental behaviors serve as factors in the development of adolescent religiosity (King et al., 2002; Potvin & Sloane, 1985). In a study that included 87% of the entire population of tenth graders in Iceland (1,879 females and 1,931 males), Bjarnason (1998) found adolescents who reported feeling parental support also reported higher levels of religious participation, religious orthodoxy, and feeling divine support. Hoge and Petrillo (1978) found peer influence to be the more salient influence on adolescent religiosity, however, the parental influence on selection of peer group would support the idea that parents influenced both directly and indirectly the development of religiosity (Cornwall, 1989; Erickson, 1992). Even though parental and adolescent religiosity are related, since Potvin and Sloane found that parental religiosity did not prevent the decline in adolescent religiosity, parental and adolescent religiosity are also independent of one another.

Much religious socialization takes place in family interaction as religious influences and values are reinforced and/or filtered (Johnstone, 1997; King et al., 2002). King et al. found that family communication was the best predictor of adolescent report of the importance of religiosity in their lives. Allport (1960) argued that the development of intrinsic religiosity in children was associated with raising children in an environment characterized by trust and security that allowed for reciprocity as the child matured into adolescence. Cornwall's (1988) research indicates that adolescent religiosity is influenced by more than parents' own religious faith or their endeavor to "channel" their adolescent into groups that support the religious values of the home. While the parent's religiosity influences the adolescent, the parental practices used (e.g., support, monitoring, induction) influence the relationship of the parent and adolescent and thus influence the degree to which the adolescent will willingly conform to parental expectations.

Harbach and Jones (1995) found that parents of at-risk adolescents and parents of other adolescents did not differ significantly in their beliefs and values related to family, religiosity, education, and work. Their conclusion was that parents of at-risk adolescents had not been as successful in passing on their beliefs. Harbach and Jones' comments were made in the context of evaluating current drug intervention programs, and so they made the point that intervention for drug use should include parenting education in order to increase effectiveness. Although the values that would have served as constraints to drug use were often present in the home, the parents needed help in communicating them (Harbach & Jones). Small and Eastman (1991), concurred with Harbach and Jones by concluding that parental attitudes and actions may carry more influence than parental religious affirmation.

According to the symbolic interaction perspective, a child's sense of self-worth is tied to the parental behaviors that foster the child's identification with the parent (Whitbeck & Gecas, 1988). In one study, adolescents were more likely to develop a positive self-meaning and identification with parents when treated with support and affirmation rather than inconsistent control and coercion (Giesbrecht, 1995). These same adolescents who developed positive identity were more likely to internalize their parents' religious values. According to Giesbrecht, "authoritative and non-permissive parenting appeared to be key elements in explaining adolescent intrinsic commitment, and their absence was related to adolescent orientations to religion as a source of psychological or social benefit" (p. 232).

While variables such as cognitive development, biological make-up, and cultural background were found helpful in the research literature in their ability to explain individual differences in both positive and negative adolescent development (Eisenberg & Fabes, 1998), from the perspective of symbolic interaction theory, parental socialization is a more salient variable to consider (White & Klein, 2002). There was general agreement in the reviewed research that the most important socialization context for adolescents' was the family system and particularly the parent-child relationship (Eisenberg & Fabes). Parents are seen as contributing to the development of prosocial behaviors among children and adolescents through modeling, through providing opportunities for children to practice prosocial behavior, and through the choices for methods of discipline (Siegler, DeLoache, Eisenberg, 2003). Parental behaviors of warmth, support, and positive induction are repeatedly associated in the research literature with both the absence of attitudes and behaviors that are detrimental to

development and the presence of attitudes and behaviors that are considered prosocial and positive (Peterson & Hann, 1999). In the next few pages the connection between those parental behaviors and adolescent religiosity will be explored.

Parental Support and Adolescent Religiosity

According to Peterson and Hann (1999), “perhaps the closest thing to a general law of parenting is that supportive, warm, sensitive, and responsive childrearing is associated with the development of social competence in the young” (p. 336). Parental support behaviors include affection, acceptance, and companionship as well as verbal and nonverbal expressions of warmth, rapport, and value (Peterson & Hann; Rollins & Thomas, 1979). Children from families characterized by high parental support demonstrate more prosocial tendencies than children from low support families in their willingness and ability to explore beyond their family boundaries with confidence, to express less hostility and aggression, to demonstrate fewer negative feelings of separation from parents, and to describe themselves and to be described by others as possessing overall higher levels of self-confidence and self-esteem (Henry & Peterson, 1995; Peterson & Hann). Parental support enhances the parent-child relationship thus making the child more prone to accept the parent’s control attempts which in turn makes it less likely for parents to over-control which makes it more likely that children will willingly comply with parental expectations.

Gunnoe and Moore (2002) make the case that supportive mothers are more likely to be held in positive regard by their children and more likely to have their values imitated by these same children. If the supportive mother is religious, then the mothers’ behavior will be more likely to foster religiosity in her children. In their decade review of

religion and family for the *Journal of Marriage and the Family*, Thomas and Cornwall (1990) reported findings that Mormon adolescents who fulfilled their plans for going on a mission were more likely to have had significant adult and peer relationships which represented the religious institution positively. Thomas and Cornwall explained that the supportive adult helps the adolescent by connecting with their world, offering a world view that is congruent with the religious institution and with which the adolescent could identify, and then assisting and supporting the adolescent on their journey.

Myers (1996) used an intergenerational data set that included interviews with 471 parents in 1980 and their adult offspring in 1992 and found that moderate parental strictness and high levels of parental support were associated with later reports of higher religiosity by the adult offspring. Francis and Gibson (1993) indicated that adolescents were most likely to maintain habits of church attendance when supported by the example of both parents. Parents from interfaith marriages seemed less successful in nurturing a religious commitment in their children (Clark & Worthington, 1986; Hoge, Petrillo, & Smith, 1982). Thomas and Cornwall (1990) suggested that parents from different religious faith traditions may not be as integrated in a religious network and are thus less able to channel their children into activities and relationships that offer the helpful plausibility structures that serve to reinforce their adolescents' religious commitment (Cornwall, 1988).

In an older study using a sample of predominantly white, middle class, Mormon 12 to 19 year olds (15 males and 29 females) from university affiliated families, Weigert and Thomas (1972) found higher self-esteem, greater willingness to conform to parental expectations, and stronger adherence to traditional forms of religiosity among adolescents

who received high degrees of parental support and control. Using a measure of religiosity that included the dimensions satisfaction with church, evaluation of teachers, and attendance at religious activities, Weigert and Thomas found adolescents who reported their parents using a combination of high degrees of both support (e.g., “he/she says nice things about me”) and control (e.g., “she/he keeps after me to do well in school”) also reported the highest scores on all three aspects of their religiosity. They also found that the adolescents who reported the lowest degree of parental support and control were the respondents who reported the lowest scores on the measure of religiosity.

Using two of the three waves of data from the Youth-Parent Socialization Panel Study (wave one $N = 1,562$, wave three $N = 898$, retention rate 70% for youths and 64% for parents), a connection was found for adults who left their faith and the lack of emphasis on religion in their homes and the less positive relationship between the parent and the child in those situations (Wilson & Sherkat, 1994). Wilson and Sherkat concluded that those who had strong ties to their family and who formed their own families relatively early ran less risk of leaving their churches. They found that men were more likely to drop out than women and that men who dropped out were about twice as likely to marry women affiliated with a church than were women who dropped out likely to marry men affiliated with a church. Others have also found a connection between the quality of the parent-child relationship and adolescent and young adult alienation from parental religious values (Dudley, 1978; Hunsberger, & Brown, 1984). Adolescents who experienced poor relationships in the home were perhaps more prone to associate with peer groups that were less conventional and more involved in problem behavior (Eccles, Earl, Frasier, Belansky, & McCarthy, 1997).

Parental Control and Adolescent Religiosity

Parental Control: Induction. Induction is a strategy of firm parental control that emphasizes the communication of clear expectations and the rationale behind those expectations and the consequences of behavior (Peterson & Hann, 1999). The goal of parental induction is to communicate parental rules, boundaries, and/or expectations, offer guidance with the intent of encouraging youth to internalize the rules, understanding of the reasons for the rules, and realization of the potential positive or negative impact behavior might have on others (Peterson & Hann). Symbolic interaction theory proposes that induction serves as a primary strategy by which parents facilitate the internalization of role expectations through communication of demands as well as expressed confidence in the child's ability to accede to those demands (Peterson & Rollins, 1987). Parents using induction attempt to access the internal assets of their child and foster the voluntary internalization of values such as empathy through persuasion, conversation, mutual respect, and minimally sufficient control (Peterson & Hann). Eisenberg (1993) stated that induction required the active participation of the child as they attended to the informational component of the induction and as they stored in their memory the explanation and reason for the parental request and then as they engaged in behaviors based on internal versus external motivation.

Inductive parental behaviors may work by eliciting a child's attention without producing high degrees of emotional reactivity; thus the child is able to process the information and explanation of the parent and select options without being subjected to coercion (Eisenberg & Murphy, 1995). Power assertive and love withdrawal parental behaviors carry the threat of punishment and run the risk of eliciting high degrees of

emotional reactivity that may lead to resentment, fear, and rebellion (Eisenberg & Murphy, 1999). In this case, the child may see their behavior as more externally rather than internally controlled and the child's attention may more be drawn to the consequences to themselves of their actions rather than the potential consequences to others (Eisenberg & Murphy). Internal motivation, then, may be tied to socializing techniques powerful enough to induce compliance but subtle enough that compliance is attributed to internal rather than external factors.

Using data gathered from a sample that included 132 students from a private high school in a Midwest Canadian community and their parents, Giesbrecht (1995) reported several significant correlations between parenting style and adolescent intrinsic and extrinsic religiosity. Giesbrecht reported a .31 ($p < .001$) correlation between mothers' authoritative control and adolescent intrinsic religiosity. Authoritative control was measured by items such as: (a) as I was growing up, once family policy had been established, my mother discussed the reasoning behind the policy with the children in the family; (b) my mother has always encouraged verbal give-and-take whenever I have felt that family rules and restrictions were unreasonable; (c) as I was growing up my mother directed the activities and decisions of the children in the family through reasoning and discipline. The correlation between fathers' authoritative control and adolescent intrinsic religiosity was .38 ($p < .001$). The correlations between mothers' and fathers' support and adolescent intrinsic religiosity were .29 and .37, respectively (both $p < .001$). An authoritative parenting style, characterized by clear and firm direction, discipline moderated by warmth, reason, flexibility, and dialogue seemed to be most effective in

nurturing religious commitment in those adolescents and explained 26% of the variance in adolescents' intrinsic religiosity from this sample (Giesbrecht, 1995).

Using a sub-sample of married couples and their children over the age of 16 (n = 1,084) taken from an Australian National Social Science Survey, Hayes and Pittelkow (1993) found that mothers who openly discussed their religious beliefs and who used strict supervision were more likely to have sons and daughters who shared their religious beliefs.

Using a secondary analysis on a stratified random sample of 235 intact families with adolescent children between the ages of 13 and 18 taken from an overall sample of 1,140 families representing all stages of the family life cycle, Kieren and Munro (1987) found that one of the key predictors of male adolescent religious activity included the ease with which the father discussed his beliefs. The studies reviewed indicated that parent's use of positive induction was positively associated with an improved parent-child relationship and with overall adolescent prosocial development and with positive religious development.

Parental Control: Punitiveness. Parenting behaviors characterized and labeled as "coercion" or "punitiveness" include those behaviors that involve the direct and sometime arbitrary use of force and power (Peterson & Rollins, 1987). Coercion often includes both psychological and physical parental overcontrol (Peterson & Rollins). Parents using this type of control seek to force children to comply with expectations using strategies such as hitting, threatening, or yelling (Peterson & Leigh, 1990). Researchers have found a positive relationship between the use of coercive parenting techniques and the development of antisocial aggression (Peterson & Rollins). Parental

coercion, or excessive control through power assertion, seems to elicit external compliance but is not associated with internalization of parental values (Peterson & Hann, 1999; Stafford & Bayer, 1993). According to Peterson and Hann, a desirable balance between connectedness and individuation is challenged because of the separation fostered by the punitive nature of the parents' behavior. Parents who rely too heavily on these coercive strategies run the risk of communicating rejection and lack of respect and may decrease the likelihood of internalization of necessary adaptive prosocial qualities (Peterson & Hann). Eisenberg and Murphy (1995) suggest the following mechanism by which parental coercion elicits externalization:

Power assertive and love withdrawal techniques may elicit too much arousal due to fear of punishment or anxiety about loss of the parent's love. . . . The children's attention is likely to be directed to the consequences of the deviant act for the self rather than for other people; moreover, these techniques heighten the child's view that the relevant moral standard is external to the self (p. 232).

Using data collected from 400 Seventh Day Adventist adolescents attending 20 different Adventist academies across the United States, Dudley (1978) suggested that rejection of religion might be more an issue of the rejection of an authority, such as parents, that holds the religion. Dudley also observed that measurement issues may have contributed to the findings since single item measures of the level of importance placed on religion or the number of religious assemblies attended may not adequately measure the multi-dimensional concept of adolescent religiosity.

Parent-youth relations characterized by high control might inhibit the natural co-construction of intrinsic religiosity that should occur during later adolescence and lead to

the development of extrinsic religiosity (Potvin & Sloane, 1985). According to Elkind (1999), the phenomenon of adolescents turning away from church may not actually be a rejecting of religion but instead it may be the adolescents' struggle of differentiating their personal values from the values of the institution. This differentiation is more difficult to do, however, in the context of high parental control. Using a national probability sample of 1,121 adolescents interviewed in their homes, Potvin and Sloane found that no group of adolescents (e.g., age, religious affiliation, and those reporting low or high control from their parents) showed any increase in religious practice with increasing age and that most of their groups showed a decline in religious practice with age. There was no decline among those with low religious experience and high parental control. The highest decline came among those scoring high on religious control and who described their parents as highly controlling. However, the decline in adolescent religiosity was not related to the combination of parental religiosity and control. In essence, high and low parental control does not insure internalization of faith, rather, "the effect of control is conditioned on religious experience" (Potvin & Sloane, 1985, p. 11). In other words, when the child was younger, high parental control was functional in producing high religious practice but when the child reached later adolescence, high religious experience and high religious practice were connected only when parental control was low.

Parental Control: Monitoring. Parental monitoring is a control attempt that involves efforts by parents to carefully supervise their children's schedules, their peer associations, and their movement in the neighborhood and beyond (Peterson & Hann, 1999). This supervision requires that the parents set clear expectations regarding what can and cannot be done and that they carefully follow-up to determine compliance with

expectations (Peterson & Hann). The bulk of the research in this area has focused on antisocial tendencies of those children who have received insufficient monitoring (Peterson & Hann). In an article exploring the connection between positive parental involvement and identity achievement during adolescence, Sartor and Youniss (2002) found a positive relationship between parental knowledge about their adolescents' school and social activities and positive identity achievement.

Cornwall (1987) suggested that it was the personal community relationships (people who shared similar beliefs and that were perceived as trustworthy) that had the strongest direct influence on belief and commitment. Cornwall's sample was 1,874 Mormons over the age of 18. The four measures of religiosity used included questions that assessed traditional orthodoxy (belief in the existence of God, the divinity of Christ, life after death, Satan and the Bible), spiritual commitment (loving God with all one's heart, willingness to do whatever the Lord wanted, the importance of one's relationship with God), particularistic orthodoxy (acceptance or rejection of beliefs peculiar to Mormon theology – prophetic calling of Joseph Smith, the authenticity of the Book of Mormon, the Church of Jesus Christ of Latter-day Saints is the only true Church on earth), and church commitment (the attachment, identification, and loyalty of the individual toward the Mormon church). So in this case while the community relationships demonstrated direct influence on the beliefs of the children, Cornwall found that parental behaviors had an indirect effect on the beliefs of their children through their children's choice of peer group.

Using a subsample of 900 16 to 18 year-olds gathered from a stratified random sample of 5,000 young people from six denominations, Erickson (1992) used path

analysis to model various factors related to religious belief and commitment and concluded that parents' influence on their adolescents seemed mostly indirect. Although parents might guide their children to other more salient social forces like religious education and positive peer groups, the children's own personal spiritual disciplines like prayer, Bible study, and service to the poor and needy proved a greater influence on the development of a religious identity (Erickson). The implication was that much of this behavior was learned at home under the tutelage of parents. Parents could direct their children into activities that would nurture in them a particular worldview. This subtle influence of parents could be called "channeling." Cornwall (1988) used the term "channeling" to describe how parents directed the socialization of their children by influencing when their children had contact with others, who they had contact with, what models of behavior they would associate with, and where they went in their free time.

Brown, Mounts, Lamborn, and Steinberg (1993) affirmed the finding of the indirect influence of parents in their research on parenting behaviors and peer group affiliation. They found that peer group norms primarily functioned to reinforce behaviors and values that the adolescent brought with them to the group. Using survey data from 3,781 students selected from three public high schools in the Midwest and three public high schools on the West Coast, Brown et al. found the following: first, they concluded that the norms of the adolescent peer group seemed to function primarily as reinforcement to behaviors and predispositions that parents nurtured at home, and secondly, they indicated that parents impacted the adolescent's peer group selection and affiliation over an extended timetable.

Another term, “construction of meaning,” was used by Cornwall (1988) to describe the process by which parents helped their children make sense of the world by influencing their cognitive structures and then reinforcing those cognitive structures with social structures that were compatible and supportive. The application, in any case, was that fathers and mothers needed to clearly define in their own mind what they believed, clearly articulate those beliefs verbally for their family, point their children toward positive formal and informal religious education and activities, and then live authentically and consistently (Erickson, 1992).

The positive relationship of poor parental monitoring and extrinsic religiosity as well as the negative relationship between poor parental monitoring and intrinsic religiosity was noted in research by Giesbrecht (1995). The correlations between mothers’ and fathers’ permissive control and intrinsic religiosity were $-.34$ and $-.27$, respectively (both $p < .001$). Permissive parental monitoring was measured by items such as: (a) as I was growing up my mother allowed me to decide most things for myself without a lot of direction from her; (b) as I was growing up my mother did not direct the behaviors, activities, and desires of the children in the family; and (c) my mother has always felt that what children need is to be free to make up their own minds and to do what they want to do, even if this does not agree with what their parents might want. Regarding extrinsic religiosity, Giesbrecht reported significant correlations between mothers’ permissive control and extrinsic social religious commitment ($r = .25, p < .01$) and fathers’ permissive control and extrinsic social religious commitment ($r = .24, p < .05$).

Summary

Previous research points to a strong connection between the religiosity of parents and the religiosity of their adolescent children. Previous research has also proposed that parental behaviors are important mechanisms for the forging of that strong link between parental and adolescent religiosity. The current study explores the link between adolescent perception of parental support and control behaviors and adolescent reports of intrinsic and extrinsic religiosity. In Chapter I, symbolic interaction theory was discussed as the theoretical framework for the current study. According to this theory, early in life people assign meaning to symbols and objects based on the interaction with important people in their lives. From these subjective meanings, individuals relate to the people, events, and objects they encounter and seek to find shared meaning with others. A sense of self is constructed in these interactions with others, particularly the important others in our lives.

Starting with this theoretical perspective, the review of literature in Chapter II demonstrates the need for the current study by demonstrating the interconnection of parental behaviors and adolescent religiosity and adolescent well being. The strengths and weaknesses of the measures for intrinsic and extrinsic religiosity were discussed and a case for their use in the current study was defended. The importance of age and gender of the adolescent to adolescent religiosity are also discussed to provide support for their inclusion in the current study.

In Chapter III, the research methodology for the current study is outlined and explained, in Chapter IV, the results of the analyses are reported, and in Chapter V, conclusions and implications for further research and practice are discussed.

CHAPTER III

METHODOLOGY

Overview

Chapter III describes the research design, sample and procedure, measurement, operational hypotheses, and analyses used to investigate the research questions and conceptual hypotheses presented in Chapter I. Methodological limitations are also presented in this chapter. The current study was designed to test cross-sectional and longitudinal models of how gender of the adolescent and adolescent perception of selected parental behaviors related to reports of adolescent intrinsic and extrinsic religiosity during the early and later years of high school. To investigate the research questions, self-report questionnaire data were collected from high school students over a two year time period.

Research Design

A longitudinal research design was used to examine the extent to which selected demographic variables and adolescents' perceptions of selected parental behaviors related to adolescent reports of intrinsic and extrinsic religiosity during the early (Time 1) and later (Time 2) years of high school. Four models were developed and tested (see Figure 1, Figure 2, Figure 3, and Figure 4). The current study used a two-wave panel design in which data was collected from the same participants on two separate occasions (Schutt, 1999). The present study sought to address limitations of previous research by using a

previously established measure of religiosity and by using a longitudinal design that involved data collection from the same adolescents at two points in time. This approach allowed the comparison of a cross-sectional model and longitudinal model of gender and adolescent perceptions of four parental behaviors (support, induction, monitoring, and punitiveness) to determine which was a better predictor of adolescent religiosity.

A self-report questionnaire format was chosen for this study for several reasons: (a) surveys are effective when the goal is descriptive, explanatory, and/or exploratory, (b) survey research is cost-effective when dealing with a large population, (c) surveys are effective in measuring attitudes of a large population, and (d) surveys are effective when measuring sensitive issues (e.g., religion) and the participants have a reasonable expectation of anonymity because they are less likely to bias their answers toward social desirability (Babbie, 1986; Mowbray & Yoshihama, 2001). In addition, using self-report data was consistent with symbolic interaction theory which proposes that adolescents respond to phenomenon as they are perceived to be rather than based on some objective measure of the phenomenon (LaRossa & Reitzes, 1993).

Sample and Procedure

The data for this study were part of a larger longitudinal study of adolescents and families collected in three non-metropolitan communities ranging in population from 6,500 to 7,600 and located in a South Central state. The objective for the overall study was to examine how selected parent and family system, community, and demographic factors related to indicators of well-being for adolescents in non-metropolitan communities (see Appendix A). Census data were consulted to find communities that fit these criteria: (a) population between 5,000 and 10,000, (b) located outside the

metropolitan statistical areas in the state, (c) no universities or military bases located in the communities. None of the communities were considered suburbs of any metropolitan areas.

Names and addresses for school superintendents for the selected communities were obtained and then contact was made first by letter and then with a follow-up phone visit. If the superintendents were willing to participate in the study, one of the principal investigators (a faculty member) visited the superintendents in person to explain the purpose and procedures of the project. If the superintendent agreed to participate, then the principal at the high school was contacted to schedule the data collection.

The data collection involved two visits to each school during both Time 1 (ninth or tenth grade) and Time 2 (eleventh or twelfth grade). During the first visit, at least two of the members of the research team (i.e., one of the two principal investigators and/or trained graduate assistants) met with the students during their scheduled English period and explained the project, distributed copies of a letter of explanation, an “Adolescent Assent Form” and a “Parental Consent Form” (see Appendix B), and showed the adolescents the tokens they would receive if they chose to participate (e.g., small toys and key chains obtained from a local discount store). Before the adolescents were permitted to participate in the study, they had to sign the Adolescent Assent Form and, if they were under the age of 18, their parents/guardians were required to sign the Parental Consent Form. Approximately a week later, members of the research team returned to the school and collected the Assent and Consent Forms and then administered the survey. Upon completion of the survey, the adolescents got to choose the tokens that they preferred.

Different class scheduling presented some challenges in collection of the data at both Time 1 and Time 2. Students in two of the schools met in their classes for fifty minutes each day. In the third school, the students were on a “block schedule” and had an hour and a half to complete the survey. In several cases, students with the fifty-minute classes were unable to complete all questions on the survey. In addition, there were some class periods in which students were asked by the teachers or principal to meet in one central location for the data collection. In every case, however, the students were supervised by one or more members of the research team to insure that conditions were reasonable for accurate data collection. At Time 1 each of the students signed their name on a sheet beside a code that matched a corresponding code marked on their questionnaire. At Time 2 the students who had participated at Time 1 were asked to find their name on the Time 1 participant list and then write their name and the code that was printed at the top of the Time 2 questionnaire.

After the data were collected at Time 1, the data were coded using a coding using a codebook prepared for the study. Data were entered into SPSS 10.0 for Windows (1999) by members of the research team. Two members of the research team (one principal investigator and one graduate student) verified the accuracy of the data entry by examining selected questionnaires and frequencies on the variables. At Time 2, the same procedure was followed with the addition of matching the Time 2 and Time 1 data and entering that data into the same file. Again, accuracy of the data were verified by examining selected questions and frequencies.

The first wave of data (Time 1) collection occurred when the students were in ninth or tenth grades. The second wave of data (Time 2) were gathered on the same

students two years later during their eleventh or twelfth grade year. A sample of 321 of a population of 886 enrolled ninth and tenth graders from three high schools participated in the Time 1 data collection (36% cooperation rate). Of the 321 students reporting data at Time 1, 57% were girls and 43% were boys and the age range was from 14 to 17 ($M = 14.82$). This first wave of students included 55% two-parent biological or adoptive families, 23% step-parent families, 16% single-parent families, 6% other or missing. The racial makeup of this first wave was 77% Caucasian, 11% Native American, 2% Mexican American, 3% African Americans, 1% Asian Americans, and 3% other or not reported. At Time 2, 110 of the 321 adolescents who had participated at Time 1 completed data sufficient for the analyses at both Time 1 and Time 2 (34% cooperation rate). The mean age of the participants was 14.7 at Time 1 and 16.8 at Time 2. The total sample of students who had complete data at both Time 1 and Time 2 consisted of 44% boys and 56% girls.

Table 1 lists the overall demographics of the sample. Some inconsistencies emerge in the students' reporting of ethnic background. While it is not certain what caused the differences in reporting, it is likely that since students who are of mixed ethnic background checked one of the listed categories at Time 1 and a different category at Time 2. Another inconsistency emerges in the reporting of parents' education. At Time 2 the students reported fewer of their parents as having a college education. This inconsistency may be attributable to the growing awareness on the part of the adolescents as to the difference between college and vocational training and the difference between attending and graduating from college. An interesting artifact of the process used for selecting the rural communities for inclusion in the overall project is the fact that the

second largest ethnic group is Native American. Another feature of this sample is the relative stability of the family structures over the two-year time frame encompassed by the data collection. One final observation related to the religious makeup of the sample is the decline over time in church attendance and in the expressed importance of “relationship with Christ.” This observation is in contrast with the relative stability of the numbers on denominational affiliation.

Table 1

Demographic Characteristics of the Sample (N = 110)

<i>Characteristics</i>	<i>Time 1</i>		<i>Time 2</i>	
	<i>N</i>	<i>Percent</i>	<i>N</i>	<i>Percent</i>
<i>Age</i>				
14	35	31.8%		
15	56	50.9%		
16	19	17.3%	31	28.2%
17			58	52.7%
18			19	17.3%
19			1	.9%
Missing data			1	.9%
<i>Gender</i>				
Female	61	55.5%	61	55.5%
Male	49	44.5%	49	44.5%
<i>Grade</i>				
9	62	56.4%		
10	48	43.6%	1	.9%
11			59	53.6%
12			49	44.5%
Missing data			1	.9%

(Table 1 continued on the next page)

Table 1 continued.

Demographic Characteristics of the Sample (N = 110)

<i>Characteristics</i>	<i>Time 1</i>		<i>Time 2</i>	
	<i>N</i>	<i>Percent</i>	<i>N</i>	<i>Percent</i>
<i>Ethnic Background</i>				
White	77	70.0%	75	68.2%
Native American	14	12.7%	19	17.3%
Black	4	3.6%	6	5.5%
Mexican American	5	4.5%	4	3.6%
Asian	1	.9%	1	.9%
Other	5	4.5%		
Missing data	4	3.6%	5	4.5%
<i>Family Form</i>				
Both biological parents	67	60.9%	66	60.0%
Mother/Stepfather	18	16.4%	20	18.2%
Mother only	11	10.0%	10	9.1%
Living with other relative	4	3.6%	5	4.5%
Father only	4	3.6%	4	3.6%
Father/Stepmother	5	4.5%	3	2.7%
Adoptive	1	.9%	1	.9%
Missing data			1	.9%

(Table 1 continued on the next page)

Table 1 continued.

Demographic Characteristics of the Sample (N = 110)

<i>Characteristics</i>	<i>Time 1</i>		<i>Time 2</i>	
	<i>N</i>	<i>Percent</i>	<i>N</i>	<i>Percent</i>
<i>Mothers' Education</i>				
Completed grade school	3	2.7%	2	1.8%
Some high school	9	8.2%	14	12.7%
Graduated from high school	19	17.3%	19	17.3%
Vocational school after high school	6	5.5%	4	3.6%
Some college, did not graduate	13	11.8%	19	17.3%
Graduated from college	44	40.0%	40	36.4%
Post college education (graduate school/ law school/medical school)	9	8.2%	4	3.6%
Other training after high school	1	.9%	1	.9%
Do not know	4	3.6%	5	4.5%
Missing data	2	1.8%	2	1.8%

(Table 1 continued on the next page)

Table 1 continued.

Demographic Characteristics of the Sample (N = 110)

<i>Characteristics</i>	<i>Time 1</i>		<i>Time 2</i>	
	<i>N</i>	<i>Percent</i>	<i>N</i>	<i>Percent</i>
<i>Fathers' Education</i>				
Completed grade school	2	1.8%	3	2.7%
Some high school	4	3.6%	4	3.7%
Graduated from high school	23	20.9%	21	19.1%
Vocational school after high school	6	5.5%	9	8.2%
Some college, did not graduate	11	10.0%	17	15.5%
Graduated from college	47	42.7%	34	30.9%
Post college education (graduate school/ law school/medical school)	5	4.5%	8	7.3%
Other training after high school	3	2.7%	5	4.5%
Do not know	7	6.4%	8	7.3%
Missing data	2	1.8%	1	.9%

(Table 1 continued on the next page)

Table 1 continued.

Demographic Characteristics of the Sample (N = 110)

<i>Characteristics</i>	<i>Time 1</i>		<i>Time 2</i>	
	<i>N</i>	<i>Percent</i>	<i>N</i>	<i>Percent</i>
<i>Denominational Affiliation</i>				
Baptist	40	36.4%	49	44.5%
Catholic	15	13.6%	14	12.7%
Methodist	13	11.8%	12	10.9%
Assembly of God	7	6.4%	5	4.5%
Christian Church	8	7.3%	5	4.5%
Church of Christ	4	3.6%	5	4.5%
Presbyterian	3	2.7%	2	1.8%
Jehovah's Witness	2	1.8%	---	---
Episcopal	1	.9%	1	.9%
Other	7	6.4%	6	5.5%
Don't Go	10	9.1%	8	7.3%
Missing data			3	2.7%
<i>"My relationship with Christ is a vitally important part of my life"</i>				
Strongly disagree	5	4.5%	5	4.5%
Disagree	5	4.5%	3	2.7%
Neither agree nor disagree	7	6.4%	22	20.0%
Agree	23	20.9%	17	15.5%
Strongly agree	38	34.5%	36	32.7%
Missing	32	29.1%	27	24.5%

(Table 1 continued on the next page)

Table 1 continued.

Demographic Characteristics of the Sample (N = 110)

<i>Characteristics</i>	<i>Time 1</i>		<i>Time 2</i>	
	<i>N</i>	<i>Percent</i>	<i>N</i>	<i>Percent</i>
<i>Times/week in worship assembly</i>				
0	19	17.3%	21	19.1%
1	41	37.3%	47	42.7%
2	35	31.8%	20	18.2%
3	8	7.3%	19	17.3%
4	4	3.6%	1	.9%
5	1	.9%	---	---
9	1	.9%	---	---
Missing data	1	.9%	2	1.8%
<i>Times/week youth group, Bible studies or other church-related activities</i>				
0	36	32.7%	38	34.5%
1	36	32.7%	35	31.8%
2	23	20.9%	20	18.2%
3	---	---	10	9.1%
4	8	7.3%	4	3.6%
5	2	1.8%	1	.9%
6	1	.9%	---	---
7	1	.9%	---	---
Missing data	3	2.7%	2	1.8%

Measurement Overview

Data for the overall study were collected using a self-report questionnaire composed of existing and new measures (see Appendix C). The current study used for analysis various demographic information (e.g., age, gender, grade, ethnic background, family form) and data gathered using previously established self report scales for intrinsic and extrinsic religiosity, parental support, parental induction, parental monitoring, and parental punitiveness. The instruments are described below (see Appendix C). A summary of the variable names, measures, and reliabilities is provided in Table 2.

Table 2

Variables, Measures, and Reliabilities

<i>Variable</i>	<i>Measure</i>	<i>Format</i>	<i>Items</i>	<i>Cronbach's Alpha</i>		
				<i>P</i>	<i>T1</i>	<i>T2</i>
Demographics	Standard fact sheet item		
Fathers' support	Parental Behavior Measure (Peterson, 1982)	Likert-type	4	.85	.72	
Mothers' support	Parental Behavior Measure (Peterson, 1982)	Likert-type	4	.85	.74	
Fathers' induction	Parental Behavior Measure (Peterson, 1982)	Likert-type	5	.87	.75	
Mothers' induction	Parental Behavior Measure (Peterson, 1982)	Likert-type	5	.87	.74	
Fathers' monitoring	Parental Monitoring Measure (Bush, Peterson, Cobas, & Supple, 2002)	Likert-type	6	.87	.81	
Mothers' monitoring	Parental Monitoring Measure (Bush, Peterson, Cobas, & Supple, 2002)	Likert-type	6	.87	.78	
Fathers' punitiveness	Parental Behavior Measure (Peterson, 1982)	Likert-type	7	.90	.69	
Mothers' punitiveness	Parental Behavior Measure (Peterson, 1982)	Likert-type	7	.90	.69	
Intrinsic religiosity	Religious Orientation Scale (revised) (Schumm, Hatch, Hevelone, & Schumm, 1989)	Likert-type	5	.73	.76	.78
Extrinsic religiosity	Religious Orientation Scale (revised) (Schumm, Hatch, Hevelone, & Schumm, 1989)	Likert-type	5	.66	.64	.53

Note. *P* = Previously reported Cronbach's alpha. *T1* = Cronbach's alpha for this data at Time 1. *T2* = Cronbach's alpha for this sample data at Time 2 (reported only for variables used at Time 2).

Measures of Adolescent Reports of Religiosity

Adolescent reports of intrinsic and extrinsic religiosity were measured using a modified version of the Religious Orientation Scale (ROS) originally developed by Allport and Ross (1967), and later modified by Gorsuch and Venable (1983). Hill & Hood (1999) state that Gorsuch and Venable's Age Universal Intrinsic-Extrinsic Religiosity Scale is completely interchangeable with Allport and Ross' ROS scale. Gorsuch and Venable modified the original ROS for use with populations of various ages. Both the Age Universal Scale and the ROS have 20 items that are intended to differentiate between extrinsic and intrinsic religious motivation (Egbert, Mickley, & Coeling, 2004). According to Allport and Ross, "the extrinsically motivated person uses his religion, whereas the intrinsically motivated person lives his religion" (p. 434). The extrinsically motivated person is more utilitarian with their religion while the intrinsically motivated person tries to bring everything in their life into harmony with their religious beliefs (Allport & Ross). The ROS and the Age Universal Scales have demonstrated usefulness within Christian denominations (Burriss, 1999; Genia, 1993). Studies using the scales have reported acceptable internal consistency. Cronbach alphas for extrinsic religiosity generally are in the range of the mid-.70s and the alphas for intrinsic religiosity are generally in the range of the mid-.80s.

The scale used for the current study was from a shortened version of Gorsuch and Venable's Age Universal Scale adapted by Schumm, Hatch, Hevelone, and Schumm (1989) for a study involving a sample selected from a specific Christian denomination (Disciples of Christ). Schumm et al. shortened the 20-item Age Universal Scale by selecting six items to measure intrinsic religiosity and five items to measure extrinsic

religiosity. In the current study, one item from the Schumm et al. scale was not used (e.g., “My relationship with Christ is a vitally important part of my life.”). This item was dropped because it did not parallel any item in the previous adaptations of the original Allport and Ross scale or the Gorsuch and Venable scale and because Schumm et al. stated that the item was added specifically to measure a Christian intrinsic orientation among a sample that only included one Christian denomination. Since the present study was designed to assess a community sample of students, limiting the instrument to Christianity held potential to exclude students who were adherents to other religious groups. No data were reported in the Schumm et al. study on the reliability of their instrument or its correlation to the longer Age Universal Scale. Sample items for the five-item extrinsic religiosity scale include: (a) “I go to church because it helps me to make friends” and (b) sometimes I have to ignore my religious beliefs because of what people might think of me.” Sample items for the five-item Intrinsic Religiosity Scale include: (a) “I try hard to live all my life according to my religious beliefs” and (b) “my religion is important to me because it answers many questions about the meaning of life.” The 10-item instrument gave the adolescent a statement about their personal religiosity and asked for a response indicating their level of agreement with the statement. Responses range across a five-point Likert-type scale: 1 = “strongly disagree,” 2 = “disagree,” 3 = “neutral,” 4 = “agree,” and 5 = “strongly agree.” Responses to the five items on each subscale were summed and divided by the number of items in the scales, resulting in a range of scores for each of the subscales from one (low extrinsic or intrinsic religiosity) to five (high extrinsic or intrinsic religiosity). Previously established reliability (Cronbach’s alpha) was .66 for Extrinsic Religiosity and .73 for Intrinsic Religiosity

(Gorsuch & Venable, 1983). Cronbach's alpha reliability coefficients for the current study were .73 and .78 for intrinsic religiosity at Time 1 and Time 2 and .66 and .64 for extrinsic religiosity at Time 1 and Time 2.

Measurement of Adolescent Perceptions of Parental Behaviors

Adolescent perceptions of parental support, induction, and punitiveness were measured using subscales from the Parental Behavior Measure (Peterson, 1982). Items used in this scale were from existing instruments and were selected for inclusion based on high loadings on identified factors in previous factor analytic studies (Peterson, Rollins, & Thomas, 1985). Items used to measure parental support originated from Heilbrun (1964) and Cornell (Deveraux, Bronfenbrenner, & Rodgers, 1969). Items measuring parental induction were based on the conceptualization of Hoffman (1970) and items measuring monitoring were developed based on the research of Small (1990) and Barber, Olsen, and Shagle (1994).

The Parent Behavior Measure (Peterson, 1982) gave the adolescent a statement about a parental behavior and asked for a response that ranged across a five-point Likert-type scale: 1 = "strongly disagree," 2 = "disagree," 3 = "neither agree nor disagree," 4 = "agree," and 5 = "strongly agree." Since this measure asked the adolescent to assess each parent separately on each item, separate scores for mothers and fathers were established. The following subscales, with sample items, were included in the questionnaire: the four item parental support subscale (e.g., "This parent seems to approve of me and the things I do."), the five item parental induction subscale (e.g., "This parent explains to me how good I should feel when I do what is right."), and the seven item parental punitiveness

subscale (e.g., “This parent is always finding fault with me.”). The scores on the items for the subscales were summed and divided by the number of items in the scales, resulting in a range of scores for each of the subscales from one to five. Previously reported internal consistency reliability (Cronbach’s alpha) for parental support was .85, for parental induction was .87, and for parental punitiveness was .90 (Henry, 1994). Cronbach’s alphas in the current study at Time 1 were .72 for fathers’ and .74 for mothers’ support, .75 for fathers’ and .74 for mothers’ induction, and .69 for both fathers’ and mothers’ punitiveness.

An additional six-item Likert-type scale developed by Peterson was used to assess the adolescents’ perceptions of their mother’s and father’s monitoring (e.g., “This parent knows where I am after school.”). The items measure the perceptions of how much the parents supervise the adolescents’ use of free time, spending habits, and peer relationships (Bush, Peterson, Cobas, & Supple, 2002). The monitoring scale gave the adolescent a statement about the parental behavior and asked for a response that ranged across a five-point Likert-type scale: 1 = “strongly disagree,” 2 = “disagree,” 3 = “neither agree nor disagree,” 4 = “agree,” and 5 = “strongly agree.” Since this measure asked the adolescent to assess each parent separately on each item, separate scores for mothers and fathers were established. The scores on the items for each of the subscales were summed and divided by the number of items in the scales resulting in a range of scores for each of the subscales from one to five. Previously reported internal reliabilities (Cronbach’s alpha) for this scale were between .71 and .87 (Bush et al.). Cronbach’s alphas using the present data at Time 1 were .81 for fathers’ and .78 for mothers’ monitoring.

Operational Hypotheses

This study examined whether adolescent perception of parental behaviors were better predictors of Time 1 adolescent religiosity (i.e., cross-sectional models; Figure 1 & Figure 2) or Time 2 adolescent religiosity (i.e., longitudinal models; Figure 3 & Figure 4). Due to the possibility of age and gender of adolescent differences, age and gender were also considered.

Operational Hypotheses for Research Question One

The first research question asked to what extent adolescents report changes in their intrinsic and extrinsic religiosity over the time between their early and their later years of high school. This question yielded the following two operational hypotheses (H_1 and H_2):

Operational Hypothesis One (H_1). At Time 2 (sample of 11th and 12th graders), adolescents will report higher scores on the Intrinsic Religiosity subscale of the Religious Orientation Scale than they did at Time 1 (sample of 9th and 10th graders).

Operational Hypothesis Two (H_2). At Time 2 (sample of 11th and 12th graders), adolescents will report lower scores on the Extrinsic Religiosity Subscale of the Religious Orientation Scale than they did at Time 1 (sample of 9th and 10th graders).

Operational Hypotheses for Research Question Two

The second research question asked if during the early and later years of high school there were gender of the adolescent differences in reports of intrinsic and extrinsic religiosity. This research question yielded the following four operational hypotheses (H_3 to H_6):

Operational Hypothesis Three (H₃). At Time 1 (sample of 9th and 10th graders), the adolescent girls will report higher scores than the adolescent boys on the Intrinsic Religiosity subscale of the Religious Orientation Scale.

Operational Hypothesis Four (H₄). At Time 1 (sample of 9th and 10th graders), the adolescent girls will report higher scores than the adolescent boys on the Extrinsic Religiosity subscale of the Religious Orientation Scale.

Operational Hypothesis Five (H₅). At Time 2 (sample of 11th and 12th graders), the adolescent girls will report higher scores than the adolescent boys on the Intrinsic Religiosity subscale of the Religious Orientation Scale.

Operational Hypothesis Six (H₆). At Time 2 (sample of 11th and 12th graders), the adolescent girls will report higher scores than the adolescent boys on the Extrinsic Religiosity subscale of the Religious Orientation Scale.

Operational Hypotheses for Research Question Three

The third research question asked to what extent do adolescent perceptions of fathers' and mothers' parental behaviors relate to adolescent reports of intrinsic and extrinsic religiosity during the early years of high school (Time 1 – 9th or 10th grade). Research questions three and four and the accompanying models (see Figure 1, Figure 2, Figure 3, and Figure 4) were developed to examine whether adolescent perceptions of parental behaviors are better predictors of Time 1 adolescent religiosity (i.e., cross-sectional models) or Time 2 adolescent religiosity (i.e., longitudinal models). Figure 1 and Figure 2 were developed to model the relationships between the variables at Time 1.

Following the formation of the conceptual hypotheses for the cross-sectional models, the following eight operational hypotheses were developed:

Operational Hypothesis Seven (H₇). Adolescent reports about fathers and mothers on the Parental Support subscale of the Parental Behavior Measure at Time 1 (sample of 9th and 10th graders) will be positively related to the scores of both adolescent girls and boys on the Intrinsic Religiosity subscale of the Religious Orientation scale at Time 1 (see Figure 1).

Operational Hypothesis Eight (H₈). Adolescent reports about fathers and mothers on the Parental Monitoring subscale of the Parental Behavior Measure at Time 1 (sample of 9th and 10th graders) will be positively related to the scores of both adolescent girls and boys on the Intrinsic Religiosity subscale of the Religious Orientation scale at Time 1 (see Figure 1).

Operational Hypothesis Nine (H₉). Adolescent reports about fathers and mothers on the Parental Induction subscale of the Parental Behavior Measure at Time 1 (sample of 9th and 10th graders) will be positively related to the scores of both adolescent girls and boys on the Intrinsic Religiosity subscale of the Religious Orientation scale at Time 1 (see Figure 1).

Operational Hypothesis 10 (H₁₀). Adolescent reports about fathers and mothers on the Parental Punitiveness subscale of the Parental Behavior Measure at Time 1 (sample of 9th and 10th graders) will be negatively related to the scores of both adolescent girls and boys on the Intrinsic Religiosity subscale of the Religious Orientation scale at Time 1 (see Figure 1).

Operational Hypothesis 11 (H₁₁). Adolescent reports about fathers and mothers on the Parental Support subscale of the Parental Behavior Measure at Time 1 (sample of 9th and 10th graders) will be positively related to the scores of both adolescent girls and boys on the Extrinsic Religiosity subscale of the Religious Orientation scale at Time 1 (see Figure 2).

Operational Hypothesis 12 (H₁₂). Adolescent reports about fathers and mothers on the Parental Monitoring subscale of the Parental Behavior Measure at Time 1 (sample of 9th and 10th graders) will be positively related to the scores of both adolescent girls and boys on the Extrinsic Religiosity subscale of the Religious Orientation scale at Time 1 (see Figure 2).

Operational Hypothesis 13 (H₁₃). Adolescent reports about fathers and mothers on the Parental Induction subscale of the Parental Behavior Measure at Time 1 (sample of 9th and 10th graders) will be positively related to the scores of both adolescent girls and boys on the Extrinsic Religiosity subscale of the Religious Orientation scale at Time 1 (see Figure 2).

Operational Hypothesis 14 (H₁₄). Adolescent reports about fathers and mothers on the Parental Punitiveness subscale of the Parental Behavior Measure at Time 1 (sample of 9th and 10th graders) will be positively related to the scores of both adolescent girls and boys on the Extrinsic Religiosity subscale of the Religious Orientation scale at Time 1 (see Figure 2).

Operational Hypotheses for Research Question Four

The fourth research question asked if adolescent perceptions of mothers' and fathers' parental behaviors during the early years of high school (Time 1 – 9th or 10th grade) explain more variation in adolescent reports of intrinsic and extrinsic religiosity during the later years of high school (Time 2 – 11th and 12th grades) or the earlier years of high school (Time 1 – 9th and 10th grades). Figure 3 and Figure 4 were developed to model the relationships between the variables. This last research question addressed whether a cross sectional (i.e., Time 1 parental behaviors and Time 1 adolescent religiosity) or a longitudinal model (i.e., Time 1 parental behaviors and Time 2 adolescent religiosity) explained more variation in adolescent religiosity. Following the formation of the conceptual hypotheses for the longitudinal models, the following eight operational hypotheses were developed:

Operational Hypothesis 15 (H₁₅). Adolescent reports about fathers and mothers on the Parental Support subscale of the Parental Behavior Measure at Time 1 (sample of 9th and 10th graders) will be positively related to the scores of both adolescent girls and boys on the Intrinsic Religiosity subscale of the Religious Orientation scale at Time 2 (sample of 11th and 12th graders) (see Figure 3).

Operational Hypothesis 16 (H₁₆). Adolescent reports about fathers and mothers on the Parental Monitoring subscale of the Parental Behavior Measure at Time 1 (sample of 9th and 10th graders) will be positively related to the scores of both adolescent girls and boys on the Intrinsic Religiosity subscale of the Religious Orientation scale at Time 2 (sample of 11th and 12th graders) (see Figure 3).

Operational Hypothesis 17 (H₁₇). Adolescent reports about fathers and mothers on the Parental Induction subscale of the Parental Behavior Measure at Time 1 (sample of 9th and 10th graders) will be positively related to the scores of both adolescent girls and boys on the Intrinsic Religiosity subscale of the Religious Orientation scale at Time 2 (sample of 11th and 12th graders) (see Figure 3).

Operational Hypothesis 18 (H₁₈). Adolescent reports about fathers and mothers on the Parental Punitiveness subscale of the Parental Behavior Measure at Time 1 (sample of 9th and 10th graders) will be negatively related to the scores of both adolescent girls and boys on the Intrinsic Religiosity subscale of the Religious Orientation scale at Time 2 (sample of 11th and 12th graders) (see Figure 3).

Operational Hypothesis 19 (H₁₉). Adolescent reports about fathers and mothers on the Parental Support subscale of the Parental Behavior Measure at Time 1 (sample of 9th and 10th graders) will be negatively related to the scores of both adolescent girls and boys on the Extrinsic Religiosity subscale of the Religious Orientation scale at Time 2 (sample of 11th and 12th graders) (see Figure 4).

Operational Hypothesis 20 (H₂₀). Adolescent reports about fathers and mothers on the Parental Monitoring subscale of the Parental Behavior Measure at Time 1 (sample of 9th and 10th graders) will be negatively related to the scores of both adolescent girls and boys on the Extrinsic Religiosity subscale of the Religious Orientation scale at Time 2 (sample of 11th and 12th graders) (see Figure 4).

Operational Hypothesis 21 (H₂₁). Adolescent reports about fathers and mothers on the Parental Induction subscale of the Parental Behavior Measure at Time 1 (sample of 9th and 10th graders) will be negatively related to the scores of both adolescent girls and

boys on the Extrinsic Religiosity subscale of the Religious Orientation scale at Time 2 (sample of 11th and 12th graders) (see Figure 4).

Operational Hypothesis 22 (H₂₂). Adolescent reports about fathers and mothers on the Parental Punitiveness subscale of the Parental Behavior Measure at Time 1 (sample of 9th and 10th graders) will be positively related to the scores of both adolescent girls and boys on the Extrinsic Religiosity subscale of the Religious Orientation scale at Time 2 (sample of 11th and 12th graders) (see Figure 4).

Analyses

The four research questions for this study asked about changes over time in religiosity, differences between boys and girls reports of religiosity, and the relationship between perceptions of parental behaviors and adolescent religiosity in cross-sectional and longitudinal models. Following is a description of the analyses used to address each of the questions.

Research Question One. The first research question asked to what extent adolescents reported differences in their intrinsic religiosity and extrinsic religiosity between their early (9th and 10th grades) and their later years of high school (11th and 12th grades). T-tests assess the statistical significance of the difference between two group means (Shavelson, 1996; Vogt, 1999). The question of intrinsic and extrinsic religiosity differences was analyzed by using paired-sample t-tests. The girls' Time 1 and Time 2 reports of intrinsic religiosity were compared in one analysis, and then the girls' Time 1 and Time 2 reports of extrinsic religiosity were compared in another analysis. The same strategy was utilized for comparing the boys' reports of intrinsic and extrinsic

religiosity. Since the hypotheses predicted a direction, one-tailed t-tests were used in the analyses.

Research Question Two. The second research question asked if during the early and later years of high school there were gender of the adolescent differences in reports of intrinsic religiosity and extrinsic religiosity. This question sought to individually assess the significance of the relationship for each of two of continuous variables (intrinsic religiosity and extrinsic religiosity) and the categorical variable of gender of the adolescent. Since the focus was only on one independent variable at a time, one-way analysis of variance (ANOVA) was used (Shavelson, 1996; Vogt, 1999). The mean scores of intrinsic and extrinsic religiosity for boys and girls at both Time 1 and Time 2 were compared using four one-way ANOVAs.

Research Question Three. The third research question addressed whether a cross sectional model (i.e., Time 1 parental behaviors and Time 1 adolescent religiosity) accounted for significant variation in adolescent religiosity. Separate analyses were required for intrinsic religiosity and extrinsic religiosity. Bivariate correlations were used to examine pairs of relationships between one demographic variable (gender of adolescent), Time 1 parental variables (support, monitoring, induction, punitiveness), and Time 1 adolescent religiosity (intrinsic and extrinsic). Prior to conducting the data analysis, a dummy variable was created to assign a numeric value to the gender of the adolescents (*boys* = 0, *girls* = 1). This dummy variable allowed for the use of the categorical variable of gender in both the bivariate correlations and multiple regression analyses (Pedhazur, 1997). The means and standard deviations of all the variables are presented in Table 5.

Multiple regression analysis assesses the relationship between a dependent variable and two or more independent variables often for the purposes of prediction and theory testing (Shavelson, 1996). Using multiple regression allowed for the explanation of the extent to which the parental variables of support, monitoring, induction, and punitiveness explained the variance in adolescent intrinsic and extrinsic religiosity.

Separate multiple linear regression analyses were used to examine the relationship between the dependent variables of Time 1 intrinsic and Time 1 extrinsic religiosity and the Time 1 independent variables of gender, adolescent perception of parental monitoring, parental support, parental induction, and parental punitiveness. Because the research literature supported the importance of both parental support and parental control behaviors in the development of adolescent religiosity (Gunnoe & Moore, 2002), all the Time 1 parental variables were loaded into the separate regression models to predict both Time 1 intrinsic and Time 1 extrinsic religiosity. In addition, because previous research indicated the possibility that mothers and fathers influence the development of adolescent religiosity in different ways (Okagaki, Hammond, & Seamon, 1999), separate regressions were run using Time 1 fathers' behaviors and Time 1 mothers' behaviors with Time 1 intrinsic and Time 1 extrinsic religiosity as the dependent variables. Forward selection was used to determine the order of inclusion of predictors into the regression formula. Using this strategy allowed inclusion of predictors into the regression formula based on strength of statistical correlation (Pedhazur, 1997). This choice seemed appropriate since there was no theoretical reason to select the parental behaviors in any particular order for inclusion into the regression formula.

The extent to which multicollinearity presented problems in the multiple regression analyses was examined by conducting a tolerance test using the default value of .10 as the low level for tolerance (Pedhazur, 1997). Using this tolerance level, multicollinearity was not sufficient to be a problem and so all the variables were entered into the regression equations.

Research Question Four. The fourth research question addressed whether a longitudinal model (i.e., Time 1 parental behaviors and Time 2 religiosity) accounted for significant variation in adolescent intrinsic and extrinsic religiosity. Bivariate correlations were used to examine pairs of relationships between one demographic variable (gender of the adolescent), Time 1 parental variables (adolescent perception of support, monitoring, induction, punitiveness), and Time 2 adolescent religiosity (intrinsic and extrinsic) (Shavelson, 1996). Separate multiple linear regression analyses were used to examine the relationship between the dependent variables of Time 2 intrinsic and Time 2 extrinsic religiosity and the Time 1 independent variables of gender, adolescent perception of parental monitoring, parental support, parental induction, and parental punitiveness. Because the research literature supported the importance of both parental support and parental control behaviors in the development of adolescent religiosity (Gunnoe & Moore, 2002), all the Time 1 parental variables were loaded into the separate regression models to predict both Time 2 intrinsic and Time 2 extrinsic religiosity. In addition, because previous research indicated the possibility that mothers and fathers influence the development of adolescent religiosity in different ways (Okagaki et al., 1999), separate multiple regressions were run using Time 1 fathers' behaviors and Time 1 mothers'

behaviors with Time 2 intrinsic and Time 2 extrinsic religiosity as the dependent variables.

The extent to which multicollinearity presented problems in the analyses was examined by conducting a tolerance test using the default value of .10 as the low level for tolerance (Pedhazur, 1997). Using this tolerance level, multicollinearity was not determined to be a problem and so all the variables were entered into the regression equations.

Methodological Limitations

Although the results of this study have important implications for educational, prevention, and intervention programs both inside and outside religious circles, certain limitations exist. First, the sample was a convenience sample and, therefore, the results may or may not be generalizable to a larger population of adolescents.

Second, although the study was longitudinal in nature, the two-year time period does not offer insight on the potentially important developments in personal religiosity that occur in childhood or that occur after the adolescent leaves home.

Third, the relatively low response rate at Time 1 and the attrition of subjects between Time 1 and Time 2 leaves a question about the generalizability of the findings and reduces the power of the analysis to uncover significant relationships between the variables. Related to the response rate is the small size of the overall sample available for analysis. Questions that could be raised about the current findings include: In what ways did the students who chose to participate and the students who chose not to participate differ? Did the sample bias the results of this study in systematic ways? Did families who

lived long term in these rural communities share characteristics that brought systematic bias to this study? Were there significant relationships among the variables that were not discovered due to the sample size (Type II error)?

Fourth, using self-report measures sometimes threatens reliability due to the possibility of subjects answering in a socially desirable direction. This deficit may be multiplied when it comes to a study of religiosity. In addition, gathering data only from adolescents instead of also including data from parents and/or observers allows only for interpretations about adolescent reports.

Fifth, while using a longitudinal data set offers the advantage of studying the same group over time, one disadvantage is sample attrition. It is not known if those who were present at Time 1 and Time 2 differed in significant ways from those who were only available at Time 1. Over 60% of the enrolled students were not surveyed at all and over 60% of those surveyed at Time 1 were unavailable at Time 2.

Finally, while the instruments used to measure intrinsic and extrinsic religiosity have a history of adequate reliability, there are still questions about what they are measuring and there is consensus that the instruments do not capture all the important aspects of the multi-dimensional concept of religiosity. There are also questions as to whether or not these instruments are useful with subjects in a sample that is not strongly religious. In addition, because the current study had a broad scope, the survey was long (over 200 questions). The placement of the intrinsic and extrinsic religiosity scales at the end of the survey led to several incomplete surveys.

Summary

This chapter provided a description of the research design, sample and procedure, measurement, operational hypotheses, and analyses utilized to investigate the research questions and hypotheses proposed regarding adolescent intrinsic and extrinsic religiosity and adolescent perception of parental behaviors. The current study was conceptualized from the framework of symbolic interaction theory that emphasizes the importance of socialization in the development of religiosity. The methods were grounded in a literature review that established a connection between parental socialization and adolescent religiosity. However, the existing literature demonstrated an absence of literature examining the relationship between parental socialization and religiosity in a longitudinal design. This chapter described a strategy that studied adolescent perception of selected parental behaviors (induction, monitoring, support, and punitiveness) and their relationship to adolescent intrinsic and extrinsic religiosity in a sample of high school students over a two-year period in a two-wave panel design. The following chapter will present the results of this study.

CHAPTER IV

RESULTS

As presented in Chapters I, II, and III, this was a longitudinal study using data collected from adolescents at two points in time: 9th or 10th grade and two years later in 11th or 12th grade. The study was designed to examine (a) whether boys' and girls' reported similar or different levels of intrinsic and extrinsic religiosity at the two times of data collection, (b) if boys' and girls' reports of intrinsic and extrinsic religiosity changed during the two years of this study, and (c) whether the combination of the gender of the adolescent and adolescent perception of selected parental behaviors (i.e., support, induction, monitoring, and punitiveness) during the early years of high school explain more variance in adolescent religiosity during the early (a cross sectional model) or later (a longitudinal model) years of high school. Results of the analyses described in Chapter III are presented in Chapter IV.

Changes in Religiosity Over Time (Research Question 1)

Research Question One asked whether adolescent boys or adolescent girls change in reported intrinsic and extrinsic religiosity between the early and later years of high school. Hypotheses One and Two were tested to examine Research Question One.

Changes in Intrinsic Religiosity Over Time

Hypothesis One stated that at Time 2 the overall sample (both boys and girls) would report higher intrinsic religiosity than they reported at Time 1. Using the overall

sample of 69 students with completed surveys at both Time 1 and Time 2, the results of paired t-test for intrinsic religiosity revealed no significant difference (one-tailed) in reports of intrinsic religiosity from Time 1 (9th or 10th grade) to Time 2 (11th or 12th grade), $t(68) = .91, p = .19$ (one-tailed; see Table 3). The mean score for intrinsic religiosity at Time 1 for this sample was 3.56 ($SD = .82$, see Table 3) and the mean score for intrinsic religiosity at Time 2 was 3.46 ($SD = .80$, see Table 3).

Table 3

Summary of Paired t-tests for Time 1 and Time 2 Intrinsic and Extrinsic Religiosity

Variable	Mean (<i>SD</i>) Time 1	Mean (<i>SD</i>) Time 2	<i>df</i>	<i>t</i>	<i>p</i>
Overall intrinsic religiosity	3.56 (.82)	3.46 (.80)	68	.91	0.19
Overall extrinsic religiosity	2.34 (.77)	2.30 (.64)	68	0.44	0.33
Girls intrinsic religiosity	3.65 (.83)	3.48 (.82)	38	1.22	0.12
Girls extrinsic religiosity	2.22 (.66)	2.30 (.61)	38	-0.76	0.23
Boys intrinsic religiosity	3.44 (.81)	3.42 (.80)	29	0.12	0.45
Boys extrinsic religiosity	2.51 (.88)	2.31 (.69)	29	1.20	0.12

* $p < .05$

Note. Since the hypotheses were directional, one-tailed significance tests were used.

When the data were examined by gender, no significant differences were discovered. Paired t-tests were used to separately examine the possible differences in intrinsic religiosity for girls and for boys. Although there was a decline in the intrinsic religiosity for the girls in this sample, the results of the paired t-test used to test for group differences failed to meet the established level of significance: $p < .05$. For the 39 girls in the sample with completed surveys at both Time 1 and Time 2, there was no significant difference between the means at Time 1 and Time 2: $t(38) = 1.22, p = .12$, one-tailed (see Table 3). The mean score for intrinsic religiosity at Time 1 for the girls was 3.65 ($SD = .83$, see Table 3) and the mean score for intrinsic religiosity at Time 2 was 3.48 ($SD = .82$, see Table 3).

In a similar manner, the paired t-test used to examine reports of intrinsic religiosity of the 30 boys who had completed surveys at Time 1 and Time 2 did not show a significant difference in the means: $t(29) = .12, p = .45$, one-tailed (see Table 3). The mean score for boys' reports of intrinsic religiosity at Time 1 for this sample was 3.44 ($SD = .81$, see Table 3) and the mean score for boys' reports of intrinsic religiosity at Time 2 was 3.42 ($SD = .80$, see Table 3).

Changes in Extrinsic Religiosity over Time

Concerning changes in extrinsic religiosity, the results of paired t-tests examining mean differences in the reported extrinsic religiosity at Time 1 and Time 2 provided no support for Hypothesis Two (see Table 3). Specifically, Hypothesis Two predicted that at Time 2 both boys and girls would report lower extrinsic religiosity than they reported at Time 1. The mean score for extrinsic religiosity for the sample of 69 students with

completed surveys at both Time 1 and Time 2 was 2.34 ($SD = .77$, see Table 3) at Time 1 and 2.30 ($SD = .64$, see Table 3) at Time 2. The difference was not significant: $t(69) = .44$; $p = .33$, one-tailed (see Table 3).

When the data was examined by gender, once again, no significant differences were discovered (see Table 3). In contrast to all the other religiosity scores, there was a small but not statistically significant increase in extrinsic religiosity for this sample of girls between Time 1 and Time 2. The mean score for the 39 girls in the sample on extrinsic religiosity at Time 1 was 2.22 ($SD = .66$, see Table 3) and the mean score for the girls on extrinsic religiosity at Time 2 was 2.30 ($SD = .61$, see Table 3). This difference was not significant: $t(38) = -.76$; $p = .23$, one-tailed (see Table 3).

In a similar manner, the paired t-test used to examine reports of extrinsic religiosity of the 30 boys in the sample at Time 1 and Time 2 did not show a significant difference in the means (see Table 3). The mean score for the boys on extrinsic religiosity at Time 1 was 2.51 ($SD = .88$) and the mean score for boys on extrinsic religiosity at Time 2 was 2.31 ($SD = .69$). This difference was also not significant: $t(29) = 1.20$; $p = .12$, one-tailed.

Gender of the Adolescent and Intrinsic and Extrinsic Religiosity (Research Question Two)

Research Question Two examined if gender differences in reports of intrinsic and extrinsic religiosity were present during the early and later years of high school. A series of four one-way analyses of variance (ANOVAs) were used to test Hypotheses Three to Six regarding gender differences in (a) Time 1 intrinsic religiosity (Hypothesis Three),

(b) Time 1 extrinsic religiosity (Hypothesis Four), (c) Time 2 intrinsic religiosity (Hypothesis Five), and (d) Time 2 extrinsic religiosity (Hypothesis Six). The results are summarized in Table 4 and are described below.

Hypothesis Three proposed that girls would report higher intrinsic religiosity at Time 1 (9th or 10th grade) than boys. The results of a one-way analysis of variance examining mean differences in the reported intrinsic religiosity of boys and girls at Time 1 provided no support for Hypothesis Three (see Table 4). The mean score for intrinsic religiosity for girls at Time 1 was 3.67 ($SD = .81$, see Table 4) and the mean score for intrinsic religiosity for boys at Time 1 was 3.46 ($SD = .86$). This difference was not significant: $F(1, 76) = 1.26; p = .13$ (see Table 4). For this analysis and for all the reported ANOVAs related to Research Question Two, the reported significance on the SPSS ANOVA results were divided by 2 to obtain the appropriate significance level for one-tailed tests (Norusis, 2002).

Hypothesis Four stated that adolescent girls would report higher extrinsic religiosity than adolescent boys at Time 1 (9th and 10th grades). The results of a one-way analysis of variance examining mean differences in the reported extrinsic religiosity of boys and girls at Time 1 provided no support for Hypothesis Four (see Table 4). In fact, the results were significant in the opposite direction of what was predicted. That is, boys reported greater extrinsic religiosity at Time 1 than girls. The mean score for extrinsic religiosity for girls at Time 1 was 2.18 ($SD = .68$, see Table 4) and the mean score for extrinsic religiosity for boys at Time 1 was 2.54 ($SD = .85$, see Table 4). This difference was significant: $F(1, 77) = 4.39; p = .02$ (see Table 4).

Hypothesis Five stated that adolescent girls would report higher intrinsic religiosity than adolescent boys at Time 2 (11th and 12th grades). The results of a one-way analysis of variance examining mean differences in the reported intrinsic religiosity of boys and girls at Time 2 provided no support for Hypothesis Five (see Table 4). The mean score for intrinsic religiosity for girls at Time 2 was 3.54 ($SD = .76$, see Table 4) and the mean score for intrinsic religiosity for boys at Time 1 was 3.34 ($SD = .85$). This difference was not significant: $F(1, 84) = 1.23; p = .14$ (see Table 4).

Hypothesis Six proposed that adolescent girls would report higher extrinsic religiosity than adolescent boys at Time 2 (11th and 12th grades). The results of a one-way analysis of variance examining mean differences in the reported extrinsic religiosity of boys and girls at Time 2 provided no support for Hypothesis Six (see Table 4). The mean score for extrinsic religiosity for girls at Time 2 was 2.27 ($SD = .61$, see Table 4) and the mean score for extrinsic religiosity for boys at Time 2 was 2.39 ($SD = .70$, see Table 4). This difference was not significant: $F(1, 84) = .67; p = .21$ (see Table 4).

Table 4

One-Way Analyses of Variance for Gender of Adolescent Differences in Intrinsic and Extrinsic Religiosity at Time 1 and Time 2

Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>F</i>	<i>p</i>
<i>Intrinsic religiosity at Time 1</i>						
Girls	43	3.67	.81			
Boys	35	3.46	.86	1, 76	1.26	.13
<i>Intrinsic religiosity at Time 2</i>						
Girls	49	3.54	.76			
Boys	37	3.34	.85	1, 84	1.23	.14
<i>Extrinsic religiosity at Time 1</i>						
Girls	44	2.18	.68			
Boys	35	2.54	.85	1, 77	4.39	.02*
<i>Extrinsic religiosity at Time 2</i>						
Girls	49	2.27	.61			
Boys	37	2.39	.70	1, 84	.67	.21

* $p < .05$

Note. Since the hypotheses were directional, one-tailed significance tests were used.

Bivariate Correlations of Parental Behaviors and Adolescent Religiosity

Prior to testing the research hypotheses, correlations were examined to identify significant relationships between the parent variables to be used as predictors in the multiple regression equations and the criterion variables. The bivariate correlations all used $p < .05$ as the minimum significance level (one-tailed tests).

Intrinsic Religiosity at Time 1. The bivariate correlations revealed no significant positive relationships between Time 1 intrinsic religiosity and any of the Time 1 parental variables (see Table 5). Time 1 intrinsic religiosity was positively related to Time 2 intrinsic religiosity ($r = .32$; $p = .008$, see Table 5). There were no significant negative bivariate correlations found between Time 1 intrinsic religiosity and any of the examined variables.

Intrinsic Religiosity at Time 2. Results of the bivariate correlations showed a significant positive correlation with only one of the parental variables (see Table 5). There was a significant positive correlation between Time 2 intrinsic religiosity and Time 1 fathers' monitoring ($r = .31$; $p = .006$, see Table 5). As mentioned above, Time 2 intrinsic religiosity was positively related to Time 1 intrinsic religiosity, but Time 1 intrinsic religiosity had a significant negative correlation with Time 1 extrinsic religiosity ($r = -.38$; $p = .001$, see Table 5).

Extrinsic Religiosity at Time 1. Results of the bivariate correlations showed only one parental variable significantly related to Time 1 extrinsic religiosity (see Table 5). Time 1 extrinsic religiosity was significantly and negatively related to mothers' support ($r = -.24$; $p = .04$, see Table 5). As mentioned above, Time 2 intrinsic religiosity was also negatively related to Time 1 extrinsic religiosity ($r = -.38$; $p = .001$, see Table 5). Time 1

extrinsic religiosity showed a significant positive relationship with Time 2 extrinsic religiosity ($r = .44, p > .001$, see Table 5).

Extrinsic Religiosity Time 2. Results of the bivariate correlations showed two parental variables significantly related to Time 2 extrinsic religiosity (see Table 5). Time 2 extrinsic religiosity had significant negative relationships with fathers' monitoring ($r = -.24; p = .04$, see Table 5) and mothers' induction ($r = -.25; p = .03$, see Table 5). Time 2 extrinsic religiosity and Time 1 extrinsic religiosity were positively correlated ($r = .44, p = .000$, see Table 5).

Consideration was given to relationships between gender and the proposed predictor variables by running a set of bivariate correlations between gender of the adolescent and each Time 1 parent behavior. Significant gender differences were found in the correlations regarding adolescents' reports of only one of the parental behavior variables (see Table 5). Girls reported significantly higher levels of mothers' monitoring ($r = .37; p = .000$, see Table 5).

Table 5

Bivariate Correlations between Parental Behaviors and Adolescent Religiosity

Variables	GR	MS	FS	MM	FM	MP	FP
Gender (GR)	1.00						
Mother's support (MS)	.16 _a	1.00					
Father's support (FS)	.05 _b	.72 _c ***	1.00				
Mother's monitoring (MM)	.37 _a ***	.48 _a ***	.42 _c ***	1.00			
Father's monitoring (FM)	.07 _c	.31*** _e	.58 _e ***	.69 _e ***	1.00		
Mother's punitiveness (MP)	.07 _d	-.10 _f	-.16 _m	-.04 _d	-.08 _n	1.00	
Father's punitiveness (FP)	.12 _b	.11 _c	-.09 _c	-.02 _c	-.10 _e	.82 _n ***	1.00
Mother's induction (MI)	.09 _g	.45 _g ***	.45 _n ***	.37 _g ***	.36 _n ***	.04 _d	.08 _k
Father's induction (FI)	.09 _e	.51 _k ***	.67 _k ***	.34 _k ***	.46 _e ***	.00 _m	.05 _k
T1 Intrinsic religiosity (IR1)	.13 _h	-.05 _n	.17 _o	.03 _l	.07 _p	-.02 _s	-.13 _q
T1 Extrinsic religiosity (ER1)	-.23 _i *	-.24 _h *	-.02 _h	-.10 _h	.00 _q	-.18 _t	.07 _o
T2 Intrinsic religiosity (IR2)	.12 _j	.12 _j	.17 _l	.14 _j	.31 _r **	-.06 _u	.00 _l
T1 Extrinsic religiosity (ER2)	-.09 _j	-.05 _j	-.10 _l	-.09 _j	-.24 _r *	.12 _u	.22 _l
Mean		4.35	4.16	4.28	3.97	2.70	2.64
Standard Deviation		0.70	0.76	0.71	0.85	0.79	0.81

(Table 5 continued on the next page)

Table 5 continued.

Bivariate Correlations between Parental Behaviors and Adolescent Religiosity

Variables	MI	FI	IR1	ER1	IR2	ER2
Gender (GR)						
Mother's support (MS)						
Father's support (FS)						
Mother's monitoring (MM)						
Father's monitoring (FM)						
Mother's punitiveness (MP)						
Father's punitiveness (FP)						
Mother's induction (MI)	1.00					
Father's induction (FI)	.83 _k ***	1.00				
T1 Intrinsic religiosity (IR1)	-.10 _t	.01 _x	1.00			
T1 Extrinsic religiosity (ER1)	-.02 _v	.07 _p	-.17 _h	1.00		
T2 Intrinsic religiosity (IR2)	.11 _w	.13 _v	.32 _q **	-.38 _q **	1.00	
T1 Extrinsic religiosity (ER2)	-.25 _w *	-.20 _v	-.13 _q	.44 _q ***	-.20 _j	1.00
Mean	3.57	3.39	3.57	2.34	3.45	2.32
Standard Deviation	0.84	0.88	0.83	0.77	0.80	0.65

Note. Dummy coding was used for gender (*boys* = 0, *girls* = 1).

^an=108. ^bn=100. ^cn=99. ^dn=104. ^en=98. ^fn=104. ^gn=105. ^hn=78. ⁱn=79. ^jn=86. ^kn=97. ^ln=77. ^mn=95. ⁿn=96. ^on=70.

^pn=68. ^qn=69. ^rn=76. ^sn=73. ^tn=74. ^un=82. ^vn=75. ^wn=83. ^xn=67.

* $p < .05$, ** $p < .01$, *** $p < .001$

Cross-Sectional Analysis of Adolescent Religiosity and Perception of Parental Behaviors

Research Question Three focused on whether a cross sectional multivariate model (i.e., Gender, Time 1 parental behaviors and Time 1 adolescent religiosity) accounted for significant variation in adolescent intrinsic and extrinsic religiosity. This research question was investigated through testing Model 1 (for intrinsic religiosity at Time 1, see Figure 1) and Model 2 (for extrinsic religiosity at Time 1, see Figure 2). Since previous research indicated the possibility of differences in adolescent perceptions of mothers' and fathers' parental behaviors, each model was tested separately for mothers and fathers. In each analysis, religiosity at Time 1 (intrinsic or extrinsic) was regressed on gender of the adolescent and Time 1 adolescent reports of parental behaviors (support, monitoring, induction, and punitiveness).

Model 1 - Parental Behaviors (T1), Gender, and Adolescent Intrinsic Religiosity (T1)

Model 1 (see Figure 1) provided for the examination of the cross-sectional relationships between gender and adolescent perceptions of parental behaviors at Time 1 (9th or 10th grade) and adolescent reports of intrinsic religiosity at Time 1 (9th or 10th grade). To test Model 1, two multiple regression analyses (one for mothers' parental behaviors and one for fathers' parental behaviors) were conducted to test Hypotheses 7 to 10. Specifically, the multiple regression analyses included gender of the adolescent and adolescent reports of four parental behaviors (support, monitoring, induction, and punitiveness) at Time 1 as predictor variables and adolescent reports of intrinsic religiosity at Time 1 as the dependent variable. The results for each model and for hypotheses associated with the model are described below.

Earlier in this chapter (Hypothesis Three) it was reported that the bivariate relationship between gender and Time 1 intrinsic religiosity for this sample did not indicate significant differences between girls and boys (see Table 5). However, since previous research reported a relationship between gender and religiosity (Smith, 2005), the variable was included as part of the multivariate analysis for Model 1. Including gender as a variable in the testing of Model 1 allowed the examination of the multivariate relationship of gender and adolescent perception of parental behaviors to intrinsic religiosity at Time 1. Consistent with the bivariate correlations, the beta coefficient for gender in Model 1 was not significant (see Table 6).

Model 1 – Time 1 Intrinsic Religiosity and Mothers’ Behaviors. The overall model of gender and adolescent perception of mothers’ parental behaviors did not explain a significant amount of the variance in adolescent intrinsic religiosity at Time 1: $R^2 = .04$; $F = .48$; $p = .79$. Therefore, no support was provided for the cross-sectional model of gender and adolescent perceptions of mothers’ parental behaviors at Time 1 predicting adolescent reports of intrinsic religiosity at Time 1.

No significant beta coefficients were evident when Model 1 (see Table 6) was tested for mothers’ behaviors so no support was provided for Hypothesis Seven (see Table 6) that proposed that Time 1 adolescent reports of mothers’ support would be positively related to Time 1 adolescent reports of intrinsic religiosity. There was also no support for Hypothesis Eight (see Table 6) that proposed that Time 1 adolescent reports of mothers’ monitoring would be positively related to Time 1 adolescent reports of intrinsic religiosity. There was also no support for Hypothesis Nine (see Table 6) that proposed that Time 1 adolescent reports of mothers’ positive induction would be

positively related to Time 1 adolescent reports of intrinsic religiosity. And, finally, there was no support for Hypothesis 10 (see Table 6) that proposed that Time 1 adolescent reports of mothers' punitiveness would be negatively related to Time 1 adolescent reports of intrinsic religiosity.

Model 1 – Time 1 Intrinsic Religiosity and Fathers' Behaviors. The overall model of gender and perception of fathers' parental behaviors did not explain a significant amount of the variance in adolescent intrinsic religiosity at Time 1: $R^2 = .08$; $F = 1.02$; $p = .41$. Further, no significant beta coefficients were evident when Model 1 was tested using gender and adolescent reports of fathers' parental behaviors. Thus, no support was provided for the cross-sectional model of gender and adolescent perceptions of fathers' parental behaviors at Time 1 predicting adolescent reports of intrinsic religiosity at Time 1.

Since there were no significant betas evident in the analysis of fathers' behaviors, no support was provided for Hypothesis Seven (see Table 6) that proposed that Time 1 adolescent reports of fathers' support would be positively related to Time 1 adolescent reports of intrinsic religiosity. There was also no support for Hypothesis Eight (see Table 6) that proposed that Time 1 adolescent reports of fathers' monitoring would be positively related to Time 1 adolescent reports of intrinsic religiosity. There was also no support for Hypothesis Nine (see Table 6) that proposed that Time 1 adolescent reports of fathers' positive induction would be positively related to Time 1 adolescent reports of intrinsic religiosity. And, finally, there was no support for Hypothesis 10 (see Table 6) that proposed that Time 1 adolescent reports of fathers' punitiveness would be negatively related to Time 1 adolescent reports of intrinsic religiosity.

Table 6

Multiple Regression Analyses of Adolescent Perceptions of Time 1 Parental Behaviors on Time 1 Reports of Intrinsic Religiosity

<i>Predictor Variables</i>	<i>Mothers^a</i>			<i>Fathers^b</i>		
	<i>b</i>	<i>SE</i>	<i>β</i>	<i>b</i>	<i>SE</i>	<i>β</i>
Gender ^a	.10	.22	.06	.11	.21	.06
Parental support	-.21	.20	-.15	.32	.22	.30
Parental monitoring	.13	.19	.10	-.10	.18	-.09
Parental punitiveness	-.03	.13	-.02	-.17	.15	-.15
Parental induction	-.06	.13	-.06	-.11	.17	-.11
<i>Multiple R</i>			.19			.28
<i>R²</i>			.04			.08
<i>Adjusted R²</i>			-.04			.002
<i>F Value</i>			.48			1.02

Note. Dummy coding was used for gender (*boys* = 0, *girls* = 1).

^a*N* = 73 for mothers. ^b*N* = 66 for fathers.

**p* ≤ .05.

Model 2 - Parental Behaviors (T1), Gender, and Adolescent Extrinsic Religiosity (T1)

Model 2 (see Figure 2) provided for the examination of the cross-sectional relationships between gender and adolescent perceptions of parental behaviors at Time 1 (9th or 10th grade) and adolescent reports of extrinsic religiosity at Time 1 (9th or 10th grade). To test Model 2, two multiple regression analyses (one for mothers' parental behaviors and one for fathers' parental behaviors) were conducted to test Hypotheses 11 to 14. Specifically, the multiple regression analyses included gender of the adolescent and adolescent reports of four parental behaviors (support, monitoring, induction, and punitiveness) at Time 1 as predictor variables and adolescent reports of extrinsic religiosity at Time 1 as the dependent variable. The results for each model and for hypotheses associated with the model are described below.

Earlier in this chapter (Hypothesis Four) it was reported that the bivariate relationship between gender and extrinsic religiosity was significant (see Table 5). Specifically, Hypothesis Four proposed that at Time 1 girls would report higher extrinsic religiosity than boys. The relationship was significant but in the opposite direction than hypothesized. Boys reported significantly higher extrinsic religiosity than girls. Including gender as a variable in the testing of Model 2 allowed the examination of the multivariate relationship of gender and adolescent perception of parental behaviors to extrinsic religiosity at Time 1. Gender was not significant in the mothers' model but it was significant in the fathers' model (see Table 7).

Model 2 – Time 1 Extrinsic Religiosity and Mothers' Behaviors. The overall model of gender and adolescent perception of mothers' parental behaviors was significant and explained 20% of the variance in adolescent reports of extrinsic religiosity: $F = 3.34$;

$p = .01$. Thus, significant support was provided for the cross-sectional model of gender and adolescent perceptions of mothers' behaviors at Time 1 predicting adolescent reports of extrinsic religiosity at Time 1.

The beta for adolescent perception of mothers' support was significant for Model 2 but it was in the opposite direction expected and so it provided no support for Hypothesis 11 (see Table 7) that proposed that Time 1 adolescent reports of mothers' support would be positively related to Time 1 adolescent reports of extrinsic religiosity. The beta for adolescent perception of mothers' monitoring was not significant and therefore provided no support for Hypothesis 12 (see Table 7) that proposed that Time 1 adolescent reports of mothers' monitoring would be positively related to Time 1 adolescent reports of extrinsic religiosity. The beta for adolescent perception of mothers' induction was not significant and therefore provided no support for Hypothesis 13 (see Table 7) that proposed that Time 1 adolescent reports of mothers' induction would be positively related to Time 1 adolescent reports of extrinsic religiosity. And, finally, the beta for adolescent perception of mothers' punitiveness was not significant and therefore provided no support for Hypothesis 14 (see Table 7) that proposed that Time 1 adolescent reports of mothers' punitiveness would be positively related to Time 1 adolescent reports of extrinsic religiosity.

Model 2 – Time 1 Extrinsic Religiosity and Fathers' Behaviors. The overall model of gender and perception of fathers' parental behaviors did not explain a significant amount of the variance in adolescent extrinsic religiosity at Time 1: $R^2 = .08$; $F = 1.04$; $p = .40$. Thus, no support was provided for the cross-sectional model of gender

and adolescent perceptions of fathers' parental behaviors at Time 1 predicting adolescent reports of extrinsic religiosity at Time 1.

Since there were no significant betas evident in the analysis of fathers' behaviors, no support was provided for Hypothesis 11 (see Table 7) that proposed that Time 1 adolescent reports of fathers' support would be positively related to Time 1 adolescent reports of extrinsic religiosity. There was also no support for Hypothesis 12 (see Table 7) that proposed that Time 1 adolescent reports of fathers' monitoring would be positively related to Time 1 adolescent reports of extrinsic religiosity. There was also no support for Hypothesis 13 (see Table 7) that proposed that Time 1 adolescent reports of fathers' positive induction would be positively related to Time 1 adolescent reports of extrinsic religiosity. And, finally, there was no support for Hypothesis 14 (see Table 7) that proposed that Time 1 adolescent reports of fathers' punitiveness would be positively related to Time 1 adolescent reports of extrinsic religiosity.

Table 7

Multiple Regression Analyses of Adolescent Perceptions of Time 1 Parental Behaviors on Reports of Time 1 Extrinsic Religiosity

<i>Predictor Variables</i>	<i>Mothers^a</i>			<i>Fathers^b</i>		
	<i>b</i>	<i>SE</i>	<i>β</i>	<i>b</i>	<i>SE</i>	<i>β</i>
Gender ^a	-.35	.19	-.22	-.42	.20	-.26*
Parental support	-.53	.18	-.40**	-.04	.20	-.04
Parental monitoring	.11	.16	.09	-.05	.15	-.05
Parental punitiveness	-.20	.11	-.20	-.11	.14	-.10
Parental induction	.13	.12	.12	.11	.16	.11
<i>Multiple R</i>			.44			.28
<i>R²</i>			.20			.08
<i>Adjusted R²</i>			.14			.003
<i>F Value</i>			3.34**			1.04

Note. Dummy coding was used for gender (*boys* = 0, *girls* = 1).

^a*N* = 74 for mothers. ^b*N* = 67 for fathers.

p* ≤ .05. *p* ≤ .01.

Longitudinal Analysis of Adolescent Religiosity and Perception of Parental Behaviors

Research Question Four focused on whether a longitudinal multivariate model (i.e., Gender, Time 1 parental behaviors and Time 2 adolescent religiosity) accounted for significant variation in adolescent intrinsic and extrinsic religiosity. This research question was investigated through testing Model 3 (for intrinsic religiosity at Time 2, see Figure 3) and Model 4 (for extrinsic religiosity at Time 2, see Figure 4). Since previous research indicated the possibility of differences in adolescent perceptions of mothers' and fathers' parental behaviors, each model was tested separately for mothers and fathers. In each analysis, religiosity at Time 2 (intrinsic or extrinsic) was regressed on gender of the adolescent and Time 1 adolescent reports of parental behaviors (support, monitoring, induction, and punitiveness).

Model 3 - Parental Behaviors (T1), Gender, and Adolescent Intrinsic Religiosity (T2)

Model 3 provided for the examination of longitudinal relationships between gender and adolescent perceptions of parental behaviors at Time 1 (9th or 10th grade) and adolescent reports of intrinsic religiosity at Time 2 (11th or 12th grade). To test Model 3, two multiple regression analyses (one for mothers' parental behaviors and one for fathers' parental behaviors) were conducted to test Hypotheses 15 to 18. Specifically, the multiple regression analyses included gender of the adolescent and adolescent reports of the parental behaviors (support, monitoring, induction, and punitiveness) at Time 1 as predictor variables and adolescent reports of intrinsic religiosity at Time 2 as the dependent variable. The results for each model and for hypotheses associated with the model are described below.

Earlier in this chapter (Hypothesis Five) it was reported that the bivariate relationship between gender and intrinsic religiosity at Time 2 was not significant (see Table 5). Specifically, Hypothesis Five proposed that at Time 2 girls would report higher intrinsic religiosity than boys. However, since previous research reported a relationship between gender and religiosity (Smith, 2005), the variable was included in Model 3. Including gender as a variable in the testing of Model 3 allowed the examination of the multivariate relationship of gender and adolescent perception of parental behaviors to intrinsic religiosity at Time 2. Again, the relationship was found to not be significant (see Table 8).

Model 3 – Time 2 Intrinsic Religiosity and Mothers’ Behaviors. The overall model of gender and adolescent perception of mothers’ parental behaviors did not explain a significant amount of the variance in adolescent intrinsic religiosity at Time 2: $R^2 = .04$; $F = .63$; $p = .68$. Therefore, no support was provided for the longitudinal model of gender and adolescent perceptions of mothers’ parental behaviors at Time 1 predicting adolescent reports of intrinsic religiosity at Time 2.

No significant beta coefficients were evident when Model 3 (see Figure 3) was tested for mothers’ behaviors so no support was provided for Hypothesis 15 (see Table 8) that proposed that Time 1 adolescent reports of mothers’ support would be positively related to Time 2 adolescent reports of intrinsic religiosity. There was also no support for Hypothesis 16 (see Table 8) that proposed that Time 1 adolescent reports of mothers’ monitoring would be positively related to Time 2 adolescent reports of intrinsic religiosity. There was also no support for Hypothesis 17 (see Table 8) that proposed that Time 1 adolescent reports of mothers’ positive induction would be positively related to

Time 2 adolescent reports of intrinsic religiosity. And, finally, there was no support for Hypothesis 18 (see Table 8) that proposed that Time 1 adolescent reports of mothers' punitiveness would be negatively related to Time 2 adolescent reports of intrinsic religiosity.

Model 3 – Time 2 Intrinsic Religiosity and Fathers' Behaviors. The overall model of gender and adolescent perception of fathers' parental behaviors (see Figure 3) did not explain a significant amount of the variance in adolescent intrinsic religiosity at Time 2 $R^2 = .11$; $F = 1.66$; $p = .16$. Therefore, no support was provided for the longitudinal model of gender and adolescent perceptions of fathers' parental behaviors at Time 1 predicting adolescent reports of intrinsic religiosity at Time 2.

The beta for adolescent perception of fathers' support was not significant and therefore provided no support for Hypothesis 15 (see Table 8) that proposed that Time 1 adolescent reports of fathers' monitoring would be positively related to Time 2 adolescent reports intrinsic religiosity. The beta for adolescent perception of fathers' monitoring was significant ($\beta = .31$; $p = .04$) and therefore provided partial support for Hypothesis 16 (see Table 8) that proposed that Time 1 adolescent reports of fathers' monitoring would be positively related to Time 2 adolescent reports of intrinsic religiosity. The beta for adolescent perception of fathers' induction was not significant and therefore provided no support for Hypothesis 17 (see Table 8) that proposed that Time 1 adolescent reports of fathers' induction would be positively related to Time 2 adolescent reports of intrinsic religiosity. And, finally, the beta for adolescent perception of fathers' punitiveness was not significant and therefore provided no support for Hypothesis 18 (see Table 8) that proposed that Time 1 adolescent reports of fathers'

punitiveness would be negatively related to Time 2 adolescent reports of intrinsic religiosity.

Model 4 - Parental Behaviors (T1), Gender, and Adolescent Extrinsic Religiosity (T2)

Model 4 (see Figure 4) provided for the examination of longitudinal relationships between and adolescent perceptions of parental behaviors at Time 1 (9th or 10th grade) and adolescent reports of extrinsic religiosity at Time 2 (11th or 12th grade). To test Model 4, two multiple regression analyses (one for mothers' parental behaviors and one for fathers' parental behaviors) were conducted to test Hypotheses 19 to 22. Specifically, the multiple regression analyses included gender of the adolescent and adolescent reports of the parental behaviors (support, monitoring, induction, and punitiveness) at Time 1 as predictor variables and adolescent reports of extrinsic religiosity at Time 2 as the dependent variable. The results for each model and for hypotheses associated with the model are described below.

Earlier in this chapter (Hypothesis Six) it was reported that the bivariate relationship between gender and extrinsic religiosity at Time 2 was not significant (see Table 5). Specifically, Hypothesis Six proposed that at Time 2 girls would report higher extrinsic religiosity than boys. However, since previous research reported a relationship between gender and religiosity (Smith, 2005), the variable was included in Model 4. Including gender as a variable in the testing of Model 4 allowed the examination of the multivariate relationship of gender and adolescent perception of parental behaviors to extrinsic religiosity at Time 2. Again, the relationship was found to not be significant (see Table 9).

Table 8

Multiple Regression Analyses of Adolescent Perceptions of Time 1 Parental Behaviors on Reports of Time 2 Intrinsic Religiosity

<i>Predictor Variables</i>	<i>Mothers^a</i>			<i>Fathers^b</i>		
	<i>b</i>	<i>SE</i>	<i>β</i>	<i>b</i>	<i>SE</i>	<i>β</i>
Gender	.15	.21	.09	.18	.20	.11
Parental support	.14	.18	.11	.04	.20	.04
Parental monitoring	.03	.17	.03	.33	.16	.31*
Parental punitiveness	.09	.12	.08	.04	.13	.03
Parental induction	.05	.12	.05	-.06	.17	-.07
<i>Multiple R</i>			.20			.33
<i>R²</i>			.04			.11
<i>Adjusted R²</i>			-.02			.04
<i>F Value</i>			.63			1.66

Note. Dummy coding was used for gender (*boys* = 0, *girls* = 1).

^a*N* = 82 for mothers. ^b*N* = 73 for fathers.

**p* < .05.

Model 4 – Time 2 Extrinsic Religiosity and Mothers’ Behaviors. The overall model of gender and adolescent perception of mothers’ parental behaviors (see Figure 4) did not explain a significant amount of the variance in adolescent extrinsic religiosity at Time 2: $R^2 = .10$; $F = 1.61$; $p = .17$. Therefore, no support was provided for the longitudinal model of gender and adolescent perceptions of mothers’ parental behaviors at Time 1 predicting adolescent reports of extrinsic religiosity at Time 2.

No significant beta coefficients were evident when Model 4 (see Figure 4) was tested for mothers’ behaviors so no support was provided for Hypothesis 19 (see Table 9) that proposed that Time 1 adolescent reports of mothers’ support would be negatively related to Time 2 adolescent reports of extrinsic religiosity. There was also no support for Hypothesis 20 (see Table 9) that proposed that Time 1 adolescent reports of mothers’ monitoring would be negatively related to Time 2 adolescent reports of extrinsic religiosity. There was also no support for Hypothesis 21 (see Table 9) that proposed that Time 1 adolescent reports of mothers’ positive induction would be negatively related to Time 2 adolescent reports of extrinsic religiosity. And, finally, there was no support for Hypothesis 22 (see Table 9) that proposed that Time 1 adolescent reports of mothers’ punitiveness would be positively related to Time 2 adolescent reports of extrinsic religiosity.

Model 4 – Time 2 Extrinsic Religiosity and Fathers’ Behaviors. The overall model of gender and adolescent perception of fathers’ parental behaviors (see Figure 4) did not explain a significant amount of the variance in adolescent extrinsic religiosity at Time 2: $R^2 = .14$; $F = 2/17$; $p = .07$. Therefore, no support was provided for the

longitudinal model of gender and adolescent perceptions of mothers' parental behaviors at Time 1 predicting adolescent reports of extrinsic religiosity at Time 2.

No significant beta coefficients were evident when Model 4 (see Figure 4) was tested for fathers' behaviors so no support was provided for Hypothesis 19 (see Table 9) that proposed that Time 1 adolescent reports of fathers' support would be negatively related to Time 2 adolescent reports of extrinsic religiosity. There was also no support for Hypothesis 20 (see Table 9) that proposed that Time 1 adolescent reports of fathers' monitoring would be negatively related to Time 2 adolescent reports of extrinsic religiosity. There was also no support for Hypothesis 21 (see Table 9) that proposed that Time 1 adolescent reports of fathers' positive induction would be negatively related to Time 2 adolescent reports of extrinsic religiosity. And, finally, there was no support for Hypothesis 22 (see Table 9) that proposed that Time 1 adolescent reports of fathers' punitiveness would be positively related to Time 2 adolescent reports of extrinsic religiosity.

Table 9

Multiple Regression Analyses of Adolescent Perceptions of Time 1 Parental Behaviors on Reports of Time 2 Extrinsic Religiosity

<i>Predictor Variables</i>	<i>Mothers^a</i>			<i>Fathers^b</i>		
	<i>b</i>	<i>SE</i>	<i>β</i>	<i>b</i>	<i>SE</i>	<i>β</i>
Gender ^a	-.17	.16	-.13	-.14	.16	-.10
Parental support	-.08	.14	-.08	.20	.16	.24
Parental monitoring	.06	.13	.06	-.19	.13	-.22
Parental punitiveness	.08	.09	.10	.19	.10	.21
Parental induction	-.17	.09	-.23	-.21	.13	-.28
<i>Multiple R</i>			.31			.37
<i>R²</i>			.10			.14
<i>Adjusted R²</i>			.04			.08
<i>F Value</i>			1.61			2.17

Note. Dummy coding was used for gender (*boys* = 0, *girls* = 1).

^a*N* = 82 for mothers. ^b*N* = 73 for fathers.

p* < .05. *p* < .01.

Summary

Chapter IV reported the results of the study proposed in Chapters I, II, and III. The data yielded no support for the hypotheses that intrinsic religiosity would increase or that extrinsic religiosity would decline for either boys or for girls over the two-year period of time encompassed in the current study. In contrast to what was predicted, boys reported significantly higher extrinsic religiosity than girls at Time 1. There were no other significant differences between boys and girls reports of intrinsic or extrinsic religiosity at either Time 1 or Time 2. There was some support in the data for the consideration of adolescent perception of both parental support and parental control behaviors as predictors of intrinsic and extrinsic religiosity. However, mothers' support was the only specific parental behavior significantly related to extrinsic religiosity and fathers' monitoring was the only parental behavior significantly related to intrinsic religiosity. Mothers' support was negatively related to Time 1 extrinsic religiosity and fathers' monitoring was positively related to Time 2 intrinsic religiosity. The only overall model that was significant was Model 2 that tested Time 1 adolescent perception of parental behaviors and Time 1 extrinsic religiosity. In Chapter V these results will be discussed and interpreted with reference to theory and the review of literature.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Overview

Chapter V discusses the results of the study introduced, supported by existing research, designed, implemented and analyzed as described in Chapters I, II, III, and IV. Using symbolic interaction theory, this study examined the extent to which adolescents' perceptions of four parental behaviors (support, monitoring, punitiveness, and induction) during early adolescence related to adolescent religiosity during the early and later years of high school. Two dimensions of adolescent religiosity (intrinsic and extrinsic) were examined. Data were gathered from the same group of adolescents living in three non-metropolitan communities in a South Central state during their 9th or 10th grade year and then again two years later in their 11th or 12th grade year.

In the following sections, the results relating to four research questions are discussed. More specifically, the four research questions addressed (a) whether adolescents report changes in intrinsic and extrinsic religiosity between their early and their later years of high school, (b) whether gender differences exist between reports of intrinsic and extrinsic religiosity during the early and later years of high school, (c) the extent to which adolescent perceptions of fathers' and mothers' parental behaviors in the early years of high school explain variation in intrinsic and extrinsic religiosity during the early years of high school, and (d) the extent to which adolescent perceptions of mothers' and fathers' parental behaviors during the early years of high school explain variation in

intrinsic and extrinsic religiosity during the later years of high school. This chapter also presents implications for practice and future research.

Changes over Time in Adolescent Religiosity (Research Question One)

The first research question in this study examined the extent to which adolescents reported differences in intrinsic and extrinsic religiosity between the early and later years of high school. To address this question, separate comparisons were made between the adolescents' reports at Time 1 and the reports at Time 2 for intrinsic and extrinsic religiosity. These comparisons were made because age was often identified in previous research as an important variable explaining variation in reports of religiosity (Smith et al., 2002; Beit-Hallahmi, & Argyle, 1997).

It was expected that there would be a decline in extrinsic religiosity but not in intrinsic religiosity over time. The stability of intrinsic religiosity was hypothesized in part because it was believed that intrinsic religiosity would be associated with the development of the core self. According to Stryker (1980), the core self is a stable set of meanings attached to the self that provides continuity and predictability to behavior. In addition, intrinsic religiosity was predicted to be more stable than extrinsic religiosity based on the definition of the concepts themselves. Intrinsically motivated religiosity is described as being more mature than extrinsically motivated religiosity (Allport & Ross, 1967). This maturity of the intrinsic motivation is demonstrated in religiosity that is more differentiated and that displays more consistent and positive moral choices and more complex and critical reflection. The decline in extrinsic but not in intrinsic religiosity was also hypothesized, in part, to offer a potential explanation for previous research that

reported mixed results about adolescence being both a time for religious decline as well as the most likely time for individuals to make a religious commitment (Beit-Hallahmi, & Argyle, 1997, King et al., 1997). It was thought that extrinsic religiosity would partly account for declines in religiosity during adolescence and that intrinsic religiosity would partly account for new commitments to religiosity during the adolescent years.

In contrast to what was expected, no statistically significant differences were found when comparing the scores of either intrinsic or extrinsic religiosity from Time 1 to those from Time 2. While the means on both the Intrinsic and Extrinsic Religiosity Scales for all comparisons except girls' extrinsic religiosity were lower at Time 2 than at Time 1, no statistically significant differences were found. No statistically significant differences were found when comparing the entire sample of Time 1 to Time 2 or when comparing the scores separately for boys and girls from Time 1 to Time 2.

While the current hypotheses were not confirmed, the current research raises questions about the reports of previous research of a statistically significant religious decline during adolescence. As mentioned in Chapter II, previous reports of a decline in religiosity were based almost exclusively on cross-sectional data. The small sample size may be a factor connected to the lack of significance in this finding. Another possible reason for the lack of significance in change was that longitudinal data collected after two years is not sufficient to measure the entire trajectory of religiosity during adolescence. Larger declines or increases in religiosity may occur either earlier or later than the time period measured. The data seems to indicate that for this sample the time between 9th and 11th grades and the time between 10th and 12th grades are relatively stable times for both intrinsic and extrinsic religiosity. The stability of the scores lends some support to the

earlier description of intrinsic religiosity from a symbolic interaction theory perspective. However, the lack of change in extrinsic religiosity may indicate that symbolic interaction theory is not the most helpful strategy of accounting for the phenomenon of adolescence being both a time of decline in religiosity and commitment to religiosity.

Gender Differences in Adolescent Reports of Intrinsic and Extrinsic Religiosity (Research Question Two)

Research Question Two examined the extent to which gender of adolescent differences existed in reported intrinsic and extrinsic religiosity in the early (9th or 10th grades) and later (11th or 12th grades) years of high school. A comparison was made between boys' scores and girls' scores on the measures of intrinsic religiosity and extrinsic religiosity at both Time 1 and Time 2. Based on previous research, it was expected that girls would report higher intrinsic and extrinsic religiosity than boys at both Time 1 and Time 2 (Smith, 2005). Contrary to the hypotheses, there was only one significant gender difference and that difference was the opposite of what was expected. The only significant gender difference found was that 9th and 10th grade boys in this sample reported significantly higher extrinsic religiosity than girls.

Although previous research supports the idea that generally females are more religious (both publicly and privately) than males (Beit-Hallahmi & Argyle, 1997; Benson et al., 1989; Donelson, 1999; Smith et al., 2002), one exception to those findings may be relevant here. Benson et al., (1989) noted that among two samples of students from Catholic schools, that boys reported more Bible reading and greater importance of religion than girls. The authors also noted that there seemed to be a tendency among boys

to hold to a more extrinsic belief pattern than girls. However, given that the significant difference between the boys and the girls in extrinsic religiosity is not present at Time 2 for the current sample, it may be that developmental changes contribute to greater internalization of beliefs and greater rejection of beliefs for both boys and girls.

Another possible explanation for the higher extrinsic religiosity scores by boys in this sample is that girls may be socialized into patterns of thinking and behaving that make it more likely for them to embrace an intrinsic motivation for religiosity (Beit-Hallahmi & Argyle, 1997). The theoretical concept of intrinsic religiosity and the corresponding scale to measure the concept are intended to address religiosity characterized by an internalized motivation to live out the precepts of one's religion, and if possible, to bring one's life priorities into accord with one's religious beliefs (Allport & Ross, 1967). Extrinsic religiosity, on the other hand, in theory and measure is intended to address religiosity with a more instrumental or utilitarian motivation in which religion is used to satisfy one's own needs, such as psychological security (Allport & Ross, 1967; Kahoe, 1985). The higher scores for boys in this sample on the Extrinsic Religiosity Scale in 9th and 10th grades may indicate a more opportunistic attitude toward their religiosity. Their commitment may indicate a tendency to use religion to gain security or relief from crisis, or to connect with particular peer groups (Spilka, 1991).

According to symbolic interaction theory, the findings may also indicate a strategy whereby the boys avoid criticism, meet role demands, and/or maintain a sense of independence by external compliance to their parents' religious expectations. From the perspective of symbolic interaction theory, the sense of self is a social product developed through symbolic communication with important others and the broader social

environment (Steinmetz, 1999). An important aspect of individuals' sense of self and their identification with the larger community may be tied to religiosity. According to White and Klein (2002), if children feel dominated by their interactions with the people and values of their environment, they are more likely to develop external motivations in those areas of domination. This external motivation is developed in the absence of emotional space and encouragement to internally embrace the values. The children externally embrace the values to protect themselves from criticism and to align themselves with the important others in their environment.

Cross-Sectional Analysis of Adolescent Religiosity, Gender, and Adolescent Perception of Parental Behaviors at Time 1 (Research Question Three)

At the beginning of these sections that discuss the findings related to Research Question Three and Research Question Four, it seems appropriate to review the broad theoretical framework from which these questions emerged and to highlight some of the overall findings before discussing them in detail in the pages that follow.

Central to the idea of symbolic interaction theory is the acquisition and generation of meaning (White & Klein, 2002). Symbolic interaction theory seemed an excellent choice for a theoretical perspective from which to study religiosity because of religiosity's emphasis on both meaning and symbol. It would not be unusual for strong adherents to religion to name religiosity as their prime value. In addition, when adherents to particular religious values gather for a common experience, their gathering is made valuable by the symbols and language that elicit commonly held meanings. For religious

adherents who are concerned with generational continuity of religiosity, how these meanings are transmitted from one generation to the next is an important concern.

However, the concern is about more than acquisition of meaning; the concern is that the meanings associated with mature and healthy religiosity be tied to a strong and internalized core self. When viewing religiosity through the lens of symbolic interaction theory, intrinsic religiosity and extrinsic religiosity, like other important values, are formed in the context of interactive situations. The person reporting high intrinsic religiosity is more likely to act based on internalized expectations based in a sense of self that has developed over time in their interactions with others. The person reporting high extrinsic religiosity is more likely to act based on their perceptions of the expectations implicit in their definitions of various situations. They may even act sometimes in ways that conflict with their sense of self.

In the beginning stages of this study, symbolic interaction theory also seemed like an excellent choice for a theoretical perspective from which to understand adolescent perceptions of parental behaviors. Symbolic interaction theory explains how children are socialized toward a coherent sense of self and personal identity. Parents' role in this process is significant. Parents are quite often concerned with the shaping of their children into people who can successfully navigate the changing expectations of the broader society while holding onto some fundamental values. What strategies are most conducive to this task? When coercion and inconsistent control characterize the child's interactions with parents, self-doubt and insecurity may arise. It is clear in the research that external controls, while effective for a time, will not hold children to important values for a lifetime because the external controls will eventually be removed. It is necessary for

children to find intrinsic motivation for the important values, and it is important for them to invest these values with meaning that is personal and compelling so that they can be incorporated into a sense of self.

Symbolic interaction theory gives some tools to understand how people come to create a self and invest various values with meaning and importance. Symbolic interaction theory also gives direction to parents as they realize their importance in their child's environment and the opportunity they have to forge a connection that will give them influence in the forming of their child's core self. Symbolic interaction theory helps to explain why research has consistently found that parental behaviors such as support, monitoring, and induction are consistently associated with positive adolescent outcomes. These behaviors focus on internalization of values and thereby offer support for their choice as variables connected with the development of intrinsic religiosity.

With a study combining adolescent reports of religiosity and adolescent perceptions of parental behaviors, symbolic interaction theory emerged as a leading candidate for a lens through which to ask questions about the connection of these two concepts and through which to generate possible explanations regarding their interaction. Symbolic interaction theory guided the rationale behind data collection for the study. Symbolic interaction theory posits that people respond to situations as they define them. It was decided to focus on adolescent reports of parental behavior because it was believed that it would be the meaning the adolescents gave to the parental behaviors instead of the behaviors themselves that would be important to the formation of religiosity.

Symbolic interaction explains, in part, that the acquisition of meanings related to religiosity are tied to significant relationships, the broader social context, acquisition of

language and shared meaning of symbols, and expectations and roles experienced by the adolescent. The current study was built on the assumption that religiosity would be tied significantly to the adolescents' perceptions of parental behaviors. That assumption proved only partially correct. Given the small amount of variance explained in the study, it seems that the development of both intrinsic and extrinsic religiosity is tied to other factors beyond the parent-child relationship. For the current study, it was believed that the parent-child relationship would be the most significant context associated with the internalized core self and consequently the most important context contributing to the development of religiosity. In fact, the results were mixed. The adolescents' perceptions of parental monitoring were an important predictor of intrinsic religiosity for the older adolescents and their perceptions of parental support were an important predictor of extrinsic religiosity for the younger adolescents. So, while perceptions of parental behaviors are an important factor in the development of religiosity, the results of this study suggest that there are other factors of perhaps greater importance. The specifics of the findings are discussed below.

Research Question Three focused on whether a multivariate cross sectional model (i.e., gender and adolescent perception of Time 1 parental behaviors) accounted for significant variation in adolescent intrinsic and extrinsic religiosity at Time 1. This research focus was grounded in symbolic interaction theory, which describes the importance of the socialization process, the importance of significant others, and an individual's definition of situations in the formation of a personal identity (Stryker, 1980). To test this question, first, bivariate correlations were run on gender, the adolescents' perceptions of four Time 1 parental behaviors (support, monitoring,

induction, and punitiveness), and Time 1 intrinsic and extrinsic religiosity. After this, the two multivariate models (see Figure 1 and Figure 2) were tested by a series of multiple regression analyses using gender and adolescents' perception of four parental behaviors as predictors and Time 1 intrinsic and extrinsic religiosity as the dependent variables. Mothers' and fathers' models were examined separately to test for possible differences in the adolescents' perceptions of each parent.

Cross-Sectional Multivariate Models of Gender and Adolescent Perceptions of Parental Behaviors at Time 1 and Adolescent Intrinsic Religiosity at Time 1

It was expected that a multivariate cross-sectional model combining gender of the adolescent and adolescent perception of four parental behaviors (support, monitoring, punitiveness, and induction) would explain a significant amount of the variance in adolescent intrinsic religiosity at Time 1. Previous research supported the claim that parental behaviors are important in the development of adolescent religiosity (King et al., 2002). In addition, symbolic interaction theory's emphasis on identity, socialization, and the role of important people in the social environment supported the claim that adolescent perception of these four parental behaviors would be good predictors of intrinsic religiosity.

Symbolic interaction theory points to the importance of considering the socialization process, the importance of significant others, and the definition of the situation in the formation of a personal identity (Stryker, 1980). Using symbolic interaction theory, religiosity, as an aspect of personal identity, is believed to be formed in the context of interactive situations (Stryker). It was hypothesized in the current study

that adolescent perceptions of Time 1 parental behaviors that focused more on internalization of values (e.g., support, monitoring, and induction) would be positively related with the expression of Time 1 intrinsic religiosity. It was also hypothesized that adolescent perceptions of parental behaviors that focused more on external compliance (e.g., punitiveness) would be negatively related to the development of intrinsic religiosity. Even though the young adolescents would likely have a less stable core identity and therefore a less stable intrinsic religiosity, their perceptions of parental support, monitoring, and induction should still interact positively with intrinsic religiosity. This measure of an individual's commitment to live out the precepts of their religion as an end in itself should relate positively to the perceptions of the three parental behaviors because the interactive setting of the parent-child environment would not demand compliance. If the adolescents embraced intrinsic religiosity then their motivation would be from within. The focus on external compliance found in parental punitiveness would not offer support for internalization of religiosity so it was expected to interact negatively with intrinsic religiosity.

When testing Model 1 (see Figure 1), the bivariate correlations indicated that the adolescent's perceptions of none of the individual parental behaviors were significantly related to intrinsic religiosity at Time 1 (see Table 5). Consequently, when the multivariate models for intrinsic religiosity were tested, neither the overall model that included perception of mothers' behaviors or the model that included perceptions of fathers' behaviors explained a significant amount of the variance in adolescent intrinsic religiosity at Time 1 (see Table 6).

The review of literature found a strong connection between positive parental behaviors and positive adolescent outcomes. The review of literature also found a strong connection between adolescent religiosity and positive adolescent outcomes. The current research was undertaken, in part, to ascertain whether a cross-sectional multivariate model that included gender and adolescent perceptions of parental behaviors would predict adolescent intrinsic religiosity and thereby give insight into positive adolescent outcomes. One conclusion that can reasonably be drawn from the lack of statistical significance for Model 1 is that religiosity may emerge less out of perceived positive parental behaviors than out of the specific content of parent-child interactions related to this value. Religiosity does not seem to be a logical or inescapable outcome of growing up in a healthy family. Parents who aspire to see their children report high intrinsic religiosity must have an intentional focus on the content of that value. Being a supportive parent and using desirable control techniques is certainly valuable to raising a healthy adolescent, but it does not seem to be enough if your goal is to have an adolescent who reports strong intrinsic religiosity. For the adolescents in the current sample, their sense of self did not include a strong intrinsic or extrinsic religiosity. One possible explanation is that those were not strongly held values of the significant others in their social environment.

Adolescent Perceptions of Parental Behaviors at Time 1 and Adolescent Intrinsic Religiosity at Time 1

Out of the four parental behaviors examined, the adolescents' perceptions of none of them were significantly related to Time 1 intrinsic religiosity in either the bivariate or

multivariate analyses. The following discussion will consider the adolescents' perceptions of all four parental behaviors and their relationship to Time 1 intrinsic religiosity.

Parental Support and Time 1 Intrinsic Religiosity. Based on previous research and grounded in symbolic interaction theory, it was hypothesized that the adolescents' Time 1 reports of mothers' and fathers' parental support would be positively related to the adolescents' Time 1 reports of intrinsic religiosity. As predicted, adolescent perception of fathers' support was positively correlated to adolescent intrinsic religiosity at Time 1, but the correlation did not reach statistical significance. In contrast to what was predicted, adolescent perception of mothers' support was negatively correlated to intrinsic religiosity, but the correlations did not reach statistical significance. While the correlation between perception of mothers' support and intrinsic religiosity was negative, it was also very small (see Table 5). In this instance, the smallness of the correlation may be as important as the direction of the correlation.

Previous research points to a robust connection between parental support and adolescent acceptance of parental values (Peterson & Hann, 1999). In the current study, the mean score for intrinsic religiosity was relatively low. On the instrument used to measure intrinsic religiosity, responses range across a five-point Likert type scale: 1 = "strongly disagree," 2 = "disagree," 3 = "neutral," 4 = "agree," and 5 = "strongly agree." The mean score for the current sample ($M = 3.57$) falls between agree and neutral in the response range and seems to indicate that these adolescents as a group do not perceive themselves as possessing a strong intrinsic religiosity. Given the high scores that indicate the reported strength of mothers' and fathers' support for the sample, ($M = 4.35$ and 4.16 ;

see Table 5), and given that previous research points to the connection between high support and acceptance of parental values (Gunnoe & Moore, 2002), it is possible that the parents of these students did not possess strong intrinsic religiosity. In this case, the parental support might help foster intrinsically motivated values, but the connection between parental support and intrinsic religiosity might not be strong if religiosity is not a strongly held parental value. That is consistent with symbolic interaction theory that would offer at least the following explanations: (a) intrinsic religiosity and adolescent perception of parental support are independent, (b) the adolescents did embrace the parental values, the parental values just happened to be something other than intrinsic religiosity, and (c) the sense of self of the adolescents at Time 1 is still a bit tenuous and so their role-taking behavior may be tied to several social sources outside the family. This last explanation seems to have merit due to the changes in from Time 1 to Time 2 in the directions and values of the associations between intrinsic religiosity and the adolescents' perceptions of the four parental behaviors.

In the review of literature, it was noted that previous research highlighted the social benefits derived from religious faith and the emotional and psychological well being for adolescents with a religious faith (Smith, 2005). Intrinsic religiosity, however, seems to perform differently than some other pro-social behaviors. Previous research found a connection between parental support and the presence of attitudes and behaviors that were considered prosocial and positive (Peterson & Hann, 1999). However, in the current research the connection between adolescent perception of parental support and adolescent intrinsic religiosity was not significant. While prosocial development may be

connected to how the adolescent is treated in the home, it may be that intrinsic religiosity is more connected to values exhibited in the home.

Parental Monitoring and Time 1 Intrinsic Religiosity. Based on previous research and grounded in symbolic interaction theory, it was hypothesized that the adolescents' Time 1 reports of mothers' and fathers' parental monitoring would be positively correlated to the adolescents' Time 1 reports of intrinsic religiosity. As predicted, adolescent perception of both mothers' and fathers' monitoring were positively correlated with adolescent intrinsic religiosity but the results did not reach significance.

As with the perception of parental support, the failure of parental monitoring to reach significance in its relationship with intrinsic religiosity may be partly due to the lower scores reported by the adolescents on the Intrinsic Religiosity Scale. In addition, while it was expected that the perception of parental monitoring would directly relate to intrinsic religiosity, perhaps the connection is more indirect as proposed by Cornwall (1987).

Cornwall suggested that it was personal community relationships (people who shared similar beliefs and that were perceived as people who were trustworthy to share problems and concerns with) that had the strongest direct influence on religiosity. Proponents of symbolic interaction theory, such as Mead (1934), believe that the sense of self is formed by combining the weighted judgments of those most valued in the social environment. Parents who carefully monitor their adolescents' activity would be expected to direct their children toward relationships that would support their important values. Parental behaviors and the behaviors of the others in the social environment would then become the symbolic cues from which the adolescent modified their own behavior. These cues

communicate the expectations of internalized values and that the adolescent is more than a keeper of traditions.

Cornwall (1987) found that community relationships were directly related to the religious beliefs of children and that parents were a primary factor in guiding their children to these influential social forces. In the current study, the mean scores on the adolescents' perception of parental monitoring for both mothers and fathers ($M = 4.28$ and 3.97 ; see Table 5) indicated that the adolescents believed that both parents were aware of their activities and their friendship choices. So it may be that the peer groups or other community relationships of these students were more directly connected to their expression of intrinsic religiosity while their perception of their parents' behavior was more indirectly connected. These parents, as Cornwall described, were likely supportive of and engaged with their children and were directing connections with activities and relationships that were consistent with the values they are teaching their children.

Parental Induction and Time 1 Intrinsic Religiosity. Based on previous research and grounded in symbolic interaction theory, it was hypothesized that the adolescents' Time 1 reports of fathers' and mothers' parental induction would be positively correlated to the adolescents' Time 1 reports of intrinsic religiosity. As predicted, adolescent perception of fathers' induction was positively correlated with adolescent intrinsic religiosity but the results did not reach significance. Contrary to what was predicted, adolescent perception of mothers' induction was negatively correlated with adolescent intrinsic religiosity but the results also did not reach significance.

At Time 1, the adolescents in this sample exhibited very little correlation between intrinsic or extrinsic religiosity and the reports of parental control behaviors of

monitoring, punitiveness, and induction. Their scores indicate a general distaste for the selected parental control behaviors of this study. The scores may indicate developmental changes related to the perception of parental behaviors as well as developmental changes in intrinsic religiosity. It may be that the symbolic environment created for the younger adolescents even by the positive parental control behaviors of induction and monitoring is experienced as a limitation on the potential roles they could play. They are developmentally in a time of growing awareness of the many possibilities they could explore while experiencing the symbolic cues from their parents as to the values that are most important to their family and for their social situation. The parental behaviors communicate expectations and it is quite possible that the younger adolescents have yet to internalize the expectations and incorporate them into a coherent sense of self. At Time 2, the correlations between intrinsic religiosity and adolescent perception of parental control indicates a greater differentiation on the part of the adolescent between the more positive control behaviors of induction and monitoring and the more negative control behavior of punitiveness. The different correlations between the adolescent perception of parental control behaviors and intrinsic religiosity at Time 2 may also indicate a more coherent sense of self among the older adolescents.

Parental Punitiveness and Time 1 Intrinsic Religiosity. Based on previous research and grounded in symbolic interaction theory, it was hypothesized that the adolescents' Time 1 reports of fathers' and mothers' parental punitiveness would be negatively correlated to the adolescents' Time 1 reports of intrinsic religiosity. As predicted, adolescent perception of both fathers' and mothers' punitiveness were

negatively correlated to adolescent intrinsic religiosity but the results did not reach significance.

Previous research found that parental coercion, or control through power assertion, elicits external compliance but is not associated with internalization of parental values (Peterson & Hann, 1999; Stafford & Bayer, 1993). Parent-adolescent relations characterized by high control may inhibit the natural co-construction of intrinsic religiosity that should occur during later adolescence and may lead to the development of extrinsic religiosity (Potvin & Sloane, 1985). It is possible that the failure of the correlation between adolescent perception of parental punitiveness and Time 1 intrinsic religiosity to reach significance in the current study is an artifact of the sample and the lower scores on both the measure of intrinsic religiosity and the measure of the perception of parental punitiveness. In addition, the data gathered at Time 1 on the parental control behaviors seems to indicate a lack of differentiation on the part of these younger adolescents between their perceptions of the three parental control behaviors. At Time 2, the correlations seem to follow patterns more consistent with previous research.

According to symbolic interaction theory, “roles can carry little or no normative freight or be heavily laden with insistent norms. When they are normatively defined, sanctions for failure to meet their requirements can range from trivial to strong” (Stryker, 1980, p. 58). Parental control behaviors such as punitiveness become the sanctions used to insure the acceptance of the roles associated with intrinsic religiosity. There is a difference in the novelty of role enactments in parent-child situations where punitiveness is high versus where support, induction, and monitoring are high. Role expectations are different when parents are trying to enforce beliefs and achieve compliance versus when

they value the internalization of values. The negative control behaviors associated with parental punitiveness seem incompatible with the development of intrinsic religiosity.

Cross-Sectional Multivariate Models of Gender and Adolescent Perceptions of Parental Behaviors at Time 1 and Adolescent Extrinsic Religiosity at Time 1

It was expected that a multivariate cross-sectional model combining gender of the adolescent and adolescent perception of four parental behaviors (support, monitoring, punitiveness, and induction) would explain a significant amount of the variance in adolescent extrinsic religiosity at Time 1. Again, symbolic interaction theory and a review of current literature supported a claim that adolescent perception of these four parental behaviors would be good predictors for extrinsic religiosity. Symbolic interaction theory points to the importance of considering the socialization process, the importance of significant others, and individual's definitions of situations in the formation of a personal identity (Stryker, 1980). Using symbolic interaction theory, religiosity, as an aspect of personal identity, is believed to be formed in the context of interactive situations (Stryker). It was hypothesized in the current study that adolescent perceptions of Time 1 parental behaviors that focused more on external compliance (e.g., punitiveness) would be positively related with the expression of Time 1 extrinsic religiosity. It was also hypothesized that even the adolescent perceptions of parental behaviors that were more focused on internalization of values (e.g. support, induction, monitoring) would be positively related to Time 1 extrinsic religiosity. This was hypothesized due to the expectation that the younger the adolescent, the more unstable the core identity. With the core identity still forming, it was thought that most parental

expectations would be perceived as efforts at obtaining external compliance. In addition, there was some indication in the review of literature that there was a developmental progression through extrinsic religiosity before an adolescent fully embraced an intrinsic religiosity (Potvin & Lee, 1982).

When testing Model 2 (see Figure 2), the bivariate correlations indicated that adolescent perception of mothers' support was significantly related to extrinsic religiosity at Time 1 (see Table 5). Adolescent perception of mothers' support remained significant in the multivariate model (see Table 7). In addition, Model 2's combination of gender and perception of mothers' behaviors accounted for significant variance in extrinsic religiosity at Time 1. Model 2 for fathers' behaviors failed to explain significant variance in extrinsic religiosity.

Given that Model 2 (Time 1 extrinsic religiosity) reached significance at Time 1 and Model 1 (Time 1 intrinsic religiosity) did not, the data seem to indicate that the adolescents' perceptions of parental behaviors, specifically mothers' behaviors, are better predictors of extrinsic religiosity than of intrinsic religiosity at Time 1. Along with noting the significance of Model 2 it seems important to also note the direction of the relationship between extrinsic religiosity and the strongest of the predictors. Perception of mothers' support was negatively related to extrinsic religiosity at Time 1 and had the strongest relationship to extrinsic religiosity of all the individual parental behaviors at Time 1 (see Table 7). This relationship will be more fully discussed below.

While it was mentioned above that the multivariate model combining gender and the adolescents' perceptions of parental behaviors was not sufficient to predict intrinsic religiosity, the opposite seems to be true with the multivariate model combining the same

variables to predict extrinsic religiosity. Given the strength of the adolescents' perceptions of mothers' support in the multivariate model, it seems reasonable to conclude that an environment where parental support is strong is not a context where extrinsic religiosity seems to thrive. One possible explanation for this is the positive connection between adolescent perception of parental support and internalization of values (Peterson & Hann, 1999). Extrinsic religiosity is opportunistic and utilitarian and driven more by motivations that are external rather than internal. One possible reason for the difference between the lack of significance for Model 1 for intrinsic religiosity and significance of Model 2 for extrinsic religiosity is that while parental support is connected to internalization of values, it does not necessarily encourage the adolescent to internalize a particular set of values.

Adolescent Perceptions of Parental Behaviors at Time 1 and Adolescent Extrinsic Religiosity at Time 1

Out of the four parental behaviors examined, adolescent perception of mothers' support was the only one significantly related to extrinsic religiosity in both the bivariate and multivariate analyses. The following discussion will consider all four parental behaviors and their relationship to Time 1 extrinsic religiosity.

Parental Support and Time 1 Extrinsic Religiosity. Based on previous research and grounded in symbolic interaction theory, it was hypothesized that the adolescents' Time 1 reports of mothers' and fathers' parental support would be positively related to the adolescents' Time 1 reports of extrinsic religiosity. In contrast to what was predicted, fathers' support was negatively correlated to extrinsic religiosity but the results did not

reach significance. Also in contrast to what was predicted, mothers' support was negatively correlated to extrinsic religiosity. The results for mothers' support were statistically significant in both the bivariate relationships and in the overall multivariate model of extrinsic religiosity at Time 1 when all the parental behaviors were tested together.

One possible reason why the adolescents' perception of both mothers' and fathers' support were negatively correlated to extrinsic religiosity is that perceptions of parental support may provide a foundation for exploring religion. Parental support, as a socialization strategy, then, would function as an invitation to religiosity rather than an enforcement of religiosity. Potvin and Lee (1982) proposed a developmental scheme whereby a child's religiosity was at first a simple extension of parental religiosity but then progressed to identification with a religious institution, and finally developed into a religiosity that was a co-construction with the important social relations in the child's life (e.g., peer group).

In the current research, it is possible that the younger adolescents already viewed their religiosity as something they personally and independently constructed. The low scores on the Extrinsic Religiosity Scale and the negative correlation between extrinsic and intrinsic religiosity seem to indicate that the adolescents at Time 1 already had established significant differentiation between these two dimensions of religiosity. In the presence of support from both parents, particularly in the presence of mothers' support, it is possible that the 9th and 10th graders that were surveyed found encouragement and space to explore and felt little need to construct a religiosity with an extrinsic motivation.

Mothers' and fathers support are viewed differently by the adolescents in this sample. The perception of fathers' support is positively related to intrinsic religiosity and the perception of mothers' support is negatively related to extrinsic religiosity. Mothers' and fathers' support, then, are important to consider in explaining adolescent religiosity, but their behaviors are related to different dimensions of this multi-dimensional concept. The data seems to indicate that the family environment that includes strong mothers' support is an environment in which extrinsic religiosity is less likely to be reported. The religiosity that develops, in other words, is more likely to emerge with an intrinsic motivation because the adolescents were more willing and likely to explore beyond their families boundaries because of the confidence gained from the perception of high parental support (Henry & Peterson, 1995; Peterson & Hann, 1999).

Parental Monitoring and Time 1 Extrinsic Religiosity. Based on previous research and grounded in symbolic interaction theory, it was hypothesized that the adolescents' Time 1 reports of fathers' and mothers' parental monitoring would be positively correlated to the adolescents' Time 1 reports of extrinsic religiosity. As predicted, the perception of fathers' monitoring was positively correlated to adolescent extrinsic religiosity but the results did not reach significance. Contrary to what was predicted, perception of mothers' monitoring was negatively correlated with adolescent extrinsic religiosity but the results did not reach significance.

As a parental control behavior, perception of parental monitoring was expected to correlate positively with an extrinsic motivation for religiosity. Cornwall (1988) used the term "channeling" to describe how parents directed the socialization of their children by influencing when their children had contact with others, who they had contact with, what

models of behavior they would associate with, and where they went in their free time. It was thought that this parental direction of children into activities to nurture a particular worldview would correlate positively with an extrinsically motivated religiosity. Another term, “construction of meaning,” was used by Cornwall to describe the process by which parents help their children make sense of the world by influencing their cognitive structures, and then reinforcing those cognitive structures with social structures that were compatible and supportive. It may be, as mentioned earlier in this chapter, that the relationship between this type of monitoring and adolescent religiosity was indirect. If the adolescent was part of a group that affirmed the values they had already been taught at home, then they may have been more likely to internalize those values and act on them from an intrinsic rather than an extrinsic motivation.

Parental Induction and Time 1 Extrinsic Religiosity. Based on previous research and grounded in symbolic interaction theory, it was expected that the adolescents’ Time 1 reports of fathers’ and mothers’ parental induction would be positively correlated to the adolescents’ Time 1 reports of extrinsic religiosity. As predicted, the perception of both mothers’ and fathers’ induction were positively correlated with adolescent extrinsic religiosity but the results did not reach significance.

At Time 1, the reports of the adolescents in this study give some indication that they were unable to differentiate clearly between the three parental control behaviors of monitoring, induction, and punitiveness. At Time 2, the differences between the perceptions of the three parental control behaviors are much more pronounced. In a setting where differentiation among parental control behaviors is low, then even dispassionate parental explanation runs the risk of being perceived as overcontrol by the

adolescents. The cognitive immaturity of these younger adolescents and the possibility of and unstable core self could then manifest itself in reports of extrinsic motivations for several important values. If parents were to initiate some religious participation (e.g., church attendance), then these younger adolescents would likely go when and where their parents told them. The parents might explain the reasons for going but the younger adolescents could very easily feel unconvinced and that could manifest itself in a definition of the situation that would lead to an extrinsically motivated religiosity. When these adolescents get older, then their increased autonomy might give them the freedom to participate or not. However, if they did participate in the activities, then their motivations would more likely be intrinsic.

Parental Punitiveness and Time 1 Extrinsic Religiosity. Based on previous research and grounded in symbolic interaction theory, it was hypothesized that the adolescents' Time 1 reports of fathers' and mothers' parental punitiveness would be positively correlated to the adolescents' Time 1 reports of extrinsic religiosity. Contrary to what was predicted, the adolescents' perception of both fathers' and mothers' punitiveness were negatively correlated with adolescent extrinsic religiosity but the results did not reach significance.

On the instruments measuring extrinsic religiosity and parental punitiveness, responses range across a five-point Likert type scale as follows: 1 = "strongly disagree," 2 = "disagree," 3 = "neutral," 4 = "agree," and 5 = "strongly agree." The mean scores on Time 1 extrinsic religiosity (2.34), perception of mothers' punitiveness (2.70) and perception of fathers' punitiveness (2.64) for the current sample (see Table 5) fall between disagree and neutral in the response range. Given these lower scores, it is

possible that the failure of the correlation between adolescent perception of punitiveness and extrinsic religiosity to reach significance is an artifact of this sample.

As stated earlier, the data gathered at Time 1 on the perception of parental control behaviors seems to indicate a lack of differentiation on the part of these younger adolescents between the three parental control behaviors. For example, the correlations between extrinsic religiosity and perception of mothers' punitiveness, induction, and monitoring were all negative. According to Eisenberg and Murphy (1995), parental control behaviors that elicit high degrees of emotional reactivity also carry the possibility of fostering resentment, fear, and rebellion. And according to Peterson and Hann (1999), it is likely that adolescents subjected to coercion and power-assertive parental behaviors in the name of religion would not quickly internalize that parental value. Given the low scores on the adolescents' perceptions of parental punitiveness, it seems that they have not been coerced into religiosity. Given that the pattern of the correlations is different at Time 2, and punitiveness is positively correlated with extrinsic religiosity while induction and monitoring are negatively correlated for both mothers and fathers, it is likely that as the adolescents matured and better realized the different ways their parents sought to guide, and as their core self stabilized, that they were better able to distinguish between their parents' control behaviors that were intended to foster internalization of values and control behaviors that primarily sought compliance.

Longitudinal Analysis of Adolescent Religiosity at Time 2 and Adolescent Perception of Parental Behaviors at Time 1 (Research Question Four)

Research Question Four focused on whether a longitudinal multivariate model (i.e., gender and adolescent perception of Time 1 parental behaviors) accounted for significant variation in adolescent intrinsic and extrinsic religiosity at Time 2. This research focus was grounded in symbolic interaction theory, which describes the importance of the socialization process, the importance of significant others, and an individual's definition of situations in the formation of a personal identity (Stryker, 1980). To test this question, first, bivariate correlations were run on gender, adolescent perception of the four Time 1 parental behaviors (support, monitoring, induction, and punitiveness), and Time 2 intrinsic and extrinsic religiosity. After this, the two longitudinal multivariate models (see Figure 3 and Figure 4) were tested by a series of multiple regression analyses using gender and adolescents' perception of four parental behaviors as predictors and Time 2 intrinsic and extrinsic religiosity as the dependent variables. Mothers' and fathers' models were examined separately to test for possible differences in the adolescents' perceptions of each parent.

Longitudinal Multivariate Models of Gender and Adolescent Perceptions of Parental Behaviors at Time 1 and Adolescent Intrinsic Religiosity at Time 2

It was expected that a multivariate longitudinal model combining gender of the adolescent and adolescent perception of four parental behaviors (support, monitoring, punitiveness, and induction) would explain a significant amount of the variance in

adolescent intrinsic religiosity at Time 2. Symbolic interaction theory and a review of current literature supported a claim that these four parental behaviors would be good predictors for intrinsic religiosity. Symbolic interaction theory points to the importance of considering the socialization process, the importance of significant others, and individual's definitions of situations in the formation of a personal identity (Stryker, 1980). Using symbolic interaction theory, religiosity, as an aspect of personal identity, is believed to be formed in the context of interactive situations (Stryker). It was hypothesized in the current study that adolescent perceptions of Time 1 parental behaviors that focused more on external compliance (e.g., punitiveness) would be negatively related with the expression of Time 2 intrinsic religiosity. It was hypothesized that the adolescents' perceptions of parental behaviors that were more focused on internalization of values (e.g. support, induction, monitoring) would be positively related to Time 2 intrinsic religiosity. This was hypothesized due to the expectation that the older adolescents would have a more stable core identity and would better discern the intent of the parental behaviors and would integrate and interpret them more accurately. In addition, there was some indication in the review of literature that there was a developmental progression through extrinsic religiosity before an adolescent fully embraced an intrinsic religiosity (Potvin & Lee, 1982). It was believed that at Time 2 the adolescents would have a more stable sense of their core self and consequently a more stable intrinsic religiosity.

When testing Model 3 (see Figure 3), the bivariate correlations indicated that perceptions of fathers' monitoring was significantly related to Time 2 intrinsic religiosity (see Table 5). Perceptions of fathers' monitoring remained significant in the multivariate

model (see Table 8). However, the overall model of gender and perception of fathers' behaviors did not explain significant variance in intrinsic religiosity at Time 2. The overall model for gender and perception of mothers' behaviors also did not explain a statistically significant amount of variance in Time 2 intrinsic religiosity and none of the selected parental behaviors reached significance (see Table 8).

In the current study, Models 1 and 3 (combining gender and perceptions of mothers' and fathers' support, monitoring, induction, and punitiveness) did not explain a statistically significant amount of variance in intrinsic religiosity at either Time 1 or Time 2. While it is important to be cautious interpreting these results since neither model reached statistical significance, it seems that the longitudinal models were better predictors of intrinsic religiosity than were the cross-sectional models. In other words, when comparing the *F* value of Model 1 and Model 3, more variance was explained in intrinsic religiosity at Time 2 than at Time 1.

The explanation of the variance in intrinsic religiosity at Time 2 by Model 3 is primarily on the strength of the adolescents' perception of fathers' monitoring as a predictor. None of the other parental behaviors were significant in the bivariate correlations so there is not shared variance explained with the other behaviors. The strongest predictor of adolescent intrinsic religiosity at Time 1, for both mothers and fathers, was perception of parental support. While perceptions of parental support remains the strongest predictor at Time 2 for mothers, there is a shift to reports of parental monitoring being the strongest predictor for fathers.

The strong emotional bond between parent and adolescent is important as a context within which the adolescent can explore new ideas. However, as the adolescents'

get older and move from the unilateral authority of their parents to more mutuality or shared authority with their parents, then their need increases for clear instructions, clear boundaries, clear explanations for rules and how behavior impacts others, and clear consequences. This need for greater parental cognitive engagement may explain the increased importance of perceived fathers' monitoring. But, even though perception of fathers' monitoring is a significant predictor, at Time 2, neither the multivariate model for perceived mothers' or fathers' behaviors was statistically significant in explaining the variance in intrinsic religiosity. This finding is consistent with the theory of intrinsic religiosity as a religiosity of internal motivation. As the adolescents mature in their religiosity, then their religiosity should become more differentiated from and independent of any sources that may have contributed to its development. The findings are also supported by symbolic interaction theory that would hypothesize a more stable core identity for the adolescents at Time 2 that would manifest itself in greater internalization of values. The adolescents have been incorporated into patterns of interaction that support values they now claim as their own rather than just as role-taking in response to their perception of a situation.

Adolescent Perceptions of Parental Behaviors at Time 1 and Adolescent Intrinsic Religiosity at Time 2

Out of the four parental behaviors examined, adolescent perceptions of fathers' monitoring was the only behavior significantly related to Time 2 intrinsic religiosity and it was significant in both the bivariate and the multivariate analyses. The following

discussion will consider all four parental behaviors and their relationship to Time 2 intrinsic religiosity.

Parental Support and Time 2 Intrinsic Religiosity. Based on previous research and grounded in symbolic interaction theory, it was hypothesized that the adolescents' reports of mothers' and fathers' parental support at Time 1 would be positively correlated to the adolescents' reports of intrinsic religiosity at Time 2. As predicted, adolescent perceptions of both mothers' and fathers' support were positively correlated to intrinsic religiosity at Time 2, but the relationship, however, was not significant.

While the correlation between perceived fathers' support and intrinsic religiosity remained virtually unchanged from Time 1 to Time 2, the correlation between perceived mothers' support and intrinsic religiosity changed from negative to positive. While the correlations were not significant and caution is needed in interpreting them, it does seem that the change reflects the growing maturity in the adolescents' thinking. The positive correlation between adolescent perceptions of mothers' support and intrinsic religiosity at Time 2 is more consistent with previous findings on the connection between parental support and positive adolescent development (Peterson & Hann, 1999). The earlier discussion in this chapter regarding this sample's reports of only moderate amounts of intrinsic religiosity are still relevant for this Time 2 discussion since the Time 2 scores on intrinsic religiosity were even lower than those of Time 1.

In addition, since intrinsic religiosity is defined as an internalized motivation to live out the precepts of one's faith, and to bring one's life priorities into accord with one's religious beliefs (Allport & Ross, 1967), the nonsignificant correlations seem somewhat logical. Parental support may be related more indirectly to adolescent intrinsic

religiosity by providing a context that is fertile for its growth rather than providing direct contribution to its development. This would also be consistent with the process of socialization into the symbols and beliefs of the culture as conceived by symbolic interaction theory.

The scale for intrinsic religiosity may also, in part, be a measure of differentiation of personal religiosity and a measure of independence of thought and commitment. As such, it would be logical for the scores on the Intrinsic Religiosity Scale to be indirectly associated rather than directly associated with the adolescents' perceptions parental support and to become increasingly independent of the parental behavior measures over time.

Parental Monitoring and Time 2 Intrinsic Religiosity. Based on previous research and grounded in symbolic interaction theory, it was hypothesized that the adolescents' reports of mothers' and fathers' parental monitoring at Time 1 would be positively correlated to the adolescents' reports of intrinsic religiosity at Time 2. As predicted, the adolescents' perceptions of both mothers' and fathers' monitoring were positively correlated to adolescent intrinsic religiosity at Time 2 but only perceived fathers' monitoring reached significance in the bivariate relationship. Adolescent perception of fathers' monitoring was statistically significant in both the bivariate and the multivariate relationship with intrinsic religiosity at Time 2.

The strength of the bivariate correlation between intrinsic religiosity and the adolescents' perceptions of both mothers' and fathers' monitoring increased between Time 1 and Time 2. However, a different change emerged in the multivariate analysis of parental behaviors and intrinsic religiosity. The beta for perceived mothers' support

decreased from Time 1 to Time 2 while the beta for perceived fathers' support went from negative to positive and from nonsignificant to significant. The change in the relationship between parental monitoring and intrinsic religiosity probably reflects a growing maturity in the adolescents' thinking and an increased ability to differentiate between the various control behaviors used by their parents. In addition, perceived fathers' monitoring was the strongest predictor of intrinsic religiosity at Time 2 (see Table 8) and perceived fathers' support was the strongest predictor of intrinsic religiosity at Time 1 (see Table 6). Adolescents' perceptions of fathers' support and fathers' monitoring likely account for shared variance in the multivariate analysis. Since perceived fathers' support diminished in strength as a predictor for Time 2 intrinsic religiosity, it is possible that the adolescents shifted from primarily focusing on emotional support to focusing more on cognitive engagement over time from their fathers.

As mentioned earlier in the discussion of parental support, intrinsic religiosity may also measure differentiation of personal religiosity. Sartor and Youniss (2002) found a positive relationship between parental knowledge of adolescent social and school activities and identity achievement. Religious differentiation would be consistent with positive identity achievement. Parents, then, who do well at monitoring their adolescents' activity, along with contributing to their adolescents' identity achievement, are perhaps also more successful at channeling their children into relationships and activities that are supportive of rather than detrimental to the development of intrinsic religiosity. Again, this is consistent with symbolic interaction theory's conception of socialization whereby people become "incorporated into organized patterns of interaction (Stryker, 1980, p. 63).

In the current study, the adolescents' perceptions of fathers' Time 1 monitoring behaviors were statistically significant in the bivariate correlations with Time 2 intrinsic religiosity when perceptions of those same behaviors were not significant in their relationship with Time 1 intrinsic religiosity. This is consistent with the earlier observation of the younger adolescents perhaps being less able to differentiate between positive and negative parental control. It seems reasonable to suggest that parental monitoring may be an indication of parental engagement. The questions on the scale ask about parental knowledge of adolescent behavior and network when out of direct contact with the parent (e.g., My parent knows where I am after school, I tell this parent where I am going when I go out, my parent knows my friends and their parents, this parents knows how I spend my money and where I am). Adolescents answering in the affirmative to these items paint a picture of a parent engaged with and connected to their children. In this data set, the conclusion then becomes that adolescent perceptions of earlier parental engagement is positively associated with and a good predictor of the later development of adolescent intrinsic religiosity.

Parental Induction and Time 2 Intrinsic Religiosity. Based on previous research and grounded in symbolic interaction theory, it was hypothesized that the adolescents' reports of mothers' and fathers' parental induction at Time 1 would be positively correlated to the adolescents' reports of intrinsic religiosity at Time 2. As predicted, the adolescents' perceptions of both mothers' and fathers' induction at Time 1 were positively correlated with adolescent intrinsic religiosity at Time 2 but the results did not reach significance.

As with the change from Time 1 to Time 2 in the relationship between intrinsic religiosity and the two parental behaviors of monitoring and support, the changes in the bivariate relationship between intrinsic religiosity and parental induction probably reflects a growing maturity in the adolescents' thinking and an increased ability to differentiate between the various support and control behaviors used by their parents.

The failure of parental induction to reach significance may, in part, be an artifact of the lower scores on both the Intrinsic Religiosity Scale and the Parental Induction Scale. Flor and Knapp (2001) found that parental religious behavior and parental desire for their child to be religious were the strongest predictors for both adolescent religious behavior and the adolescents' expressed importance of religion. The results in the current study may indicate a situation where parents explain rules and boundaries and where they give logical reasons and offer correction that fosters internalization of values and does not elicit high emotional reactivity. However, the lower religiosity scores may indicate that these actions are done in a context where parents do not include in their explanation a reference to religious values because those values are not strongly felt or endorsed.

Parental Punitiveness and Time 2 Intrinsic Religiosity. Based on previous research and grounded in symbolic interaction theory, it was hypothesized that the adolescents' reports of mothers' and fathers' parental punitiveness at Time 1 would be negatively correlated to the adolescents' reports of intrinsic religiosity at Time 2. As predicted, adolescent perception of mothers' punitiveness at Time 1 was negatively correlated to adolescent intrinsic religiosity at Time 2, but the results did not reach significance. Adolescent perceptions of fathers' punitiveness showed basically no correlation with intrinsic religiosity.

As with the other parental behaviors examined at Time 2, the scores on this scale also seem to reflect a growing maturity and ability to differentiate between the various support and control behaviors used by parents. The negative correlations at Time 2 between parental punitiveness and intrinsic religiosity are consistent with the research mentioned earlier that found parental coercion more likely to elicit external compliance rather than internalization of parental values (Peterson & Hann, 1999; Stafford & Bayer, 1993). In addition, since intrinsic religiosity is defined as an internalized motivation to live out the precepts of one's faith (Allport & Ross, 1967), the nonsignificant correlations seem logical.

Parental behaviors are important symbolic cues from which adolescents modify their behavior to locate themselves within this desired social situation of family.

According to Stryker (1980),

One takes the role of others by using symbols to put oneself in another's place and to view the world as others do. Role-taking is the process of anticipating the responses of others with whom one is involved in social interaction. Making use of symbolic cues present in the situation of interaction, prior experience, and familiarity with the particular other or with comparable others, one organizes a definition of others' attitudes, orientations and future responses which is then validated, invalidated, or reshaped in ongoing interaction. . . . Using the results of their role-taking, they sustain, modify, or redirect their own behavior. (p. 62)

Punitiveness can then become a symbolic cue for compliance. Support, induction, and monitoring, as the adolescents' identity matures, become cues of a different type. These

behaviors communicate to the adolescent that these are values worthy to be internalized and that the adolescent is more than just a keeper of traditions.

Longitudinal Multivariate Models of Gender and Adolescent Perceptions of Parental Behaviors at Time 1 and Adolescent Extrinsic Religiosity at Time 2

It was expected that a multivariate longitudinal model combining gender of the adolescent and adolescent perception of four parental behaviors (support, monitoring, punitiveness, and induction) would explain a significant amount of the variance in adolescent extrinsic religiosity at Time 2. Symbolic interaction theory and a review of current literature supported a claim that the adolescents' perceptions of these four parental behaviors would be good predictors of extrinsic religiosity. Symbolic interaction theory points to the importance of considering the socialization process, the importance of significant others, and individual's definitions of situations in the formation of a personal identity (Stryker, 1980). Using symbolic interaction theory, religiosity, as an aspect of personal identity, is believed to be formed in the context of interactive situations (Stryker). It was hypothesized in the current study that adolescent perceptions of Time 1 parental behaviors that focused more on external compliance (e.g., punitiveness) would be positively related with the expression of Time 2 extrinsic religiosity. It was hypothesized that the adolescents' perceptions of parental behaviors that were more focused on internalization of values (e.g. support, induction, monitoring) would be negatively related to Time 2 extrinsic religiosity. This was hypothesized due to the expectation that, at Time 2, the older adolescents would have a more stable core identity and would better discern the intent of the parental behaviors and would integrate

and interpret them more accurately. In addition, there was some indication in the review of literature that there was a developmental progression through extrinsic religiosity before an adolescent fully embraced an intrinsic religiosity (Potvin & Lee, 1982). It was expected, therefore, that extrinsic religiosity would possess diminished identity salience, or importance within the hierarchy of the core self (McCall & Simmons, 1978). This diminished identity salience was expected to manifest itself in the adolescents defining their situations such that extrinsic religiosity at Time 2 would have a positive relationship with punitiveness and a negative relationship with support, induction, and monitoring.

When testing Model 4 (see Figure 4), the bivariate correlations indicated that the adolescents' perceptions of fathers' monitoring were significantly related to Time 2 extrinsic religiosity (see Table 5). Perceptions of fathers' monitoring, however, did not remain significant in the multivariate model (see Table 9). In addition, the overall model of gender and perception of fathers' behaviors did not explain significant variance in intrinsic religiosity at Time 2. Also, when testing Model 4 (see Figure 4), the bivariate correlations indicated that perception of mothers' induction was significantly related to Time 2 extrinsic religiosity (see Table 5). Perceived mothers' induction, however, did not remain significant in the multivariate model (see Table 9). In addition, the overall model of gender and perception of mothers' behaviors did not explain significant variance in intrinsic religiosity at Time 2.

The only multivariate model that was significant in the current study was Model 2 for adolescent perception of mothers' behaviors and extrinsic religiosity (see Figure 2). The Model 2 combination of gender and perceptions of mothers' parental behaviors explained more variance in extrinsic religiosity at Time 1 than Model 4's combination of

the same variables at Time 2. The findings for the models differed when perceived fathers' behaviors were considered. While it is important to be cautious interpreting these results since neither Model 2 nor Model 4's combination of gender and perceptions of fathers' behaviors reached statistical significance, it seems that the longitudinal model was a better predictor of extrinsic religiosity than was the cross-sectional model. In other words, when comparing the F value of Model 4 and Model 2 for perceptions of fathers' behaviors, more variance was explained in extrinsic religiosity at Time 2 than at Time 1.

While it seems clear that the longitudinal models for perceptions of both mothers' and fathers' behaviors were better predictors of Time 2 intrinsic religiosity than the cross-sectional models, the results were mixed for the models for extrinsic religiosity. The mothers' cross-sectional model for extrinsic religiosity was stronger but the fathers' longitudinal model for extrinsic religiosity was stronger.

One thing that does seem clear is that both the cross-sectional models (Models 1 and 2) and the longitudinal models (Models 3 and 4) were better predictors of extrinsic religiosity than of intrinsic religiosity. This finding is consistent with the theory of intrinsic and extrinsic religiosity. Intrinsic religiosity is a more differentiated view of religiosity than is extrinsic religiosity. Possession of or growth in intrinsic religiosity demonstrates increased independence over time from the social sources to which it might be connected. Extrinsic religiosity is inherently tied to social sources and is thus not likely to establish any independence from those sources. What is found over time in the cognitive maturity of the adolescents and even in the maturity of their sense of extrinsic religiosity is a differentiation of the social sources of their motivations.

Adolescent Perceptions of Parental Behaviors at Time 1 and Adolescent Extrinsic Religiosity at Time 2

Out of the adolescents' perceptions of the four parental behaviors considered in this study, perceived fathers' monitoring and mothers' induction were significant in the bivariate analyses but neither was significant in the multivariate analyses. The following discussion will consider all four of the parental behaviors and their relationship to Time 2 extrinsic religiosity.

Parental Support and Time 2 Extrinsic Religiosity. Based on previous research and grounded in symbolic interaction theory, it was hypothesized that the adolescents' reports of mothers' and fathers' parental support at Time 1 would be negatively correlated to the adolescents' reports of extrinsic religiosity at Time 2. As predicted, the adolescents' perceptions of both mothers' and fathers' parental support were negatively correlated to extrinsic religiosity at Time 2, but the results did not reach significance.

The relationship between extrinsic religiosity and perceived mothers' support changed from being statistically significant in both the bivariate and multivariate relationships at Time 1 to not being significant in either relationship at Time 2. Although the correlation between perceived mothers' support and extrinsic religiosity remained negative at Time 2, it was no longer statistically significant. It may be that at Time 2 the adolescents' likelihood of embracing extrinsic motivation for religiosity was tied to two different items: one in the parent-child relationship and one outside the family altogether.

Between Time 1 and Time 2, there was a shift from a strong association between extrinsic religiosity and perceived mothers' support behavior to a stronger association between extrinsic religiosity and the perceptions of two parental control behaviors (e.g.,

fathers' monitoring and mothers' induction). The association between perceived mothers' induction and adolescent extrinsic religiosity at Time 2 may reflect changes in the maturity of the adolescents and a greater emphasis on cognitive rather than affective dimensions of their religious motivations. In addition, the increased significance of perceived mothers' induction at Time 2 may indicate that mothers' continued presence as a sounding board and as an advocate for parental expectations and boundaries serves an important function in the adolescents' development of or disinclination toward extrinsic religiosity. The positive association between perceived fathers' monitoring and adolescent extrinsic religiosity at Time 2 may reflect the adolescents' disinclination to develop extrinsic religiosity when their fathers are engaged in their lives through awareness of friendships and activities.

The second issue related to the changing associations of extrinsic religiosity and parental support may be the greater salience of the peer group at Time 2 than at Time 1. The extrinsic motivation for religiosity may, for example, shift from home to peer group. As adolescents gain greater independence from their parents and as they are engaged more deeply in their peer groups, then they may attend religious services or espouse religious beliefs for a host of reasons that have little to do with how their parents treat them. The expanding social life of the adolescent, as monitored by the parents, impacts the types of interactions they have and, in some ways, "sets the inventory for the kinds of people it is possible to become (Stryker, 1980, p. 69).

Parental Monitoring and Time 2 Extrinsic Religiosity. Based on previous research and grounded in symbolic interaction theory, it was hypothesized that the adolescents' reports of mothers' and fathers' parental monitoring at Time 1 would be

negatively correlated to the adolescents' reports of extrinsic religiosity at Time 2. As predicted, the adolescents' perceptions of both mothers' and fathers' parental monitoring was negatively correlated to extrinsic religiosity at Time 2 but only the results for perceived fathers' monitoring reached significance. While the bivariate relationship between perceived fathers' monitoring and extrinsic religiosity was statistically significant, the relationship did not remain significant in the overall multivariate model when all the selected parental behaviors were tested together.

Between Time 1 and Time 2 there were changes in either the strength or the direction of the correlations between the adolescents' perceptions of the three fathers' control behaviors and extrinsic religiosity. Between Time 1 and Time 2 the bivariate correlation between perceived fathers' monitoring and extrinsic religiosity changed from being nonsignificant to being significant. The direction of the correlation for perceived fathers' punitiveness changed from negative to positive and the direction of the correlation for perceived fathers' induction changed from positive to negative. Taken together with other changes in the Time 2 data, there seemed to be a growing differentiation in the adolescents' minds of the meaning of the different control behaviors. As stated earlier, the Time 1 data seems to indicate a general distaste for all the parental control behaviors. At Time 2, the adolescents' perceptions of fathers' monitoring and mothers' induction take a central role and perception of mothers' support diminishes in importance.

Parental Induction and Time 2 Extrinsic Religiosity. Based on previous research and grounded in symbolic interaction theory, it was hypothesized that the adolescents' reports of mothers' and fathers' parental induction at Time 1 would be negatively

correlated to the adolescents' reports of extrinsic religiosity at Time 2. As predicted, the adolescents' perceptions of both mothers' and fathers' parental induction at Time 1 were negatively correlated to Time 2 extrinsic religiosity but only perceived mothers' induction was statistically significant.

While the bivariate relationship was statistically significant for perceived mothers' induction at Time 1 and extrinsic religiosity at Time 2, the adolescents' perceptions of fathers' parental induction had a stronger beta in the overall multivariate analysis (see Table 9). In the multivariate analysis of Time 2 extrinsic religiosity and perceived parental support and the perceptions of the three parental control variables (induction, monitoring, and punitiveness), the betas were stronger for the adolescents' perceptions of the four fathers' behaviors than they were for the perceptions of all of the mothers' behaviors except mothers' induction (see Table 9). This is the opposite of the results from Time 1. At Time 1, the betas for the adolescents' perceptions of all four mothers' behaviors were higher than the betas for the perceptions of all the fathers' parental variables except fathers' induction. This finding would be consistent with the older adolescents' emphasis on cognitive engagement rather than emotional support. While mothers score higher on the adolescents' perceptions of the more positive behaviors of support, monitoring, and induction, they also score higher on perceived parental punitiveness. The higher score on perceived parental punitiveness may also result in higher emotional reactivity between the mothers and the adolescents. The strength of the connection between adolescent religiosity and perceived fathers' parental behaviors at Time 2 may reflect the preference for cognitive engagement during this time period.

According to the theory, extrinsic religiosity is a personal construction whereby people use religion to achieve some end such as psychological security (Allport & Ross, 1967; Kahoe, 1985). Also according to theory, in the use of induction, parents are communicating to their children what they think is important, while at the same time communicating that the children have room to discuss and even to differ with the parents' values. At Time 2, the adolescents in the current sample were more likely to stand in greater autonomy from their parents with a stronger sense of their own values and their own identity than they did at Time 1. The growth of that autonomy and the cognitive ability to differentiate their own beliefs from those of their parents would have been facilitated by the use of parental induction. The negative correlations between extrinsic religiosity and the adolescents' perceptions of mothers' and fathers' induction are consistent with the growth of autonomy. As stated earlier, however, the lower scores on both Time 1 parental induction and Time 2 extrinsic religiosity probably contribute to the lack of significance in their relationship.

Parental Punitiveness and Time 2 Extrinsic Religiosity. Based on previous research and grounded in symbolic interaction theory, it was hypothesized that the adolescents' reports of fathers' and mothers' parental punitiveness at Time 1 would be positively correlated to the adolescents' reports of extrinsic religiosity at Time 2. As predicted, the adolescents' perceptions of both mothers' and fathers' parental punitiveness were positively correlated to extrinsic religiosity at Time 2, but the results did not reach significance.

As with the adolescents' perceptions of the other parental control variables, the change in the relationship of perceived parental punitiveness and extrinsic religiosity

from a negative correlation at Time 1 to a positive correlation at Time 2 likely reflects a growing maturity in the adolescents' thinking and an increased ability to differentiate between the various control behaviors used by their parents. At Time 2 the adolescents in the current study seemed to better differentiate between moderate control strategies such as induction and excessive control strategies such as punitiveness than they did at Time 1. It seems reasonable to assert that the thinking of this sample of adolescents matured in both the construction of their religiosity and their differentiation between the positive and negative parental control behaviors of their parents. Parental control behaviors such as punitiveness become the sanction used to insure the compliance with the expected role of the adolescent. Parental support and parental control behaviors such as monitoring and induction are strategies by which parents encourage a definition of self from which acceptance of the role will arise from within.

It was surprising that parental punitiveness was not significantly associated with extrinsic religiosity since parental coercion, or excessive control through power assertion, elicits external compliance and is not associated with internalization of parental values (Peterson & Hann, 1999; Stafford & Bayer, 1993). Again, this finding may be an artifact of scores indicating the lower religiosity of the sample.

Limitations of the Study

There were both methodological as well as assessment limitations to this study that were discussed in Chapter III. These limitations included the one time collection of data after only two years, the low response rate, the difficulties associated with self-report questionnaires, and the reliability of the scales used. While the sample selection was

well-designed, the implementation had flaws that were outside the control of the researchers. The attrition in the sample between Time 1 and Time 2 adds the possibility for statistically significant error to the findings. In addition, the participation rate of the students in each of the schools was not as strong as the researcher hoped leading to a smaller sample size than would have been optimum.

Given the strong correlations among the parental behaviors, it is likely that when loaded in the multiple regression formula that the parental behaviors explained variance that was shared by the other variables. Future studies may benefit from analyses which more directly examine this issue.

The failure of most of the models to reach significance and explain significant variance in adolescent intrinsic and extrinsic religiosity suggests that future studies may benefit from including other variables in the research models and analyses. First, future studies may benefit from the inclusion of other measures of the broad concept of religiosity. Including other measures of this multi-dimensional concept might allow for the sharpening of the explanation of just which aspects of religiosity are connected to which parental behaviors. In addition, adding an assessment of the adolescents' perception of their parents' religiosity would have allowed the researcher to explore the connections between parental religiosity, parental behaviors, and adolescent religiosity. Secondly, other parental behaviors, particularly those related to parent-adolescent communication, would allow exploration of relationships that may have yielded more significant results.

Recommendations for Future Research

The substantial variance in both extrinsic and intrinsic religiosity not accounted for by this study leads to the conclusion that there were additional variables that needed to be examined. Future research should examine adolescent religiosity and the connection it has to other parental behaviors and to parental religiosity. King, Furrow, and Roth (2002) found that religious interaction with parents was an important component in the religious development of adolescents, but their analysis did not explore the broader context of the parent-adolescent relationship. Bao et al. (1999) found that parental acceptance moderated the transmission of religious beliefs. Further studies could expand understanding in this area by exploring the connections between parental religiosity and parental behaviors such as involvement, communication, support, and control.

Future research should expand the use of various research designs. Qualitative designs and extended duration longitudinal designs would help in exploring the meaning attached to religiosity by individuals and the patterns of change and stability in religiosity over longer periods of time. In addition to changes in research design, future research should group the adolescents differently for analysis. Samples should be grouped, for example, by scores on parental behavior measures, by scores on personality factors, by religious affiliation, or by demographic factors such as family type or socio-economic factors to discover if changes or similarities are connected to group membership. This would perhaps give an indication of what issues might be most salient as contributors to the development of and changes over time in both intrinsic and extrinsic religiosity.

While change in religiosity over time is itself worthy of investigation, it would also help to know what the changes mean and how changes over time in religiosity are

connected with other factors. There is strong evidence for the connection between adolescent religiosity and a host of positive life outcomes (Smith, 2005). Is it possible that changes in adolescents' scores of intrinsic and extrinsic religiosity, even reductions in scores, could be both positive and negative? Reductions in scores on measures of religiosity could indicate disassociation from religion but reductions could also indicate the development of positive religious autonomy. In addition, future research should connect changes in religiosity with changes in other areas of adolescents' lives. For example, are changes in religiosity during adolescence accompanied by changes in prosocial behaviors, by changes in higher risk behaviors, and/or by changes in neither?

In the current sample, differences in reports of girls' and boys' intrinsic and extrinsic religiosity were smaller during the later years of high school than in the early years of high school. Further research regarding the developmental patterns or trajectories of intrinsic and extrinsic religiosity of both boys and girls during high school is needed. Gathering data both earlier than high school and after high school would allow analysis of a possible developmental scheme for religiosity. Changes in religiosity over time could be explored and changes of connection to external and internal factors could also be explored. When do boys and girls peak in their reports of extrinsic religiosity and what patterns emerge in the development of intrinsic religiosity? In addition, how do the patterns of intrinsic and extrinsic religiosity during adolescence relate to later religious association and disassociation? Knowing more of the overall arc of development could be very beneficial in reducing anxiety for parents or religious leaders as they gain a greater understanding of normal development.

Future studies should also be done exploring the issue of the salience of particular parental behaviors to particular ages of adolescents. In the current study, it seemed that support was more salient for the younger adolescents and that monitoring or engagement was more salient for the older adolescents. Future research should explore those connections more intentionally. In addition, future models would benefit by exploring both direct and indirect relationships between parental behaviors and expressions of religiosity.

Implications for Practice

This study was initiated as an investigation of the cross sectional and the longitudinal relationship between adolescent religiosity and the adolescent perceptions of selected parental behaviors. This study was initiated with the belief that adolescents' perceptions of both mothers' and fathers' parenting in the early years of high school related to adolescent religiosity in both the early years and the later years of high school. The study provided partial support for the proposed relationships between adolescent religiosity and parental behaviors.

The study was also initiated to determine the value of using symbolic interaction theory as a tool for explaining adolescent religiosity. Using symbolic interaction theory, the limitations of extrinsic religiosity become clearer. Extrinsic religiosity restricts mental development and individuals' growing awareness of their capability to react to others in unique ways. These constraints are tied to the social situation. Adolescents' growing cognitive maturity allows them to interact with others from a wide range of different social positions. One task of the adolescent is to take the great variety of possible roles

and to integrate them into a coherent sense of self. Within that self, some parts of the identity will be more salient to the overall sense of self than are others. Acting religious when that value is not very salient to the overall sense of self might measure more as extrinsic religiosity.

Symbolic interaction also gives insight into the understanding of intrinsic religiosity. Intrinsic religiosity seems more likely to emerge out of the core sense of self and to be thoughtfully and reflectively chosen. Accepting that as true, it is perhaps more likely that intrinsic religiosity will emerge out of a desire to act in ways consistent with the personal identity rather than in ways consistent with the external constraints of significant others in a person's environment. Intrinsic religiosity like extrinsic religiosity develops through socialization. However, the paths of development in the social situation seem quite different.

The adolescents in this study reported that their perceptions of both mothers' and fathers' parental behaviors played significant roles in their expressions of intrinsic and extrinsic religiosity. This finding provides valuable insight to those in ministry and related professions who work at aiding adolescents in the development of religiosity. Ministries who either exclude parents from their work or who focus on or are satisfied with the involvement of only one parent in their efforts to nurture healthy religious faith, weaken their influence. In addition, the longitudinal component of this study gives parents and religious workers information about likely changes over time. This information can be used to chart possible development in order to inform expectations, but this information can also be used to encourage parents and other concerned

individuals to invest in strategies that have the best likelihood of encouraging healthy long-term development.

The findings of this study were consistent with previous research which found that families characterized by positive, cohesive, affectionate parent-adolescent relationships, and families characterized by moderate parental strictness and high levels of parental support were associated with later reports of higher religiosity (Myers, 1996; Smith & Sikkink, 2003). Perceptions of mothers' support was a significant predictor of extrinsic religiosity. Adolescent perceptions of moderately high control through fathers' monitoring was a significant predictor of intrinsic religiosity. For a strong sense of intrinsic religiosity to develop, parents must take the risk of allowing their children to make independent decisions. For those parents who value healthy religious expression by their children, if they have worked hard to foster a strong connection and engagement with their adolescent, if they have avoided overcontrolling behaviors that run the risk of intensifying conflict and emotional reactivity, and if parents have offered credible content of religiosity through both instruction and example, then they can with greater confidence believe that the expression of their children's religiosity will resemble their own. In other words, indoctrination through control and limited access to options as a strategy may offer limited efficacy to parents who want to transmit or transfer their religiosity to their children.

Erickson (1992) concluded that fathers and mothers needed to clearly define in their own mind what they believed, clearly articulate those beliefs verbally for their family, point their children toward positive formal and informal religious education and activities, and then live authentically and consistently. The current study would amend

those suggestions by saying that parents need to (a) remain engaged positively with their children by monitoring their activities and connections and that parents, particularly mothers, (b) need to offer emotional support early in adolescence and then turn intentionally to greater cognitive engagement during later adolescence. Armed with these observations, leaders in religious communities can invest in strategies that will help inform parents and also help parents form support networks that will better insure that parental behaviors will adjust to enact needed changes.

This study will benefit parents by offering a better understanding of adolescents' perception of which parental behaviors are most related to the development of intrinsic and extrinsic religiosity. Gaining insight into how parental behaviors and adolescent religiosity are related over time will help parents time their use of behaviors more effectively. This study will also help religious leaders by clarifying targets for educational and other interventions to assist parents in the task of nurturing the religious faith of their adolescents.

Good parenting is not sufficient for the emergence of strong religiosity. Flor and Knapp (2001) found that parental religious values, parental desire for their child to be religious, and dyadic discussion of faith each explained unique variance in adolescent expression of the importance of religion in their lives. Parents who want their children to have a strong and healthy religiosity need to parent intentionally toward that goal. It is important to combine the value content of religiosity with a context where internalization is possible without coercion.

Summary

The current study examined the relationship between adolescent perceptions of four parental behaviors during the early years of high school and the self report of two dimensions of adolescent religiosity gathered during the early and the later years of high school. Symbolic interaction theory served as the theoretical framework from which the data were examined.

Several findings were discussed. First, no significant differences were found in this sample of adolescents between their Time 1 and their Time 2 reports of either intrinsic or extrinsic religiosity. Second, no significant differences between the boys and girls were found in their Time 1 or their Time 2 reports of intrinsic religiosity. When examining their other data, boys reported significantly higher extrinsic religiosity than girls, but only at Time 1.

The third finding discussed was that three of the four parental behaviors (induction, support, and monitoring) were significantly related to at least one of the measures of religiosity during either the early or the later years of high school in the bivariate correlations. Of the four multivariate models proposed to explain the variance in religiosity, only one reached significance. A significant amount of variance was explained using the multivariate model for Time 1 extrinsic religiosity (see Figure 2). Overall, parental behaviors explained more variance in intrinsic religiosity at Time 2 than at Time 1 and parental behaviors explained more variance in extrinsic religiosity than in intrinsic religiosity at both Time 1 and Time 2. Recommendations for future research and implications for practice based on these findings were discussed.

REFERENCES

- Allport, G. (1960). *Personality and social encounter*. Boston: Beacon.
- Allport, G. W., & Ross, J. M. (1967). Personal religious orientation and prejudice. *Journal of Personality and Social Psychology*, 5, 432-443.
- American National Election Studies. (2002). *The National Election Studies Guide to Public Opinion and Electoral Behavior*. Retrieved April 25, 2005, from Center for Political Studies Web site: <http://www.umich.edu/~nes/nesguide/gd-index.htm>.
- Babbie, E. (1986). *The practice of social research* (4th ed.). Belmont, CA: Wadsworth.
- Bao, Wan-Ning, Whitbeck, L. B., Hoyt, D. R., & Conger, R. D. (1999). Perceived parental acceptance as a moderator of religious transmission among adolescent boys and girls. *Journal of Marriage and the Family*, 61, 362-374.
- Barber, B. K., Olsen, J. E., & Shagle, S. C. (1994). Associations between parental psychological and behavioral control and youth internalized and externalized behaviors. *Child Development*, 65, 1120-1136.
- Batson, C. D., & Ventis, W. L. (1982). *The religious experience*. Oxford University Press.
- Beit-Hallahmi, B., & Argyle, M. (1997). *The psychology of religious behavior, belief and experience*. London: Routledge.
- Benson, P. L., & Donahue, M. J., & Erickson, J. A. (1989). Adolescence and religion: A review of the literature from 1970-1986. In M. L. Lynn, & D. O. Moberg (Eds.)

- Research in the social scientific study of religion: A research annual* (pp. 153-181). Greenwich, CT: JAI Press.
- Bjarnason, T. (1998). Parents, religion and perceived social coherence: A Durkheimian framework of adolescent anomie. *Journal for the Scientific Study of Religion, 37*, 742-754.
- Brown, B. B., Mounts, N., Lamborn, S. D., & Steinberg, L. (1993). Parenting practices and peer group affiliation in adolescence. *Child Development, 64*, 467-482.
- Burr, W. R., Leigh, G. K., Day, R. D., & Constantine, J. (1979). Symbolic interaction and the family. In W. R. Burr, R. Hill, F. I. Nye, & I. L. Reiss (Eds.), *Contemporary theories about the family (Volume II)* (pp. 42-111). New York: Free Press.
- Burris, C. T. (1999). Religious orientation scale. In P. C. Hill & R. W. Hood, Jr. (Eds.), *Measures of religiosity* (pp. 144-151). Birmingham, AL: Religious Education Press.
- Chadwick, B. A., & Top, B. L. (1993). Religiosity and delinquency among LDS adolescents. *Journal for the Scientific Study of Religion, 32*, 51-67.
- Clark, C. A., & Worthington, E. L., Jr. (1986). Family variables affecting the transmission of religious values from parents to adolescents: A review. *Family Perspective, 21*, 1-21.
- Cornwall, M. (1987). The social bases of religion: A study of factors influencing religious belief and commitment. *Review of Religious Research, 29*, 44-56.
- Cornwall, M. (1988). The influence of three agents of religious socialization: Family, church, and peers. In D. L. Thomas (Ed.), *The religion and family connection: Social science perspectives* (pp. 207-231). Provo, UT: Religious Studies Center.

- Cornwall, M. (1989). The determinants of religious behavior: A theoretical model and empirical test. *Social Forces*, 68, 572-592.
- Deveraux, E., Bronfenbrenner, U., & Rodgers, R. R. (1969). Child rearing in England and the United States: A cross-national comparison. *Journal of Marriage and the Family*, 31, 257-270.
- DiBlasio, F. A., & Benda, B. B. (1990). Adolescent sexual behavior: Multivariate analysis of a social learning model. *Journal of Adolescent Research*, 5, 449-466.
- Donahue, M. J. (1985). Intrinsic and extrinsic religiousness: Review and meta-analysis. *Journal of Personality and Social Psychology*, 48, 400-419.
- Donahue, M. J., & Benson, P. L. (1995). Religion and well-being of adolescents. *Journal of Social Issues*, 51 (2), 145-160.
- Donelson, E. (1999). Psychology of religion and adolescents in the United States: Past to present. *Journal of Adolescence*, 22, 187-204.
- Dowling, E. M., Gestsdottir, S., Anderson, P. M., von Eye, A., & Lerner, R. M. (2003). Spirituality, religiosity, and thriving among adolescents: Identification and confirmation of factor structures. *Applied Developmental Science*, 7, 253-260.
- Dowling, E. M., Gestsdottir, S., Anderson, P. M., von Eye, A., Almerigi, J., & Lerner, R. M. (2004). Structural relations among spirituality, religiosity, and thriving in adolescence. *Applied Developmental Science*, 8, 7-16.
- Dudley, R. L. (1978). Alienation from religion in adolescents from fundamentalist religious homes. *Journal for the Scientific Study of Religion*, 17, 389-398.

- Egbert, N., Mickley, J., & Coeling, H. (2004). A review and application of social scientific measures of religiosity and spirituality: Assessing a missing component in health communication research. *Health Communications, 16*, 7-27.
- Eisenberg, N., & Fabes, R. A. (1998). Prosocial development. In W. Damon (Series Ed.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (5th ed.) (pp. 701-778). New York: Wiley.
- Eisenberg, N., & Murphy, B. (1995). Parenting and children's moral development. In M. H. Bornstein (Ed.) *Handbook of parenting Vol. 4: Applied and practical parenting* (pp. 227-258). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Elkind, D. (1999). Religious development in adolescence. *Journal of Adolescence, 22*, 291-295.
- Erickson, J. A. (1992). Adolescent religious development and commitment: A structural equation model of the role of family, peer group, and educational influences. *Journal for the Scientific Study of Religion, 31*, 131-152.
- Flor, D. L., & Knapp, N. F. (2001). Transmission and transaction: Predicting adolescents' internalization of parental religious values. *Journal of Family Psychology, 15*, 627-645.
- Foster, J. D., & LaForce, B. (1999). A longitudinal study of moral, religious and identity development in a Christian liberal arts environment. *Journal of Psychology and Theology, 27*, 52-68.
- Francis, L. J., & Gibson, H. M. (1993). Parental influence and adolescent religiosity: A study of church attendance and attitude toward Christianity among adolescents 11

- to 12 to 16 years old. *International Journal for the Psychology of Religion*, 3, 241-253.
- Furrow, J. L., King, P. E., & White, K. (2004). Religion and positive youth development: identity, meaning, and prosocial concerns. *Applied Developmental Science*, 8, 17-26.
- Genia, V. (1993). A psychometric evaluation of the Allport-Ross I/E scales in a religiously heterogeneous sample. *Journal for the Scientific Study of Religion*, 33, 284-290.
- Giesbrecht, N. (1995). Parenting style and adolescent religious commitment. *Journal of Psychology and Christianity*, 14, 228-238.
- Gorsuch, R. L., & Venable, G. D. (1983). Development of an "age universal" I-E scale. *Journal for the Scientific Study of Religion*, 22, 181-187.
- Gunnoe, M. L., & Moore, K. A. (2002). Predictors of religiosity among youth aged 17-22: A longitudinal study of the National Survey of Children. *Journal for the Scientific Study of Religion*, 41, 613-622.
- Harbach, R. L., & Jones, W. P. (1995). Family beliefs among adolescents at risk for substance abuse. *Journal of Drug Education*, 25 (1), 1-9.
- Hayes, B. C., & Pittelkow, Y. (1993). Religious belief, transmission, and the family: An Australian study. *Journal of Marriage and the Family*, 55, 755-766.
- Heilbrun, A. B. (1964). Parent model attributes, nurturant reinforcement and consistency of behavior in adolescents. *Child Development*, 35, 151-167.
- Henry, C. S. (1994). Family system characteristics, parental behaviors, and adolescent family life satisfaction. *Family Relations*, 43, 447-455.

- Henry, C. S., & Peterson, G. W. (1995). Adolescent social competence, parental qualities, and parental satisfaction. *American Journal of Orthopsychiatry*, *65*, 249-262.
- Hertel, B. R., & Donahue, M. J. (1995). Parental influences on God images among children: Testing Durkheim's metaphoric parallelism. *Journal for the Scientific Study of Religion*, *34*, 186-199.
- Hill, P. C., & Hood, R. W. Jr. (Eds.). (1999). *Measures of religiosity*. Birmingham, AL: Religious Education Press.
- Himmelfarb, H. S. (1979). Agents of religious socialization among American Jews. *The Sociological Quarterly*, *20*, 447-494.
- Hoffman M. L. (1970). Moral development in adolescence. In J. Adelson (Ed.), *Handbook of adolescent psychology* (pp. 295-343). New York: Wiley.
- Hoge, D. R., & Petrillo, G. H. (1978). Determinants of church participation and attitudes among high school youth. *Journal for the Scientific Study of Religion*, *17*, 359-379.
- Hoge, D. R., Petrillo, G. H., & Smith, E. I. (1982). Transmission of religious and social values from parents to teenage children. *Journal of Marriage and the Family*, *44*, 569-580.
- Hyde, K. E. (1990). *Religion in childhood and adolescence: A comprehensive review of the research*. Birmingham, AL: Religious Education Press.
- Hunsberger, B., & Brown, L. B. (1984). Religious socialization, apostasy, and the impact of family background. *Journal for the Scientific Study of Religion*, *23*, 239-252.

- Jensen, L., Newell, R. J., & Holman, T. (1990). Sexual behavior, church attendance, and permissive beliefs among unmarried young men and women. *Journal for the Scientific Study of Religion, 29*, 113-117.
- Johnstone, R. L. (1997). *Religion in society: A sociology of religion* (5th ed.) Saddle River, NJ: Prentice Hall.
- Kahoe, R. D. (1985). The development of intrinsic and extrinsic religious orientations. *Journal for the Scientific Study of Religion, 24*, 408-412.
- Kieren, D. K., & Munro, B. (1987). Following the leaders: Parents' influence on adolescent religious activity. *Journal for the Scientific Study of Religion, 26*, 249-255.
- King, J. E., & Crowther, M. R. (2004). The measurement of religiosity and spirituality: Examples and issues from psychology. *Journal of Organizational Change Management, 17*, 83-101.
- King, J. E., & Furrow, J. L. (2004). Religion as a resource for positive youth development: Religion, social capital, and moral outcomes. *Developmental Psychology, 40*, 703-713.
- King, P. B., Furrow, J. L., & Roth, N. (2002). The influence of families and peers on adolescent religiousness. *Journal of Psychology and Christianity, 21*, 109-120.
- King, V., Elder, G. J., Jr., & Whitbeck, L. B. (1997). Religious involvement among rural youth: An ecological and life-course perspective. *Journal of Research on Adolescence, 7*, 431-456.
- Kirkpatrick, L. A. (1989). A psychometric analysis of the Allport-Ross and Feagin measures of intrinsic-extrinsic religious orientation. In D. O. Moberg & M. L.

- Lynn (Eds.), *Research in the social scientific study of religion, Vol. 1* (pp. 1-31).
Greenwich, CT: JAI Press.
- Kirkpatrick, L. A., & Hood, R. W., Jr. (1990). Intrinsic-extrinsic religious orientation:
The “boon” or “bane” of contemporary psychology of religion? *Journal for the
Scientific Study of Religion, 29*, 442-462.
- LaRossa, R., & Reitzes, D. S. (1993). Symbolic interactionism and family studies. In P.
G. Boss, W. J. Doherty, R. LaRossa, W. R. Schumm, & S. K. Steinmetz (Eds.)
Sourcebook of family theories and methods: A contextual approach (pp. 135-
163). New York: Plenum Press.
- Lock, S. E., & Vincent, M. L. (1995). Sexual decision-making among rural adolescent
females. *Health Values, 19* (1), 47-58.
- McCall, G. J., & Simmons, J. L. (1982). *Socialpsychology, a sociological approach* .
New York: Free Press.
- Maltby, J., & Day, L. (2004). Should never the twain meet? Integrating models of
religious personality and religious mental health. *Personality and Individual
Differences, 36*, 1275-1290.
- Martin, T. F., White, J. M., & Perlman, D. (2003). Religious socialization: A test of the
channeling hypothesis of parental influence on adolescent faith maturity. *Journal
of Adolescent Research, 18*, 169-187.
- Mead, G. H. (1934). *Mind, self, and society*. Chicago: University of Chicago Press.
- Menard, S. W. (1991). *Longitudinal research*. Newbury Park, CA: Sage.
- Miller, A. S., & Hoffman, J. P. (1995). Risk and religion: An explanation of gender
differences in religiosity. *Journal for the Scientific Study of Religion, 34*, 63-75

- Mowbray, C. T., & Yoshihama, M. (2001). Surveys. In B. A. Thyer (Ed.) *The handbook of social work research methods* (pp. 143-160). Thousand Oaks: Sage.
- Myers, S. M. (1996). An interactive model of religiosity inheritance: The importance of family context. *American Sociological Review*, *61*, 858-866.
- Okagaki, L., Hammond, K. A., & Seamon, L. (1999). Socialization of religious beliefs. *Journal of Applied Developmental Psychology*, *20*, 273-294.
- Ozorak, E. W. (1989). Social and cognitive influences on the development of religious beliefs and commitment in adolescence. *Journal for the Scientific Study of Religion*, *28*, 448-463.
- Pargament, K. I., Ensing, D. S., Falgout, K., Olsen, H., Reilly, B., Van Haitsma, K., & Warren, R. (1990). God help me: (I): Religious coping efforts as predictors of the outcomes to significant negative life events. *American Journal of Community Psychology*, *18*, 793-824.
- Pedhazur, E. J. (1997). *Multiple regression in behavioral research: Explanation and prediction* (3rd ed.). Fort Worth: Harcourt Brace.
- Peterson, G. W., & Hann, D. (1999). Socializing children and parents in families. In M. Sussman, S. K. Steinmetz, & G. W. Peterson (Eds.) *Handbook of marriage and the family* (2nd ed., pp. 327-370). New York: Plenum Press.
- Peterson, G. W., & Leigh, G. K. (1990). The family and social competence in adolescence. In T. P. Gullotta, G. R. Adams, & R. Montemayor (Eds.), *Developing social competency in adolescence: Advances in adolescent development, Volume Three* (pp. 97-138). Newbury Park, CA: Sage.

- Peterson, G. W., & Rollins B. C. (1987). Parent-child socialization. In M. B. Sussman & S. K. Steinmetz (Eds.), *Handbook of marriage and the family* (pp. 471-507). New York: Plenum.
- Peterson, G. W., Rollins, B. C., & Thomas, D. L. (1985). Parental influence and adolescent conformity: Compliance and internalization. *Youth and Society, 16*, 397-420.
- Ploch, D. R., & Hastings, D. W. (1998). Effects of parental church attendance, current family status, and religious salience on church attendance. *Review of Religious Research, 39*, 309-320.
- Potvin, R. H., & Lee, C. F. (1982). Adolescent religion: A developmental approach. *Sociological Analysis, 43*, 131-144.
- Potvin, R. H., & Sloane, D. M. (1985). Parental control, age, and religious practice. *Review of Religious Research, 27*, 3-14.
- Regnerus, M. D., Smith, C., & Smith, B. (2004). Social context in the development of adolescent religiosity. *Applied Developmental Science, 8*, 27-38.
- Robinson, C. C., Mandleco, B., Olsen, S. F., & Hart, C. H. (1995). Authoritative, authoritarian, and permissive parenting practices: Development of a new measure. *Psychological Reports, 77*, 819-830.
- Rollins, B. C., & Thomas, D. L. (1979). Parental support, power and control techniques in the socialization of children. In W. R. Burr, R. Hill, F. Nye, & I. R. Reiss (Eds.), *Contemporary theories about the family: Vol. I* (pp. 317-364). Beverly Hills, CA: Sage.

- Sartor, C. E., & Youniss, J. (2002). The relationship between positive parental involvement and identity achievement during adolescence. *Adolescence, 37*, 221-234.
- Schumm, W. R., Hatch, R. C., Hevelone, J., & Schumm, K. R. (1989). Attrition and retention among Christian Church (Disciples of Christ) congregations in three metropolitan regions: A mail survey of 1,149 active and inactive members. In D. N. Williams (Ed.), *A case study of mainstream Protestantism: The Disciples' relation to American culture 1880-1989* (pp. 521-553). Grand Rapids, MI: Eerdmans.
- Schutt, R. K. (1999). *Investigating the social world: The process and practice of research*. Thousand Oaks, CA: Pine Forge.
- Shavelson, R. J. (1996). *Statistical reasoning for the behavioral sciences* (3rd ed.). Boston: Allyn & Bacon.
- Shek, D. T. (1998). A longitudinal study of the relationship between family functioning and adolescent psychological well-being. *Journal of Youth Studies, 1*, 195-209.
- Siegler, R., DeLoache, J., & Eisenberg, N. (2003). *How children develop*. New York, Worth Publishers.
- Simons, L. G., Simons, R. L., & Conger, R. D. (2004). Identifying the mechanisms whereby family religiosity influences the probability of adolescent antisocial behavior. *Journal of Comparative Family Studies, 35*, 547-563.
- Sloane, D. M., & Potvin, R. H. (1983). Age differences in adolescent religiousness. *Review of Religious Research, 25*, 142-154.

- Small, S. (1990). *Preventive programs that support families with adolescents*. Working paper: Carnegie Council on Adolescent Development. Washington, DC.: Carnegie Corporation.
- Small, S. A., & Eastman, G. (1991). Rearing adolescents in contemporary society: A conceptual framework for understanding the responsibilities and needs of parents. *Family Relations*, 40, 455-462.
- Smith, C. (2003). Theorizing religious effects among American adolescents. *Journal for the Scientific Study of Religion*, 42, 17-30.
- Smith, C. (with Denton, M. L.). (2005). *Soul searching: The religious and spiritual lives of American teenagers*. New York: Oxford.
- Smith, C., Denton, M. L., Faris, R., & Regnerus, M. (2002). Mapping American adolescent religious participation. *Journal for the Scientific Study of Religion*, 41, 597-612.
- Smith, C., & Sikkink, D. (2003). Social predictors of retention in and switching from the religious faith of family of origin: Another look using religious tradition self-identification. *Review of Religious Research*, 45, 188-206.
- Spilka, B. (1991). Religion and adolescence. In R. M. Lerner, A. C. Petersen, & J. Brooks-Gunn (Eds.), *Encyclopedia of adolescence, Volume II* (pp. 926-929). New York: Garland Publishing.
- Spilka, B., Hood, R. W., & Gorsuch, R. L. (1985). *The psychology of religion*. Englewood Cliffs, NJ: Prentice-Hall.
- Stafford, L., & Bayer, C. L. (1993). *Interaction between parents and children*. Newbury Park, CA: Sage.

- Stattin, H., & Kerr, M. (2000). Parental monitoring: A reinterpretation. *Child Development, 71*, 1072-1085.
- Steinberg, L. (2001). *Adolescence* (6th ed.). New York: McGraw-Hill.
- Steinmetz, S. K. (1999). Adolescents in contemporary families. In M. Sussman, S. K. Steinmetz, and G. W. Peterson (Eds.), *Handbook of marriage and the family* (2nd ed.) (pp. 371-423). New York: Plenum Press.
- Stryker, S. (1980). *Symbolic interactionism: A social structural version*. Menlo Park: Benjamin/Cummings Publishing Company.
- Thomas, D. L., & Carver, C. (1990). Religion and adolescent social competence. In T. P. Gullotta, G. R. Adams, & R. Montemayor (Eds.), *Developing social competency in adolescence* (pp. 195-219). Newbury Park, CA: Sage Publications.
- Thomas, D. L., & Cornwall, M. (1990). Religion and family in the 1980s: Discovery and development. *Journal of Marriage and the Family, 52*, 983-992.
- Thornton, A., & Camburn, D. (1989). Religious participation and adolescent sexual behavior and attitudes. *Journal of Marriage and the Family, 51*, 641-652.
- Trimble, D. E. (1997). The Religious Orientation Scale: Review and meta-analysis. *Educational and Psychological Measurement, 57*, 970-987.
- Vogt, W. P. (1999). *Dictionary of statistics and methodology: A nontechnical guide for the social sciences* (2nd ed.). Newbury Park: Sage.
- Wallace, J. M., Jr., Forman, T. A., Caldwell, C. H., & Willis, D. S. (2003). Religion and U.S. Secondary School Students. *Youth Society, 35*, 98-125.

- Weigert, A. J., & Thomas, D. L. (1972). Parental support, control and adolescent religiosity: An extension of previous research. *Journal for the Scientific Study of Religion, 11*, 389-393.
- Whitbeck, L., & Gecas, V. (1988). Value attributions and value transmission between parents and children. *Journal of Marriage and the Family, 50*, 829-840.
- Whitbeck, L. G., Simons, R. L., Conger, R. D., & Lorenz, F. O. (1989). Value socialization and peer group affiliation among early adolescents. *Journal of Early Adolescence, 9*, 436-453.
- White, J. M., & Klein, D. M. (2002). *Family theories: An introduction* (2nd ed.). Newbury Park, CA: Sage.
- Willits, F. K., & Crider, D. M. (1989). Church attendance and traditional religious beliefs in adolescence and young adulthood: A panel study. *Review of Religious Research, 31*, 68-81.
- Wilson, J., & Sherkat, D. E. (1994). Returning to the fold. *Journal for the Scientific Study of Religion, 33*, 148-161.

APPENDIXES

APPENDIX A

IRB Form for Time 1

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 12-11-96

IRB#: HE-97-017

Proposal Title: FAMILY SYSTEM AND COMMUNITY RESOURCES AND
THE ADAPTATION OF YOUTH IN RURAL OKLAHOMA

Principal Investigator(s): Carolyn S. Henry, Linda C. Robinson

Reviewed and Processed as: Full Board

Approval Status Recommended by Reviewer(s): Approved

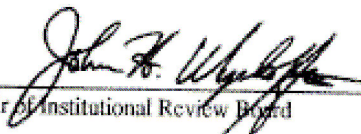
ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD
AT NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING
THE APPROVAL PERIOD.

APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A
CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD
APPROVAL.

ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR
APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for Deferral or Disapproval
are as follows:

Signature:


Chair of Institutional Review Board

Date: December 23, 1996

IRB Form for Time 2

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: January 30, 1998

IRB #: HE-98-041

Proposal Title: FAMILY AND COMMUNITY RESOURCES AND ADAPTATION OF YOUTH IN
NON-METROPOLITAN COMMUNITIES

Principal Investigator(s): Carolyn S. Henry, Linda C. Robinson

Reviewed and Processed as: Full Board

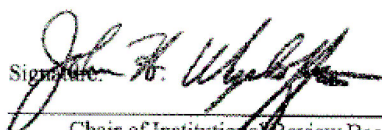
Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT
NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE
APPROVAL PERIOD.

APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR
PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE
SUBMITTED FOR BOARD APPROVAL.

ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Disapproval are as follows:

Signature: 
Chair of Institutional Review Board

Date: March 12, 1998

APPENDIX B

Assent, Consent, and Parental Information Letters

ADOLESCENT ASSENT FORM

I _____, hereby agree to participate in the following research
(*print name*)

conducted by **Carolyn Henry, Ph.D., Linda Robinson, Ph.D.**, and assistants of their choosing. The research procedure will involve completing self-report questionnaires concerning the various aspects of my family and community. I understand that my participation in this project will take approximately 50 minutes at each point of collection and that there will be two points of collection. The first point of collection will be on _____ during my _____ class. The second point of collection will be approximately two years after the first collection date and will be completed in a similar fashion. I authorize the use of data collected in this project as a part of a study on the family and community resources for youth in rural Oklahoma. Also, I authorize the use of the data in future research studies.

This study is designed to examine how selected family, community, and demographic (e.g. age, gender) factors relate to indicators of well-being for adolescents in rural Oklahoma communities. Specifically, the instrument will include questions about the following variables: family flexibility, bonding, hardiness, coherence, celebrations, routines; adolescent depression, self-esteem, empathy, religiosity, interest in others, conformity to parent’s expectations, autonomy, and satisfaction with family life; parental support and control behaviors; parent-adolescent communication; and resources in the community. The results will be used to expand the knowledge base of current family and community resources in the lives of rural Oklahoma youth.

ASSURANCE OF CONFIDENTIALITY

I understand my name will not be identified with any data collected in the study and the questionnaires will be considered for confidential research use only. I understand this consent form will be kept in a locked file cabinet in a secured office and will also be kept separate from the questionnaires’ responses. The collected data will be viewed only by members of the current or future research teams who are authorized by the project director and who have signed an agreement to assure the confidentiality of information about the participants. I understand that my participation is voluntary, that I am free to not respond to any item, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time without penalty after notifying the project director.

I may contact **Carolyn Henry, Ph.D.** or **Linda Robinson, Ph.D.** at **(405) 744-5057**. I may also contact **Gay Clarkson**, IRB Executive Secretary, Oklahoma State University, 305 Whitehurst, Stillwater, OK 74078; **(405) 744-5700** as a resource person.

I have read and fully understand this form. I sign it freely and voluntarily. A copy has been given to me.

Date: _____

Signed: _____
(*Signature of participant*)

Signed: _____
(*Signature of investigator/witness*)

PARENT INFORMED CONSENT FORM

I _____, hereby give permission for my child
(print name)
_____ to participate in the following research study conducted by
(print name)

Carolyn Henry, Ph.D., Linda Robinson, Ph.D., and assistants of their choosing. I understand that my son's or daughter's participation in this project will take approximately 50 minutes at each point of collection and that there will be two points of collection. The first point of collection will be on _____ during my son's or daughter's _____ class. The second point of collection will be approximately two years after the first collection date and will be completed in a similar fashion. I authorize the use of data collected in this project as a part of a study on the family and community resources for youth in rural Oklahoma. Also, I authorize the use of the data in future research studies.

This study is designed to examine how selected family, community, and demographic (e.g. age, gender) factors relate to indicators of well-being for adolescents in rural Oklahoma communities. Specifically, the instrument will look at the following variables: family flexibility, bonding, hardiness, coherence, celebrations, routines; adolescent depression, self-esteem, empathy, religiosity, interest in others, conformity to parent's expectations, autonomy, and satisfaction with family life; parental support and control behaviors; parent-adolescent communication; and resources in the community. The results will be used to expand the knowledge base of current family and community resources in the lives of rural Oklahoma youth.

ASSURANCE OF CONFIDENTIALITY

I understand my son's or daughter's name will not be identified with any data collected in the study and the questionnaires will be considered for confidential research use only. I understand this consent form will be kept within a locked file cabinet in a secured office and will also be kept separate from the questionnaires' responses. The collected data will be viewed only by members of the current or future research teams who are authorized by the project director and who have signed an agreement to assure the confidentiality of information about the participants. I understand that my son's or daughter's participation is voluntary, that they are free to not respond to any item, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and son's or daughter's participation in this project at any time without penalty after notifying the project director.

I may contact **Carolyn Henry, Ph.D.** or **Linda Robinson, Ph.D.** at **(405) 744-5057**. I may also contact **Gay Clarkson**, IRB Executive Secretary, Oklahoma State University, 305 Whitehurst, Stillwater, OK 74078; **(405) 744-5700** as a resource person.

I have read and fully understand this form. I sign it freely and voluntarily. A copy has been given to me.

Date: _____

Signed: _____
(Signature of parent authorizing permission for son or daughter to participate)

Signed: _____
(Signature of investigator/witness)

Parental Information Letter

September 2, 1997

Dear Parents,

Your son or daughter has been asked to participate in a study conducted by the Department of Family Relations and Child Development at Oklahoma State University, Stillwater, OK. This study is designed to examine how selected family, community, and demographic (e.g. age, gender) factors relate to indicators of well-being for adolescents in rural Oklahoma communities. The study is designed to have two separate collection dates for information gathering. The dates will be approximately two years apart.

Your son or daughter would be asked to complete a self-report questionnaire regarding the following variables: family flexibility, bonding, hardiness, coherence, celebrations, routines; adolescent depression, self-esteem, empathy, religiosity, interest in others, conformity to parent's expectations, autonomy, and satisfaction with family life; parental support and control behaviors; parent-adolescent communication; and resources in the community. You, their parent and/or legal guardian, have the right to grant permission for your son or daughter to participate in this study. A consent form is included in this letter for you to inspect and sign should you consent for your son or daughter to participate in this study. Please take time to look over this information.

Sincerely,

Carolyn S. Henry, Ph.D.
Professor

Linda C. Robinson, Ph.D.
Associate Professor

APPENDIX C

Research Instruments Used in Data Collection

Demographic Questions

OKLAHOMA STATE UNIVERSITY
DEPARTMENT OF FAMILY RELATIONS AND CHILD DEVELOPMENT

ADOLESCENT FAMILY RESEARCH PROJECT

PART I: Complete the following items:

1. How old are you? _____ years old
2. What is your grade in school? Circle your answer.
6 7 8 9 10 11 12
3. What is your sex? Circle your answer.
1 Male 2 Female
4. What is your race? Circle your answer. If other, please specify.
1 Black 3 White 5 Mexican American (Hispanic)
2 Asian 4 American Indian (Native American) 6 Other _____
5. Do you live inside the city limits? Circle your answer.
1 Town/city 2 County
6. Do you live with your parents? Circle your answer.
1 Yes 2 No
If no, with whom do you live? _____
7. Which of the following best describes your biological parents? Circle your answer.
1 Married 3 Separated 5 Single
2 Divorced 4 Widowed 6 Other, please explain _____

8. Which of the following best describes the parents or guardians with whom you live?
Circle your answer.

- | | |
|--|--|
| 1 Both biological mother and biological father | 4 Biological father only |
| 2 Biological father and stepmother | 5 Biological mother only |
| 3 Biological mother and stepfather | 6 Adoptive mother and adoptive father |
| | 7 Some other person or relative. Please describe _____ |

9. Please mark the answer that best fits the name of the church or synagogue you attend. Circle your answer.

- | | | |
|---------------------|----------------------|---|
| 1 Assembly of God | 7 Baptist | 12 Catholic |
| 2 Christian Church | 8 Church of Christ | 13 Episcopal |
| 3 Jewish | 9 Lutheran | 14 Methodist |
| 4 Presbyterian | 10 Bible Church | 15 Community Church |
| 5 Latter Day Saints | 11 Jehovah's Witness | 16 Seventh Day Adventist |
| 6 Other _____ | | 17 Not applicable because I do not go to church |

10. About how many time a week do you attend worship services?

0 1 2 4 5 6 7 8 9

11. About how many time a week do you go to Bible studies, youth group activities, or other-church related classes?

0 1 2 4 5 6 7 8 9

For this section answer questions about the parent(s), stepparent(s), or guardian(s) with whom you are currently living.

12. What is the current employment status of your father/stepfather (male guardian)? Circle your answer.

- | | |
|---|-------------------------------------|
| 1 Full-time (more than 35 hours per week) | 4 Not employed |
| 2 Part-time (less than 35 hours per week) | 5 Not applicable (no father figure) |
| 3 Not-employed, looking for work | 6 Do not know |

13. If your father/stepfather (male guardian) is employed, what is his job title? Please be specific.

14. What does your father/stepfather (male guardian) do? Please give a full description such as: "helps build apartment complexes" or "oversees a sales force of 10 people."

15. What is the current employment status of your mother/stepmother (female guardian)? Circle your answer.

- | | |
|---|-------------------------------------|
| 1 Full-time (more than 35 hours per week) | 4 Not employed |
| 2 Part-time (less than 35 hours per week) | 5 Not applicable (no mother figure) |
| 3 Not-employed, looking for work | 6 Do not know |

16. If your mother/stepmother (female guardian) is employed, what is her job title? Please be specific.

17. What does your mother/stepmother (female guardian) do? Please give a full description such as "teaches chemistry in high school" or "works on an assembly line where car parts are made."

18. Circle the highest level in school that your mother/stepmother (female guardian) has completed.

- | | |
|---------------------------------------|--|
| 1 Completed grade school | 5 Some college, did not graduate |
| 2 Some high school | 6 Graduated from college |
| 3 Graduated from high school | 7 Post college education (graduate school/law school/medical school) |
| 4 Vocational school after high school | 8 Other training after high school, please specify, |
| | 9 Do not know |

19. Circle the highest level in school that your father/stepfather (male guardian) has completed.

- | | |
|---------------------------------------|--|
| 1 Completed grade school | 5 Some college, did not graduate |
| 2 Some high school | 6 Graduated from college |
| 3 Graduated from high school | 7 Post college education (graduate school/law school/medical school) |
| 4 Vocational school after high school | 8 Other training after high school, please specify, |
| | 9 Do not know |

20. On the average, how many hours per day is your father/stepfather (male guardian) at home, not counting sleep hours?

- | | |
|-------------------------------|-------------------------------|
| 1 Less than 30 minutes a day | 4 Between 2 and 5 hours a day |
| 2 About one hour a day | 5 More than 5 hours |
| 3 Between 1 and 2 hours a day | 6 Not applicable |

21. On the average, how many hours per day is your mother/stepmother (female guardian) at home, not counting sleep hours?

- | | |
|-------------------------------|-------------------------------|
| 1 Less than 30 minutes a day | 4 Between 2 and 5 hours a day |
| 2 About one hour a day | 5 More than 5 hours |
| 3 Between 1 and 2 hours a day | 6 Not applicable |

22. How much time does your father/stepfather (male guardian) actually spend with you personally (include any time that you are together working on projects, chores, etc.).

- | | |
|--------------------------------|---------------------|
| 1 15 minutes a day or less | 4 1-2 hours a day |
| 2 15-30 minutes a day | 5 More than 2 hours |
| 3 30 minutes to one hour a day | 6 Not applicable |

Intrinsic and Extrinsic Religiosity Scales

Directions: Everyone has personal viewpoints. There are no right or wrong answers because the questions refer to your own personal values and opinions, which may be very strong. To what extent do you agree or disagree with the following statements about society, the church, and your own beliefs? Please circle your answers.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

- | | |
|-----------|--|
| 1 2 3 4 5 | 1. I go to church because it helps me to make friends. |
| 1 2 3 4 5 | 2. Sometimes I have to ignore my religious beliefs because of what people might think of me. |
| 1 2 3 4 5 | 3. It is important to me to spend time outside of church in private thought and prayer. |
| 1 2 3 4 5 | 4. I have often had a strong sense of God's presence. |
| 1 2 3 4 5 | 5. I try hard to live all my life according to my religious beliefs. |
| 1 2 3 4 5 | 6. My religion is important to me because it answers many questions about the meaning of life. |
| 1 2 3 4 5 | 7. I would rather join a Bible study group than a church social group. |
| 1 2 3 4 5 | 8. Although I am religious, I don't let it affect my daily life. |
| 1 2 3 4 5 | 9. I go to church mainly because I enjoy seeing people I know there. |
| 1 2 3 4 5 | 10. Although I believe in my religion, many other things are more important in life. |

Extrinsic Religiosity Questions (1, 2, 7, 8, 9)

Intrinsic Religiosity Questions (3, 4, 5, 6, 10-reverse scored)

Source: Hill, P. C. & Hood, R. W. Jr. (Eds.). (1999). *Measures of religiosity*. Birmingham, AL: Religious Education Press. Adapted by Schumm, W. R., Hatch, R. C., Hevelone, J., & Schumm, K. R. (1989). Attrition and retention among Christian Church (Disciples of Christ) congregations in three metropolitan regions: A mail survey of 1,149 active and inactive members. In D. N. Williams (Ed.), *A case study of mainstream Protestantism: The Disciples' relation to American culture 1880-1989* (pp. 521-553). Grand Rapids, MI: Eerdmans.

Parental Behavior Measures

Directions: Think about your relationship with your mother/stepmother (or female guardian) and or father/stepfather (or male guardian). RESPOND REGARDING THE FAMILY WITH WHOM YOU LIVE. Using the scale below, circle the answer that best describes your thoughts and feelings about each parent/stepparent (or guardian).

		SD Strongly Disagree	D Disagree	N Neither Agree Nor Disagree	A Agree	SA Strongly Agree
1. This parent explains to me that when I share things with other family members, that I am liked by other family members. (Induction)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
2. This parent seems to approve of me and the things I do. (Support)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
3. This parent says nice things about me. (Support)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
4. This parent explains to me how good I should feel when I do what is right (Induction)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
5. This parent is always finding fault with me. (Punitiveness)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
6. This parent physically disciplines me. (Punitiveness)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
7. This parent punishes me by sending me out of the room. (Punitiveness)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
8. Over the past several years, this parent has explained to me how good I should feel when I share something with other family members. (Induction)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
9. This parent complains about my behavior. (Punitiveness)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
10. This parent tells me how good others feel when I do what is right. (Induction)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
11. This parent punishes me by not letting me do things with other teenagers. (Punitiveness)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
12. This parent explained to me how good I should feel when I did something that s/he liked. (Induction)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
13. This parent tells me how much s/he loves me. (Support)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
14. This parent does not give me any peace until I do what s/he says. (Punitiveness)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA

15. This parent punishes me by not letting me do things that I really enjoy. (Punitiveness)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
16. This parent has made me feel that s/he would be there if I needed him/her. (Support)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
17. This parent knows where I am after school. (Monitoring)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
18. I tell this parent who I am going to be with when I go out. (Monitoring)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
19. When I go out, this parent knows where I am. (Monitoring)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
20. This parent knows the parents of my friends. (Monitoring)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
21. This parent knows who my friends are. (Monitoring)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA
22. This parent knows how I spend my money. (Monitoring)	Mother	SD	D	N	A	SA
	Father	SD	D	N	A	SA

Source: The induction, support, and punitiveness subscales are from Peterson, G. W. (1982). *Parental behavior measure*. Unpublished manuscript, Department of Child and Family Studies, The University of Tennessee, Knoxville. An additional six-item Likert-type scale developed by Peterson was used to assess the adolescents' perceptions of their mother's and father's monitoring (Bush, Peterson, Cobas, & Supple, 2002).

VITA

Bartow Joseph McMichael

Candidate for the Degree of

Doctor of Philosophy

Dissertation: ADOLESCENT PERCEPTIONS OF PARENTAL BEHAVIOR AND SELF-REPORTS OF INTRINSIC AND EXTRINSIC RELIGIOSITY: CROSS-SECTIONAL VS. LONGITUDINAL ANALYSES

Major Field: Human Development and Family Science

Biographical:

Personal Data: Born in Macon, Georgia, on August 29, 1958, son of N. H. and Evelina McMichael. Married Dana McMichael on May 30, 1987. Father of two sons: David McMichael (born July 13, 1989) and Jonathan McMichael (born September 2, 1992).

Education: Received the Bachelor of Arts in Bible and Human Communication from Freed-Hardeman University, Henderson, Tennessee in 1980; received the Master of Science from Abilene Christian University, Abilene, Texas in 1988; received the Master of Marriage and Family Therapy from Abilene Christian University, Abilene, Texas in 1991; completed the Requirements for the Doctor of Philosophy degree at Oklahoma State University, Stillwater, Oklahoma in May 2006.

Experience: Taught at Northland Christian High School, Houston, Texas from 1983-1985; employed as Youth and Family Minister for the Austin Street Church of Christ, Garland, Texas from 1989-1996; employed by Oklahoma State University, Stillwater, Oklahoma as teaching assistant from 1997-2000; employed by Oklahoma Christian University, Oklahoma City, Oklahoma as adjunct professor of Bible from 1997-1999; employed by Abilene Christian University, Abilene, Texas as Instructor of Bible (2000-2004) and Director of Graduate Student Services in the Graduate School of Theology (2004 to present).

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Title of Study: ADOLESCENT PERCEPTIONS OF PARENTAL BEHAVIOR AND SELF-REPORTS OF INTRINSIC AND EXTRINSIC RELIGIOSITY: CROSS-SECTIONAL VS. LONGITUDINAL ANALYSES

Pages in Study: 202

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Major Field: Human Environmental Studies

Scope and Method of Study: The purpose of the study was to examine cross-sectional and longitudinal models of how selected demographic and perception of parental behaviors related to variation in adolescent intrinsic and extrinsic religiosity during the early and later years of high school. The data for this study were part of a larger longitudinal study of adolescents and families collected in three non-metropolitan communities located in a South Central state. Longitudinal data were collected at Time 1 when the students were in 9th or 10th grades and at Time 2 when the students were in the 11th or 12th grades. Data were available on 110 students. The self-report data included scales measuring adolescent perceptions of four parental behaviors (support, monitoring, induction, and punitiveness), and adolescent reports of two measures of religiosity (intrinsic and extrinsic). T-tests were run to analyze changes in religiosity over time, ANOVAS were run to analyze differences between boys' and girls' reports of religiosity, and multiple regression was used to analyze whether cross-sectional or longitudinal models combining gender and adolescent perceptions of parental behaviors were better predictors of adolescent religiosity.

Findings and Conclusions: T-tests revealed no significant differences between the Time 1 and the Time 2 reports of either intrinsic or extrinsic religiosity for either boys or girls. The ANOVAs found only one significant difference in reports of religiosity related to gender. At Time 1, boys reported higher extrinsic religiosity than girls. In the bivariate correlations, Time 1 intrinsic religiosity was not related to any of the four parental behaviors, Time 1 extrinsic religiosity was negatively related to mothers' support, Time 2 intrinsic religiosity was positively related to fathers' monitoring, and Time 2 extrinsic religiosity was negatively related to fathers' monitoring and mothers' induction. The multivariate model predicting extrinsic religiosity at Time 1 that combined gender and adolescent perception of mothers' behaviors was the only model found significant in the multiple regressions. Overall, the models predicting extrinsic religiosity were stronger than those predicting intrinsic religiosity.

ADVISER'S APPROVAL: _____