CAUSES AND CONSEQUENCES OF PARENT MONITORING AMONG ASIAN INDIAN PARENTS AND THEIR TEENAGERS

DISSERTATION

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By
Chitra Ranganathan, M.Sc.

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Dissertation Committee:

Professor Raymond Montemayor, Adviser
Professor Dorothy Jackson
Professor Thomas E. Nygren

Approved by

Adviser

Graduate Program in Psychology
ABSTRACT

Parental monitoring refers to the processes by which parents keep track of their adolescents. Parental monitoring is a deterrent to problem behavior, especially during adolescence when teenagers spend more time away from their parents and homes. Parent monitoring has always been examined as a predictor of adolescent problem behaviors but has never been studied as an outcome, specifically, there is limited research on variables that could explain important parenting acts, like monitoring. The current study hypothesizes that parent belief systems about adolescence will predict parent efficacy, both of which could influence monitoring levels. There is limited research on how efficacious parents feel in their role as parents of adolescents, and virtually nothing on parent efficacy in specific tasks relevant to adolescence such as monitoring and also none examined in another culture. The current study also examines the link between processes of parent monitoring, parent knowledge and parent trust in adolescents, a link previously examined only by Kerr and Stattin(2000) in Swedish families.

The data for this study was gathered in two parts from families residing in Chennai, India through questionnaires. A preliminary study was conducted to assess the psychometric indices for two scales developed for the purpose of this study through factor analysis – parent beliefs scale and parent efficacy scale.
The main study assessed the relationship between the variables measuring the causes and consequences of parent monitoring in Asian Indian families with a teenager and both his/her mother and father. Data analyses included examining confirmatory factor analysis, reliability of scales, bivariate correlations, multiple linear regression, and, mediated regression analyses. The exploratory factor analysis established a two-factor structure for Parent Beliefs scale and a three-factor structure for Parent Efficacy scale and these factor structures held with good model fit indices when a confirmatory factor analysis was performed on the new sample of Asian Indian couples gathered in the main study. Parents’ specific expectations for their parenting partially mediated the relationship between parents’ generalized beliefs about adolescence and parent efficacy. Parent efficacy completely mediated the relationship between parents’ specific expectations for their parenting and the processes of parent monitoring. Voluntary child disclosure, parent solicitation, and parent control significantly predicted parent knowledge about daily activities of their teenagers unlike Swedish families where only child disclosure mattered. Voluntary child disclosure and prior knowledge of teenager delinquency predicted parent trust in their teenagers.

This research makes a number of contributions to the monitoring literature. Implications for theory development and application are discussed.
To

Amma, Appa, and Mukund.
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VITA

August, 1978 .....................  Born – Tirupati, India

1998 ..............................  B. Sc. Nutrition and Dietetics, University of Madras

2000 ..............................  M. Sc. Human Development and Family Studies, University of Madras

EXPERIENCE

2000 – Current ..................  Graduate Teaching Assistant, Department of Psychology, Ohio State University

2005-2006 .......................  Research Consultant, Decision Support Services, Columbus, Ohio

FIELDS OF STUDY

Major Field: Psychology
  Developmental

Minor Fields: Quantitative Psychology
  Counseling Psychology
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CHAPTER 1

INTRODUCTION

Society has always regarded parents as the main agents in the socialization process of children since parents have greater time and opportunity to develop relationships with children, which are essential for successful socialization. Parents also have more opportunity than any other adult to monitor their children’s actions, a central aspect of parental socialization (Grusec, 2002). While parent monitoring has been examined as a predictor of several outcomes (Kerr & Stattin, 2000), there is very little research on the predictors of parent monitoring. The present study will examine a theoretical model linking parent beliefs, their efficacy beliefs about monitoring as predictors of the processes of monitoring, and resultant parent knowledge about their adolescents and the development of parental trust as consequences of parent monitoring processes among Asian Indian parents and their adolescents through a series of regressions. The variables of interest and the relationships that will be examined between them are depicted in Figure 1.

The first section will introduce parent monitoring and parental knowledge. This section will begin with a definition of parent monitoring, discussion of historical research in this area, measurement issues, antecedents and outcomes of monitoring, re-conceptualization of the monitoring construct, parent knowledge, and limitations in the extant literature, namely the lack of studies that
have examined predictors of monitoring and the lack of monitoring studies in Asian cultures.

Figure 1.1: The pattern of hypothesized relationships among the variables of interest

The next three sections will also discuss Asian literature and variables unique to Asian cultures where relevant. The second section will present an exploratory framework for parent beliefs about the period of adolescence and the specific expectations they have for their parenting on adolescent welfare. This section presents two types of parent beliefs and relevant literature. The third section will discuss parent efficacy and relevant research. This section will present efficacy as both a domain-general and task-specific variable by discussing efficacy as parents' beliefs about their competence parenting adolescents generally and monitoring their adolescents, specifically. The fourth section will discuss and present relevant research for parental trust in adolescents – an outcome of parent monitoring and parent knowledge. The fifth
section will discuss the importance of examining the gender differences between
mothers and fathers for the variables depicted in the above model. This section
will also present gender and age of the adolescent as variables that warrant
empirical investigation. The final section will summarize the study, present the
major hypotheses and discuss the significance of the proposed study.

Section I

Parent Monitoring and Parent Knowledge

Parent monitoring is defined as “a set of correlated parenting behaviors
involving attention to and tracking of the child’s whereabouts, activities and
adaptations” (Dishion & McMahon, 1998). Interest in parent monitoring has
grown in response to the findings that parent monitoring is significantly correlated
with problem behaviors. For instance, in the 1970’s and 1980’s, a series of
studies highlighting the relationship between parent monitoring and delinquent
behavior were published and it was found that low levels of parent monitoring
leads to high level of problem behaviors, especially conduct problems among
children and adolescents (McCord, 1979; Patterson, 1982; Wilson, 1980).

Patterson and Stouthamer-Loeber (1984) found parental monitoring to be a
strong predictor of self-reported delinquency and norm-breaking behaviors of
adolescent boys; parents of delinquents were found to be indifferent trackers of
their sons’ whereabouts, activities and the company they keep. This finding
delineated the act of monitoring as an exclusive parenting behavior and not as a
dyadic property of the parent-child relationship implying that good monitors would
be able to successfully keep track of their child’s activities and whereabouts irrespective of the child’s role or contribution to this parental knowledge.

The predominant methodology used in most studies of parent monitoring consisted of self-report data from one reporter (parent or child) to measure the construct of parental monitoring (Otto & Atkinson, 1997; Pettit, Bates, Dodge & Meece 1999; Steinberg, Fletcher & Darling, 1994; White & Kaufman, 1997). This methodology was criticized as flawed since parents or adolescents may not report parent knowledge accurately. Additionally, the instruments used in these studies measured parent knowledge, not how they acquired that knowledge (Crouter & Head, 2002). However, subsequent research in this area included several studies that examined data from more than one reporter, typically one or both parents and the child (Crouter & McHale, 1993; Crouter, Helms-Erikson, Updegraff, & McHale, 1999) and this methodological improvement enhanced the reliability of the findings that emerged from these studies (Crouter and Head, 2002).

The earlier conceptualization of parent monitoring as the presumed outcome of tracking and surveillance – parental knowledge – providing no information about how parents actually obtained that knowledge (Pettit et al. 1994; Pettit, Laird, Dodge, Bates & Criss, 2001) continued until Stattin and Kerr (2000) re-conceptualized the construct of parental monitoring by using a measure of monitoring that not only measured perceived parental knowledge, but also three possible mechanisms by which parents could possibly acquire that knowledge; child self-disclosure, parental solicitation, and parental control (refer
Figure 2). They found that child self-disclosure was the strongest correlate of parent monitoring implying that parents’ active tracking and surveillance methods are not as important as the child’s spontaneous disclosure of information to the parent. They also used both parents and adolescents as reporters of information about parent monitoring processes and knowledge and this enhanced the reliability of the findings that emerged from this study.

![Diagram of monitoring processes]

Figure 1.2: The processes of monitoring that predict parent knowledge (Kerr & Stattin, 2000)

Several studies have examined parent monitoring as knowledge, as a predictor of a range of problem behaviors, and while some have focused on elementary and middle school children, a large majority of studies have examined adolescents. Parenting can become more stressful and anxiety-provoking to parents when their children become adolescents (Montemayor, 1983; Ballenski & Cook, 1982) because most of the adolescent’s life is played out in peer contexts, away from the direct observation of parents (Tilton-Weaver & Galambos, 2003). Another reason that explains why parenting adolescents could be stressful is the number of potentially dangerous and undesirable
activities, and influences their adolescents are exposed to (Small & Eastman, 1991). Parents are perceived as responsible for protecting their adolescent’s physical, psychological, and emotional health from outside influences that may harm or threaten the adolescent (Alvy, 1987; Small & Eastman, 1991).

The parent monitoring literature reveals the predictive value of monitoring as knowledge on several outcome variables in adolescents such as conduct problems and delinquency (Dishion, Patterson, Stoolmiller & Skinner, 1991; Kerr & Stattin, 2000), substance use (Mott, Crowe, Richardson & Flay, 1999; Steinberg, Fletcher & Darling, 1994), sexual activity (Meschke & Silbereisen, 1997), and school achievement (White & Kaufman, 1997; Otto & Atkinson, 1997). The literature also reveals several antecedent influences on parent monitoring as knowledge such as the quality of the parent-child relationship (Kerr & Stattin, 2000), child’s personal qualities and temperament (Crouter et al. 1999), parents’ personal characteristics and gender role attitudes (Bumpus, Crouter & McHale, 2001), employment (Shanahan, Elder, Burchinal & Conger, 1996), and quality of marital relationship (Bumpus, Crouter & McHale, 1999).

While previous research has delineated parent monitoring as knowledge as a predictor of adolescent outcomes, the extant literature in parent monitoring is glaring in its lack of research on why parents engage in monitoring. The present study will make an exploratory attempt to examine parent beliefs and efficacy as variables that predict the levels of parent monitoring as the processes by which parents obtain knowledge. Further, the review of the parent monitoring literature by Crouter and Head (2002) also reveals that there are few studies of
monitoring that have been carried out in other cultures. Specifically, no studies have examined the phenomenon of parent monitoring in Asian cultures. Most prior studies have examined parent socialization processes in Western cultures. Even though China and India together contain 45% of the world’s children, what we know about child development is largely based upon studies conducted in the West and and very few studies have examined parenting in India (Gergen, Gulerce, Lock & Misra, 1996). The proposed study will attempt to fill this gap in the literature by examining all the variables described in Figure 1, in India, by including Asian Indian families with adolescents as the subjects (Crouter and Head, 2002).

Section II

Parent Beliefs

Several parenting behaviors are explained by the theory that posits that parents act deliberately, implying that parenting is a consequence of conscious cognitions that parents are responding to (Kerr and Stattin, 2000). Parental cognitions have been variously referred to as beliefs, motivations, ideas, and thought processes in various studies. Parent belief systems and motivations guide parenting behaviors and represent causal influences on behavior (Bolles, 1967; Sigel & McGillicuddy-De Lisi, 2002). Parental beliefs are of interest because such cognitions are important to the understanding of parenting behaviors and exercising of parental responsibilities.

In the developmental literature, the primary interest has been in examining how particular beliefs act as sources of parenting behaviors and influence the
socialization of children – whether or not parental beliefs have an impact on child outcomes and a child’s course of development. Parental beliefs about adolescence represent a critical area of socialization that has not received much interest in research. Presumably, parental beliefs about adolescence can guide how adolescents are parented and thereby explain parenting behaviors.

A growing body of research in the field of parental beliefs indicates that parental cognitions about child development in general and about their own children in particular are very important influences on parenting behaviors and child outcomes (Buchanan, 2003; Eccles, Jacobs & Harold, 1990). Subsequent research has pointed out that an important source of parents’ expectations for and attributions about their own children appear to be parents’ generalized beliefs and stereotypes concerning the behavior and abilities of children based on gender, age, or other characteristics (Eccles, 1992).

Eccles (1992) proposed a model that linked parents’ beliefs and behavior with child outcomes. Eccles proposed that parents’ generalized beliefs (category-based beliefs) predict child-specific beliefs (expectations for a specific child’s behavior) and that both the general and child-specific beliefs are important reasons that explain parental behaviors and thereby, child outcomes. Jacob and Eccles (1992) showed that mothers’ generalized beliefs about the abilities of boys and girls predicted their beliefs about their own child’s abilities independent of the child’s performance in those domains. For example, if parents believed that boys are better at mathematics than girls, then they had lower expectations of mathematics performance for their girl children, even if the girl children
showed considerable aptitude for mathematics. This shows that category membership influences parental judgments of their own children, despite the influence of the child’s characteristics on those judgments or beliefs. There are not many studies that have examined parents’ generalized belief systems about adolescents.

Adolescence is a time period of the lifespan that assumes special importance in the domain of parental beliefs when it comes to understanding parenting behaviors and parent-child interaction. There are many unfavorable beliefs and stereotypes that exist about adolescence such as adolescents are rebellious, insecure, influenced heavily by friends and fads, prone to high-risk behaviors and Buchanan (2003) found that holding negative generalized beliefs about adolescents engenders ineffective parenting and is related to mothers’ expectations for difficulty with their own adolescents, as they proceed through adolescence. If a parent believes that teenagers as a group are rebellious, they would have similar expectations for their own teenager and the generalized belief can also certainly influence how they parent their adolescent (Eccles, 1996). For example, negative expectations might engender authoritarian parenting if parents become more restrictive in the hopes of averting problem behaviors (Holmbeck, 1996). In the context of monitoring as sources of knowledge, if parents believe that adolescents are prone to high-risk behaviors and influenced heavily by friends and fads, then they could have poor expectations for their own parenting which might influence the levels of the processes by which parents monitor. Therefore, it is hypothesized that parents’ generalized beliefs about adolescence
would predict specific parental expectations for their parenting. The present study will examine the relationship between these two variables. A scale to measure parent beliefs and expectations for their parenting was developed for the purpose of this study. (Refer Method section)

The area of parental beliefs that explain parenting behaviors has also been marked by a burgeoning of research on beliefs of parents from different cultural backgrounds and ethnic groups. Beliefs of parents have been investigated in many cultures (Horatcsu, 1995; McBride-Chang & Chang, 1998; Zeitlin, 1996) and the findings suggest that the belief systems that drive certain parenting behaviors are derived from both the general and specific aspects of their culture. Some of these belief systems are expressed in the contrast between individualism (independence) and collectivism (interdependence). The Asian Indian culture and psyche, though often erroneously referred to as collectivist, is unique in that it cannot be defined as exclusively collectivist like China or individualist like the United States but contains elements of both orientations (Sinha & Tripathi, 1994). An Indian study examining individualist-collectivist orientations across generations found that individuals with higher education and urban residences showed greater levels of individualism compared to their highly educated rural counterparts (Mishra, 1994). The present study examines if the belief systems of urban, educated parents living in the Asian Indian culture are similar to the link that has been established between parents’ general beliefs and specific expectations for their parenting among Caucasian parents.
It is clear that parents’ generalized beliefs about adolescence and specific parental expectations for their parenting could emerge as important variables that explain why and how parents monitor their adolescents (refer Figure 3). The literature on parental beliefs also establishes parents’ beliefs about themselves as a parent to be an important determinant of parenting behaviors. It becomes important to examine how parents’ beliefs about themselves may influence a very critical aspect of parent socialization during adolescence, namely, parent monitoring.

![Figure 1.3: The hypothesized relationship between parents’ generalized beliefs about adolescence and parental expectations for their parenting](image)

Figure 1.3: The hypothesized relationship between parents’ generalized beliefs about adolescence and parental expectations for their parenting

Section III

*Parent Efficacy*

Parents’ beliefs about themselves as parents, their confidence in themselves about their competence as parents and their effectiveness as caregivers, is important to understand in the context of how they parent. Parenting self-efficacy is defined as parents' perceptions of competence in the parental role or as parents' perceptions of their ability to positively influence the behavior and development of their children (Coleman & Karraker, 1998).
literature on parent efficacy has several findings that examine parental self-efficacy beliefs and its role in explaining various kinds of outcomes, including parenting behaviors.

Do parents’ specific expectations for their parenting mediate the relationship between parents’ general beliefs and efficacy? If parents believe adolescence is a dangerous time and this belief predicts lower expectations for their parenting on the overall welfare of their adolescent, is it possible that these lower expectations would predict how lower confidence for parents in their role? The present study will examine parents’ specific expectations as a mediator between parents’ general beliefs about adolescence and parent efficacy.

Self-perceptions of efficacy directly impact goal-setting for various parenting tasks (Schunk, 1990). In general, parents with strong beliefs in their own parenting efficacy set high goals and engage in positive parenting behaviors. Parents have to not only be motivated to perform a certain parenting task but also have to believe that they can successfully carry it out and thereby have the confidence that they can have a positive impact on their children’s development (Coleman & Karraker, 1998). It can be argued that if parents consider themselves powerless to help their children, they will not consider themselves capable of successfully tracking their adolescent’s whereabouts and activities and thereby protect their teens from negative outside influences. The present study will examine parent efficacy as a predictor of parenting behaviors, specifically, monitoring as sources of parent knowledge.
Parenting self-efficacy has been established as a powerful mediator between parental beliefs and behaviors. For instance, Teti and Gelfand (1991) found that maternal beliefs about their infant’s temperament predicted their self-efficacy, which in turn, predicted their sense of competence in handling various parenting tasks. There is more evidence that child, parental, and contextual factors and beliefs do not directly impair parental functioning, but do so by undermining parental competency perceptions (Coleman & Karraker, 1998) emphasizing the mediating role of self-efficacy. Self-perceptions of efficacy are also likely to be influenced by the actual motivation to select or engage in parenting tasks, especially those that are challenging (Sexton & Tuckman, 1991). Parent monitoring is perceived as a central but considerably challenging parenting task (Crouter and Head, 2002). These findings are pertinent to understanding how parent efficacy could mediate the relationship between parent beliefs and how they actually monitor their adolescent.

The proposed study will examine parenting self-efficacy as a mediating variable between parental beliefs and the process of parent monitoring.

Bandura’s (1982) conceptualization of the self-efficacy dimension has both a global and a specific component and a substantial literature attests to the superior predictive validity of task-specific over global measures of self-efficacy (Beck & Lund, 1981; Multon, Brown & Lent, 1991; Pajares & Miller, 1995). Parental self-efficacy beliefs should incorporate both the level of specific knowledge pertaining to the behaviors involved in child-rearing (task-specific...
efficacy) and also the degree of confidence in one’s ability to carry out the
designated role behaviors as a parent (general parenting efficacy).

Brody, Flor and Gibson (1999) found that mothers’ general efficacy beliefs
were related to their child-rearing goals, which were in turn predictive of their
childrearing practices. In a cross-cultural study of mothers’ general beliefs about
self-efficacy, Bornstein et al. (1998) examined mothers of 20-month-old children
from seven countries and their beliefs about their own parenting and found that
when mothers believed that their parenting had an impact on child outcomes,
they were more likely to be active in promoting developmental achievements in
their children.

Previous research done in this area has examined the links between task-
specific parental efficacy, parenting behaviors, and child academic and socio-
emotional outcomes for parents of elementary school children (Hoover-Dempsey,
Bassler & Brissie, 1992) and a combination of parents of early adolescents, and
those of elementary school children (Eccles & Harold, 1996). More studies have
focused on academic outcomes in children than any other kinds of outcomes. It
was found that parents became more involved with their children’s education,
when they felt competent helping their children with schoolwork and this was
found to be true of parents of elementary school children (Hoover-Dempsey et
al., 1992) and pre-adolescents (Eccles and Harold, 1996). It is clear that
parental efficacy influences parenting behavior (Hoover-Dempsey and Sandler,
1997; Eccles and Harold, 1996), however, there is very limited research that has
examined how parental efficacy influences parenting of adolescents.
Bogenschneider, Small and Tsay (1997) found a positive association between parental efficacy and parental monitoring, such that parents who reported greater efficacy had adolescents who reported greater monitoring. Parental monitoring was associated with a number of developmental benefits in adolescents such as academic achievement and socially acceptable behaviors (Galambos & Maggs, 1992). These findings establish a link between efficacy, monitoring, and child outcomes. Shumow and Lomax (2002) combined all three variables and examined the relationship among task-specific parental efficacy, parenting behaviors, and adolescent outcomes. They defined parent efficacy as parents’ sense of their competence in parenting successfully in two areas: firstly, helping adolescents overcome negative peer influences successfully by knowing about their adolescent’s whereabouts, and the authors termed this monitoring, and secondly, activities that impact positively schools and other community agencies for youth. Parenting efficacy beliefs were studied as predictors of three parenting outcomes – parent involvement, parent monitoring as knowledge, and parent-child communication – that in turn have been associated with positive academic and socio-emotional outcomes in adolescents (Steinberg, Dornbusch, Darling & Lamborn, 1992). It was found that parent efficacy predicted both parental involvement and parental monitoring as knowledge among parents of adolescents. Parent monitoring as knowledge appeared to be a behavioral expression of parent beliefs that they can make a difference in the contexts that influence adolescent development. However, the parent monitoring variable in this study measured parent knowledge and not how parents came upon that
knowledge (the processes of monitoring). This finding lends substantial support
to the pattern of hypothesized relationships between efficacy, monitoring,
knowledge, and relationship outcomes that have been depicted in the proposed
conceptual model (refer Figure 1).

Several studies have examined parent efficacy between gender and
across age groups and found some preliminary evidence for cultural influences
on self-efficacy suggesting that the role of parenting self-efficacy may differ
across various socioeconomic and ethnic groups (Coleman & Karraker, 1998).
Parent efficacy has been measured most in the context of academic outcomes in
children and this area includes some studies that have examined Asian and
Asian-American parents (Chao & Tseng, 1998). However, parent efficacy for
parenting adolescents in general and in the context of monitoring processes has
not been examined in Asian cultures.

Previous research has examined parent efficacy in the context of children
(Hoover-Dempsey et al., 1992), however, the literature does not report any
studies that have examined efficacy as parents’ beliefs about their competence in
parenting adolescents. There are no instruments that exist in the efficacy
literature to measure parent efficacy for parenting adolescents or monitoring
adolescents. An instrument to measure parent efficacy was developed for the
purpose of this study. This measure has two sub-scales – one to measure global
efficacy beliefs for the parent of an adolescent and another to measure specific
efficacy beliefs of a parent when it comes to monitoring their adolescent. The
scale is described in greater detail in the Methods section. Refer Appendix A for the items of this instrument.

To summarize this section, the proposed study will examine parent efficacy as a mediating variable between parent beliefs and the processes of parent monitoring among Indian parents of adolescents (refer Figure 4). The study will examine parent efficacy with regard to parenting adolescents and monitoring for Asian cultures, a relatively unexplored area and will also measure how competent parents feel in their role as parents of adolescents (domain-general) and how competent they feel in their ability to monitor their adolescents (task-specific).

![Diagram of Parent Efficacy](image)

Figure 1.4: Two components of parent efficacy as conceptualized in the present study
Section IV

*Outcomes of processes of parent monitoring and knowledge*

Thus far, the pattern of hypothesized relationships between parent beliefs, efficacy, monitoring, and knowledge have been examined. The parent monitoring literature typically uses monitoring as knowledge as a predictor of child/adolescent outcomes. Low levels of monitoring as knowledge predict delinquency, academic achievement, sexual behaviors, drug and alcohol use, and conduct problems in adolescents (Crouter & Head, 2002). However, there are not many studies that have focused on using monitoring as knowledge as a predictor of relationship-based (relational) variables such as parent-child closeness, parent-child communication, or parental trust. Shumow and Lomax (2002) examined the impact of parent efficacy on parent monitoring as knowledge and parent-child communication and found that higher parent efficacy did not predict whether adolescents wanted to communicate with their parents. Kerr and Stattin (1999) examined the predictive effect of parental knowledge and the processes of parent monitoring on parental trust and found that parent knowledge predicts parental trust in adolescents. The relational side of parent-child relationships has been neglected in the literature which is unfortunate because parent-adolescent relationship outcomes are as important to examine as adolescent outcomes.

*Parent Trust*

The situations under which children develop trust in their parents are quite different from those under which parents develop trust in their adolescents. Trust
between adult partners rests upon the knowledge they have about the other person’s behavior over time and across situations (Larzelere & Huston, 1980). Similarly, parent trust in adolescents is also based on knowledge of the child’s past and present behavior. Some of the important factors that govern parental trust in adolescents include the past conduct record of the adolescent and whether he/she has been involved in delinquent acts, parental knowledge of the adolescent’s feelings and concerns on a daily basis, how readily the adolescent discloses information about his/her activities, friends and whereabouts and a broader type of parent knowledge about the child’s activities, behaviors outside of school (Kerr, Stattin & Trost, 1999). According to Kerr et al. (1999), the ways in which parents acquire this information is also very crucial and there are three routes in which parents may obtain this information; child disclosure, parental solicitation and parental control (processes of parent monitoring). They found that parental knowledge of daily activities that came from the child’s spontaneous disclosure was most closely linked with trust. They also found that notions of family dysfunction were different for the parent and the child – for the parent it was based on their trust in the child and for the child it was based on whether they believed that their parents trusted them. In other words, parental trust comes mostly from child disclosure of their whereabouts and activities, and partly also from the knowledge they have of their adolescent’s past and present actions, adolescent trust of parents comes from their perceptions of how close their relationship is with their parents and how much they feel their parents trust them. These findings emerged in the context of Swedish parents and their
adolescents. However, parental trust has not been examined in many cultures, especially, none in Asian cultures. An understanding of parental trust and the factors that contribute to it will add significantly to the existing literature on Asian parenting in general, and Asian parent-adolescent relationships in particular.

The proposed study will examine if the relationship that has been established between parental monitoring processes, knowledge and trust as found by Kerr et al. (1999) will hold for Indian parents and their adolescents (refer Figure 5).

Figure 1.5: Relationship between processes of monitoring, types of knowledge and trust as conceptualized by Kerr, Stattin & Trost (1999)
Section V

Other factors

Gender of parent

The gender of the parent is a very important variable to explore in parenting studies (Grusec, 2002). The present study includes five parenting variables (refer Figure 6) and there is literature that supports the exploration of mother-father differences for most of these variables. Mothers and fathers could have very different approaches to parenting their adolescents and it is important to consider both mothers and fathers to gain a more complete picture of how parental monitoring or knowledge takes shape in the family context (Crouter and Head, 2002). It is also critical to keep in mind that in every culture, there are gender-socialized differences in parenting roles and in this context, it becomes important to examine for differences in maternal and paternal belief-systems. In India, there are very clearly defined roles for mothers and fathers, while mothers are responsible for immediate care-giving, fathers are more distant and considered authority figures in the family (Kakar, 1981). Kerr and Stattin (2000) did not analyze for mother-father differences in their examination of parent monitoring. The review on parent efficacy by Coleman and Karraker (1998) includes several findings on parent efficacy, but most studies only have mothers as subjects. The review also does not report any mother-father differences in efficacy beliefs. Kerr et al. (1999) did not analyze for mother-father differences in how trust develops. Thereby, the present study will examine gender of parent and analyze for mother-father differences in all the hypothesized relationships in
the entire model (refer Figure 6). It is possible that Asian Indian mothers may hold different beliefs about the period of adolescence and their perceived competence as parents of adolescents and in their role as monitors than fathers. It is also possible that the mothers would have greater knowledge about their adolescents’ daily activities than fathers given that mothers tend to spend more time with their children.

**Gender and Age of Adolescent**

The present study will also examine gender of the adolescent to analyze for any differences that may be expressed by parents while monitoring their adolescent and in their resultant knowledge. Kerr and Stattin (2000) found no gender differences in parent knowledge as reported by the teenagers or parents. However, girls were found to disclose more than boys, parents were found to solicit more information from and control girls more as reported by the girls but not as reported by parents. Parents reported that they controlled their sons more. Crouter et al. (1999) found that mothers knew more about daughters and fathers about sons. The lack of monitoring studies on Asian cultures has already been mentioned and therefore, it is unknown if Asian parents have different patterns of monitoring their sons and daughters. However, prior research studies on Indian socialization indicate that the female adolescents in all social classes are groomed to become good wives and mothers and even the increasing educational and career options of middle class girls are subsumed under this primary goal of marriage and motherhood (Saraswathi, 1999). It is thus, possible that Asian parents engage in parenting behaviors differently for their adolescent
sons than daughters. The present study will examine this gender variable and analyze for differences in parent variables for male and female adolescents.

Most studies on parent monitoring were conducted with children of one age and there are very few cross-sectional studies on children across a range of ages. Crouter et al. (1999) analyzed for differences in parent knowledge for two children in the same family and found that parents knew more about their second-born children than first-born children. However, the review on parent monitoring by Crouter and Head (2002) does not report any other findings on children’s age. It could be possible that parents have different monitoring strategies for 14 and 15-year-olds compared to 16 and 17-year-olds. The present study will examine for age differences in parent monitoring and knowledge across four child ages, 14-17 years.

Aims and Hypotheses

The proposed study will examine a model linking the various variables through regressions – parent beliefs about their adolescent, parent efficacy, parent monitoring, parent knowledge and parental trust. It is expected that parent beliefs will influence their sense of efficacy, which in turn, will influence the processes by which parents acquire knowledge about their children. The outcome of the processes of parent monitoring is parent knowledge, and it is expected that parent knowledge will predict parental trust. However, there are no specific hypotheses about which motivation may predict efficacy beliefs better. Hypotheses

1. Parent generalized beliefs will predict parents’ specific expectations for
their adolescent.

2. Parents' specific beliefs will mediate the relationship between parents’ general beliefs will predict parent efficacy.

3. Parent efficacy will mediate the relationship between parents’ specific expectations and parent monitoring.

4. Parent efficacy will predict parent monitoring.

5. Parent monitoring will predict parent knowledge

6. Parent knowledge will predict parent trust.

Significance of the proposed study

The present study presents an integrative conceptual framework of the predictors and consequences of parent monitoring. The proposed model will be tested using empirical data gathered from both parents (mothers and fathers) and adolescents which is a departure from the predominant tradition in the literature of gathering data from just one respondent (either parent or child). Further, the data will be collected from Asian families – a population that has been neglected in the literature on parent monitoring. One of the significant contributions of this study is the examination of the relationship between the two predictor variables (parent beliefs and parent efficacy) and parent monitoring. Indeed, as stated earlier, the research on parent monitoring is deficient with respect to hypothesizing and assessing the causes of parent monitoring. Lastly, another significant contribution of this study is the operational definition of parent efficacy for parenting adolescents and the process of monitoring adolescents.
CHAPTER 2

METHOD

Preliminary Study

Participants

The present study was conducted in the coastal city of Chennai in southern India. With a population of over six million, Chennai is one of four major metropolitan areas in India, the native language spoken here is Tamil. A preliminary study was conducted with 241 parents of teenagers in 9th, 10th, 11th and 12th grade from three city schools to validate the two measures developed for the purpose of this study – parent beliefs and parent efficacy. There were 124 mothers (52%) and 117 fathers in the sample (48%). In the present sample, 17% of our parents were in the 30-39 age range, 67% were in the 40-49 age range and 16% were in the 50-59 age range. Of the 241 children whose parents were in the preliminary study, 32% of the teenagers were in the 13-14 age range, 49% were in the 15-16 age range and 19% were in the 17-18 age range. Also, 29% of the teenagers were in the 9th grade, 23% in 10th grade, 27% in 11th grade and 21% in 12th grade. Among the teenagers, 46% (n = 110) were male and 54% (n = 131) were female. The religious affiliation of the parents was 95% Hindu, 4% Christian, and 1% Muslim. In the present study, 99% of the children were the biological children of the parents.
Data about the educational level of the parents was obtained and 25% of the mothers had a high school degree or less, 44% had a college education, 26% had a masters degree and 5% had a professional degree. Thirty one percent of the fathers had a high school degree or less, 37% had a college education, 19% had a masters degree and 13% had a professional degree. Among mothers, 41% held full time jobs, 9% worked part-time, and 50% were not employed. Among fathers, 92% held full time jobs, 4% worked part-time, and 4% were not employed. Among employed mothers, 22% held jobs in the government, 15% held jobs in the field of education, and 4% were in business. Among employed fathers, 58% held jobs in the government, 7% held jobs in the field of education, 7% were in sales and media, and 24% were in business.

About 14% of the families earned less than Rupees 50,000 per year, equivalent to $1,086 U.S. dollars, 36% of the families earned between Rupees 50,001-125,000 per year, equivalent to $1,087-$2,717 U.S. dollars, the lower-class income ranges in India, 45% of the families earned between Rupees 125,001-500,000 per year, equivalent to $2,718 -$10,870 U.S. dollars per year, a middle-class income range in India, about 5% of the families earned between Rupees 500,000 and above, equivalent to $10,870 and above U.S. dollars per year, an upper middle-class income range in India.

Procedure

After obtaining permission from the heads of three city schools, the researcher (C. R.), a native Asian Indian who spoke English and Tamil, went into the classrooms of 9th, 10th, 11th and 12th grade children to recruit parents.
Students were given a brief description of the study, and asked to take home an envelope with the questionnaire inside it and give it to the parent who knew the teenager best. Each teenager was told to bring the questionnaire back to school after the parent completed it. Of the 275 questionnaires passed out, 241 (88%) were returned leaving us with a final sample of 124 mothers and 117 fathers.

**Measures**

A questionnaire containing two measures was given to parents. The first measure designed to examine parent beliefs about the period of adolescence and their teenagers contained 9 items and the second measure designed to examine self-efficacy of parents in parenting adolescents and in the process of monitoring contained 31 items. Refer Appendix A for all the items in these measures.

**Main Study**

**Participants**

Once the preliminary study was conducted and the data were factor analyzed, the researcher (C.R.) contacted the heads of a different set of four city schools in Chennai to recruit families to participate in the main study. At the time of this data collection, 10th and 12th grade teenagers were appearing for their “Board” examinations (common examinations held for all 10th graders and 12th graders enrolled in any city/state school under the Central and State boards of education) thus precluding their availability for the main study. A total of 400 families of teenagers in 9th and 11th grade were contacted, 242 families returned the questionnaires, a return rate of 61%. Out of the 242 families that responded,
only 215 families (88%) had mostly complete data for the teenager, mother and father version of the questionnaires which represented our final sample size for the data analysis. The demographic information was collected from all three reporters of information – teenager, mother and father and is summarized separately below.

**Teenager data**

In the main study, 47% of our sample consisted of male teenagers (\( n = 101 \)), out of which 20% were in 9th grade and 27% in 11th grade; 15% in the 13-14 age group, 28% in 15-16 age group, 4% in the 17-18 age group. Female teenagers represented 53% of the sample (\( n = 114 \)) – 24% were in 9th grade and 29% in 11th grade; 19% in the 13-14 age range, 29% in the 15-16 age group and 5% in the 17-18 age group.

Overall, 34% of our teenagers were in the 13-14 age range, 57% were in the 15-16 age range and 9% were in the 17-18 age range. Overall, 44% of our adolescents were in 9th grade and 56% were in the 11th grade. Fifty nine percent of our adolescents spent no time alone at home, 16% spent less than one hour, 11% spent 1-2 hours alone, 7% spent 3-4 hours alone and 7% spent more than 4 hours.

As far as birth order is concerned, 61% of our adolescents were first-born (31% females; 30% males), 30% were second-born (15% females; 15% males), 7% were third-born (4% females; 3% males) and 2% were from families with 4 or more children. 76% of the teenagers found answering the questionnaire easy,
16% found it tedious and 8% found it hard. The adolescents took 22 minutes on an average to complete the questionnaire.

Mother Data

Thirty five percent of the mothers were in 30-40 age group, 54% in the 41-50 age group and 11% were in the 51 and above age group. 35% of the mothers had teenagers in the 13-14 age group, 54% in the 15-16 age group and 11% were in the 17-18 age group. Mothers reported that 42% of their teenagers were in the 9th grade while 58% were in the 11th grade. Forty six percent of the mothers responded for their adolescents sons, while 54% responded for daughters. In the main study, 99% of the mothers responded for their biological child while 1% responded for their adopted child. The religious affiliation of the mothers was 92% Hindu, 2% Muslim and 6% Christian.

As for educational level of mothers, 31% had less than a high school education, 47% had a Bachelors degree, 14% had a Masters degree, 6% had a professional degree and 2% had a doctoral degree. 66% of our mothers were unemployed, compared to 7% that were employed part-time and 27% that were employed full time. Among those employed full time, 16% were employed in government jobs, 2% were in business, 2% were in sales, 3% were in software and 4% were in other professions. As for family annual income, 12% of the mothers reported less than Rs.50,000 equivalent to $1,086 U.S. dollars, 31% reported in the Rs.50,000-Rs.1,25,000 range equivalent to $1,087-$2,717 U.S. dollars, the lower-class income ranges in India, 38% reported in the Rs.1,25,000-Rs.3,50,000 range, 11% in the Rs.3,50,000 – Rs.5,00,000 range, equivalent to
$2,718 -$10,870 U.S. dollars per year, a middle-class income range in India and 8% reported an income range higher than Rs.5,00,000, equivalent to $10,870 and above U.S. dollars per year, an upper middle-class income range in India.

Maternal reports of the time spent alone at home by their teenagers indicate that 61% said their teenagers did not spend any time alone at home, 22% said teenagers spent 2 hours or less alone, 17% said their teenagers spent more than 2 hours alone. Seventy three percent of the mothers found it easy to respond to the questionnaire, 19% found it tedious and 8% found it hard. Mothers in our sample took an average of 27 minutes to complete the questionnaire.

*Father Data*

As for age range of fathers in our sample, 6% were in the 30-40 age range, 69% were in the 41-50 age range, 25% were in the 51 and above age range. Among fathers, 34% responded for their adolescents in the 13-14 age group, 54% in the 15-16 age group and 12 % for their teenagers in the 17-18 age group. Fathers reported that 41 % of their teenagers were in the 9th grade while 59% were in the 11th grade; 48% of the fathers responded for their adolescents sons, while 52% responded for daughters. In the main study, 99% of the fathers responded for their biological child while 0.5% each responded for their step and adopted child. The religious affiliation of the fathers was 92% Hindu, 2% Muslim and 6% Christian.

As for educational level, 17% of our fathers had less than high school education, 36% had a Bachelors degree, 26% had a Masters degree, 18% had a
professional degree and 3% had a doctoral degree. As for occupational status of fathers, 2% were unemployed (marked as retired), compared to 3% that were employed part-time and 95% that were employed full time. Among those employed full time, 47% were employed in government jobs, 20% were in business, 10% were in sales, 2% were in software, 1% in media and 15% were in other professions. As for annual income, 11% of the fathers reported earning less than Rs.50,000 equivalent to $1086 U.S. Dollars, 29% reported in the Rs.50,000-Rs.1,25,000 range, 41% reported in the Rs.1,25,000-Rs.3,50,000 range equivalent to $1,087-$2,717 U.S. dollars, the lower-class income ranges in India, 11% in the Rs.3,50,000-Rs.5,00,000 range, equivalent to $2,718-$10,870 U.S. dollars per year, a middle-class income range in India and 8% reported an income range higher than Rs.5,00,000, equivalent to $10,870 and above U.S. dollars per year, an upper middle-class income range in India. Paternal reports of how much time their teenagers spent alone at home indicated that 47% of their teenagers did not spend any time alone at home, 28% said teenagers spent 2 hours or less alone, 25% said their teenagers spent more than 2 hours alone. When asked to assess the difficulty level of the items in the questionnaire, 75% of the fathers found it easy to respond to the questionnaire, 18% found it tedious and 7% found it hard. Fathers in our sample took an average of 26 minutes to complete the questionnaire.

Procedure

After obtaining permission from the heads of four city schools, the researcher (C.R.), went into the classrooms of the students to recruit their
families to participate in this study. Students were given a brief description of the study, and given a consent form to obtain permission from their parents to enlist their participation in the study. The students were also told that their consent and participation would be useful only if both their mother and father consented to participate as well. The students were told to obtain the signatures of a parent and return them to their teacher within two days. At the end of the two day deadline, the number of returned consent forms was counted and across the four schools, a total of 400 consent forms were collected. Students were asked to take home an envelope with two copies of the parent version of the questionnaire and a copy of the teenager version of the questionnaire inside it. The envelope also included an instruction sheet for the parent and teenager version that briefly indicated the purpose of the study and the total number of questions they were expected to respond to. The instruction sheet also indicated that participation in the study is entirely voluntary and that the participants can choose to withdraw their participation at any time. In the parent version, the instruction sheet indicated that parents not consult with each other while responding to the questionnaire and that they respond to the questions keeping the same teenager in mind if they had more than one teenager in the family. The envelope containing the questionnaires for the teenager and his/her parents were typically handed out on a Thursday and were told to return the completed questionnaires by Monday. The time allocated for completion was decided based on experiences of teachers of what would be an optimal time line for students to complete and return the questionnaires.
The teachers from the four schools contacted the researcher, (C.R.) once the completed questionnaires were collected from the students. The researcher went to the classrooms at a pre-approved time and thanked the students and their parents for participating in the present study. A couple of students had some questions about how the researcher would interpret the data collected and most indicated that this was the first time they were completing any questionnaire relating to parents and adolescents.

**Questionnaire**

The parent version of the questionnaire contained a total of 73 questions from 9 measures. Two measures were developed for the purpose of this study and the other 7 measures were adapted from those developed by Kerr and Stattin (1999) – 6 items from the factor-analyzed revised measure of parent beliefs, 21 items from the factor-analyzed revised measure of parent efficacy, 9 items measuring parent knowledge of their teenagers, 5 items measuring voluntary child disclosure of information, 5 items measuring parental solicitation, 5 items measuring parental control, 8 items measuring teenagers’ prior delinquency, 8 items measuring parent knowledge of teenager’s feelings and concerns, and 6 items measuring parental trust of their teenager. There were two extra questions in all the questionnaires that asked the participants to indicate how easy or difficult they found answering the questionnaire and how long they took to complete the questionnaire. The teenager version of the questionnaire contained a total of 46 questions from 7 measures, all seven adapted from Kerr and Stattin (1999). The items were the same except for minor
wording changes that tapped into teenager perceptions of parent knowledge, parental solicitation, parental control, parental trust, parent knowledge of their feelings and concerns, their voluntary disclosure of information to parents, and their prior delinquency. Refer Appendix B for a complete list of all items included in the study.
CHAPTER 3

RESULTS

The results are organized into two sections. The first section reports findings from the preliminary study conducted to validate two measures developed for this study in which only parents participated. The second section reports relationships found between the various variables examined in the main study based on several types of analyses including testing of the hypotheses in which a new sample of teenagers and their parents participated.

Preliminary Study

The main purpose of the preliminary study was to establish the psychometric properties of the two measures developed for this study: the Parent beliefs scale and the Parent efficacy scale. The sample consisted of 241 parents; 124 mothers and 117 fathers of teenagers studying in the 9th through 12th grade in Chennai, India. To assess the psychometric properties of the two measures, exploratory factor analyses using Comprehensive Exploratory Factor Analysis (CEFA, 2.00) were conducted on both measures. In all analyses, model fit was tested by considering the root mean squared error of approximation (RMSEA), (see Neale, Boker, Xie, & Maes, 2004 for definitions and citations for the fit index). Guidelines for RMSEA values are as follows: Close fit < .05; reasonable close fit = .05 to .07; mediocre fit = .07 to .10; and unsatisfactory fit > .10 (Browne & Cudeck, 1993; McDonald & Ho, 2002).
Parent Beliefs Scale

Descriptive Data

The mean score on parental beliefs for both mothers and fathers was 2.41 (SD = .47), for mothers it was 2.43 (SD = .45) and for fathers it was 2.39 (SD = .49) indicating that all the means were rather similar. Pair wise comparisons did not yield any significant mean differences in parental beliefs based on gender of parent or teenager. The primary analyses were conducted by combining the mother and father data.

Primary analyses

The Parent Beliefs Scale had two sub-scales; four items measuring parents’ generalized beliefs and five items measuring parents’ specific beliefs as parents of a teenager. Among the nine items, five (e.g., “I believe that adolescence is a dangerous time for my teenager.”) were reverse coded. A series of exploratory factor analyses were performed using CEFA (Browne & Cudeck, 1993) on the Parent Beliefs Scale; one-, two-, and three-factor solutions were tested but the two factor solution showed the best fit as described in detail below. Any factor loading that was higher than 0.45 was considered to strongly represent a factor.

Considering the one-factor solution, the RMSEA value was .13 reflecting ‘unsatisfactory fit’ of the data. The residual matrix for the single factor solution showed a set of unacceptably large residuals in the range .10 to .42. These results indicate that the one-factor solution insufficiently represents the relationship between the items and that more factors need to be extracted.
The RMSEA value was .03 for the two-factor solution indicating a close fit. Both sub-scales showed acceptable to good internal reliabilities as reported below. 3 out of the 4 original items from the sub-scale ‘parents’ generalized beliefs about adolescence’ had high factor loadings and emerged as the first factor (Cronbach’s a = .80). 3 out of the 5 original items from the sub-scale ‘parents’ specific beliefs with regard to their teenager’ had high factor loadings and emerged as the second factor (Cronbach’s a = .68). Table 1 displays the items, factor loadings and confidence intervals for the two-factor solution of Parent Beliefs scale. Confidence intervals were provided to interpret the factor loading data. When a confidence interval for a loading overlaps zero, it indicates that the associated significance test for a zero population loading will give a result that is not significant at the 10% level. If the confidence interval does not contain zero, the associated significance test will yield a significant result. The confidence intervals for the items that loaded highly in the two-factor solution did not contain zero as shown in Table 1. The two-factor solution fit the data well.

The RMSEA value for the three-factor solution was .00 (CI = .00 to .03) indicating close fit. However, a look at the rotated factor matrix indicated that only a single item, item 7 loaded highly on the third factor and the same items loaded highly on factors 1 and 2, as shown in the 2-factor solution. The guidelines suggested by Browne and MacCallum (2001) for deciding on the number of factors indicate that a combination of model fit, interpretability and parsimony should be considered. The three-factor solution was discarded.
despite a better fit (and therefore, a lower RMSEA value) because of interpretability issues for the single item which represented the third factor.

Additional analyses

Some pair wise comparisons and regressions were carried out on the data from the preliminary study to explore for possible differences between mothers and fathers on this scale. Pair wise comparisons by gender of parent reveal mean differences for fathers’ specific beliefs; fathers believed that they can have a more positive influence on their daughters ($M = 1.54$) than sons ($M = 1.71$, $p < .01$). Exploratory regressions with the data obtained from this scale revealed that stronger parental beliefs that adolescence was a dangerous time for their teenagers predicted weaker beliefs that they could positively influence the welfare of their teenagers ($R^2 = .06$, $\beta = -.25$, $p < .001$).
<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>A… adolescence is a dangerous time for my teenager</td>
<td><strong>0.76</strong> (0.69, 0.84)</td>
<td>-0.11 (-0.17, 0.04)</td>
</tr>
<tr>
<td>B… adolescence is a time when my teenager is very likely to do the</td>
<td><strong>0.81</strong> (0.74, 0.89)</td>
<td>0.05 (0.02, 0.19)</td>
</tr>
<tr>
<td>wrong thing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C… my teenager is very likely to regularly get into trouble now that</td>
<td><strong>0.68</strong> (0.60, 0.76)</td>
<td>0.07 (-0.02, 0.16)</td>
</tr>
<tr>
<td>he/she is an teenager.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D… my teenager is very likely to regularly get into trouble now that</td>
<td><strong>0.08</strong> (-0.20, 0.05)</td>
<td>0.19 (0.05, 0.32)</td>
</tr>
<tr>
<td>he/she is an teenager and no longer a child.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E… I can have a positive influence on my teenager’s well-being.</td>
<td>0.01 (-0.07, 0.08)</td>
<td><strong>0.70</strong> (0.59, 0.81)</td>
</tr>
<tr>
<td>F… I can keep my teenager on a successful path in life.</td>
<td>-0.04 (-0.11, 0.03)</td>
<td><strong>0.70</strong> (0.59, 0.81)</td>
</tr>
<tr>
<td>G… I cannot keep my teenager from falling into bad company.</td>
<td>-0.26 (-0.38, -0.14)</td>
<td>-0.08 (-0.22, -0.04)</td>
</tr>
<tr>
<td>H… my teenager will do the right thing because I have taught him/her</td>
<td>0.11 (-0.01, 0.22)</td>
<td><strong>0.52</strong> (0.41, 0.64)</td>
</tr>
<tr>
<td>good values.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I… my teenager’s well-being depends very little on me.</td>
<td>-0.17 (-0.30, -0.05)</td>
<td>-0.14 (-0.28, -0.01)</td>
</tr>
</tbody>
</table>

<sup>a</sup>All items begin with the stem, “I believe…”

<sup>b</sup>Factor loadings are in bold, 90% confidence intervals for the factor loadings are provided in parentheses

RMSEA: 0.03 (0.00, 0.07)

Table 3.1: Items, Factor loadings and Confidence Intervals for the Two-factor solution for Parent Beliefs Scale (N = 237)
Parent Efficacy Scale

The second measure, parent efficacy scale had two sub-scales; 21 items measuring general parenting efficacy and 10 items measuring parental monitoring efficacy.

Descriptive Data

The mean score on parent efficacy for both mothers and fathers was 2.61 (SD = .25), for mothers (M = 2.60, SD = .25) and for fathers (M = 2.63, SD = .26) indicating that the means were similar. The primary analyses were conducted by combining the data from mothers and fathers.

Primary analyses

A series of exploratory factor analyses were performed using CEFA on the second measure, Parent Efficacy Scale, one-, two-, three-, four- and five-factor solutions were tested but the three-factor solution yielded the most optimal result in terms of model fit and interpretability. Given that this scale contained 31 items, any factor loadings above 0.45 were considered to be strongly representing a factor.

Considering the one-factor solution, the RMSEA value was .08 indicating ‘mediocre fit’ for the data. The residual matrix showed a pattern of unacceptably large residuals in the range of .10 to .32. These results indicate that the one-factor solution does not adequately represent the relationships between the items and more factors need to be extracted.

The RMSEA for the two-factor solution was .07 indicating ‘reasonable close fit’. It was expected that the two-factor structure for this scale would
produce items with high loadings consistent with the two sub-scales that comprised this measure – general parenting efficacy and monitoring efficacy. However, a look at the rotated factor matrix showed a pattern of high factor loadings on items that were inconsistent with the two sub-scales constructed, and were random and not meaningfully interpretable. So a three-factor solution was also extracted.

The RMSEA value obtained for the three-factor solution was not very different from the one obtained for the two-factor solution, it was .06, again indicating ‘reasonable close fit’. However, this analysis yielded a factor structure with an acceptable fit index and factor loadings on items that were also meaningfully interpretable. A factor that measured parental monitoring efficacy emerged as expected; items that measured general parenting efficacy emerged as two unique factors – one with items measuring parent efficacy in developing positive teenager behavior and the other measuring efficacy in responding competently to negative teenager behavior. Internal reliabilities were computed for the items comprising the three factors. 10 out of the original 10 items loaded highly for the first factor, parent monitoring efficacy (Cronbach’s a = .81); general parenting efficacy seemed to split into two unique factors, a factor that loaded highly on 8 items that measured parental efficacy for developing positive teenager behavior (Cronbach’s a = .81); and a factor that loaded highly on 3 items that measured parent efficacy to competently respond to negative teenager behavior (Cronbach’s a = .64). Again, confidence intervals were provided to
interpret the factor loading data. These intervals for the items that loaded highly in the three-factor solution did not contain zero as shown in Table 2.

Four- and five-factor solutions were also extracted. Both these models yielded a better fit index (therefore, better RMSEA values; .055 for the four-factor and .053 for the five-factor solutions), however, the items that loaded highly on the fourth and fifth factors were not meaningfully interpretable.

Additional analyses

Exploratory pair wise comparisons revealed no mean mother-father differences in efficacy or differences based on gender of parent or teenager for the three efficacy factors obtained from the factor analysis.

Exploratory regressions were conducted to assess whether parental confidence in monitoring teenagers could be predicted from parents’ confidence that they could develop positive behavior in their teenagers and their perceived competence in responding to negative teenager behavior. Our results indicate that higher parental monitoring efficacy was explained by higher parental efficacy in developing positive teenager behavior and higher efficacy in responding to negative teenager behavior ($R^2 = .18, \beta_1 = .25, \beta_2 = .28, p < .001$).

This regression analysis was also carried out by splitting the data set by gender of parent to explore for possible differences between maternal and paternal monitoring efficacy given that we had reasonably equal numbers of mothers and fathers in our study. The gender of the teenager was dummy coded and entered in the first step of the analyses to analyze for possible interactions. The results of this analysis can be seen in Figure 1.
In the case of mothers, higher maternal monitoring efficacy was explained more strongly by higher maternal confidence in developing positive teenager behavior followed by higher maternal efficacy in responding competently to negative teenager behavior. However, in the case of fathers, higher paternal monitoring efficacy was explained only by higher paternal efficacy in responding competently to negative teenager behavior. Also, the regression analyses revealed that gender of the teenager ($\beta = .18$, $p < .05$) was significant for mothers but not for fathers. Mothers seemed to believe they can be better monitors for
their teenage sons than daughters while fathers do not make a distinction between their sons and daughters.

Among all the variables that parents reported on in the preliminary study, the ratings for parents’ specific beliefs (example, “I believe I can be a positive influence on my teenager.”) was highly correlated with parental efficacy in developing positive teenager behavior (example, “I am confident I can teach my teenager the value of hard work”), $r = .48, p < .01$. 
<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel sure of myself as a parent.</td>
<td>-0.05</td>
<td>0.54 (0.44, 0.64)</td>
<td>0.08 (-0.04, 0.20)</td>
</tr>
<tr>
<td>2. I am doing a good job as the parent of my teenager.</td>
<td>-0.07</td>
<td>0.59 (0.50, 0.69)</td>
<td>0.11 (-0.01, 0.22)</td>
</tr>
<tr>
<td>3. I have all the skills to be a good parent to my teenager.</td>
<td>-0.13</td>
<td>0.58 (0.48, 0.68)</td>
<td>0.09 (-0.03, 0.20)</td>
</tr>
<tr>
<td>4. My teenager's behavior is sometimes more than I can handle.</td>
<td>0.16 (0.01, 0.32)</td>
<td>0.05 (-0.07, 0.17)</td>
<td>0.35 (0.21, 0.49)</td>
</tr>
<tr>
<td>5. My teenager's behavior problems are often due to the mistakes I make.</td>
<td>-0.19 (-0.35, -0.04)</td>
<td>-0.07 (-0.19, -0.05)</td>
<td>-0.48 (-0.53, -0.24)</td>
</tr>
<tr>
<td>6. I find it difficult to communicate with my teenager.</td>
<td>0.24 (0.08, 0.39)</td>
<td>0.18 (0.07, 0.29)</td>
<td>0.47 (0.32, 0.61)</td>
</tr>
<tr>
<td>7. I am confident I can control my teenager's behavior.</td>
<td>-0.00 (-0.11, 0.11)</td>
<td>0.57 (0.48, 0.67)</td>
<td>0.01 (-0.10, 0.12)</td>
</tr>
<tr>
<td>8. I sometimes give in to my teenager, just to end an argument.</td>
<td>0.06 (-0.08, 0.20)</td>
<td>0.09 (-0.05, 0.22)</td>
<td>-0.14 (-0.28, 0.01)</td>
</tr>
<tr>
<td>9. I am confident I can teach my teenager good morals.</td>
<td>-0.05 (-0.13, 0.04)</td>
<td>0.73 (0.66, 0.80)</td>
<td>0.05 (-0.04, 0.14)</td>
</tr>
<tr>
<td>10. I was a better parent when my teenager was a child.</td>
<td>-0.19 (-0.32, -0.06)</td>
<td>0.23 (0.10, 0.35)</td>
<td>-0.01 (-0.15, 0.13)</td>
</tr>
<tr>
<td>11. I find it difficult to handle the constant disagreements between my teenager and me.</td>
<td>0.08 (-0.06, 0.22)</td>
<td>0.15 (0.05, 0.25)</td>
<td>0.60 (0.47, 0.72)</td>
</tr>
<tr>
<td>12. I am confident that I can solve any problem between my teenager and me.</td>
<td>0.14 (0.02, 0.25)</td>
<td>0.43 (0.32, 0.54)</td>
<td>0.22 (0.10, 0.35)</td>
</tr>
<tr>
<td>13. I am confident I can get my teenager to develop good habits.</td>
<td>0.10 (0.00, 0.21)</td>
<td>0.67 (0.59, 0.75)</td>
<td>-0.06 (-0.16, 0.04)</td>
</tr>
<tr>
<td>14. I am confident I can keep my teenager from smoking cigarettes.</td>
<td>0.22 (0.09, 0.35)</td>
<td>0.20 (0.07, 0.32)</td>
<td>-0.04 (-0.18, 0.10)</td>
</tr>
<tr>
<td>15. I am usually able to figure out what is bothering my teenager.</td>
<td>0.37 (0.25, 0.48)</td>
<td>0.26 (0.15, 0.38)</td>
<td>0.05 (-0.08, 0.18)</td>
</tr>
<tr>
<td>16. I am sure I can teach my teenager to be well-behaved.</td>
<td>0.01 (-0.09, 0.12)</td>
<td>0.65 (0.57, 0.74)</td>
<td>-0.08 (-0.18, 0.03)</td>
</tr>
<tr>
<td>17. I find it hard to say &quot;No&quot; to my teenager.</td>
<td>-0.04 (-0.19, 0.10)</td>
<td>0.03 (-0.10, 0.16)</td>
<td>-0.23 (-0.37, -0.09)</td>
</tr>
<tr>
<td>18. I am sure I can teach my teenager the value of hard work.</td>
<td>0.04 (-0.07, 0.15)</td>
<td>0.57 (0.48, 0.67)</td>
<td>0.04 (-0.08, 0.15)</td>
</tr>
<tr>
<td>19. I am confident I can keep my teenager from engaging in dangerous behavior.</td>
<td>0.35 (0.23, 0.47)</td>
<td>0.17 (0.05, 0.29)</td>
<td>-0.02 (-0.15, 0.12)</td>
</tr>
<tr>
<td>20. My efforts to be a good parent have little effect on my teenager.</td>
<td>-0.21 (-0.35, -0.08)</td>
<td>0.07 (-0.06, 0.20)</td>
<td>-0.09 (-0.23, 0.05)</td>
</tr>
<tr>
<td>21. When something goes wrong between my teenager and me, there is little I can do to fix it.</td>
<td>-0.20 (-0.33, -0.06)</td>
<td>0.13 (0.01, 0.26)</td>
<td>-0.10 (-0.24, 0.05)</td>
</tr>
</tbody>
</table>

Table 3.2: Items, Factor Loadings and Confidence Intervals for the Three-factor solution for Parent Efficacy Scale (N = 224)
Table 3.2 continued

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Factor Loading</th>
<th>90% Confidence Interval</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.</td>
<td>I find it hard to keep track of what my teenager is doing.</td>
<td>0.77</td>
<td>(0.68, 0.86)</td>
<td>-0.11 (-0.18, -0.04)</td>
</tr>
<tr>
<td>23.</td>
<td>I find it difficult to keep a close watch over where my teenager goes.</td>
<td>0.58</td>
<td>(0.47, 0.69)</td>
<td>-0.00 (-0.10, 0.10)</td>
</tr>
<tr>
<td>24.</td>
<td>I know who my teenager spends his/her time with.</td>
<td>0.63</td>
<td>(0.51, 0.75)</td>
<td>0.08 (-0.02, 0.17)</td>
</tr>
<tr>
<td>25.</td>
<td>I find it hard to keep track of my teenager’s social life.</td>
<td>-0.54</td>
<td>(-0.66, -0.42)</td>
<td>0.01 (-0.10, 0.11)</td>
</tr>
<tr>
<td>26.</td>
<td>I know how my teenager is doing at school.</td>
<td>0.45</td>
<td>(0.27, 0.51)</td>
<td>0.32 (0.21, 0.44)</td>
</tr>
<tr>
<td>27.</td>
<td>It is hard for me to know whether my teenager has completed his/her homework.</td>
<td>0.46</td>
<td>(0.34, 0.58)</td>
<td>0.06 (-0.05, 0.17)</td>
</tr>
<tr>
<td>28.</td>
<td>I find it hard to keep a close watch over how my teenager spends his/her money.</td>
<td>0.64</td>
<td>(0.54, 0.73)</td>
<td>-0.08 (-0.18, 0.01)</td>
</tr>
<tr>
<td>29.</td>
<td>I am confident that I usually know what my teenager is doing.</td>
<td>0.51</td>
<td>(0.39, 0.63)</td>
<td>0.28 (0.16, 0.39)</td>
</tr>
<tr>
<td>30.</td>
<td>I find it hard to ask what my teenager did when he/she went out.</td>
<td>0.57</td>
<td>(0.47, 0.67)</td>
<td>0.01 (-0.10, 0.11)</td>
</tr>
<tr>
<td>31.</td>
<td>I am confident I can get my teenager to tell me about where he/she is going.</td>
<td>0.49</td>
<td>(0.33, 0.57)</td>
<td>0.17 (0.05, 0.29)</td>
</tr>
</tbody>
</table>

*Factor loadings are in bold, 90% confidence intervals for the factor loadings are provided in parentheses. RMSEA: 0.06 (0.052, 0.067)*
Main Study

Based on the results of the exploratory factor analyses from the preliminary study conducted for the Parent Beliefs scale and Parent Efficacy scale, the measures were revised and administered to a new sample of Asian Indian families residing in Chennai, India in the main study. The two-factor structure that emerged for Parent Beliefs scale led to a revision of this measure to a total of 6 items from the original 10 items and the three-factor structure that emerged for Parent Efficacy scale led to a revision of this measure to a total of 21 items from the original 31 items. The main study had three respondents of data – teenagers, their mothers and their fathers; therefore, unlike the preliminary study, the main study also included teenagers and their parents.

The main study also had two versions of the questionnaire – a parent and a teen version. The two revised measures from the preliminary study were administered as part of the parent version of the questionnaire that also contained instruments developed by Kerr and Stattin (1999) to measure parent monitoring, parent knowledge and parent trust. The teen version of the questionnaire contained items developed by Kerr and Stattin (1999) to measure teen reports of parent monitoring, parent knowledge and parent trust. A new sample of 242 families participated in the main study, out of which 215 families returned mostly complete data and were retained for the purposes of data analyses.

Several types of analyses were conducted on the data obtained in the main study such as confirmatory factor analysis, t-tests, and one way analyses.
of variance in addition to the regressions carried out to test the main hypotheses of the study. The findings will be presented in various sections to minimize confusion and enable better organization and understanding. The first section of the findings from the main study consists of a confirmatory factor analyses carried out on the two revised scales. The second section consists of findings from mean comparisons and one way analyses of variance where relationships between the demographic variable and the primary variables of interest were examined for all three respondents. The third section summarizes the correlations between the primary variables reported by mothers, fathers and teenagers. The fourth section reports the findings from the multiple linear regressions conducted to test the hypotheses of the present study.

**Confirmatory factor analyses**

The purpose of the confirmatory factor analyses was to assess the fit of the previously developed factor structures for the two scales; Parent beliefs scale and Parent efficacy scale on the new sample of Asian Indian parents in the main study. Unlike the preliminary study, Asian Indian married couples responded to the belief and efficacy measures in the main study and their item scores were aggregated to compute the correlation matrix necessary to perform the confirmatory factor analysis since the aim was to merely test for the fit of the already established factor structures on a new sample.

To assess fit, the recommendations of Hu and Bentler (1999) were used, in which, based on simulation methods a combination of fit indexes was proposed that yielded the most stable models. First, the comparative fit index
(CFI) must meet or exceed .95. The guidelines for inferring model fit from the root mean square error of approximation (RMSEA) are similar to the ones used to assess fit for the exploratory factor analysis. More traditional fit indexes are also reported such as goodness-of-fit index (GFI), adjusted GFI (AGFI), and the parsimony GFI (PGFI). These indexes range from 0 to 1 and a higher value indicates better model fit, values above .90 are especially considered excellent fit, while those between 0.8 and 0.9 are considered good fit. The confirmatory factor analyses were conducted using LISREL 8 (Jöreskog & Sörbom, 1993).

Confirmatory factor analyses were conducted on both scales and the factor loadings on the items in both scales are shown in Tables 3 and 4. For parent beliefs scale, the fit was excellent, CFI = .92; RMSEA = .02; GFI = .99; AGFI = .96; NFI = .86; NNFI = .91.

A confirmatory factor analysis conducted on the efficacy scale revealed an unsatisfactory fit at RMSEA of .09. A look at the residual matrix revealed that two items in the efficacy scale had very large and unacceptable residuals in the range of 2.0 – 4.0. These two items were dropped and the analysis was conducted again. In this second attempt, the fit indexes improved dramatically as shown below. The final item set and factor loadings are shown in Table 4. For parent efficacy scale, the fit was moderate and acceptable, CFI = .86; RMSEA = .07; GFI = .86; AGFI = .83; NFI = .98; NNFI = 1.00.

The fit indexes for both scales reveal that they have very good psychometric properties, especially the parent beliefs scale.
Items<sup>a</sup> | Factor 1<sup>b</sup> | Factor 2
---|---|---
A... adolescence is a dangerous time for my teenager | 0.86 | 
B... adolescence is a time when my teenager is very likely to do the wrong thing | 0.85 | 
C... my teenager is very likely to regularly get into trouble now that he/she is an teenager. | 0.63 | 
D... I can have a positive influence on my teenager’s well-being. | | 0.73
E... I can keep my teenager on a successful path in life. | | 0.82
H... my teenager will do the right thing because I have taught him/her good values. | | 0.83

<sup>a</sup>All items begin with the stem, “I believe…”
<sup>b</sup>Factor loadings are in bold, 90% confidence intervals for the factor loadings are provided in parentheses
RMSEA: 0.03 (0.00, 0.07)

Table 3.3: Items, Factor loadings from the Confirmatory Factor Analysis for Parent Beliefs Scale (N = 207)
<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel sure of myself as a parent.</td>
<td>0.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I am doing a good job as the parent of my teenager.</td>
<td>0.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I have all the skills to be a good parent to my teenager.</td>
<td>0.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I am confident I can control my teenager’s behavior.</td>
<td>0.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I am confident I can teach my teenager good morals.</td>
<td>0.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I am confident I can get my teenager to develop good habits.</td>
<td>0.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I am sure I can teach my teenager to be well-behaved.</td>
<td>0.85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I am sure I can teach my teenager the value of hard work.</td>
<td>0.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. I find it hard to keep track of what my teenager is doing.</td>
<td></td>
<td>0.83</td>
<td></td>
</tr>
<tr>
<td>10. I find it difficult to keep a close watch over where my teenager goes.</td>
<td></td>
<td>0.85</td>
<td></td>
</tr>
<tr>
<td>11. I know who my teenager spends his/her time with.</td>
<td></td>
<td>0.44</td>
<td></td>
</tr>
<tr>
<td>12. I find it hard to keep track of my teenager’s social life.</td>
<td></td>
<td>0.79</td>
<td></td>
</tr>
<tr>
<td>13. I know how my teenager is doing at school.</td>
<td></td>
<td>0.32</td>
<td></td>
</tr>
<tr>
<td>14. It is hard for me to know whether my teenager has completed his/her homework.</td>
<td></td>
<td>0.57</td>
<td></td>
</tr>
<tr>
<td>15. I find it hard to keep a close watch over how my teenager spends his/her money.</td>
<td></td>
<td>0.80</td>
<td></td>
</tr>
<tr>
<td>16. I am confident that I usually know what my teenager is doing.</td>
<td></td>
<td></td>
<td>0.78</td>
</tr>
<tr>
<td>17. My teenager’s behavior is sometimes more than I can handle.</td>
<td></td>
<td></td>
<td>0.64</td>
</tr>
<tr>
<td>18. My teenager’s behavior problems are often due to the mistakes I make.</td>
<td></td>
<td></td>
<td>0.82</td>
</tr>
<tr>
<td>19. I find it difficult to communicate with my teenager.</td>
<td></td>
<td></td>
<td>0.76</td>
</tr>
</tbody>
</table>

*Factor loadings are in bold, 90% confidence intervals for the factor loadings are provided in parentheses RMSEA: .06 (0.052, 0.067)*

Table 3.4: Items and Factor Loadings from the Confirmatory Factor Analysis for Parent Efficacy Scale (N = 196)
Exploring differences in primary variables based on demographic data

Mean comparisons were conducted for the demographic data provided by teenagers, mothers and fathers using t tests and one way analysis of variance to explore if the demographic variables are significantly related to the primary variables being studied. Several one way analyses of variance were conducted with some demographic variables in addition to t tests. Waller-Duncan test was used to report significant mean differences/pair wise comparisons in ANOVA.

Teenager data

Females (M = 1.90) reported greater perceptions of parental knowledge than males (M = 2.15), t = 2.51, p < .05. Teenagers who spent more than 4 hours alone (M = 2.43) after returning from school reported lesser perceptions of parent knowledge than teenagers who spent no time alone (M = 1.88), F (4,212) = 3.99, p < .01. As for comparisons of teenagers with no siblings to more than 2 siblings, the only differences emerged for those with one sibling (M = 1.90) who reported greater perceptions of parent knowledge than those with two siblings (M = 2.30), F (3,201) = 3.10, p < .05.

Females (M = 1.78) reported greater disclosure to parents than males (M = 2.00), t = 2.14 p < .05. One way analyses of variance revealed that teenagers who spent more than 4 hours alone (M = 2.42) after returning from school reported lesser disclosure to parents than teenagers who spent no time alone (M = 1.72), F (4,212) = 3.94, p < .01. Younger teenagers in the 13-14 age group (M = 1.88) reported greater disclosure than teenagers in the 17-18 age group (M = 2.43), F (3,214) = 5.14, p < .01.
Females ($M = 2.93$) reported lesser delinquency than males ($M = 2.83$), $t = -2.40$, $p < .05$. When birth order was compared, first born children ($M = 2.92$) reported lesser delinquency than third born children ($M = 2.77$), $F (3,212) = 3.03$, $p < .05$.

**Mother data**

Mothers with doctoral degrees ($M = 1.00$) disagreed that adolescence could be a dangerous time for their teenagers while mothers with 10th grade education ($M = 3.28$) $F (5,213) = 2.56$, $p < .05$ indicated a more neutral response. Mothers believed they had a greater influence on child welfare for their teenagers in 9th grade ($M = 1.48$) than those in 11th grade ($M = 1.67$), $t = -2.35$, $p < .05$. Mothers also reported that they had the greatest influence on the welfare of their 13-14 year olds ($M = 1.42$) compared to the 16 year olds ($M = 1.67$) and 17-18 year olds ($M = 1.82$), $F (3,211) = 3.90$, $p < .05$.

Mothers reported greater monitoring efficacy for their daughters ($M = 1.70$) than sons ($M = 1.96$), $t = 2.49$, $p < .05$. Mothers reported greater monitoring efficacy for younger teenagers (13-14 year olds), $M = 1.80$ than older teenagers (17-18 year olds), $M = 2.24$ and this difference was significant at $F (3,213) = 2.62$, $p < .05$. Mothers with a bachelor’s degree ($M = 1.65$) seemed to have greater monitoring efficacy than mothers with a 12th grade education ($M = 2.11$), $F (5,214) = 2.63$, $p < .05$ suggesting that education can foster empowerment and impart greater confidence for parents in their parenting role. Mothers also reported greater efficacy in responding competently to negative teenager behavior for their daughters ($M = 1.80$) than sons ($M = 2.10$), $t = 2.42$, $p < .05$. 

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Mothers believed that they can have a greater positive influence on their 9\textsuperscript{th} graders ($M = 1.48$) than their 11\textsuperscript{th} graders ($M = 1.67$), $t = -2.35$, $p < .05$. Mothers reported greater efficacy in developing positive teenager behavior for 9\textsuperscript{th} graders ($M = 1.30$) than 11\textsuperscript{th} graders ($M = 1.42$), $t = -2.09$, $p < .05$. Mothers also reported greater efficacy in developing positive behaviors in their teenagers, when their teen spent no time alone ($M = 1.30$) compared to those that spent 1-2 hours alone ($M = 1.68$), $F (5,197) = 2.82$, $p < .05$.

Mothers reported greater knowledge of teen whereabouts and activities for those of their teenagers that spent no time alone ($M = 1.75$) compared to those that spent 3-4 hours alone ($M = 2.21$), $F (5,195) = 3.00$, $p < .05$. Mothers also reported greater solicitation of information from teenagers that spent no time alone ($M = 2.50$) compared to those that spent at least an hour alone ($M = 3.10$), $F (5,192) = 2.90$, $p < .05$. Mothers reported greater knowledge of their teenager’s feelings when the teenagers spent no time alone ($M = 2.33$) compared to those that spent more than 4 hours alone ($M = 2.93$), $F (5,191) = 3.07$, $p < .05$. It seems that the more time mothers and teenagers spend together, higher the monitoring efficacy and stronger their confidence in the processes of monitoring.

Mothers reported lesser trust on their 17-18 year olds ($M = 1.90$) compared to 13-14 year olds ($M = 1.40$), 15 year olds ($M = 1.44$), and 16 year olds ($M = 1.42$), $F (3,206) = 4.54$, $p < .01$. 

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Father data

Fathers believed that they had a greater influence on the welfare of children in 9th grade (M = 1.45) than those in 11th grade (M = 1.62), t = -1.98, p < .05, like mothers. Fathers reported greater monitoring efficacy for those teenagers who spent no time alone (M = 1.74) compared to both teenagers that spent 1-2 hours alone (M = 2.27) and 3-4 hours alone. (M = 2.27), F (4,211) = 4.78, p < .001.

Fathers reported least knowledge of the activities of their children in the 17-18 age group (M = 2.42) compared to their knowledge of 13-14 age group (M = 2.04) and the 15-16 age group (M = 2.07), F (3,212) = 4.71, p < .01. Fathers reported that their female children (M = 1.97) disclosed more than their male children (M = 1.75), t = 2.13, p < .05.
Agreement between mothers, fathers, and teenagers

Mother-Father Agreement

Of the variables on which only the mothers and fathers reported, mothers’ and fathers’ judgments were most highly correlated \((r = .67, p < .001)\) for parents’ generalized beliefs that adolescence was not a dangerous period for their teenagers as shown in Table 5.

<table>
<thead>
<tr>
<th>Scales</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. General Beliefs</td>
<td>.67</td>
<td>.18</td>
<td>.14</td>
<td>.39</td>
<td>.40*</td>
</tr>
<tr>
<td>2. Specific Beliefs</td>
<td>.24**</td>
<td>.53</td>
<td>.45**</td>
<td>.37</td>
<td>.30**</td>
</tr>
<tr>
<td>3. Efficacy (positive behavior)</td>
<td>.18*</td>
<td>.39**</td>
<td>.40</td>
<td>.42**</td>
<td>.37**</td>
</tr>
<tr>
<td>4. Monitoring Efficacy</td>
<td>.43**</td>
<td>.44**</td>
<td>.37**</td>
<td>.56</td>
<td>.61**</td>
</tr>
<tr>
<td>5. Efficacy (negative behavior)</td>
<td>.41**</td>
<td>.46**</td>
<td>.39**</td>
<td>.61**</td>
<td>.51</td>
</tr>
</tbody>
</table>

*Intercorrelations for fathers \((n = 210)\) are presented above the diagonal, and intercorrelations for mothers \((n = 210)\) are presented below the diagonal. The correlations between mothers and fathers on the various scales are presented in bold on the diagonal and all coefficients are significant at \(p < .001\).  
\(^* p < .001; ^{*} p < .05\)

Table 3.5: Intercorrelations of scores on Parent Beliefs scale and Parent Efficacy scale for Mothers and Fathers (N = 210)
Mother, Father and Teen reports

There were 7 variables each on which mothers, fathers and their teenager reported. As for the three sources of information that indicate processes of monitoring, the highest correlation between mothers', fathers’ and teenager reports was for child disclosure; \( r = .53, p < .001 \) between parents, \( r = .40, p < .001 \) between mothers and teenagers and \( r = .46, p < .001 \) between fathers and teenagers. For the other two sources of parent knowledge – solicitation and control, maternal and paternal reports were moderately correlated, but the teen and parent reports were not as highly correlated. As for the three types of parental knowledge that were measured in the main study, the highest correlation between mothers and fathers’ reports was on parental knowledge of their teen’s feelings and concerns, \( r = .50, p < .001 \), while the highest correlation between mothers’ and teenagers’ reports was on parental knowledge about daily activities, \( r = .56, p < .001 \) and the highest correlation between fathers’ and teenagers’ reports was on parental knowledge of teen’s feelings and concerns, \( r = .55, p < .001 \). As for parental trust, maternal and paternal reports of trust were most highly correlated, \( r = .56, p < .001 \) followed by paternal and teen reports of trust, \( r = .51, p < .001 \).

Agreement between male and female teenagers

Correlations were also examined by splitting the data set by teenager gender as shown in Table 6. In all the seven variables that teenagers reported on, male-female correlations were examined. Parental knowledge of the daily activities of teenagers was related most highly to teen reports of voluntary
disclosure for both female and male teenagers. Higher disclosure was related to higher perceptions of parental trust for both female and male teenagers. However, higher disclosure by male teenagers was most strongly related to their report of parental knowledge of their feelings and concerns, while higher disclosure by female teenagers was most strongly related to lower self reports of delinquency. Higher perceptions of parental control was related to lower self reports of delinquency for female teenagers but not male. The correlations in general had a higher magnitude for male teenagers than female teenagers.

<table>
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<th>1</th>
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<td>.36**</td>
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Note. Intercorrelations for male teenagers (n = 95) are presented above the diagonal, and intercorrelations for female teenagers (n = 107) are presented below the diagonal.

Correlations above 0.5 are highlighted in bold.

**p < .001; *p < .05

Table 3.6 : Intercorrelations of scores on teenager reports on Parent Monitoring scale and Parent Knowledge scale and Parent Trust scale by teenager gender (N = 212)
Agreement between Mothers and Fathers on their Sons

For all the variables that mothers and fathers reported on, correlations for mothers and their sons were compared with those of fathers and their sons as shown in Table 7 and only correlations above 0.5 are summarized below. For mothers, higher confidence in monitoring their teenage sons was strongly related to higher confidence in responding to negative teenager male behavior, higher knowledge of their male teen’s activities and whereabouts, higher perceptions of their son’s voluntary disclosure of information, higher knowledge of their son’s feelings and concerns, and stronger beliefs that adolescence was not a dangerous period for their teen sons (p < .001). Higher trust in their sons was related to higher knowledge of their teenager son’s activities and lower delinquency, for mothers. For fathers, higher monitoring efficacy was strongly related to higher confidence in responding to negative behavior in their sons, higher knowledge of sons’ daily activities and higher perceptions of voluntary disclosure by their sons (p < .001). Higher trust in their sons was moderately related to higher solicitation of information, for fathers.

Agreement between Mothers and Fathers on their Daughters

Correlations of mothers and their daughters were also compared with those of fathers and their daughters as shown in Table 8 and only those above 0.5 are summarized below. For mothers, higher monitoring efficacy was strongly related to higher perceptions of female teen disclosure. Higher efficacy to
develop positive behavior in their daughters was strongly related to lower delinquency and high trust ($p < .001$) suggesting a possible relationship between trust and efficacy, a path not tested in the present study. Higher knowledge about daily activities was strongly related to higher solicitation for daughters. Higher maternal control was strongly related to lower delinquency in daughters.

For fathers, higher monitoring efficacy was strongly related to higher perceptions of disclosure by their daughters and higher trust ($p < .001$) again suggesting a relationship between trust and efficacy that has not been explored.

It seems that knowledge about prior delinquency of teenagers is more important to mothers than fathers and is related to both maternal trust and maternal processes of monitoring for both their sons and daughters. Paternal trust and processes of monitoring do not seem to relate to their knowledge of teenagers’ prior delinquency, but seem to be related to different processes of monitoring for their sons and daughters – solicitation for their sons and the perceptions of voluntary disclosure by their daughters.
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Note. Intercorrelations of fathers’ scores for their sons (n = 84) are presented above the diagonal, and intercorrelations for mothers’ scores for their sons (n = 84) are presented below the diagonal. The correlations between mothers and fathers for their sons on the various scales are presented in bold on the diagonal and all coefficients are significant at \( p < .001 \). Intercorrelations above 0.5 are highlighted in bold and italicized.

\( p < .001; \) \( p < .05 \)

Table 3.7: Intercorrelations of scores on Parent Beliefs scale, Parent Efficacy scale, Parent Monitoring scale, Parent Knowledge Scale and Parent Trust scale of Mothers and Fathers for Sons (N = 84)
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Note. Intercorrelations of fathers' scores for their daughters (n = 95) are presented above the diagonal, and intercorrelations for mothers' scores for their daughters (n = 95) are presented below the diagonal. The correlations between mothers and fathers for their daughters on the various scales are presented in bold on the diagonal and all coefficients are significant at p < .001. Intercorrelations above 0.5 are highlighted in bold and italicized.

Table 3.8: Intercorrelations of scores on Parent Beliefs scale, Parent Efficacy scale, Parent Monitoring scale, Parent Knowledge Scale and Parent Trust scale of Mothers and Fathers for Daughters (N = 95)
Multiple Linear Regressions

A series of multiple regressions were conducted to test the various hypotheses in the present study. The results from these regressions are organized by hypotheses and the variables involved in each. All regression analyses were performed using SPSS.

Hypothesis 1

Parent beliefs

Do parents’ generalized beliefs about adolescence predict the specific expectations for their parenting? (See Figure 2). The answer is yes, stronger general beliefs that adolescence is not a dangerous time for their teenager predicted stronger specific beliefs for mothers that their parenting could have a positive influence on their teenagers ($R^2 = .06, \beta = .24, p < .001$). The same finding was true of fathers as well ($R^2 = .03, \beta = .17, p < .01$).

![Diagram](image)

Figure 3.2. Predicting parents’ specific expectations from parents’ generalized beliefs

Predicting parent monitoring efficacy

The findings from the preliminary study reveal that parent monitoring efficacy was predicted using the other two factors of parent efficacy that emerged from our
exploratory factor analysis. To examine if the same pattern of relationships hold
in the main study with the new sample of parents, regression analyses were
conducted to predict monitoring efficacy from parent efficacy in developing
positive teenager behavior and responding to negative teenager behavior for
mothers and fathers. Gender of the teenager was entered in the first step of the
analyses. The results are shown in Table 3.9.

The results reveal that both types of parent efficacy contribute to the
variance in parent monitoring efficacy for mothers and fathers, unlike the
preliminary study where mother-father differences were found. Also, the
regression analyses revealed that for gender of the teenager was significant for
mothers but not for fathers. Mothers believe they could be better monitors for
their teenager sons than their daughters while fathers did not make a distinction
between their sons and their daughters.
<table>
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Note. MR – Mother reported, FR – Father reported
N = 214 for Mothers; N = 215 for Fathers
“ p < .001; “ p < .01; * p < .05

Table 3.9: Summary of Hierarchical Regression Analyses predicting Parent Monitoring Efficacy from Parent Efficacy in developing positive teenager behavior and responding to negative teenager behavior.

Hypothesis 2

Parent beliefs and Parent efficacy

Previous research indicates that parent beliefs predict parent efficacy (Eccles, 1990). Our previous analysis indicates that that parents’ generalized beliefs predict parents’ specific beliefs, so we examined the relationship between parent beliefs and efficacy in a mediational model as shown in Figure 3.3.
Figure 3.3: The hypothesized path of relationships between parent beliefs and efficacy

The exploratory factor analysis from the preliminary study revealed that parent efficacy had three distinct factors and regressions were conducted using parent efficacy both as the composite sum of the three efficacy factor scores and using each type of efficacy separately as the dependent variable.

First, two hierarchical regressions were conducted to test the mediational path described above using the composite sum of the three types of efficacy as the dependent variable for mothers and fathers, the results of which can be seen in Figure 4. Each analysis of the mediation model consisted of a sequence of three regressions. Gender of teenager was dummy coded to test for interactions and sons were coded 1 and daughters were coded 0. In the first step of all the analyses, the dummy coded variable indicating gender of the teenager was entered. The first step in testing mediation according to Baron and Kenny (1986)
is to establish a significant relation between the predictor variable (parents’
generalized beliefs) and outcome variable (parent efficacy). The second and
third steps in Baron and Kenny’s (1986) approach are to establish a significant
relation between the predictor variable (parents’ generalized beliefs) and the
mediator variable (parents’ specific expectations) and a significant relation
between the mediator and the outcome variable. If there is complete mediation,
the relationship between the predictor (parents’ generalized beliefs) and outcome
variable (parent efficacy) will be rendered insignificant when the mediator
variable (parents’ specific expectations) is entered into the model, however, we
found that the direct relationship did not disappear when the mediator was
entered into the model. If the association between the predictor and outcome
variable is still significant, then partial mediation has occurred and our results
provide evidence for partial mediation.

Sobel’s test was conducted to test whether the mediator carried the
influence of the IV to the DV (Sobel, 1982). The Sobel’s t (or z) value must be
sufficiently large, yielding a p-value of less than .05, to identify significant
mediation. In other words, this test examines to see if the association between
the IV and the DV has been significantly reduced by the inclusion of the
mediating variable in the second regression. The value of Sobel test lies in its
ability to conclusively tells the user whether significant mediation has occurred or
not. All the mediation paths examined in the present study were tested for
significance using the Sobel test. For mothers, Sobel’s t was 3.24 (p < .001) and
for fathers, $t = 2.39, p < .01$ conclusively proving the significant mediation effect we found through the regression analyses.

Gender of teenager had a significant main effect for mothers indicating that mothers felt more efficacious in dealing with their sons compared to daughters ($\beta = .15, p < .05$).

As can be seen in Figure 3.4, the results show support for a partially mediated path between parents’ generalized beliefs about adolescence, parents’ expectations and parent efficacy.

---

**Note.** The entire model is significant at $p < .001$

Numbers on top of the arrows that are bold represent standardized beta weights for mothers and those below the arrows represent standardized beta weights for fathers.

$R^2 = .39$ for mothers and $R^2 = .31$ for fathers; $p < .001$

$^* p < .001; ^\ddagger p < .01$

Figure 3.4: Multiple linear regression to test the mediational path between parents’ generalized beliefs about adolescence, parents’ expectations and parent efficacy

As can be seen in Figure 3.4, the results show support for a partially mediated path between parents’ generalized beliefs about adolescence, parents’ specific beliefs and parent efficacy.
Parent beliefs and three types of parent efficacy.

Do parent beliefs predict one type of efficacy more strongly than others? (See Figure 3.5). Given that the factor analysis on the measure for parent efficacy revealed three distinct factors of efficacy, we also ran separate regressions to predict each of these types of efficacy from maternal and paternal beliefs. The findings reveal partial mediation by parents’ specific expectations on the relationship between parents’ generalized beliefs and the three types of parent efficacy for four out of the six models and complete mediation for one model and no mediation for one model. Again, gender of the teenager was entered in the first step of each of these regression analyses.

Note. Dotted arrows denote the direct relationship between parents’ generalized beliefs and the types of efficacy.

Figure 3.5. A schematic representation of the mediational path between parent beliefs and the types of parent efficacy
The relationship between mothers’ generalized beliefs ($\beta = .09$, $p = .20$) and maternal efficacy in developing positive teenager behavior ($R^2 = .16$, $p < .001$) was completely mediated by mothers’ specific expectations ($\beta = .38$, $p < .001$). Sobel’s $t$ was 3.01 ($p < .01$). Stronger expectations that their parenting can have a positive influence on their teenagers predict higher confidence that they can develop positive behavior in their teenagers for mothers.

Higher maternal confidence in their role as monitors is predicted by strong maternal beliefs that adolescence is not a dangerous time and that they can have a positive influence on their teenagers. Maternal monitoring efficacy was predicted directly by maternal beliefs ($R^2 = .32$, $\beta = .33$, $p < .001$) and also partially mediated by mothers’ specific expectations for their parenting ($\beta = .36$, $p < .001$). Gender of teenager was significant ($\beta = .14$, $p < .05$) and mothers had higher monitoring efficacy for their sons than their daughters. Sobel’s $t$ was 3.05 ($p < .01$).

Maternal efficacy in responding competently to negative teenager behavior was explained by mothers’ general beliefs ($R^2 = .33$, $\beta = .32$, $p < .001$) and partially mediated by mothers’ specific beliefs ($\beta = .38$, $p < .001$). A similar gender effect ($\beta = .15$, $p < .05$) revealed that mothers felt more confident in responding competently to the negative behavior of their sons than their daughters. Sobel’s $t$ was 3.11 ($p < .001$).

In the case of fathers, fathers’ generalized beliefs ($\beta = .12$, $p = .08$) about adolescence does not directly predict paternal efficacy in developing positive teenager behavior, however, fathers’ specific expectations for their parenting ($\beta =$
.45, p < .001) did directly predict the dependent variable and the test of the mediation failed. Paternal monitoring efficacy was explained by paternal generalized beliefs (R² = .25, β = .34, p < .001) and fathers’ specific expectations partially mediated this relationship (β = .31, p < .001). Sobel’s t was 2.28 (p < .05)

Paternal efficacy in responding to negative teenager behavior was explained by both types of paternal beliefs (R² = .21, β₁ = .36, β₂ = .24, p < .001) and the results support partial mediation. Sobel’s t was 2.12 (p < .05). Gender of teenager was not significant in predicting any of the three types of efficacy for fathers. Among the three types of efficacy, the most variance predicted for mothers was maternal efficacy in responding to negative teenager behavior and the most variance for fathers was paternal monitoring efficacy.

Hypothesis 3

Parent beliefs, efficacy and monitoring

Do parent beliefs predict parenting behaviors? In this instance, do parent beliefs predict parent monitoring? Previous research indicates that parent efficacy is a mediator between parent beliefs and parenting behaviors. Thereby, the relationship between parent beliefs and monitoring was hypothesized to be mediated by parent efficacy.

The present study has three types of efficacy and three sources of parent knowledge that represent monitoring. To assess if the hypothesized path holds broadly, the variable efficacy was represented as a composite sum of the three
types of efficacy and the variable monitoring was a sum of the three sources of parent knowledge – disclosure, solicitation and control as shown in Figure 3.6.

The results of this test of mediation as shown in Figure 3.7 indicate that parent efficacy completely mediates the relationship between parents’ specific expectations for their parenting and processes of parent monitoring for both mothers and fathers. Sobel’s $t$ was 5.58 ($p < .001$) for mothers and $t = 5.94$ ($p < .001$) for fathers.

Note. The entire model is significant at $p < .001$

Numbers on top of the arrows represent standardized beta weights for mothers and those below the arrows represent standardized beta weights for fathers.

$R^2 = .30$ for mothers and $R^2 = .38$ for fathers; $p < .001$

$p < .001$

Figure 3.6. The path of relationships examined between parent beliefs, efficacy and monitoring

Figure 3.7. Multiple linear regression to test the mediational path between parents’ specific expectations, parent efficacy and parent monitoring
Parent specific expectations, efficacy and the three sources of parent knowledge.

Six hierarchical regression analyses were also conducted to test the above mediation path using each source of parental knowledge as a dependent variable for mothers and fathers as shown in Figure 8. Gender of the teenager was dummy coded and entered in the first step of all the hierarchical regression analyses.

Note. Dotted arrows represent the direct relationship between parents’ specific expectations and the processes of parent monitoring.

Figure 3.8. A schematic representation of the relationship that was investigated between parent beliefs, parent efficacy, and parent monitoring.

Gender of teenager was significant when mothers’ specific beliefs predicted maternal efficacy, but was not significant in predicting maternal reports of teen disclosure. The direct relationship between mothers’ specific expectations (β = .02, p = .83) and maternal reports of teen disclosure (R² = .29, p = .001) is completely mediated by parent efficacy (β = .53, p < .001) indicating
that higher efficacy explains higher perceptions of teen disclosure better than
stronger maternal beliefs that their parenting can have a positive influence on
their teenagers. Sobel’s t was 5.74 (p < .001). The direct relationship between
mothers’ specific beliefs and maternal solicitation (R² = .08, β = .12, p = .25) was
completely mediated by maternal efficacy (β = .22, p < .05). Sobel’s t was 2.58
(p < .01). The results also indicate that mothers solicited more information from
their sons than daughters (β = .14, p < .05). The direct relationship between
mothers’ specific beliefs (β = .04, p = .60) and maternal control (R² = .13, p =
.001) was completely mediated by maternal efficacy (β = .34, p < .001). Sobel’s t
was 3.88 (p < .001).

In the case of fathers, they seemed to believe that their sons disclosed
more than daughters (β = .13, p < .05). The direct relationship between paternal
reports of teen disclosure (R² = .41, p = .001) and fathers’ specific expectations
(β = .02, p = .78) was completely mediated by paternal efficacy (β = .61, p <
.001), Sobel’s t was 6.07 (p < .001).

The regression analyses revealed that there was no significant direct
relationship between fathers’ specific expectations (β = .13, p = .06) and paternal
solicitation of information from their teenagers before the mediator was entered
into the analyses, thereby precluding the possibility of mediation. However,
paternal efficacy (β = .34, p < .001) predicted paternal solicitation (R² = .10, p =
.001). Fathers believed that they had greater control over their sons than
daughters (β = .15, p < .05). Paternal control (R² = .21, p = .001) was explained
by this completely mediated model as well ($\beta_1 = -.06, p = .37; \beta_2 = .46, p < .001$), Sobel's $t$ was 4.87 ($p < .001$).

**Hypothesis 4**

**Parent efficacy and monitoring**

The results indicate the presence of a second mediator – parent efficacy, in our model. However, the test of mediation involved efficacy as a composite variable representing the sum of the three types of parent efficacy. Is parent monitoring related to how confident parents feel in their role as parents or as monitors? To answer this question, three hierarchical regressions were each conducted with data from mothers and fathers to predict the three sources of knowledge that comprise the processes of monitoring. The three factors of efficacy that emerged from the preliminary study – efficacy in developing positive teenager behavior, monitoring efficacy, and efficacy in responding competently to negative teenager behavior were entered as the independent variables in every one of these regression analyses after controlling for teenager gender in the first step as shown in Figure 3.9.
Maternal reports of teen disclosure of information ($R^2 = .33, p = .001$) was predicted strongly by only type of maternal efficacy – monitoring efficacy ($\beta = .53, p < .001$) and was not explained by either efficacy in developing positive teenager behavior ($\beta = -.01, p = .89$) or responding to negative teenager behavior ($\beta = .07, p = .35$). Paternal reports of teen disclosure of information ($R^2 = .42, p = .001$) was predicted strongly by paternal monitoring efficacy ($\beta = .45, p < .001$) followed by paternal efficacy in developing positive teenager behavior ($\beta = .22, p < .001$). There were differences based on teenager gender for this variable. Fathers reported greater disclosure of information from their sons than daughters ($\beta = .17, p < .05$).

Maternal solicitation was predicted by maternal efficacy in developing positive teenager behavior ($R^2 = .11, \beta = .14, p < .05$) and mothers seemed to
solicit more information from their sons than daughters ($\beta = .28$, $p < .05$).

Paternal solicitation was predicted strongly by paternal efficacy in developing positive teenager behavior ($R^2 = .14$, $\beta = .25$, $p < .001$) followed by paternal monitoring efficacy ($\beta = .26$, $p < .05$).

Maternal control was accounted for by maternal monitoring efficacy ($R^2 = .14$, $\beta = .19$, $p < .05$). Paternal control was accounted for by teenager gender ($R^2 = .22$, $\beta = .14$, $p < .05$) and paternal monitoring efficacy ($\beta = .39$, $p < .001$).

Among the three types of efficacy, monitoring efficacy seems to be the most important predictor of all the three sources of parental knowledge for both mothers and fathers. Based on the amounts of variance explained in all the three sources of parental knowledge by the three types of efficacy, it seems that monitoring efficacy explains parent-reported teen disclosure of information best.

**Hypothesis 5**

**Parent monitoring and Parent knowledge**

Is parental knowledge about the daily activities of their teenagers related to their reports of solicitation, control and teen disclosure? As shown in Table 8, the answer is yes for both mothers and fathers. Gender of the teenager was dummy coded and always entered as a control variable and no differences based on the teenager’s gender were found in this analysis. Among the three sources, solicitation accounts for the most variance in parental knowledge both for mothers and fathers. Is parental knowledge about the daily activities of their teenagers also related to teen reports of voluntary disclosure, parental solicitation, and parental control? (See Figure 3.10).
Figure 3.10. Predicting parent knowledge about daily activities of teen from the processes of parent monitoring

Preliminary t tests conducted with the data revealed that parental reports of the time their teenagers spent alone at home was related to both processes of monitoring and knowledge about daily activities. The regression analyses reveals that the time spent alone at home by teenagers predicted parent knowledge about daily activities for both mothers and fathers as shown in Table 3.10.

When teen reports of the various sources of information were also entered into the regression to predict parental knowledge, only teen self-reports of disclosure added significantly to the variance explained in maternal knowledge, while none of the teen variables accounted for any variance in paternal knowledge.
<table>
<thead>
<tr>
<th></th>
<th>Knowledge (MR)</th>
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</tr>
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<tbody>
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<td>R²</td>
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<tr>
<td>Step 1</td>
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<td></td>
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<tr>
<td>Teenager Gender</td>
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<td>.01</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Disclosure</td>
<td>.42**</td>
<td>.44**</td>
</tr>
<tr>
<td>Parental Solicitation</td>
<td>.35**</td>
<td>.44**</td>
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<tr>
<td>Parental Control</td>
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<td>.13*</td>
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<td>Step 3</td>
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<td>Child Disclosure (CR)</td>
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<td>Parental Control (CR)</td>
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<tr>
<td>Time spent alone */</td>
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<td>.01*</td>
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</table>

*Note.* MR – Mother reported, FR – Father reported, CR – Child Reported

*/  MR in column under maternal knowledge and FR in column under paternal knowledge

** p < .001; * p < .05

Table 3.10. Summary of Hierarchical Regression Analyses predicting Parent Knowledge from three sources of knowledge

A separate regression analysis was carried out to predict teen reports of parental knowledge from teen self-reports of disclosure, and teen reports of parental solicitation and control. Teenager gender was entered as a control variable. It was found that gender of the teenager was important in predicting teen reports of
parental knowledge but did not interact significantly with the three predictors namely, disclosure, solicitation and control as shown in Figure 3.11. Preliminary t tests revealed that the amount of time the teenagers spent alone could account for some variance in their reports of parent knowledge, so this variable was also entered into the regression analyses but was not found to be significant. 49% of the variance in parental knowledge was explained by all four variables, but teen self-reports of disclosure accounted for the most variance in the dependent variable.

Male teenagers reported higher reports of parental knowledge than female teenagers.

Note. $R^2 = .49, p < .001$
$p < .001$; $p < .01$

Figure 3.11. Predicting teen reports of parental knowledge from teen reports of self-disclosure, parental solicitation and control.
**Hypothesis 6**

*Parental trust and Parent knowledge*

Is parental trust in their teenagers related to parental knowledge of their teenager’s daily activities, feelings and concerns and history of prior delinquency as shown in Figure 3.12? As shown in Tables 3.11 and 3.12, parental self-reported trust in their teenagers was predicted slightly differently for mothers and fathers.

![Figure 3.12. Predicting parent trust from three types of parent knowledge](image)

In the multiple regression analyses, the teenager’s gender, teenager-reported delinquency and the gender x delinquency interaction were entered as control variables based on the analyses run by Kerr et al., (1999) and the results of that are shown in the upper sections of Tables 8 and 9. The findings reveal that maternal trust is linked to the teenager’s delinquent behavior, but not
necessarily to the teenager’s gender. Paternal trust is linked to both teenager’s delinquent behavior and teenager’s gender but there was no significant interaction between these variables.

In both models, teenager-reported self-disclosure of feelings and concerns, parent-reported awareness of prior delinquency and parent-reported knowledge of the teenager’s daily activities were regressed on parental trust for mothers and fathers. Maternal trust in their teenagers was predicted more strongly by their knowledge of the teen’s prior delinquency followed by their knowledge of the teen’s daily activities. The more knowledge mothers have that their children have engaged in specific delinquent acts, the less they trust them, however this was not true of fathers and paternal trust in their teenagers. Paternal trust in their teenagers was predicted only by their knowledge of the teen’s daily activities. A multiple linear regression was also conducted to predict teen-reported parental trust similar to the model mentioned above. Teen-reported parental trust ($R^2 = .28, p < .001$) was explained most strongly by teen reported parental knowledge about daily activities ($\beta = .31, p < .001$), followed by self-reported delinquency ($\beta = -.37, p < .001$), and teen reported parental knowledge about their feelings and concerns ($\beta = .17, p < .05$). However, knowledge of daily activities clearly emerges as an important link to parental trust for mothers and fathers.
### Table 3.11. Summary of Hierarchical multiple regression analyses predicting maternal and paternal trust from three types of parental knowledge

<table>
<thead>
<tr>
<th></th>
<th>Trust (MR)</th>
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<td>β</td>
<td>R² change</td>
<td>β</td>
<td>R² change</td>
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<td>-1.62</td>
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</tr>
<tr>
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<tr>
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<td>0.37**</td>
<td>0.16**</td>
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</tbody>
</table>

*Note: MR – Mother reported, FR – Father reported, CR – Child Reported, PR – Parent Reported
* p < .001; * p < .05

When parents know a lot about their teenagers’ daily activities, they tend to trust their teenagers more. To answer the question of which sources of information about daily activities influences this link to parental trust more, the three sources of information were entered into the hierarchical regression model in place of...
parental knowledge. The results of this analysis are shown in Table 3.12. As shown, it is clear that among the three sources of parent knowledge about teenagers’ daily activities, only parental reports of teen voluntary disclosure predicts parental trust for both mothers and fathers. Maternal reports of teen delinquency also predict maternal trust but not paternal reports of teen delinquency.
<table>
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<th>Trust (FR)</th>
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<td>R² change</td>
<td>β</td>
<td>R² change</td>
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</tbody>
</table>

Note. MR – Mother reported, FR – Father reported, CR – Child Reported, PR – Parent Reported (sum of maternal and paternal reports of teen delinquency)

\( p < .001; \) \( p < .05 \)

Table 3.12: Hierarchical multiple regression models predicting maternal and paternal trust from different types and sources of parental knowledge
**Parent monitoring, knowledge and trust**

A third mediational path was also examined in the context of parental trust. Given that the processes of parent monitoring lead to parent knowledge, is the relationship between parent monitoring and parent trust mediated by parent knowledge?

Two hierarchical regression analyses were conducted with the data from mothers and fathers to test this third mediational path as shown in Figure 12. For ease of analyses, the monitoring variable was represented by a composite sum of the three sources of parent knowledge – disclosure, solicitation and control and the knowledge variable was represented by a composite sum of the three types of parent knowledge – of daily activities, prior delinquency, and feelings and concerns. The dependent variables were maternal and paternal trust respectively.

The findings reveal that monitoring predicts knowledge and monitoring also directly predicts trust, but knowledge, as represented by the composite sum of the three types of knowledge does not predict parental trust. The findings do not support the third mediational path hypothesized above.
Note. Dotted arrow represents the direct path from parent monitoring to parent trust.

Figure 3.13. Schematic representation of the third mediational path between monitoring, knowledge and trust where knowledge is represented by three types of knowledge

_Type of parent knowledge and parent trust_

But is it possible that one type of knowledge is more important than the other types of knowledge in predicting trust? So we conducted six more regression analyses by substituting the knowledge variable with one type of knowledge at a time, for mothers and fathers and predicted trust. It was also found that maternal knowledge of their teenager’s prior delinquency was a stronger predictor of maternal trust in their teenagers ($\beta = -.36, p < .001$) followed by maternal knowledge about daily activities ($\beta = .25, p < .001$). For fathers, knowledge of prior delinquency did not predict trust, however paternal knowledge
of teen feelings and concerns ($\beta = .16, p < .05$) and knowledge about daily activities ($\beta = .35, p < .001$) did predict trust.

As shown in table 9, teenager disclosure of information about daily activities is the only source of knowledge that is linked to parental trust for both mothers and fathers. When the same model was run for teenager self-reports of data, teen reported parental trust ($R^2 = .36, p < .001$) was explained by teen reports of prior delinquency ($\beta = -.28, p < .05$) and teen reports of disclosure ($\beta = .41, p < .001$) and more strongly by the latter variable.

It is important to note that in all the three regressions to predict parental trust, teen-reported parental knowledge of feelings and concerns, parental solicitation and control contribute almost nothing to the variance in parental trust and even parental knowledge of the teenager’s prior delinquency was not as important as child disclosure in predicting parental trust, except in the case of mothers.

**Summary**

The results of the many multiple regression analyses conducted with the data obtained from Asian Indian families with three respondents of data – mothers, fathers, and a teenager in ninth or eleventh grade can be summarized as shown in Figure 14 below. The results indicate that the linear relationships established between the various variables examined in the present study could be studied in future as a path model and analyzed using statistical techniques such as path analysis. Path analysis is an extension of the regression model and is defined by Ullman (1996) as a technique that, “allows examination of a set of
relationships between one or more independent variables, either continuous or discrete, and one or more dependent variables, either continuous or discrete.”

Figure 3.14. A path model of all the variables examined including two mediated pathways.
CHAPTER 4
DISCUSSION

Parental monitoring refers to the processes by which parents keep track of their children (Kerr & Stattin, 2000), especially during adolescence when teenagers spend more time away from their parents and homes (Tilton-Weaver & Galambos, 2003). Parent monitoring has always been examined as a predictor of adolescent problem behaviors such as delinquency and substance use (Kerr & Stattin, 2000; Steinberg, Fletcher & Darling, 1994) but there is limited research on variables that impact monitoring.

The present study was an exploratory attempt to examine parents’ generalized beliefs about adolescence, parents’ specific expectations for their parenting, and three types of parent efficacy as predictors of parental monitoring among Asian Indian parents and their adolescents. The relationship between the processes of parent monitoring, parent knowledge and parent trust in their adolescents was also examined. The main findings for each of the variables are discussed below.

Parent Beliefs

Parental beliefs help explain parenting behaviors (Eccles, 1992). Asian Indian parents believe in their ability to be good parents and monitors and believe their parenting can have a positive influence on the welfare of their adolescents when they believe that adolescence is not a dangerous period of life.
There are no studies that have examined the belief systems of Asian Indian parents of adolescents, however, this finding is consistent with previous research done with Caucasian parents that found that the expectations parents have based on their generalized beliefs can influence their behavior with their own adolescents (Buchanan, 2003).

The parents in the present study held positive beliefs about the period of adolescence in general, a finding that could possibly be explained by the idea that posits that parents are “developmental optimists” and would need to be so in order to expend the effort necessary in their demanding roles as parents (Knight, 1985; Buchanan et al. 1990). Another explanation for the fact that Asian Indian parents have a more positive view of adolescence than Caucasian parents (Buchanan, 2003) could be differences in cultural stereotypes about the period of adolescence. In the west, negative stereotypes about adolescence are prevalent due to the increased time adolescents spend away from the surveillance of their parents owing to changes in an adolescent’s mobility, autonomy, and employment (Small & Eastman, 1991). However, in India, education is prioritized as the most important goal and the only path to success for adolescents in middle class society, like the families in the present study. Consequently, the prescribed familial expectations and parental obligations that 13-16 year olds face, act as deterrents to exploration or experimentation leading to ‘delayed adolescence’ with minimal conflicts over autonomy and privacy during high school years (Saraswathi, 1999). Adolescents from middle class families in India do not experience any changes in status as far as mobility, autonomy and
employment is concerned until after 18 years and except for the physical and biological changes accompanying puberty, remain in the strict control and close supervision of their parents (Sinha, 1997; Saraswathi, 1999). These explanations are consistent with the line of thought that economic class and culture can increase or decrease the relevance of cultural and popular stereotypes to expectations for a particular group of adolescents (Buchanan, 2003).

**Parent Efficacy**

The present study examined domain-general parent efficacy (as parents of adolescents) and task-specific efficacy (as monitors of adolescent behavior) among Asian Indian families. The results from the exploratory and confirmatory factor analyses indicate that domain-general parental efficacy is not a unitary concept but is composed of two components: parents' beliefs that they can develop positive behavior in their adolescents; and parents’ beliefs that they can respond competently to adolescent negative behavior.

The two components of domain-general parental efficacy described above are in line with previous research that suggests that there are two important parenting functions for parents of adolescents among others – protection and guidance (Small & Eastman, 1991). Parents’ protective functions are fulfilled via actively monitoring their children and the guidance function is manifested in parenting behaviors such as positive role modeling and contributing positively to the development of their children.
The section that discussed the findings about parent beliefs described parental expectations for their parenting and at this juncture, it is important to distinguish between this variable and parental efficacy to develop positive adolescent behavior. While the former refers to parent beliefs that their parenting can positively influence the overall welfare of their adolescents, the latter refers to parents’ perceived competence that they can influence the development of specific positive behaviors in their adolescent.

Previous research also suggests that domain-general efficacy which refers to an estimation of competence that individuals feel as parents can predict their feelings of competence about fulfilling the varied tasks that are described as important parenting functions (Coleman & Karraker, 1997). These findings are substantiated in the present study where parental confidence in their role as monitors of their adolescents’ lives is predicted by the two components of domain-general parental efficacy – how much influence parents believe they can have in developing positive behavior and in responding competently to negative behavior patterns in their adolescents. In particular, when Asian Indian parents believe they can competently handle negative adolescent behavior, they also believe that monitoring is an effective strategy to use to control problem behavior and this is similar for mothers and fathers. Parents who feel that adolescent negative behavior is beyond their control are less likely to attempt to monitor their adolescents. In addition, when Asian Indian parents believe that they can exert some influence on the development of positive behavior like moral values and habits in their adolescents they are also more likely to feel confident in their role
as monitors. There is no prior research on general parent efficacy or monitoring efficacy for parents of adolescents in the Asian Indian culture or in Caucasian culture.

*Parent beliefs and efficacy*

The positive views that Asian Indian parents hold about adolescence (category-based beliefs) not only leads them to believe that their parenting can have a positive influence on the overall welfare of their adolescent but also engenders a higher sense of efficacy or control in their abilities to be good parents and good monitors. Positive expectations that parents have seems to partially mediate the relationship between the positive generalized beliefs that parents have about adolescence and their ability to be good parents reinforcing the notion that category-based beliefs can also directly predict levels of efficacy. This finding is consistent with previous research that has suggested that if parents of adolescents endorse negative category-based beliefs consistent with societal stereotypes, they are more likely to react negatively to, or to disengage from, their adolescents and experience a low sense of efficacy or control for engaging in parenting behaviors (Buchanan, 2003).

*Parent Efficacy and Parent Monitoring*

The present study found that the processes of parent monitoring are predicted more strongly by parental monitoring efficacy (task-specific) than their perceived competence as parents of adolescents (domain-general efficacy) for Asian Indian mothers and fathers. This finding is in line with previous research indicating the greater predictive validity associated with task-specific efficacy for
parenting behaviors compared to domain-general measures of efficacy (Beck & Lund, 1991). Bogenschneider, Small, and Tsay (1997) also demonstrated that a low sense of perceived competence in their role as parents is linked to less optimal parenting of adolescents such as lower monitoring. A brand new link between parent beliefs, efficacy and monitoring was elucidated in the present study where higher perceived efficacy in their abilities to monitor their adolescents completely mediated the relationship between positive expectations that Asian Indian parents have for their parenting in the context of child welfare and the processes of monitoring.

**Parent Monitoring and Parent Knowledge**

Parent monitoring has always been equated with parent knowledge in the monitoring literature instead of how parents came upon the knowledge (Crouter & Head, 2002). Two studies conducted by Stattin and Kerr (1999, 2000) re-conceptualized the construct of ‘parent monitoring’ to include voluntary child disclosure, parent solicitation and parent control as three processes of monitoring that also serve as the sources of parent knowledge about the daily activities of their adolescent. However, these studies found voluntary and willing adolescent disclosure of information to be the most important predictor of parent knowledge about their adolescent’s daily activities and whereabouts while active tracking methods such as parental solicitation and control added little to the variance in parent knowledge suggesting that whatever parents knew came from what their adolescents chose to disclose. The fact that parent knowledge was solely predicted by adolescent disclosure in the above studies contradicts the notion of
bi-directional process of socialization, positioned in the literature as the most optimal type of socialization. Bi-directional socialization is characterized by both parents and children working together to establish a good relationship through reciprocity, coordination, co-regulation, and cooperation, all behaviors that enhance parent knowledge about the daily activities of adolescents (Stattin & Kerr, 2000).

The findings from the present study reveal that all three sources contribute significantly to differences in parental knowledge for both mothers and fathers suggesting bi-directional socialization practices in Asian Indian families. Previous research indicates that, in India, socialization is no longer a unidirectional process with the adults constantly wielding power but that bi- and multi-directionality is increasingly evident in Asian Indian families with increased modernization and urbanization reflecting optimal parent-child relationships (Sinha, 1997). These findings also suggest that Asian Indian families have established good parent-child relationships where both parents and adolescents actively contribute to parental knowledge and to the processes of monitoring.

Among the three sources of parent knowledge examined in the present study, different sources were stronger in predicting knowledge for mothers and fathers. Maternal reports of voluntary disclosure by teenagers contribute to the most variance in maternal knowledge followed by maternal reports of solicitation and control. However, paternal reports of solicitation contribute to the most variance in paternal knowledge followed by paternal reports of voluntary disclosure by their teenagers and paternal control. With the spread of education
and women’s employment in urban India, parenting roles have become relatively more interchangeable and fathers are also involved in socializing their children even though they often retain their traditional, authoritarian, advisory, provider and disciplinarian roles (Sinha, 1996). However, mothers are the primary socializers and tend to have a warm, nurturing, supportive and scripted parenting role (Saraswathi & Pai, 1997; Crouter, Helms-Erikson, Updegraff & McHale, 1999). It is therefore likely that Asian Indian adolescents voluntarily disclose to their mothers more than their fathers. It is possible that the ongoing nature of the relationship between the parent and child is a reason why Asian Indian mothers perceive higher disclosure by their adolescents. In other words, mothers could have expended more efforts at establishing a close relationship with their adolescents and their past solicitation efforts could have facilitated the process of voluntary adolescent disclosure. Asian Indian fathers continue to retain an authoritarian and distant style of parenting and spend limited time with their adolescents due to long work hours and expect the mothers to keep tabs on the lives of their adolescents, so it is possible that paternal knowledge, when essential, comes from solicitation. The idea that the nature of the relationship that mothers and fathers share with their adolescents could be affectively different, with mothers sharing closer relationships with their children, is also suggested by many findings in the literature on parenting styles conducted in Western cultures (Harkness & Super, 2002).

*Parent Knowledge and Parent Trust*
The relationship between the various types of parent knowledge and parental trust in their adolescents, as evinced in the present study indicates that high parent knowledge about the daily activities of their adolescents represents a strong predictor of trust, specifically, voluntary child disclosure was the only source of parental knowledge that contributed to trust for both Asian Indian mothers and fathers. The more their child voluntarily disclosed information about their everyday life, the more parents trusted their adolescents. An adolescent’s mere willingness to share information might make him/her seem trustworthy to parents (Kerr, Stattin & Trost, 1999). In addition, Asian Indian mothers trusted their adolescents less if they had knowledge of their adolescent’s prior delinquency, but this was not true for fathers. In general, the parents and adolescents in the present study reported very low levels of adolescent delinquency. Hence, it is possible that this knowledge of low prior delinquency levels makes this variable unimportant in predicting trust for fathers, but mothers, despite the same knowledge, feel that any degree or type of prospective delinquency will hugely influence how much trust they can have in their adolescent.

Strengths and contributions

The present study makes several valuable contributions to the literature on parenting adolescents and monitoring. First, two scales to measure parent beliefs and efficacy were developed for the purpose of this study that revealed good internal reliability and validity indices. These scales represent valuable and unique additions to the literature on parent beliefs and efficacy. Second, a factor
structure with good fit indices was elucidated for both parent beliefs and efficacy scales using exploratory factor analysis and then verified using confirmatory factor analysis with a new sample. Third, the present study included big sample sizes in both the preliminary and main study enabling sophisticated analyses and increasing our confidence in the findings. Fourth, the study deals with information provided by three respondents in a family, a teenager and his/her mother and father, a feature that is the first of its kind in the literature of parent monitoring studies. This enabled within-family comparisons between mothers and fathers of the same teenager on the various parent variables. Specifically, maternal, paternal and teenager reports made it possible to obtain a similar overall picture about where parent knowledge and parental trust comes from, even if they did not always overlap precisely. Fifth, the study deals with a culture that has not been examined in the context of monitoring before, India, and the findings seemed to warrant some explanations based on Indian culture and Indian socialization practices.

**Limitations**

The present study included two scales that were developed for the purpose of measuring parent beliefs and efficacy but the other scales used to measure monitoring, knowledge and trust were developed by Kerr and Stattin (1999) and used with families in Sweden. In the course of conducting the study in India and after data collection, it was clear from the comments written by some parents in the questionnaires that some items were not culturally relevant in the Indian context. For example, for items that ask parents if their adolescents would
need their permission if they wished to go out on a week night or a weekend, parents indicated that their adolescents never go out on a week night or a weekend.

It is possible that if a more culturally sensitive scale had been developed, the data could have captured parent monitoring processes, knowledge and trust better, reinforcing the importance of developing culturally and linguistically sensitive measures.

The questionnaires that were administered in the present study were in English and all the families that participated were familiar and comfortable with the English language, but the fact that these questionnaires were not translated into the local language, Tamil, could have possibly excluded a section of the middle class population in Chennai from participating in the study and hence eliminated the possibility of finding differences in the various parent variables examined.

Previous research has pointed out the importance of accounting for SES differences in studies of parenting behavior, such as monitoring, because socio-economic level could contribute to differences in the level and expression of certain vital parenting tasks depending on the income level (Crouter and Head, 2002). Most of the families that participated in the present study were from the middle income group. Therefore, the findings need to be interpreted as applicable only to the English-speaking middle class society in Chennai.
Directions for future research

Longitudinal studies of parent beliefs about the period of adolescence and their parenting are necessary to ascertain whether Asian Indian parents hold a more positive view about adolescence than Caucasian parents. India is considered a collectivistic culture with a strong streak of individualism unlike Western societies like the U.S. that are considered individualistic (Sinha & Tripathi, 1994). Replication of this study with a sample of U.S. parents could shed light on the degree to which Asian Indian and U.S. parents share similar and different beliefs about the causes of adolescent behavior, beliefs about their abilities as parents of adolescents and as monitors, and the importance of monitoring. Given that parents’ generalized beliefs influences their beliefs about parenting and their abilities as parents, it would be informative to examine this link for multiple children in the same family to test for differences. Examining this link would help shed light on ‘shared environmental’ factors versus ‘non-shared environmental’ factors such as every child’s temperament that affect parenting.

In the present study, child disclosure represented an important link to trust, but was it the information provided by the child or the child's willingness to share information that was the true link to trust? This question posed by Kerr, Stattin and Trost (1999) warrants future investigation. Another question pertains to the context of trust and communication. While it is reasonable to assume that the information disclosed by the child causes parents to develop some trust, it could also be true that trusting parents behave in a way that makes children feel more comfortable to disclose. While the former contention hints at child
temperament as a possible cause, the latter hints at parent temperament as a cause for parental trust. It becomes necessary to establish the direction of causation in such instances and one possible avenue to explore could be in trying to understand the conditions that cause high disclosure. It is reasonable to assume that the trust adolescents develop in their parents could cause them to disclose more or less. However, it is still unclear what conditions contribute to the development of adolescent trust in their parents. Kerr, Stattin and Trost (1999) suggested that parent reactions to prior adolescent disclosures, and the adolescent’s perception of parental knowledge of their feelings and concerns could contribute to the development of adolescent trust, but this has not been empirically demonstrated yet.

The demonstrated pattern of linkages between the various parent variables in the present study suggest that they can be conceptualized and examined as a path model in future studies and analyzed using statistical techniques such as path analysis. Path analysis is an extension of the regression model and is defined by Ullman (1996) as a technique that, “allows examination of a set of relationships between one or more independent variables, either continuous or discrete, and one or more dependent variables, either continuous or discrete.” It can be used mainly as an attempt to understand comparative strengths of direct and indirect relationships among a set of variables similar to the present study. Path analysis also enables assessment of model fit using goodness of fit indices.
The present study was conducted in Chennai, a southern city, one of the four largest cities in India with middle class families. The middle class priority on education is especially strong in Chennai, where parents and children tend to be highly achievement-oriented and persistent in attaining high educational goals, a fact also reflected in the low levels of adolescent delinquency reported in the present study. While Indian middle class society as a whole values education, geographical location plays an important moderating role in how these values are manifested by parents and their adolescents (Saraswathi, 1999). It is likely that replicating this study in another metropolitan city in India may elicit different findings depending on the middle class culture and values prevalent in that city but the complete lack of such studies in the Asian Indian literature make any such claims speculative. It would also be informative to examine such parent variables in rural contexts and if parents in rural areas face challenges that are similar to educated, English-speaking, urban parents. Previous research has pointed out that in contemporary Indian society, adolescence could be the invention of an industrial and technological society where there is a discontinuity between childhood and adolescence thus making it less salient to rural contexts where the challenges of adolescence are completely subsumed by greater and more critical needs such as livelihood to avoid poverty and hunger (Saraswathi, 1999).

In line with the ‘delayed adolescence’ idea propounded by Saraswathi (1999) that suggests that adolescents in India, especially from middle-class families, refrain from any exploration or experimentation consistent with the
‘storm and stress’ description of adolescence because of the mounting pressures to achieve academic success which causes their search for identity and autonomy to be postponed until they start college, it could be a worthwhile effort to examine the links between parent monitoring, knowledge and trust among older Asian Indian adolescents and those in early adulthood (18-22 years) when the pressure to succeed academically is not as intense.

Conclusion

The present study indicates that positive generalized beliefs about adolescence predict positive expectations for their parenting and higher efficacy for Asian Indian parents both in parenting and monitoring adolescents. Higher parental monitoring efficacy led to higher monitoring in the form of parental solicitation and control, which contributed to parental knowledge about the daily activities of their adolescents with voluntary child disclosure also representing an important source of knowledge. The more parents knew about the daily lives of their adolescents and the more their adolescent voluntarily disclosed information, the more they trusted them.
REFERENCES


APPENDIX A

PRELIMINARY STUDY

Demographic Information

1. What is your gender?
   a. Male  b. Female

2. What is your age?
   a. 30-39 years
   b. 40-49 years
   c. 50-59 years
   d. 60 years and above

3. What is your adolescent’s age?
   a. 13-14 years
   b. 15-16 years
   c. 17-18 years
   d. 18 years and above

4. Which grade is your adolescent in?

5. Identify gender of your adolescent
   a. Male  b. Female
6. Identify your religion
   a. Hindu       b. Muslim        c. Christian       d. Other

   Please specify:

7. What is your educational level?
   a. Less than 10th standard
   b. 12th standard
   c. Bachelors degree
   d. Masters degree
   e. Professional degree (B.E., M.B.B.S., M.B.A.)
   f. Doctoral degree

Parent Beliefs Scale

1. I believe adolescence is a dangerous time for my teenager.

2. I believe adolescence is a time when my teenager is very likely to do the wrong thing.

3. I believe my teenager is very likely to regularly get into trouble now that he/she is an adolescent.

4. I believe my teenager is more responsible now that he/she is an adolescent and no longer a child.

5. I believe I can have a positive influence on my teenager’s well-being.
6. I believe I can keep my teenager on a successful path in life.

7. I believe I cannot keep my teenager from falling into bad company.

8. I believe my teenager will do the right thing because I have taught him/her good values.

9. I believe my teenager’s well-being depends very little on me.

Parent Efficacy Scale

General Parent Efficacy

1. I feel sure of myself as a parent.

2. I am doing a good job as the parent of my teenager.

3. I have all the skills to be a good parent to my teenager.

4. My teenager’s behavior is sometimes more than I can handle.

5. I find it difficult to communicate with my teenager.

6. I am confident I can control my teenager’s behavior.

7. I am confident I can teach my teenager good morals.

8. I was a better parent when my teenager was a child.


9. I find it difficult to handle the constant disagreements between my teenager and me.


10. I am confident that I can solve any problem between my teenager and me.


11. I find it hard to get my teenager to obey me.


12. I am confident I can get my teenager to develop good habits.


13. I am not sure how much is good enough when it comes to providing what my teenager asks me for.


14. I am confident I can keep my teenager from smoking cigarettes.


15. I am usually able to figure out what is bothering my teenager.


16. I am sure I can teach my teenager to be well-behaved.


17. I find it difficult to deal with my teenager’s moods.

18. I am sure I can teach my teenager the value of hard work.

19. I am confident I can keep my teenager from engaging in dangerous behavior.

20. My efforts to be a good parent have little effect on my teenager.

**Parent Efficacy for Monitoring**

21. I find it hard to keep track of what my teenager is doing.

22. I find it difficult to keep a close watch over where my teenager goes.

23. I know who my teenager spends his/her time with.

24. I find it hard to keep track of my teenager’s social life.

25. I know how my teenager is doing at school.

26. It is hard for me to know whether my teenager has completed his/her homework.

27. I find it hard to keep a close watch over how my teenager spends his/her money.
28. I am confident that I usually know what my teenager is doing.

29. I find it hard to ask what my teenager did when he/she went out.

30. I am confident I can get my teenager to tell me about where he/she is going.

31. The hardest part about being a good parent is keeping a close watch over my teenager.
APPENDIX B

MAIN STUDY

Parent version

Demographic Information

1. What is your gender?
   a. Male  b. Female

2. What is your age?
   a. 30-39 years
   b. 40-49 years
   c. 50-59 years
   d. 60 years and above

3. What is your adolescent’s name? -
   __________________________________________

4. What is your adolescent's age?
   a. 13-14 years
   b. 15-16 years
   c. 17-18 years
   d. 18 years and above
5. Which grade is your adolescent in?  

6. Identify gender of your adolescent  
   a. Male       b. Female

7. Identify your religion  
   a. Hindu     b. Muslim     c. Christian     d. Other  
   Please specify:

8. What is your educational level?  
   a. Less than 10th standard  
   b. 12th standard  
   c. Bachelors degree  
   d. Masters degree  
   e. Professional degree (B.E., M.B.B.S., M.B.A.)  
   f. Doctoral degree

9. Are you  
   a. Unemployed     b. Employed part-time   c. Employed full-time

10. If you are employed part-time or full-time, what time do you return home everyday? ____________

11. How much time does your teenager spend alone at home after school before you come back from work everyday?  
   a. He/she does not spend any time alone.  
   b. Less than 1 hour  
   c. 1-2 hours
d. 3-4 hours  
e. Above 4 hours

12. What is your occupation? Circle the appropriate category and specify your occupation below.
   a. Government  
   b. Business  
   c. Agriculture  
   d. Sales/Marketing  
   e. Software-related fields  
   f. Media  
   g. Other
   Please specify: ________________________________

13. What is your family’s annual income?
   a. Less than Rs.50,000  
   b. Rs.50,000 – Rs. 1,25,000  
   c. Rs.1,25,001 – Rs.3,50,000  
   d. Rs.3,50,001 – Rs. 5,00,000  
   e. Rs.5,00,001 – Rs.7,00,000  
   f. Above 7,00,001

A. Parent Beliefs Scale (Revised Parent scale)

1. I believe adolescence is a dangerous time for my teenager.
   a. Strongly agree  
   b. Agree  
   c. Neutral  
   d. Disagree  
   e. Strongly disagree

2. I believe adolescence is a time when my teenager is very likely to do the
wrong thing.


3. I believe my teenager is very likely to regularly get into trouble now that he/she is an adolescent.


4. I believe I can have a positive influence on my teenager’s well-being.


5. I believe I can keep my teenager on a successful path in life.


6. I believe my teenager will do the right thing because I have taught him/her good values.


B. Parent Efficacy Scale (Revised Parent scale)

1. I feel sure of myself as a parent.


2. I am doing a good job as the parent of my teenager.


3. I have all the skills to be a good parent to my teenager.


4. I am confident I can control my teenager’s behavior.


5. I am confident I can teach my teenager good morals.

6. I am confident I can get my teenager to develop good habits.
7. I am sure I can teach my teenager to be well-behaved.
8. I am sure I can teach my teenager the value of hard work.
9. I find it hard to keep track of what my teenager is doing.
10. I find it difficult to keep a close watch over where my teenager goes.
11. I know who my teenager spends his/her time with.
12. I find it hard to keep track of my teenager’s social life.
13. I know how my teenager is doing at school.
14. It is hard for me to know whether my teenager has completed his/her homework.
15. I find it hard to keep a close watch over how my teenager spends his/her money.
16. I find it hard to ask what my teenager did when he/she went out.
17. My teenager’s behavior problems are often due to the mistakes I make.

18. I find it difficult to communicate with my teenager.

19. I find it difficult to handle the constant disagreements between my teenager and me.

20. I am confident that I usually know what my teenager is doing.

21. I am confident I can get my teenager to tell me about where he/she is going.

C. PARENT MONITORING SCALE (KERR & STATTN, 2000)

Parent reports of child disclosure of information

1. Does your adolescent talk at home about how he/she is doing in the different subjects in school?
   a. tell almost everything
   b. tell a lot
   c. tell some things
   d. keep a lot to myself
   e. keep almost everything to myself

2. Does your adolescent usually tell you how school was when he/she gets home (how he/she did on different exams, relationships with teachers, etc.)?
   a. very often
   b. rather often
   c. now and then
   d. seldom
3. Does your adolescent keep much of what he/she does in his/her free
time secret from you?
   a. very much
   b. rather much
   c. some parts
   d. just a little
   e. nothing at all

4. Does your adolescent hide a lot from you about what he/she does during
nights and weekends?
   a. very much
   b. rather much
   c. some parts
   d. just a little
   e. nothing at all

5. If your adolescent was out at night, when he/she gets home, does he/she
tell you what he/she did that evening?
   a. most of the time
   b. often
   c. sometimes
   d. more seldom
   e. almost never

Parent Solicitation

1. In the last month, have you talked with the parents of your adolescent’s
friends?
   a. Several times a week
   b. At least once a week
   c. A few times this month
   d. Once or twice this month
   e. No

2. How often do you talk with your adolescent’s friends when they come to
your home (ask what they do or what they think and feel about different
things)?
   a. Almost always
   b. Often
   c. Sometimes
   d. Seldom
   e. Almost never
   f.
3. During the past month, how often have you started a conversation with your adolescent about his/her free time?
   a. Several times a week
   b. At least once a week
   c. A few times this month
   d. Once or twice this month
   e. Not at all this month

4. How often do you initiate a conversation with your adolescent about things that happened during a normal day at his/her school?
   a. a lot
   b. often
   c. occasionally
   d. seldom
   e. almost never

5. Do you usually ask your adolescent to talk about things that happened during his/her free time (whom he/she met when out in the city, free time activities, etc.)?
   a. a lot
   b. fairly often
   c. occasionally
   d. seldom
   e. almost never

**Parent Control**

1. Does your adolescent need to have your permission to stay out late on a weekday evening?
   a. yes, always
   b. yes, usually
   c. yes, sometimes
   d. no, seldom
   e. no, never

2. Does your adolescent need to ask you before he/she can decide with friends what to do on a Saturday evening?
   a. yes, always
   b. yes, usually
   c. yes, sometimes
   d. no, seldom
   e. no, never

3. If your adolescent has been out very late one night, do you require your adolescent to explain what he/she did and whom he/she was with?
4. Do you always require that your adolescent tell you where he/she is at night, who he/she is with, and what they do together?
   a. yes, always
   b. yes, usually
   c. yes, sometimes
   d. no, seldom
   e. no, never

5. Before your adolescent goes out on a Saturday night, do you require your adolescent to tell you where he/she is going and with whom?
   a. yes, always
   b. yes, usually
   c. yes, sometimes
   d. no, seldom
   e. no, never

D. Parent Knowledge Scales (Kerr et al., 1999)

Parents’ Knowledge of adolescent daily activities

1. Do you know what your adolescent does during his/her free time?
   a. almost always
   b. usually
   c. it depends
   d. seldom
   e. never

2. Do you know which friends your adolescent hangs out with during his/her free time?
   a. know all of them
   b. know most of them
   c. know some of them
   d. know only a few
   e. know none of them

3. Do you usually know what type of homework your adolescent has?
   a. almost always
   b. usually
   c. it varies
4. Do you know what your adolescent spends his/her money on?
   a. almost always
   b. usually
   c. it varies
   d. seldom
   e. never

5. Do you usually know when your adolescent has an exam or paper due at school?
   a. almost always
   b. usually
   c. it varies
   d. seldom
   e. never

6. Do you know how your adolescent does in different subjects at school?
   a. yes, completely
   b. yes, the majority
   c. yes, partly
   d. no, very little
   e. no, nothing

7. Do you know where your adolescent goes when he/she is out with friends at night?
   a. yes, always
   b. yes, usually
   c. sometimes
   d. no, not often
   e. no, never

8. Do you normally know where your adolescent goes and what he/she does after school?
   a. yes, everything
   b. yes, mostly
   c. partly
   d. no, very little
   e. no, nothing

9. In the last month, have you ever had no idea of where your adolescent was at night?
   a. never
b. a few rare times
c. several times
d. many times
e. most of the time

Parent reports of their adolescents’ prior delinquency

1. Do you know if your adolescent has committed shoplifting?
   a. No, it’s never happened
   b. Yes, once
   c. Yes, several times

2. Do you know if your adolescent has been in trouble with the police?
   a. No, it’s never happened
   b. Yes, once
   c. Yes, several times

3. Do you know if your adolescent has vandalized public or private property?
   a. No, it’s never happened
   b. Yes, once
   c. Yes, several times

4. Do you know if your adolescent stole money from home?
   a. No, it’s never happened
   b. Yes, once
   c. Yes, several times

5. Do you know if your adolescent broke into any building?
   a. No, it’s never happened
   b. Yes, once
   c. Yes, several times

6. Do you know if your adolescent bought or sold stolen goods?
   a. No, it’s never happened
   b. Yes, once
   c. Yes, several times

7. Do you know if your adolescent was involved with a stolen cycle, moped, motorcycle or car?
   a. No, it’s never happened
   b. Yes, once
   c. Yes, several times
   d. 
8. Do you know if your adolescent was in a fight in public?
   a. No, it's never happened
   b. Yes, once
   c. Yes, several times

Parent knowledge of adolescent's feelings and concerns

1. Does your adolescent often tell you how he/she really feels about things?
   a. Almost never
   b. Seldom
   c. It depends
   d. Usually
   e. Quite frequently

2. When your adolescent is worried about something, does he/she often talk to you about it?
   a. Almost never
   b. Seldom
   c. It depends
   d. Usually
   e. Quite frequently

3. Does your adolescent talk to you about intimate matters?
   a. Almost never
   b. Seldom
   c. It depends
   d. Usually
   e. Quite frequently

4. Does your adolescent talk to you about things that are really important to him/her?
   a. Almost never
   b. Seldom
   c. It depends
   d. Usually
   e. Quite frequently

5. Do you know who your adolescent really is inside?
   a. Almost never
   b. Seldom
   c. It depends
   d. Usually
   e. Quite frequently

6. If something is bothering your adolescent, does he/she tell you about it?
   a. Almost never
b. Seldom
c. It depends
d. Usually
e. Quite frequently

7. Concerning most things, does your adolescent talk to you as freely as he/she talks to his/her friends?
   a. Almost never
   b. Seldom
   c. It depends
   d. Usually
   e. Quite frequently

8. If something happens that your adolescent is embarrassed about, is he/she afraid to tell you about it?
   a. Almost never
   b. Seldom
   c. It depends
   d. Usually
   e. Quite frequently

E. Parent Trust Scale (Kerr et al., 1999)

Parental trust

1. Do you trust that your adolescent will not hang out with bad people?
   1. yes, completely
   2. yes, pretty much
   3. yes, but only partly
   4. no, very little
   5. no, absolutely not

2. Do you trust that your adolescent will be careful with your money?
   a. yes, completely
   b. yes, pretty much
   c. yes, but only partly
   d. no, very little
   e. no, absolutely not

3. Do you completely trust your adolescent to take responsibility for his/her life?
   a. yes, completely
   b. yes, pretty much
   c. yes, but only partly
   d. no, very little
   e. no, absolutely not
4. Do you trust that your adolescent will try his/her best in school?
   a. yes, completely
   b. yes, pretty much
   c. yes, but only partly
   d. no, very little
   e. no, absolutely not

5. Do you trust that your adolescent will not do anything dumb during his/her free time?
   a. yes, completely
   b. yes, pretty much
   c. yes, but only partly
   d. no, very little
   e. no, absolutely not

6. Do you trust that what your adolescent says he/she is going to do on a Saturday night is true?
   a. yes, completely
   b. yes, pretty much
   c. yes, but only partly
   d. no, very little
   e. no, absolutely not
Adolescent version

Demographic Information

1. What is your gender?
   a. Male       b. Female

2. What is your age?
   a. 13-14 years
   b. 14-15 years
   c. 16-17 years
   d. 17-18 years

3. Which grade are you in?

4. Which school do you study in?
   __________________________________________

4. How much time do you spend alone at home after school before your parents come back from work everyday?
   a. I do not spend any time alone.
   b. Less than 1 hour
   c. 1-2 hours
   d. 3-4 hours
   e. Above 4 hours
5. You are
   a. First child
   b. Second child
   c. Third child
   d. Other
   Please specify: ______________________

6. How many siblings do you have?
   a. None   b. One   c. Two   d. More than 2

7. Specify the gender of your sibling(s): ______________________

8. Specify the age of your sibling(s): ________________________

Adolescent perceptions of parents’ knowledge of daily adolescent activities

1. Do your parents know what you do during your free time?
   a. almost always
   b. usually
   c. it depends
   d. seldom
   e. never

2. Do your parents know which friends you hang out with during your free time?
   a. know all of them
   b. know most of them
   c. know some of them
   d. know only a few
   e. know none of them

3. Do your parents usually know what type of homework you have?
   a. almost always
   b. usually
   c. it varies
   d. seldom
   e. never
4. Do your parents know what you spend your money on?
   a. almost always
   b. usually
   c. it varies
   d. seldom
   e. never

5. Do your parents usually know when you have an exam or paper due at school?
   a. almost always
   b. usually
   c. it varies
   d. seldom
   e. never

6. Do your parents know how you do in different subjects at school?
   a. yes, completely
   b. yes, the majority
   c. yes, partly
   d. no, very little
   e. no, nothing

7. Do your parents know where you go when you are out with friends at night?
   a. yes, always
   b. yes, usually
   c. sometimes
   d. no, not often
   e. no, never

8. Do your parents normally know where you go and what you do after school?
   a. yes, everything
   b. yes, mostly
   c. partly
   d. no, very little
   e. no, nothing

9. In the last month, have your parents ever had no idea of where you were at night?
   a. never
   b. a few rare times
   c. several times
Adolescent self-report of disclosure of information

10. Do you talk at home about how you are doing in the different subjects in school?
   a. tell almost everything
   b. tell a lot
   c. tell some things
   d. keep a lot to myself
   e. keep almost everything to myself

11. Do you usually tell how school was when you get home (how you did on different exams, your relationships with teachers, etc.)?
   a. very often
   b. rather often
   c. now and then
   d. seldom
   e. almost never

12. Do you keep much of what you do in your free time secret from your parents?
   a. very much
   b. rather much
   c. some parts
   d. just a little
   e. nothing at all

13. Do you hide a lot from your parents about what you do during nights and weekends?
   a. very much
   b. rather much
   c. some parts
   d. just a little
   e. nothing at all

14. If you are out at night, when you get home, do you tell what you have done that evening?
   a. most of the time
   b. often
   c. sometimes
   d. more seldom
   e. almost never
Adolescent perceptions of parent solicitation

15. In the last month, have your parents talked with the parents of your friends?
   a. Several times a week
   b. At least once a week
   c. A few times this month
   d. Once or twice this month
   e. No

16. How often do your parents talk with your friends when they come to your home (ask what they do or what they think and feel about different things)?
   a. Almost always
   b. Often
   c. Sometimes
   d. Seldom
   e. Almost never

17. During the past month, how often have your parents started a conversation with you about your free time?
   a. Several times a week
   b. At least once a week
   c. A few times this month
   d. Once or twice this month
   e. Not at all this month

18. How often do your parents initiate a conversation about things that happened during a normal day at school?
   a. a lot
   b. often
   c. occasionally
   d. seldom
   e. almost never

19. Do your parents usually ask you to talk about things that happened during your free time (whom you met when you were out in the city, free time activities, etc.)?
   a. a lot
   b. fairly often
   c. occasionally
   d. seldom
   e. almost never
Adolescent perceptions of parent control

20. Do you need to have your parents’ permission to stay out late on a weekday evening?
   a. yes, always
   b. yes, usually
   c. yes, sometimes
   d. no, seldom
   e. no, never

21. Do you need to ask your parents before you can decide with your friends what you will do on a Saturday evening?
   a. yes, always
   b. yes, usually
   c. yes, sometimes
   d. no, seldom
   e. no, never

22. If you have been out very late one night, do your parents require that you explain what you did and whom you were with?
   a. yes, always
   b. yes, usually
   c. yes, sometimes
   d. no, seldom
   e. no, never

23. Do your parents always require that you tell them where you are at night, who you are with, and what you do together?
   a. yes, always
   b. yes, usually
   c. yes, sometimes
   d. no, seldom
   e. no, never

24. Before you go out on a Saturday night, do your parents require you to tell them where you are going and with whom?
   a. yes, always
   b. yes, usually
   c. yes, sometimes
   d. no, seldom
   e. no, never

Adolescent self-report of prior delinquency

25. Have you committed shoplifting?
   a. No, it’s never happened
b. Yes, once  
c. Yes, several times

26. Have you been in trouble with the police?  
a. No, it’s never happened  
b. Yes, once  
c. Yes, several times

27. Have you vandalized public or private property?  
a. No, it’s never happened  
b. Yes, once  
c. Yes, several times

28. Have you stolen money from home?  
a. No, it’s never happened  
b. Yes, once  
c. Yes, several times

29. Have you broken into any building?  
a. No, it’s never happened  
b. Yes, once  
c. Yes, several times

30. Have you bought or sold stolen goods?  
a. No, it’s never happened  
b. Yes, once  
c. Yes, several times

31. Have you been involved with a stolen cycle, moped, motorcycle or car?  
a. No, it’s never happened  
b. Yes, once  
c. Yes, several times

32. Have you been in a fight in public?  
a. No, it’s never happened  
b. Yes, once  
c. Yes, several times

Adolescent perception of parental knowledge of adolescent feelings and concerns

33. Do you often tell your mother or father how you really feel about things?  
a. Almost never  
b. Seldom  
c. It depends  
d. Usually
34. When you are worried about something, do you often talk to one of your parents about it?
   a. Almost never
   b. Seldom
   c. It depends
   d. Usually
   e. Quite frequently

35. Do you talk to your mother or father about intimate matters?
   a. Almost never
   b. Seldom
   c. It depends
   d. Usually
   e. Quite frequently

36. Do you talk to your parents about things that are really important to you?
   a. Almost never
   b. Seldom
   c. It depends
   d. Usually
   e. Quite frequently

37. Do your parents know who you really are inside?
   a. Almost never
   b. Seldom
   c. It depends
   d. Usually
   e. Quite frequently

38. If something is bothering you, do you tell your parents about it?
   a. Almost never
   b. Seldom
   c. It depends
   d. Usually
   e. Quite frequently

39. Concerning most things, do you talk to your parents as freely as you talk to your friends?
   a. Almost never
   b. Seldom
   c. It depends
   d. Usually
   e. Quite frequently
40. If something happens that you are embarrassed about, are you afraid to tell your parents about it?
   a. Almost never
   b. Seldom
   c. It depends
   d. Usually
   e. Quite frequently

Adolescent perceptions of parent trust

41. Do your parents trust that you will not hang out with bad people?
   a. yes, completely
   b. yes, pretty much
   c. yes, but only partly
   d. no, very little
   e. no, absolutely not

42. Do your parents trust that you will be careful with your money?
   a. yes, completely
   b. yes, pretty much
   c. yes, but only partly
   d. no, very little
   e. no, absolutely not

43. Do your parents completely trust you to take responsibility for your life?
   a. yes, completely
   b. yes, pretty much
   c. yes, but only partly
   d. no, very little
   e. no, absolutely not

44. Do your parents trust that you will try your best in school?
   a. yes, completely
   b. yes, pretty much
   c. yes, but only partly
   d. no, very little
   e. no, absolutely not

45. Do your parents trust that you will not do anything dumb during your free time?
   a. yes, completely
   b. yes, pretty much
   c. yes, but only partly
   d. no, very little
   e. no, absolutely not
46. Do your parents trust that what you say you are going to do on a Saturday night is true?
   a. yes, completely
   b. yes, pretty much
   c. yes, but only partly
   d. no, very little
   e. no, absolutely not