Parenting Dimensions and Adolescent Sharing and Concealment

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A Closer Look at Parental Monitoring: Adolescent Disclosure and Concealment

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A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Master of Science

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ABSTRACT

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Given potential risk factors in the lives of adolescents, parents are usually motivated to monitor and protect their adolescents. There is a need to better understand what combinations of parental dimensions and practice best influence an adolescent’s propensity to disclose or conceal personal information with their parents. This paper examines how parenting dimensions (warmth, psychological control, and harsh punishment) and the parenting practice of solicitation influence an adolescent’s propensity to disclose or conceal information. Adolescents in 106 families (53 females; predominantly Caucasian) reported on their mothers’ and fathers’ parenting dimensions as well as their parents’ effort to solicit information. Factor analysis was conducted on the measure typically used for disclosure to test whether the items measured only disclosure or if two distinct adolescent outcomes of disclosure and concealment were more appropriate. Results supported our contention that disclosure and concealment might be considered separately. Other results indicated a positive association between adolescents’ disclosure and the positive parenting dimension warmth and parental solicitation. There was a negative association between disclosure and harsh punishment in the father-son dyad. Psychological control was positively associated with concealment for both adolescent boys and girls. With a few exceptions, same gendered dyads (father-son, mother-daughter) showed the most associations between parenting dimensions and practices and disclosure or concealment.

Keywords: adolescent disclosure, adolescent concealment, parenting dimensions, warmth, harsh punishment, psychological control
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Chapter 1: Introduction

The last two decades have seen considerable interest in the parent-adolescent relationship. Adolescence is an important area of study as both physical and emotional maturation brings about significant changes in the parent-adolescent relationship (Paikoff & Brooks-Gunn, 1990). Accordingly, adolescence is a time of transition. Adolescents have become capable of many adult activities and yet they still require the assistance of parents to be successful. Therefore, parents may also need to transition their parenting to accommodate the changes in their adolescent. In particular, the parent-adolescent relationship ideally should move from a vertical relationship to a more horizontal relationship. Parents’ responses to their adolescent may largely depend on their parenting style. Whereas permissive parents tend to relinquish more control with adolescents, authoritarian parents may try to tighten their control as adolescents strive for more independence and autonomy. Authoritative parents, in contrast, seek a balance between adolescent independence and responsibility.

Parents generally view the time of adolescence with trepidation. In particular, delinquency, peer-pressure, drugs and low-self-esteem all loom as potential issues which might complicate the adolescent’s life. In parents’ efforts to increase positive behavior in adolescents and to decrease negative behavior, they are encouraged to monitor their adolescents’ behavior (Sampson & Luab, 1994; Flannery, Vazsonyi, Toquati, & Fridrich, 1994). Indeed, poorly monitored adolescents tend to engage in more antisocial, delinquent and criminal behavior (Sampson & Luab, 1994; Weintraub & Gold, 1991). Inadequate monitoring has also been associated with illegal substance abuse (Crouter, Bumpus, Davies, & McHale, 2005; Flannery, Vazsonyi, Toquati, & Fridrich, 1994) along with risky sexual behavior (Metzler, Noell, Biglan,
Ary, & Smolkowski, 1994). Conversely, adolescents who are tightly controlled also have been shown to have poor outcomes (Hart, Newell, & Olsen, 2003).

Traditionally, parental monitoring has been thought of as keeping a close eye on the activities/behaviors of the adolescent, where they are going, and with whom they associate. Monitoring is conceptualized as “a set of correlated parenting behaviors involving attention to and tracking of the child’s whereabouts, activities, and adaptations” (Dishion & McMahon, 1998, p. 61) and can be viewed as part of the active role in which parents engage.

Most monitoring measures ask if the parents know about their adolescent’s activities, friends, spending habits, and so forth. As Kerr and Stattin (2000) suggest, while most conceptualizations of monitoring indicate parental action, the commonly used measures simply address parental knowledge. Only a very few studies have included the parental activity of seeking information from the adolescent (or his friends) through active questioning (parental solicitation) or imposing rules that limit/control the adolescent’s behavior so they are restricted to only those activities of which the parent is aware (parental behavioral control) (Fletcher, Steinberg, & Williams-Wheeler, 2004; Soenens, Vansteenkiste, Luyckx & Goossens, 2006; Stattin & Kerr, 2000).

Furthermore, these few studies along with other evidence suggest that parental knowledge may be obtained with minimal effort (solicitation and behavioral control) on the part of parents. In particular, Stattin and Kerr (2000) found that adolescent disclosure, wherein the adolescent divulges information without parental prompting, is the most strongly correlated with adolescent adjustment. Furthermore, parents exerting higher levels of behavioral control had better adolescent outcomes only if their adolescents did not feel controlled. Because of these findings, Stattin and Kerr suggest that parents may play a more minimal role than is otherwise
suspected in adolescent disclosure and adjustment (i.e., adolescents are primarily in charge, not their parents).

Addressing this confusing stance, Soenens and colleagues (2006) have responded that parents nonetheless play a central role in deterring maladjustment in adolescent children. In particular, they have argued that adolescent disclosure is likely promoted by parenting practices which promote greater connection (high responsiveness and high behavioral control, lower levels of psychological control). Their data confirm this, and also show a direct connection between these parenting strategies and degree of parental knowledge (as well as indirect connections through adolescent disclosure).

Unfortunately, active parental solicitation has been addressed in current literature in a variety of ways that results in inconsistency. Fletcher, Steinberg, and Williams-Wheeler’s work examines parental solicitation but not in relationship to disclosure. Soenens and colleagues’ (2006) study includes parental solicitation but it is combined with a behavioral measure. Consequently, the influence of pure parental solicitation is not evaluated in Soenens’ work. Stattin and Kerr (2000) also use parental solicitation and evaluate its effect on disclosure. However, they do not include parenting dimensions that may also be adding to adolescent disclosure.

Work is needed to discover not only what kinds of parenting consistently relate to more adolescent disclosure or concealment but also how this effect is manifest across the various parent-child gender dyads (i.e. mother-daughter, mother-son, father-son and father-daughter). In addition, the connections between parenting dimensions and parental solicitation deserve further examination. Parental solicitation likely mediates the connection between parenting strategies and adolescent disclosure, at least for parents who engage in responsive parenting. Thus, this
study explores parental warmth, harsh parenting (excessive behavioral control) and psychological control in this regard. It is likely that harsh parenting limits disclosure and that psychological control may increase concealment.

Another glaring gap in the literature is the analysis of disclosure. The adolescent disclosure scale used in the above studies is composed of three disclosure items aligned with two concealment items (with the latter having been reverse-coded). It seems questionable to assume that disclosure and concealment are simply opposite sides of the same coin. Accordingly, treating disclosure and concealment as merely the flip side of each may undermine our ability to discover connections between parenting dimensions and disclosure and concealment. Analysis is needed to understand if disclosure should be measured as it has been or if disclosure and concealment are more appropriately treated as two distinct categories.

An adolescent may not voluntarily disclose information, but that may not signify active concealment (particularly if the parents are not geared to solicit information). Correlational and factor analysis will be used to better delineate the association between indicators of disclosure and concealment. In addition, most adolescent concealment literature deals with the burdens of concealment and the type of information adolescents conceal (Finkenauer & Hazem, 2000) rather than the parenting dimensions associated with this tendency in adolescents. In summary, seeking a better understanding of adolescent disclosure and concealment, as they relate to various parenting dimensions and parental solicitation, is the focus of this paper.
Chapter 2: Review of Literature

Parenting

As discussed in the introduction, one contributing factor to an adolescent’s development is the influence of his or her parents. This paper examines particular parenting dimensions and how they contribute to the overall tendency of adolescents to disclose or conceal information in their interactions with their parents. Parents differ in their skills, mental abilities, and levels of affection (Baumrind, 1989). This section will discuss the historical conceptualizations of parenting and the associations between parenting styles and practices. In addition, previous research regarding parenting and adolescents’ tendencies to disclose or conceal personal information with their parents will be explored in greater detail.

Historical Context

Records of parenting and family life date back to early civilizations (French, 2002), but not until the last century have scientific studies of parenting been initiated by researchers. Since the inception of such studies, dimensional and typological approaches have been often used to identify parenting socialization practices (Hart, Newell, & Olsen, 2003). Baumrind (1971) noted that parenting styles can fall along the two orthogonal dimensions of control and responsiveness. Parenting styles were placed into at least three qualitatively different categories: authoritarian, permissive, and authoritative parenting (Darling & Steinberg, 1993).

Maccoby and Martin (1983) furthered elaborated upon Baumrind’s ideas, proposing that the two dimensions of parental responsiveness and parental demandingness (control) might be used to conceptualize four distinct parenting styles: (a) authoritative, which combines high levels of behavioral control, high levels of warmth, and developmentally appropriate amounts of
autonomy; (b) authoritarian, which joins high levels of behavioral control, lower levels of warmth, and less autonomy; (c) permissive, which includes low levels of behavioral control and high levels of warmth and autonomy, and (d) neglectful, which combines low levels of behavioral control and warmth with high levels of autonomy. The first three of Baumrind’s parenting styles have received the lion’s share of empirical attention and are typically discussed. However, research on parental monitoring analyzes parenting dimensions and practices and their influence on adolescent disclosure. Therefore, it is consistent with past literature to focus on specific dimensions of the above parenting styles. Accordingly, we will not discuss Baumrind’s parenting styles in greater detail, but instead address particular parenting dimensions and practices in depth.

**Parenting Dimensions**

**Warmth**

Connection, sometimes called support or warmth, creates a consistent positive emotional bond with caregivers that endures over time (Barber & Olsen, 1997). Connection is an outgrowth of sensitive caregiving and secure attachment (Stevenson-Hinde & Verschueren, 2002). Secure attachment, by extension, is widely considered a critical component for successful future development and successful future relationships. This positive parenting dimension of warmth is one of the factors that will be addressed in the analysis below. Specifically, the present research analyzes the connection between parental warmth and parental solicitation and adolescent disclosure or concealment. It is anticipated that warm parenting will correlate with greater parental solicitation efforts, greater encouragement of adolescent disclosure, and will leave adolescents no reason to engage in active concealment.
Harsh Punishment

Parents who engage in harsh punishment exert a significant amount of behavioral control which is often reflected by strict, harsh and often arbitrary discipline. Harshness is often reflected by frequent engagement in power-assertive parenting practices such as verbal hostility, corporal punishment, punitive discipline strategies, directiveness, and rigidity. Parental use of unqualified power assertion such as commands, threats or physical force creates an environment that conflicts with children’s proper internalization of control (Hoffman, 1960). This type of power assertion, as compared with voluntary internalized motivation, has detrimental effects. Opposition tendencies and hostility are the expected result when children feel their wants and autonomy are not being considered by the parents (Hoffman, 1960). Furthermore this external coercive pressure, while maintaining immediate control, does not help a child reason through the situation nor internalize control (Hoffman, 1960).

Harsh punishment is generally associated with maladjustment (Baumrind, 2005) and produces more hostility and negative effect in adolescents (Baumrind, 2005; Hart, Olsen, Robinson, & Mandleco, 1997). Harsh parents often perceive their style to be effective as it may yield the immediate result of compliance. However, the long-term result for the adolescent may include reduced ability to self-regulate (Hart, Newell, & Olsen, 2003) and an increase in externalizing (Ho, Bluestein, & Jenkins, 2008) and internalizing behaviors. The present research analyzes the connection between harsh parenting and parental solicitation and adolescent disclosure or concealment. This parenting dimension is especially detrimental for adolescents when independence and separation are increasingly more critical for the adolescent’s development. Harsh punishment is an inappropriate use of behavioral control and would therefore be less likely to encourage adolescent disclosure and possibly encourage concealment.
In this study, it is also anticipated that harsh punishment might be associated with greater attempts at parental solicitation (as controlling parents seek control through a variety of means), even though these solicitation efforts are likely to be ineffective.

**Psychological Control**

Control is often conceptualized as behavioral in nature. In other words, behavioral control describes the parents’ efforts to manage the adolescent’s behavior. In recent years, however, the definition of control has been extended to incorporate what is referred to as psychological control. Historically, however, psychological control has received little direct attention and only recently has it been effectively contrasted with behavioral control. Psychological control has been described as “control that constraints, invalidates and manipulates children’s psychological and emotional experience and expression” (Barber, 1996, p. 3296). This type of control uses strategies such as shame, isolation, love withdrawal, and guilt induction (Barber, 1996). It is about manipulating a child or adolescent’s psychological autonomy rather than their behavioral autonomy. Accordingly, psychological control is distinguished from behavioral control in both practice and adolescent outcome.

Specifically, parents may balance the use of regulatory behavioral control and autonomy granting to optimally influence adolescent behavior. Appropriate levels of behavioral control are associated with academic achievement and higher levels of self-esteem (Bean, Bush, McKenry & Wilson, 2003). On the other hand, absence of appropriate behavioral control is a risk factor for adolescents (Barber, 1996). Psychological control, in contrast, is theorized to have no ideal or appropriate level in promoting adolescent competence (Barber, 1996), but is considered uniformly negative (and therefore to be entirely avoided in parenting). Indeed, studies appear to
find consistent negative outcomes associated with the parental practice of psychological control. For example, it has been associated with externalizing behavior (Nelson, et al., 2006) and lower self-confidence and increased depressed mood (Conger, Conger, & Scaramella, 1997).

This seeming contradiction of child or adolescent outcome in the practice of these two variants of control is noted by Steinberg. "Some readers may find it inconsistent, or perhaps confusing, that the two forms of control [psychological and behavioral] appear to have opposite effects on the adolescent . . . Adolescents appear to be adversely affected by psychological control—the absence of ‘psychological autonomy’—but positively influenced by appropriate behavioral control—the presence of ‘demandingness’ "(Steinberg, 1990, p.6). The connection between psychological control and parental solicitation and adolescent disclosure and concealment is evaluated in the present research. Soenens and colleagues (2006) have shown psychological control to be predictive of lower levels of adolescent disclosure and parental knowledge. In this study, it is anticipated that psychological control, like harsh parenting, will be associated with more parental solicitation efforts, less adolescent disclosure, and more active concealment.

**Monitoring**

The need for parental or adult monitoring in an adolescent’s life seems to be undisputed (Laird, Petite, Dodge & Bates, 2003). As mentioned earlier, appropriate parental monitoring is associated with positive adolescent outcomes, whereas poorly monitored adolescents have struggles. The research by Stattin and Kerr (2000) has highlighted the evidence that, while the traditional conceptualization of monitoring indicates behavioral control, the commonly used measures simply address parental knowledge. As such, these assessment tools do not explore the specific means by which parents monitor and acquire information about their adolescents’
behavior. Adding clarity to research conceptualizations of this topic, Stattin and Kerr suggest that parental knowledge can be gained through three distinct parenting or adolescent behavioral factors (i.e., parental solicitation, parental behavioral control, adolescent disclosure). Despite this clarification and contribution to the literature (Stattin & Kerr, 2000; Kerr & Stattin, 2000), very little research has subsequently examined the specific nature of each of the three factors and the individual and familial variables that are associated with each one (c.f. Hayes, Hudson & Matthews, 2003; Soenens, Vansteenkiste, Luyckx & Goossens, 2006).

Kerr and Stattin’s (2000) work highlights the importance of adolescent disclosure, a case where parental knowledge may be passively obtained without parental tracking or solicitation (simply based on the adolescent’s willingness to spontaneously disclose). Moreover, Kerr and Statin (2000) found that adolescent disclosure showed the strongest correlations with adjustment, as compared to parental solicitation or behavioral control strategies.

Kerr and Statin (2000) also noted in their study that, “Creating a family climate that fosters good communication and openness on the child’s part is clearly important, but the developmental literature does not tell us what factors cause children to share their experiences with parents” (p. 378). Accordingly, other researchers have begun to explore possible parenting dimensions that might promote or otherwise undermine adolescent disclosure. In particular, research by Soenens and colleges (2006) shows that parental knowledge is not only related to child disclosure but also to parental responsiveness and appropriate behavioral control. Their findings are consistent with past research suggesting the importance of child disclosure and positive parenting dimensions as means by which parents gain their knowledge of children’s behavior (Crouter & Head, 2002; Stattin & Kerr, 2000; Waizenhofer, Buchanan, & Jacson-Newsom, 2004). In contrast, psychological control was negatively associated with parental
knowledge and child disclosure, suggesting that negative parenting is at best unhelpful in the monitoring efforts of parents. As noted earlier, the associations between harsh punishment and parental solicitation as well as adolescent disclosure have not yet been addressed in research.

In like manner, research on adolescent concealment and parenting dimensions is nearly non-existent. Frijns and colleagues (2005) found concealment to be negatively related to adolescent-perceived parental trust and support. Finkenauer and colleagues (2005) also found that when parents perceive adolescent concealment they are more likely to engage in poorer parenting behaviors. Understanding the association between a variety of parenting dimensions and adolescent concealment (in addition to disclosure) would clarify and add to the present literature.

**Parent Solicitation**

As noted earlier, the positive parenting dimension of warmth (i.e., support or responsiveness) has been associated with higher levels of adolescent disclosure (Fletcher, Steinberg, & Williams-Wheeler, 2004; Soenens Vansteenkiste, Luyckx & Goossens, 2006; Stattin & Kerr, 2000). Soenens and colleagues (2006) have also shown that both behavioral and psychological control predict greater parental knowledge but not greater adolescent disclosure. However, the additional parenting practice of active parental solicitation has been inconsistently addressed in current literature. Fletcher and colleague’s work looks at parental solicitation but not in relationship to adolescent disclosure. Soenens’s research includes parental solicitation but it is combined with a behavioral measure. Consequently, the independent influence of parental solicitation is not evaluated in Soenens’s work. Stattin and Kerr also use parental solicitation and evaluate its effect on disclosure. However, they do not include parenting dimensions that may also be adding to adolescent disclosure.
It is parental solicitation, when combined with positive parenting dimensions such as warmth that may increase an adolescent’s desire to disclose. Adolescents also can distinguish between what a parent knows and when a parent is making an effort to know, despite actual knowledge. Parental solicitation may encourage disclosure for a couple of reasons. First, parenting practices may influence how adolescents think about disclosure. For example, warm, supportive parenting practices may create a parent-child relationship wherein communication is easy and the adolescent consistently desires connection. This kind of relationship also predates adolescence—a child who is consistently encouraged to talk with a parent may form a habit of communication that lasts into adolescence. Additionally, positive parenting may buffer the child against tendencies to withdraw and participate in less communication. In short, positive parenting practices facilitates a climate that encourages disclosure.

In addition to encouraging disclosure, parental solicitation may have an influence on adolescent concealment. A parent’s effort to solicit information (whether or not they are successful) may buffer against adolescent tendencies to conceal since proper communication may facilitate a sense of trust between parent and child. However, this effort on the parents’ part must be perceived by the adolescent as appropriate. As Kerr and Stattin (2000) noted, “Because feelings of being controlled accompany higher levels of parental control, the practical consideration for parents might be finding a way to control without producing feelings of being controlled” (p. 377). Many studies also support the link between negative parenting dimensions (psychological control and harsh punishment) and poor child outcomes (Steinberg, Blatt-Eisengart & Cauffman, 2006). Accordingly, it would not be unexpected that negative parenting dimensions may increase the adolescent’s tenancy to conceal. Opposite of optimal parental
warmth, negative parenting dimensions typically communicate distrust and hostility that may undermine disclosure and prompt adolescent distance that might lead to concealment efforts.

Concealment

The foregoing discussion of parental monitoring makes clear that adolescent disclosure and concealment are directly related to parental knowledge, which is a primary focus of parental monitoring efforts. Previous research also suggests that adolescent disclosure and concealment may be uniquely considered in terms of their parenting correlates and adolescent outcomes. To begin with, concealment is common in many relationships and parent-adolescent relationships are no exception. For various reasons, adolescents may intentionally withhold information from their parents (Finkenauer & Hazem, 2000). Used as a means of controlling one’s environment, concealment may be used by adolescents to avoid subjects that may cause contention, criticism or correction from their parents (Guerrero & Afifi, 1995). Consequently, adolescents who perceive their parents as unsupportive, psychologically controlling or harsh may be more likely to conceal and, conversely, be less likely to disclose.

Although concealment may have an upside, in that it may add to an adolescent’s feeling of autonomy (Finkenauer et al., 2005), it is most generally associated with psychological disadvantages for the secret-keeper (Frijns, Finkenauer, Vermulst & Engels, 2005). Concealment is associated with lower levels of self control and higher levels of behavioral and psychosocial problems (Frijns, Finkenauer, Vermulst & Engels, 2005). Frijns hypothesized two explanations for this association. One, secret keeping is hard work. It requires active, constant thought and energy to maintain the secret. Two, because of the environment the secret keeper creates, parents are at a disadvantage to help the adolescent or respond adequately to their needs, thereby
increasing the risk of problems for their adolescent (Frijns, Fikkenauer, Vermulst & Engels, 2005).

Baumeister and Leary (1995) further suggest that concealment undermines the critical experience of belongingness (in the parent-child relationship) and is thereby a powerful threat to the physical and emotional well being of the adolescent. Given these dangers of concealment, understanding which, if any, parenting styles or practices buffer against or increase the tendency to conceal would be a helpful addition to the literature.

**Disclosure**

Disclosure, on the other hand, is described as a spontaneous disclosure of personal information on the adolescent’s part. Disclosure has been well studied mainly because it is highly associated with several adolescent outcomes (Kerr & Stattin, 2000; Soenens Vansteenkiste, Luyckx, & Goossens, 2006; Stattin & Kerr, 2000). As discussed, Stattin and Kerr (2000) very adeptly pointed out that much parental knowledge comes from what parents learn from adolescent disclosure and not necessarily from their own efforts of tracking down the information by observation or behavioral control. Due to the large impact of disclosure on monitoring, some researchers have even suggested that the role of parents in the monitoring mix is next to insignificant (Fletcher, Steinberg & Williams-Wheeler, 2004; Kerr & Stattin, 2000). However, Soenens and colleagues have found that when parents create a warm, understanding and responsive relationship with their adolescent, the adolescent is more likely to disclose personal information.

This association between parental warmth and adolescent disclosure appears to begin early in the parent-child relationship. For example, Patrick, Snyder, Schrepferman and Synder (2005) found that parental warmth, communication and tracking during the preschool years were
associated with fewer conduct problems in elementary school. They suggest that earlier use of warmth, communication and tracking actually put children on a different trajectory. The use of earlier intervention may facilitate later monitoring and parental knowledge, suggesting that the successes of monitoring in adolescence may begin much earlier (Patrick, Synder, Schrepferman & Snyder, 2005).

As adolescents assert their independence and struggle to establish autonomy from their parents, encouraging and understanding disclosure may become more complicated. Accordingly, an understanding of the adolescent’s unsolicited disclosure is critical and worthy of research efforts. Disappointingly, very little research on disclosure has been conducted to develop our understanding of mechanisms that facilitate or inhibit adolescent disclosure and concealment. Nonetheless, the studies that do exist suggest that positive parenting is an indicator of less delinquent behavior and, more important to the current study, greater adolescent disclosure (Fletcher, Steinberg & Williams-Wheeler, 2004; Soenens, Vansteenkiste, Luyckx, & Goossens, 2006; Stattin & Kerr, 2000).

**Individual Factors: Gender**

Another important consideration in parent-child interactions is the influence of gender. A number of theoretical perspectives suggest that communication is gendered and may be more likely in some parent-child dyads than others. One perspective is that it may be more comfortable for daughters to disclose to mothers and sons to disclose to fathers (same-gender pairings). This idea is consistent with gender differences in how boys and girls communicate, as particularly noted in studies of peer relationships. Studies have reported that girls engage in longer and more sophisticated interactions than boys (Benenson, Apostleleris, & Parnass, 1997). In contrast, boys have been shown to be more boisterous and authoritative in their peer communication. Whereas
girls are less directive and participate in more collaborative speech acts,” (more agreement and turn taking), boys interrupt more and use commands (Maccoby, 1990). Accordingly, parents of the same gender might better understand the communication patterns of their adolescent and be more successful than opposite-sex parents in promoting disclosure. Another interpretation of this data, however, is that girls will simply be more likely than boys to communicate with parents (regardless of the gender of the parent), given that girls tend to focus on greater connection and intimate discussion with others.

In addition to these gendered communication trends, research conducted by Heller and colleagues indicates that mothers typically spend more time with adolescents than do fathers, suggesting that adolescents will more likely communicate with their mothers rather than their fathers (Heller, Robinson, Henry, & Plunkett, 2006). Accordingly, this perspective suggests that adolescent disclosure may be most consistent in the mother-adolescent relationship, and fathers may play less of a role in this regard.

Unfortunately, the current literature has little to offer in analysis of the gender differences in disclosure. There is some indication, however, that adolescent girls are more likely to disclose personal information to their fathers and mothers than are adolescent boys (Soenens, Vansteenkiste, Luyckx, & Goossens, 2006; Kerr & Stattin, 2000). Additionally, levels of parental knowledge and sources of knowledge appear to work fairly similar for adolescents of both genders and their parents (Kerr & Stattin, 2000).

In sum, there is a need for more understanding of the potential differences in adolescent boys’ and adolescent girls’ disclosure and concealment with parents of either gender. In this study, we anticipated that parenting dimensions and parental solicitation would encourage greater disclosure among adolescent females. Accordingly, it is anticipated that gender of the
adolescent may be the primary determinant in terms of parent-adolescent disclosure, rather than the gender of the parent.

Study Hypotheses

As noted in the introduction and literature review, several gaps remain in the current research. This study focuses on the unique association of positive and negative parenting dimensions, as well as parental solicitation (without behavior control), with adolescent outcomes of disclosure and concealment. In the preliminary analysis, we expect the original measure of disclosure to break out into two distinct categories of disclosure and concealment. In regard to parental warmth, it is expected that disclosure will increase and concealment will decrease. In addition it is expect that warmth will be positively associated with parental solicitation.

It is expected that the negative parenting dimensions of harsh punishment and psychological control will be negatively associated with disclosure and positively associated with concealment. Of these two forms of aversive parenting, it is anticipated that psychological control would be the most consistent predictor. It is also expected that psychological control and harsh punishment would be positively associated with parental solicitation as parents who practice these two aversive forms of parenting may nonetheless be trying to understand what is happening in their adolescent’s lives (albeit in inappropriate manner).

Furthermore, in all of the analyses that follow, sex of child and parent are considered, given that previous research often demonstrates that patterns of findings may vary across parent–adolescent dyads (e.g. Stattin & Kerr, 2000; Soenens Vansteenkiste, Luyckx, & Goossens, 2006). It is expected, consistent with past research, that girls will be more likely to disclose information than boys.
Chapter 3: Method

Sample

The sample for this study was composed of 106 adolescents (53 males) with a mean age of 16.1 years. The adolescents were originally involved in a preschool study of social development that was conducted in a moderate-size Western community in the United States. The original sample was tracked down for a follow-up study 10 years later. Seventy percent of the original sample was located through various means, and approximately 70% of these individuals agreed to participate in the follow-up study. Questionnaire packets were sent by mail to the adolescents. Upon completing a packet of measures, the adolescents returned the packet via mail and were rewarded with a $25 gift card. A cover sheet in the packet assured the youth of confidentiality concerning any data that were obtained from their questionnaires. They were also informed that they could withdraw from the study at any time.

Measures

Parental warmth was measured using the 8-item acceptance subscale from the revised Child Report of Parental Behavior Inventory (CRPBI; Schaefer, 1965; Schuldermann & Schuldermann, 1988). The original scale was 10 items but two items were removed as they were items that directly indicated disclosure with the parent (and would therefore naturally correlate with adolescent disclosure). Some of the final items included, “Smiles at me very often,” “Cheers me up when I’m sad,” and “Gives me a lot of care and attention.” Adolescents reported how well each item described their mother and father using a 3-point Likert-type scale ranging from 0 (“not like her/him”) to 2 (“a lot like her/him”). Accordingly, potential scores ranged from 0 to 2 (reflecting an average of scores for the eight items). Scale reliabilities were excellent (Cronbach’s $\alpha = .87$ for maternal warmth and .88 for paternal warmth).
Parental psychological control was measured by an 8-item Psychological Control Scale—Youth Self-Report (PCS-YSR; Barber, 1996). Some of the included items were, “Is always trying to change the way I think or feel about things,” “Changes the subject whenever I have something to say,” and “Blames me for other family members’ problems.” Adolescent subjects responded to questions on a 3-point Likert-type scale ranging from 0 (“not like her/him”) to 2 (“a lot like her/him”) as to how well the items described their mothers/fathers. Accordingly, potential scores ranged from 0 to 2 (reflecting an average of scores for the eight items). The Cronbach’s α was = .75 for mothers and .80 for fathers.

Harsh Punishment was a 4-item scale that adolescents responded to using the same 3-point Likert-type scale used with the other scales above. Some of these items were, “When I really upset her, will lose patience and punish me more severely than she/he really wants to,” “Is very strict with me,” and “Gives hard punishment.” Accordingly, potential scores ranged from 0 to 2 (reflecting an average of scores for the four items). For this scale, the Cronbach’s α was = .78 for mothers and .70 for fathers.

Parental solicitation (i.e. an effort to know details of the adolescent’s life) was measured from a scale that originally had 11 items. However, two items that dealt with monitoring of technology use (cell phone and internet) and were removed as they did not correlate well with other items in preliminary analysis. Some of these items were, “How often does your mother/father TRY to know…Who your friends are,” “Where you go with friends at night,” and “What you do with your free time?” This questionnaire asked adolescents to describe the behavior of both parents using a Likert-type scale from 1 (“doesn’t try”) to 3 (“tries a lot”). Accordingly, potential scores ranged from 1 to 3 (reflecting an average of scores for the nine items). The Cronbach’s α was = .89 for mothers and .91 for fathers.
Adolescent disclosure and concealment were measured by a 5-item questionnaire. A 5-point Likert-type scale ranging from 1 (‘never’) to 5 (‘always’) was used. Three questions asked about spontaneous disclosure and two items asked about concealment. Accordingly, potential scores ranged from 1 to 5 (reflecting an average of scores for the number of items in each scale). All these questions can be seen in Table 1. As noted earlier, we chose not to follow the pattern of prior research in reverse-coding the concealment items. The first step in assessing whether these dimensions could be separated was to assess the reliability of the separated scales. The Cronbach’s α for disclosure to mothers was = .80. The Cronbach’s α for disclosure to fathers was .82. The Cronbach’s α for concealment with mothers was = .84 (fathers’ α = .90). Accordingly, it appeared that disclosure and concealment scales were highly reliable. However, we subjected these scales to factor analysis to further test their distinctiveness, as described next.
Chapter 4: Results

The first step in statistical analysis was to confirm that adolescent concealment can be considered distinct from adolescent disclosure. Accordingly, factor analysis was used to analyze the distinctiveness of these components. An intercorrelation table is then provided of all study scales and variables to further document relationships between scales and variables. These correlations were conducted separately by child gender to allow for assessment of gender differences in obtained correlations. A separate table of means and standard deviations for all study variables (separated by child gender) was also assembled for review. We then turned our attention to the relationships of the parenting dimensions and parental solicitation to the adolescent outcomes of disclosure and concealment in a path-analytic model.

Factor Analysis

Two principal components factor analyses with promax rotation of the factors (collapsed across gender of adolescent; conducted separately for adolescent ratings of disclosure and concealment with mothers and fathers) were conducted in order to verify that concealment would emerge as a separate factor, independent of disclosure. This was verified and the correlations in Table 2 give further evidence of distinction (i.e., disclosure and concealment are negatively correlated, and usually only moderately so). In the factor analysis of adolescent disclosure and concealment with fathers, two factors emerged with eigenvalues greater than 1: (a) adolescent disclosure to fathers (eigenvalue = 2.44) which accounted for 48.8% of the variation; and (b) concealment to fathers (eigenvalue = 1.6) which accounted for 32.2% of the variation. Similar results were obtained in the factor analysis of adolescent disclosure and concealment with mothers. Two factors emerged with eigenvalues greater than 1: (a) adolescent disclosure to
mothers (eigenvalue = 2.73) which accounted for 54.6% of the variation; and (b) adolescent concealment to mothers (eigenvalue = 1.2) which accounted for 24% of the variation. The criterion for determining a substantial crossloading was a factor loading of .40. The factor loadings for the resulting two scales are shown in Table 1 (results of factor loadings for mother versus father ratings). Accordingly, exploratory factor analysis supported our contention that disclosure and concealment might be considered separately in further analysis.

Intercorrelations and Descriptive Statistics of All Study Variables

An intercorrelation matrix of all study scales (warmth, psychological control, harsh punishment, parental solicitation, disclosure and concealment) is provided in Table 2, and means and standard deviations for these scales are provided in Table 3. Given the central hypotheses of this paper, the predominant focus here will be on describing the obtained associations between parenting and adolescent disclosure and concealment. Adolescent disclosure by both boys and girls was associated with the parental warmth practiced by fathers and mothers. Maternal solicitation also positively correlated with disclosure for girls. For father-adolescent dyads, paternal solicitation was positively associated with adolescent disclosure for both boys and girls. Paternal psychological control and harsh punishment were negatively associated with disclosure in sons.

Moreover, for fathers, psychological control and harsh punishment were positively correlated with concealment for both adolescent boys and girls. For mothers, psychological control was positively correlated with concealment for both adolescent boys and girls. Maternal warmth also negatively correlated with concealment for daughters.
It may also be briefly noted that warmth by both mothers and fathers correlated positively with solicitation efforts, whereas negative parenting was mostly uncorrelated or trending in a negative direction in regard to solicitation efforts.

In prelude to the principle analysis of the present study, we conducted analyses to assess whether gender differences would emerge in means of adolescent disclosure and concealment or whether adolescents disclosed or concealed more with mothers or fathers. For all significant results in these analyses, refer to Table 3 for the respective means and standard deviations. First, independent-sample t-tests were conducted to determine whether adolescent boys and girls differed in their levels of disclosure or concealment with either mothers or fathers. Only one of these comparisons emerged significant. Girls had significantly higher disclosure scores than boys with their mothers; $t(103) = 2.77, p < .01$. There were no mean differences in levels of concealment for either parent.

Next, paired-sample t-tests were conducted to determine if adolescents differentially engaged in disclosure or concealment with their mothers and fathers. Significant results emerged for disclosure but not for concealment. Both boys and girls disclosed more to mothers than fathers; overall $t(94) = 6.33, p < .001$. In summary, the results of these preliminary analyses, as well as the structure of intercorrelations, provided adequate justification for the decision to conduct further analysis by gender of adolescent.

**Multiple-Group, Multivariate Multiple Regressions**

A multiple-group, multivariate multiple regression was conducted in Structural Equation Modeling (SEM) with the Analysis of Moments (AMOS) software (Arbuckle & Wothke, 1999). The purpose of this regression model was to assess how the parenting dimensions (warmth, psychological control, and harsh punishment) might predict engagement in parental solicitation.
as well as the likelihood of adolescent disclosure or concealment. This model was analyzed separately for all parent-adolescent dyads (e.g., mother-son, father-daughter). The model was a fully saturated model so fit statistics are not reported. Figure 1 shows the pattern of findings simultaneously for all gender pairings of parent and adolescent.

In Figure 1, five paths are bolded to highlight the paths that emerged significant for one or more dyads. The direct path between warmth and disclosure was significant between fathers and sons ($\beta = .37$) and between mothers and daughters ($\beta = .28$). Estimates for the opposite-gender dyads were non-significant. Interestingly, the path between warmth and solicitation was also significant for the same-gender dyads: fathers and sons ($\beta = .66$) and mothers and daughters ($\beta = .58$). Accordingly, the more adolescents perceive the same-gender parent to be warm and supportive, the more likely they are to perceive that parent to be engaged in active solicitation and the more likely the adolescents are to disclose.

The path between psychological control and concealment showed an association for boys with both fathers ($\beta = .31$) and mothers ($\beta = .37$). The mother-daughter dyad also showed a significant relationship between psychological control and concealment ($\beta = .31$). As adolescents view their parents as psychologically controlling, therefore, they are more likely to conceal information about their lives or keep secrets. Harsh punishment also showed a significant negative relationship to disclosure for the father-son dyad ($\beta = -.27$). As fathers practiced more harsh punishment, their sons perceived them as less engaged in parental solicitation. The other three dyads showed no significant effect for this path.

In regard to whether parental solicitation increases adolescent disclosure, three of four dyads produced significant associations. Fathers who were perceived by their adolescents as engaging in solicitation had adolescents who were more willing to disclose personal information
(β = .38 for father-son dyads, β = .46 for father-daughter dyads). The effect was identical for mother-daughter dyads (β = .40). In contrast, there were no significant findings for the path between parental solicitation and concealment.
Chapter 5: Discussion

The aim of this study was to explore the relationship between parenting dimensions and the likelihood of adolescent disclosure and concealment. This study makes several novel contributions to the current literature. The most notable contribution is that of distinguishing disclosure and concealment from the measure initially considered only disclosure. This investigation is the first to assess the distinction of positive disclosure and negative concealment items in the traditional measure of disclosure. According to analysis of the data, disclosure and concealment are distinct adolescent outcomes that need to be addressed separately to understand the contributing parental factors and resulting adolescent outcomes. Factor analysis produced clear evidence of distinct constructs, with substantial factor loadings. Disclosure and concealment also tended to be negatively correlated for all parent-adolescent dyads, but the association was usually modest. This research begins to address the unique connection between parenting dimensions and concealment.

Disclosure was supported by greater parental warmth and tended to be undermined by psychological control and harsh punishment. The opposite pattern was obtained for concealment. At the multivariate level, however, warmth emerged as a primary predictor of adolescent disclosure in same-sex dyads (positive parenting predicting a positive outcome) and psychological control was the only parental predictor of adolescent concealment (negative parenting predicting a negative outcome). Accordingly, this research demonstrates there is a distinction between disclosure and concealment and one is not simply the flipside of the other. The presence of warmth encourages disclosure but the absence of warmth does not necessarily mean an adolescent will conceal.
Consistent with prior research, psychological control emerged, particularly in the multivariate context, as an important predictor of adolescent outcomes. Psychological control is theorized to have no ideal or appropriate level in promoting adolescent competence (Barber, 1996), but is considered uniformly negative. Indeed, studies appear to find consistent negative outcomes associated with the practice of psychological control. Additionally, concealment is used as a means of controlling one’s environment and may be used by adolescents to avoid subjects that may cause contention, criticism or correction from their parents (Guerrero & Afifi, 1995). Psychological control encapsulates uncomfortable criticism and correction and appears to encourage concealment. However, the parenting dimension of psychological control has not been directly associated with concealment in prior studies. This research adds to the literature in understanding how psychological control specifically is associated with increased concealment in both adolescent boys and girls.

This study also adds some clarity to the discussion regarding parental solicitation. Although our understanding of monitoring has been refined through past research, this study allowed a clear look at connections between parenting dimensions and parental solicitation alone. Our results show that parental solicitation (not mixed with behavioral control items) is associated with an adolescent’s increased desire to disclose personal information. This finding was entirely consistent at the bivariate correlation and multivariate modeling levels. This contributes to prior literature by expanding our understanding of the climate that parents create to allow for adolescent disclosure. Additionally, in contrast with our expectations, harsh punishment and psychological control were generally not associated with higher levels of parental solicitation. At the bivariate level, solicitation was actually negatively correlated with psychological control in parent-son dyads. Accordingly, adolescents apparently do not see
negative parenting and solicitation as compatible. Only the positive parenting dimension, warmth, was associated with increased parental solicitation.

This study also clarifies that negative parenting dimensions, not significantly associated with parental solicitation, instead have significant effects on reduced disclosure and increased concealment. We had originally anticipated that over-controlling parents, engaging in either harsh punishment or psychological control, would be just as likely as warm parents to engage in solicitation (in a bid to control). This hypothesis was not supported. Adolescents may not view parents who employ negative parenting strategies as engaging in parental solicitation. However, warmth was strongly associated with solicitation, particularly in same-gender dyads.

The general outcomes of this study are consistent with a number of theories. Social learning theory describes an environment of learning that is created by a parent (Bandura, 1997). As parents in this research were considered more warm or making efforts to know the details of their adolescents’ lives, adolescents were more likely to disclose. The model of solicitation on the parents’ part and a warm, supportive environment created a rich learning environment for the positive behavior of disclosure.

Another theory that would support this outcome is parent acceptance-rejection theory (PARTheory; Rohner, 1986). As parents show warmth, love or acceptance to the adolescent, the adolescent develops better psychological adjustment (i.e., they are more likely to be inclined to disclose personal information). Smiling at the adolescent, showing concern or the like are signs of acceptance. Criticism, belittling, or severe punishments are signs of rejection. Consequently, under PARTheory, warmth and solicitation would predict increased disclosure and psychological control and harsh punishment would predict increased concealment or decreased disclosure. Our results are largely consistent with the premises of the theory.
There is evidence in our findings that the gender composition of parent-adolescent dyads might be important in considering how parenting and adolescent disclosure or concealment are associated. As noted earlier, significant findings emerged between parental warmth, solicitation, and adolescent disclosure. At the bivariate level, in particular, there were significant associations for nearly every parent-child dyad. At the multivariate level, parental warmth predicted solicitation and adolescent disclosure only for the same-gender parent-child dyads. Accordingly, same-gender parents would appear to outweigh the influence of opposite-gender parents when it comes to warmth. There is some indication, however, that adolescent girls are more likely to disclose personal information to their fathers and mothers than are adolescent boys (Soenens, Vansteenkiste, Luyckx, & Goossens, 2006; Kerr & Stattin, 2000) and this study would confirm this finding. However, our results also show that while there is a significant correlation between disclosure and warmth and solicitation in same-gender dyads, both adolescent boys and girls disclose significantly more to mothers than fathers.

In the prediction of disclosure, harsh punishment and psychological control were associated at the bivariate level with less disclosure in only the father-son dyads. Only the harsh punishment result remained in the multivariate context. In regard to adolescent concealment, the primary predictor, particularly in the multivariate context, was psychological control, and in nearly every parent-child dyad. When adolescents interpret their parents as psychological controlling the adolescent is more likely to conceal. This study joins with other recent studies in suggesting that psychological control may yield more deleterious results than over-controlling forms of authoritarian parenting, such as harsh punishment (e.g., Nelson & Coyne, 2009). It would seem that parents are particularly advised to avoid psychological control in their parenting
approach if they hope to have any sort of window on what the adolescent is doing with friends and others outside the home.

In further regard to adolescent gender, we originally surmised that girls would be more likely than boys to disclose to either parent. Indeed, girls have been shown in past literature (Stattin & Kerr, 2000; Soenens, Vansteenkiste, Luyckx, & Goossens, 2006) to be more inclined to disclose. Our findings confirmed that adolescent girls disclosed more than adolescent boys. At the multivariate level, however, parental warmth appeared to work best in same-gender parent-child relationships, which is also consistent with past research (Stattin & Kerr, 2000; Soenens, Vansteenkiste, Luyckx, & Goossens, 2006). Negative forms of parenting linked to disclosure highlighted the father-son relationship. Girls also appeared no less likely than boys to engage in concealment in light of psychologically controlling parents (and this was consistent across all dyads, particularly at the bivariate level). Accordingly, same-gender findings may deserve further scrutiny and may be the best avenue for increasing disclosure, at least in the case of parental warmth. Our results suggest that moms may understand better how to connect with daughters, and fathers with sons. These results would be consistent with the social learning theory as well (Bandura, 1997). Boys and girls learn as they observe their same-gendered parent’s communication and reflect the style they observe.

However, further research is clearly needed. For example, sample size limitations did not allow for the direct comparison of mothers and fathers and their relative influence on adolescent disclosure (within the same model). Shared method variance may also be listed as a limitation since no information was gathered from the parents directly. Adolescents reported on both their own disclosure and concealment as well as their parents’ parenting practices. Nonetheless, this
reporter equivalence may also be viewed as advantageous. There are many examples and explanations as to why shared method variance in this setting is entirely appropriate.

Baumrind (2005) explains that adolescents and parents interpret issues differently. Since the main thrust of this research is to understand what parental behaviors, as interpreted by the adolescent, encourage the adolescent to disclose, it is appropriate to have the adolescent report on their perceptions of their parents’ parenting, which ties in many ways to disclosure and concealment. Likewise, Barber and Olsen (1997) have made the observation that psychological control is only salient in its effects as it is perceived by the adolescent. Accordingly, the impressions of the adolescent are paramount in this study, and should be most predictive of tendencies to disclose or conceal.

Despite these limitations, this research makes a number of important contributions. This investigation is the first to assess the distinction of positive disclosure and negative concealment items in the traditional measure of disclosure. Moreover, this study indicates that disclosure was supported by greater parental warmth and tended to be undermined by psychological control and harsh punishment. This study also adds clarity to the discussion regarding parental solicitation. Parental solicitation alone (separated from behavioral control) was associated with only the positive parenting dimension, while negative parenting dimensions were not. Furthermore, while negative parenting dimensions are not significantly associated with parental solicitation, they did have significant effects on reduced disclosure and increased concealment. Finally, this study confirmed earlier research that parental warmth may work best in same-gender parent-child relationships (Stattin & Kerr, 2000; Soenens, Vansteenkiste, Luyckx, & Goossens, 2006).

Given the importance of this subject, future research is necessary to understand what other parental dimensions and practices may contribute to or detract from adolescent disclosure
and concealment. Encouraging adolescent disclosure, rather than behavioral control, may result in better child outcomes. Therefore, research focused on better ways to encourage adolescent disclosure will make salient contributions to our knowledge of adolescent development and the promotion thereof. In seeking this knowledge, more parenting dimensions, and combinations thereof, need to be analyzed for their association with concealment.
References


Table 1

*Factor Analysis of Disclosure and Concealment Items*

<table>
<thead>
<tr>
<th>Items</th>
<th>Disclosure</th>
<th>Concealment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you spontaneously tell her/him about your friends (which friends you hang out with and how your friends think and feel about various things)?</td>
<td>M .90</td>
<td>F .88</td>
</tr>
<tr>
<td>How often do you usually want to tell her/him about school (how each subject is going, your relationships with teachers)?</td>
<td>M .80</td>
<td>F .80</td>
</tr>
<tr>
<td>Do you tell her/him about what you did and where you went during the evening?</td>
<td>M .55</td>
<td>F .67</td>
</tr>
<tr>
<td>Do you keep a lot of secrets from her/him about what you do during nights and weekends?</td>
<td>M .95</td>
<td>F .99</td>
</tr>
<tr>
<td>Do you keep a lot of secrets from her/him about what you do during your free time?</td>
<td>M .76</td>
<td>F .83</td>
</tr>
</tbody>
</table>

*M = Factor loadings for ratings with mothers  
F = Factor loadings for ratings with fathers*
### Table 2

**Intercorrelations for all Study Variables**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Disclosure</td>
<td>–</td>
<td>B -.27</td>
<td>B .49**</td>
<td>B .48**</td>
<td>B -.31*</td>
<td>B -.36*</td>
</tr>
<tr>
<td></td>
<td>–</td>
<td>G -.12</td>
<td>G .64**</td>
<td>G .49**</td>
<td>G .14</td>
<td>G .06</td>
</tr>
<tr>
<td>2 Concealment</td>
<td>B -.29*</td>
<td>–</td>
<td>B -.24</td>
<td>B -.28</td>
<td>B -.35*</td>
<td>B -.32*</td>
</tr>
<tr>
<td></td>
<td>G -.58**</td>
<td>–</td>
<td>G -.02</td>
<td>G -.20</td>
<td>G .40**</td>
<td>G .35*</td>
</tr>
<tr>
<td>3 Solicitation</td>
<td>B .17</td>
<td>B -.26</td>
<td>–</td>
<td>B .39**</td>
<td>B -.38**</td>
<td>B -.15</td>
</tr>
<tr>
<td></td>
<td>G .56**</td>
<td>G -.20</td>
<td>–</td>
<td>G .61**</td>
<td>G .09</td>
<td>G .01</td>
</tr>
<tr>
<td>4 Warmth</td>
<td>B .30*</td>
<td>B -.04</td>
<td>B .30*</td>
<td>–</td>
<td>B -.68**</td>
<td>B -.36*</td>
</tr>
<tr>
<td></td>
<td>G .52**</td>
<td>G -.34*</td>
<td>G .50**</td>
<td>–</td>
<td>G -.20**</td>
<td>G -.20</td>
</tr>
<tr>
<td>5 Psychological Control</td>
<td>B -.23</td>
<td>B .32*</td>
<td>B -.28*</td>
<td>B -.51**</td>
<td>–</td>
<td>B .47**</td>
</tr>
<tr>
<td></td>
<td>G -.27</td>
<td>G .40**</td>
<td>G -.14</td>
<td>G -.52**</td>
<td>–</td>
<td>G .49**</td>
</tr>
<tr>
<td>6 Harsh Punishment</td>
<td>B -.25</td>
<td>B .08</td>
<td>B -.01</td>
<td>B -.42**</td>
<td>B .40**</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>G -.10</td>
<td>G .11</td>
<td>G -.01</td>
<td>G -.18</td>
<td>G .33*</td>
<td>–</td>
</tr>
</tbody>
</table>

Note: correlations in top diagonal reflect findings for fathers, bottom diagonal is mothers; B = adolescent boy, G = adolescent girl

* *p < .05; ** p < .01.
Table 3  
*Means and Standard Deviations for all Study Variables*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disclosure with Fathers</td>
<td>2.78 (.80)</td>
<td>2.82 (1.00)</td>
</tr>
<tr>
<td>Concealment with Fathers</td>
<td>2.05 (1.05)</td>
<td>2.08 (1.00)</td>
</tr>
<tr>
<td>Paternal Warmth</td>
<td>1.43 (.49)</td>
<td>1.35 (.50)</td>
</tr>
<tr>
<td>Paternal Psych Control</td>
<td>.50 (.45)</td>
<td>.54 (.39)</td>
</tr>
<tr>
<td>Paternal Harsh Punishment</td>
<td>.85 (.62)</td>
<td>.86 (.60)</td>
</tr>
<tr>
<td>Paternal Solicitation</td>
<td>2.16 (.59)</td>
<td>2.01 (.60)</td>
</tr>
<tr>
<td>Disclosure with Mothers</td>
<td>3.10 (.88)</td>
<td>3.58 (.88)</td>
</tr>
<tr>
<td>Concealment with Mothers</td>
<td>2.05 (1.45)</td>
<td>2.31 (1.06)</td>
</tr>
<tr>
<td>Maternal Warmth</td>
<td>1.58 (.41)</td>
<td>1.49 (.47)</td>
</tr>
<tr>
<td>Maternal Psych Control</td>
<td>.43 (.38)</td>
<td>.61 (.42)</td>
</tr>
<tr>
<td>Maternal Harsh Punishment</td>
<td>.62 (.57)</td>
<td>.76 (.52)</td>
</tr>
<tr>
<td>Maternal Solicitation</td>
<td>2.51 (.46)</td>
<td>2.39 (.49)</td>
</tr>
</tbody>
</table>

Note. SD for each mean follows in parentheses.
Figure 1. Fathers’ and Mothers’ Parenting Dimension Effects on Disclosure and Concealment