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A Longitudinal Examination of Parental Psychological Control and Externalizing Behavior in Adolescents with Adolescent Internalized Shame as a Mediating Variable

Iesha Renee Nuttall
Brigham Young University

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Iesha Renee Nuttall

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James M. Harper, Chair
Roy A. Bean
Jonathan G. Sandberg

School of Family Life

Brigham Young University

ABSTRACT

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Iesha Renee Nuttall
School of Family Life, BYU
Master of Science

The purpose of this study was to examine the relationship between parental psychological control and adolescent externalizing behavior with adolescent internalized shame acting as a mediating variable. Gender differences were also examined. Three hundred eleven two-parent families with an adolescent were included in this study, 154 were male adolescents (Mean age at wave 6 = 16.28 years, SD = .98) and 157 were female adolescents (Mean age at wave 6 = 16.21 years, SD = .99). Results indicate that parental psychological control for both mothers and fathers at wave 4 was positively related to adolescent externalizing behavior for both boys and girls at wave 6. Psychological control by both mother and father at wave 4 was found to be related to adolescent internalized shame at wave 5 for both male and female adolescents. Adolescent internalized shame at wave 5 was related to externalizing behavior at wave 6 for both male and female adolescents. Shame was found to partially mediate the relationship between parental psychological control at wave 4 and adolescent externalizing behavior at wave 6. Implications for further research and clinical practice are discussed.

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Externalizing behavior, defined as lashing outward at others by aggression, violence, and

defiant behavior (Jianghong, 2004) is a very common phenomenon among adolescents in the

United States (Coohey, Renner, & Sabri, 2013). Importantly, there are a range of externalizing

behaviors, some of which are criminalizing while others are not. For this study, the focus is on

externalizing behaviors such as truancy, stealing, disobedience, and destruction of property.

Adolescent externalizing behavior and juvenile delinquency are increasingly viewed as a public

health problem because such behaviors are major risk factors for later delinquency, adult crime,

violence and other problems (Hann, 2002). For instance, adolescents engaging in externalizing

behavior have been shown to do poorly in school (Brook et al., 2012) and this poor performance

may lead to a pattern of delinquency and crime in adult life (Boeldt et al., 2012). Externalizing

behavior in adolescence raises the risk of depression in adolescences as they move into

adulthood and increases risk for other mood disorders and disruptive behaviors in adults (Loth et

al., 2014; Reef et al., 2011).

In addition to the psychological consequences of externalizing behavior, there are societal

and financial consequences as well. Adolescents who engage in externalizing behavior and

commit criminal acts may be incarcerated and therefore placed in the juvenile court system for

their crimes, whether the crime was violent or not (Sickmund et al., 2015). The cost to

incarcerate these juvenile offenders is substantial and taxpayers are responsible for these costs.

According to the Office of Juvenile Justice and Delinquency Prevention, in 2013 there were

54,148 youth incarcerated (Sickmund et al., 2015). In 2014 the Justice Policy Institute (2014)

reported that it cost an average of $407.58 per youth per day for confinement across 46 states. Their calculations indicate that it cost taxpayers and families of these youth $148,767 a year for one adolescent to be incarcerated. Nationwide that adds up to between $8 billion and $21 billion a year (Justice Policy Institute, 2014). Overall, externalizing behavior evokes negative consequences both on an individual and a societal level. It is important to understand factors related to externalizing behavior because of their implications for prevention.

The empirical literature has identified several factors that are related to externalizing behavior. Most of these studies have examined environmental factors in the family and in the community as well as individual personality traits. For instance, factors such as parental divorce (Weaver & Schofield, 2015), socioeconomic status (Scaramella et al., 2008), delinquent friends (Losoncz & Tyson, 2007), exposure to violence (Renner 2012), and abuse (both physical and sexual, Coohey, Renner, & Sabri, 2013), have all be shown to increase instances of externalizing behavior in both children and adolescents. In terms of personality, three Big Five personality traits have been shown in the literature to be related to externalizing behavior: low agreeableness, low conscientiousness, and high neuroticism (DeYoung, Peterson, Seguin, & Tremblay, 2008; Pryor, Miller, Hoffman, & Harding, 2009).

When it comes to parenting, negative parenting practices have been shown to be associated with increased externalizing behavior in children of varied ages. Scaramella et al. (2008) found that harsh parenting is related to increases in externalizing behavior in toddlers. Another study by Gryczkowski, Jordan, and Mercer (2010) found that poor supervision and inconsistent discipline are correlated with more externalizing by pre-adolescents. Lee, Lee, and August (2011) found that poor communication between parents and their child, less parental involvement, a parent's lack of confidence in parenting, and overall poor parent-child relations

were related to increases in externalizing behavior in children. Adding to the research that supports a relationship between specific parenting practices and externalizing behavior, this study focused on parental use of psychological control and the relationship this practice has with externalizing behavior.

Parental psychological control refers to parental attempts to induce negative emotions in children (e.g. disappointment, shame, guilt) in order to control the child's thoughts, feelings, and behaviors (Barber, 1996; Mills et al., 2007). Psychological control has been shown to lead to negative effects when used by parents on adolescents, such as relational aggression (Kuppens, Grietens, Onghena & Michiels, 2009; Kuppens, Laurent, Heyvaert & Ohghena, 2013), depressive symptoms (Soenens, Luyckx, Vansteenkiste, Duriez, & Goossens, 2008) and adolescent problem behaviors (Barber, 1996; Soenens & Vansteenkiste, 2009). It may also be important to identify possible mediating variables between psychological control and adolescent externalizing behavior because mediating variables may be more amenable to intervention and prevention. One possible mediating variable between psychological control and externalizing behavior is internalized shame. Parental psychological control is related to shame (e.g., Fung & Lau, 2012), and shame is related to externalizing behavior (Losoncz & Tyson, 2007), but no studies have examined shame as a mediating variable between psychological control and externalizing behavior.

The purpose of this study, therefore, was to examine the relationship between parental psychological control (both maternal and paternal) and adolescent externalizing behaviors (both boys and girls) with adolescent shame as a mediating variable. This study will be longitudinal with mother and father psychological control predicting adolescent externalizing behaviors two

years later and adolescent shame measured in the year between parental psychological control and externalizing behaviors.

<div align="center">**Literature Review**</div>

Theoretical Foundation for the Current Study

Parental psychological control has been shown in the literature to lead to negative outcomes in children, such as externalizing behaviors. According to self-determination theory, the relationship between parental psychological control and negative child outcomes can be attributed to the frustration of the child's basic psychological needs through parental intrusion (Soenens & Vansteenkiste, 2009). More specifically, self-determination theory (SDT) assumes that autonomy, an antidote to psychological control, is better for adolescent motivation and personality development (Soenens & Vansteenkiste, 2009). Autonomy in SDT is defined in terms of volition: an individual's capacity to make their own decisions. A key characteristic for autonomy in SDT is whether a decision was made willingly or due to coercion. When coercion is the cause, then a controlling agent is involved, which can be either internal or external to the person (Soenens & Vansteenkiste, 2009). Psychological control represents a controlling socialization where parents act as the controlling agent and force their child to comply by increasing internal pressure in the child. This internal pressure categorizes psychological control as a form of internal controlling parenting which is seen as covert and manipulative and results in negative outcomes for the child (Soenens & Vansteenkiste, 2009).

The underlying reason for these and other negative outcomes is that psychological control hinders a child's basic needs for autonomy, competence, and relatedness. Children feel forced to act, feel, and think in the ways their parents want them to, they come to see themselves as

incapable of meeting the expectations of others, and they feel disconnected from their parents because love from their parents is seen as conditional (Soenens & Vansteenkiste, 2009). The frustration of these three basic needs leads to both internalizing and externalizing problem behaviors, especially for adolescents (Soenens & Vansteenkiste, 2009).

Adolescent Externalizing Behaviors

Externalizing behavior is important to study for at least two reasons. First, it is costly to society in terms of the expenses associated with handling delinquent adolescents in the justice and mental health systems. Second, externalizing behaviors in adolescence are related to a negative developmental trajectory in terms of adult outcomes. According to Reef et al. (2011) there are four types of externalizing behavior: aggression, oppositionality, violating property, and violating status, for this study aggression is not included as a measure of externalizing behavior. More broadly, Coohey, Renner and Sabri (2013) define externalizing behaviors as behaviors focused toward others that include aggression and delinquency. White and Renk (2012) extend this definition by stating that externalizing behavior is indeed outward focused behavior that has specific negative outcomes. Externalizing behaviors include a lack of emotional control, aggressiveness, and disrespect for societal norms (Brook et al., 2012). For this study, a broad definition of externalizing behaviors are used, measuring outward focused behaviors that included delinquency and aggression but also include drug use, alcohol use, and truancy.

There are numerous contributors to externalizing behavior including, environmental factors, such as, school, peers, family, and individual traits such as personality characteristics. For instance, Monahan, VanDerhei, Bechtold, and Cauffman (2014) found that suspension, expulsion, and truancy from school increases an adolescent's risk for arrest and contact with the juvenile justice system. Similarly, Cornell and Heilbrun (2016) found a host of school related

factors that lead to delinquency. They found that suspension increased the risk for delinquency. Disruptive behavior and low achievement in school are risk factors for delinquency, and externalizing behavior is a predictor of bullying which can lead to delinquency, drug use, and fighting. Furthermore, it was found that the victims of bullying are not immune to externalizing. Instead, victims of bullying are also more likely to engage in externalizing behavior (Cornell & Heilbrun, 2016).

In terms of peer factors related to externalizing behavior, Monahan, Rhew, Hawkins, and Brown (2013) found that young adolescents have a tendency to engage in minor acts of delinquency depending on the behavior of their peers. The more that peers are involved in externalizing types of behavior, the more likely an adolescent will be to engage in the same behavior. Susceptibility to peer influence is attributed to the amount of time that adolescents begin to spend with their peers which increases the importance of these social relationships to the adolescent (Monahan, Rhew, Hawkins, & Brown, 2013). Henneberger, Durkee, Truong, Atkins, and Tolan (2012) found that peers are the strongest and the most proximal influence for delinquency during adolescence.

In terms of individual factors related to externalizing behaviors, two studies found that there are personality traits in adolescents that are related to delinquency. Using Eysenck's theory of personality, van Dam, DeBruyn, and Janssens (2007) found that three traits are related to delinquency: extraversion, neuroticism, and psychoticism. Specifically, they found that active delinquents scored high on all three personality dimensions. Klimstra, Luyckx, Hale, and Goossens (2014) used the personality dimensions in the "Big Five" personality model of conscientiousness, agreeableness, and neuroticism and tested how the facets of each dimension were related to delinquency. They found that high scores on neuroticism and its facets, and low

scores on the facet of non-antagonistic orientation under agreeableness and orderliness and dependability under conscientiousness were related to delinquency.

Family processes have also been related to externalizing behavior. Both how a family is structured and how they interact with one another have been shown in the literature to be related to externalizing behavior. For instance, stepfamilies and single parent families are related to externalizing behavior for both female and male adolescents (Vanassche, Sodermans, Matthijs & Swicegood, 2014; Harris-McKoy & Cui, 2013). Family risk is an influential factor in whether or not adolescents will exhibit externalizing behavior. If there is a family risk for externalizing behavior, meaning the parents exhibited externalizing related behaviors, the child is at a genetic risk to inherit the genetic component to these behaviors making them more likely to exhibit externalizing behavior (Buschgens et al., 2010).

The question of genetics and the heritability of externalizing behavior has been a recent topic found in the literature. For example, in a recent twin study examining genetic and environmental influences on externalizing behavior, it was found that both genetics and the shared environment play a part in determining whether children and adolescents exhibit externalizing behavior (Marceau, et al., 2012). The findings of this study indicate that externalizing behaviors do indeed have a genetic component to them but the environment plays a part in how or even whether these genes are expressed.

An important part of the environment for children and adolescents are family relationships. Sibling relationships in adolescence are very influential, especially in terms of delinquency. It has been shown that the more an older sibling engages in externalizing behavior, the more a younger sibling engages in similar externalizing behaviors (Craine, Tanaka, Nishina, & Conger, 2009). In addition, if the sibling relationship is poor, if the siblings are not close, or if

they have a conflictual relationship, than externalizing behavior may be the result (Buist, 2010; Criss & Shaw, 2005). Importantly, if the nature of the older sibling's externalizing behavior changes than the younger sibling's externalizing behaviors mirror these changes, for better or for worse (Buist, 2010).

What goes on in sibling relationships is only part of the influence that family interactions have on externalizing. For instance, Renner (2012) found that children who are exposed to family violence, meaning that either they or another family member is abused, are more likely to engage in externalizing behaviors. Unexpectedly, children who were exposed to the violence of a sibling engage in more externalizing than children who were abused themselves in their study. Similarly, verbal and physical punishments have been shown to increase externalizing behaviors for adolescents (Evans, Simons, & Simons, 2012). Another familial factor, marital conflict, has been shown to be positively related to externalizing behavior across ethnic groups in adolescent boys (Lindahl & Malik, 1999).

An important part of the family environment for children and adolescents are the parents who can influence whether or not, or how much or how little, their children exhibit externalizing behavior (Pearl et al., 2014). If, for instance, parents, specifically mothers, have a mental illness such as depression, children are more likely to engage in externalizing behaviors (Gryczkowski, Jordan, Mercer, 2010). The type or style of parenting that is used can affect externalizing as well, with some styles showing a decrease in externalizing while others show an increase (Williams et al., 2009). Specifically, authoritarian or hierarchical parenting and permissive or inconsistent parenting are both associated with increases in externalizing behavior (Lindahl &Malik, 1999; Williams et al., 2009). When it comes to particular parenting practices, rejection and overprotection are shown to increase externalizing, especially for children with a familial risk

(Lindahl & Malik, 1999). This study falls into the broad category of family factors related to externalizing behaviors in that it uses a longitudinal design to examine parental psychological control as a predictor of adolescent externalizing behavior measured two years later. Gender has important implications for each variable included in the current study, and will be discussed later in the review.

Parental Psychological Control and Adolescent Externalizing Behaviors

Psychological control is defined as parental attempts to control children by intruding psychologically or emotionally (Barber, 1996). Fung and Lau (2012) extended this definition of psychological control by adding attempts by parents to intrude on their children's emotions as well as trying to control how children express themselves. In other words, psychological control is used by parents to control their child through manipulation both psychologically and emotionally (Luebbe et al., 2014). Some parenting practices or behaviors that give parents psychological control invalidate how a child feels, attack the child personally, withdraw love, increase guilt, and control or limit what the child says and at times even try to manipulate what a child thinks (Luebbe et al., 2014; Cui et al., 2014; Aunola et al., 2013).

The use of psychological control by parents is related to various negative outcomes in children. For example, Helwig et al. (2014) found that psychological control (as a form of parental discipline) is related to low self-esteem, depression, low levels of empathy, and delinquency in adolescents (Helwig et al., 2014; Pettit et al., 2001). Psychological control is associated with increases in adolescent internalizing and externalizing behavior (Lansford et al., 2014; Arim & Shapka, 2008), and has been shown to increase negative emotions in adolescents (Aunola et al., 2013) as well as increase a child's anxiety by lowering a child's ability to regulate and cope with these negative emotions (Luebbe et al., 2014). Psychological control has been

shown to lead to conduct problems and antisocial behavior after one year (Batanova & Loukas, 2014). In a longitudinal study, peer victimization has been shown to result from psychological control via depressive symptoms (Batanova & Loukas, 2014).

Cross culturally, psychological control is seen as a negative parenting practice. Helwig and colleagues (2014) examined children's evaluations of their parent's use of psychological control and induction or shame in China and Canada. Even in China, where these parenting practices are more common, they resulted in negative outcomes in children. Fung and Lau (2012) found that parental psychological control was related to externalizing behavior in Chinese youth. For Taiwanese adolescents, teachers' use of psychological control leads to self-handicapping as an avoidance strategy for failure (Shih, 2012). In other words, psychological control in the classroom in Taiwan causes students to shift their focus to avoiding failure in order to win their teachers approval. The authors speculated that this would be true when psychological control is used in the home (Shih, 2013). Psychological control is a detrimental factor for Chinese adolescence in terms of peer victimization. More specifically, adolescents who came from families where psychological control was higher were more likely to be bullied (Li, Zhang, & Wang, 2015).

Several mediating variables of the relationship between parental psychological control and adolescent externalizing behaviors have been studied. These mediating variables have included emotion regulation (Cui, Morris, Criss, Houltberg, & Silk, 2014), mother-adolescent conflict (Steeger & Gondoli, 2013), mobile phone dependency (Lee, Lee, Yi, Park, Hong & Cho, 2016), trait emotional intelligence (Gugliandolo, Costa, Cuzzocrea, and Larcan, 2015), child's self-control (Li, Zhang, & Wang, 2015), adolescent social anxiety (Cheng & Chen, 2015), and self-esteem (Lo Cascio, Guzzo, Pace, Pace, & Madonia, 2016). An additional potential mediator

that has not been studied is internalized or trait shame. The rationale for considering shame as a potential mediator is described in the next section.

Adolescent Shame as a Potential Mediating Variable

There are quite a few definitions of shame found in the literature. Shame is referred to as feelings of inferiority in individuals, families, or in groups (Harper & Hoopes, 1990). According to Mills et al. (2007) shame can be defined as feelings of guilt or embarrassment. More generally, shame is one of three self-conscious emotions where the global self is evaluated negatively resulting in feelings of inferiority or worthlessness (Muris, 2015; Muris & Meesters, 2014). In this study, shame is defined as a consistent feeling (over time) of personal inadequacy, worthlessness, and a sense of being bad or flawed. Shame is differentiated from guilt which is defined as behavior which violates a standard of conduct important to a person or significant others but does not include a global evaluation of the self as bad (Harper & Hoopes, 1990).

Shame is related to many psychological problems for adolescents including depression (Aslund, Nilsson, Starrin, Sjoberg, 2007), eating disorders, anxiety, and aggression (Muris, 2015). Adolescents who are prone to shame face indifference, rejection, and a host of negative parenting practices such as authoritarian parenting and negative parental evaluations (Muris & Meesters, 2014).

Importantly, shame can be separated into two forms. According to reintegrative shaming theory, reintegrative shame should be differentiated from stigmatizing shame (Braithwaite, 2000; Losoncz & Tyson, 2007). Reintegrative shame is defined as shame that is intended to respectfully help one learn from mistakes and has been shown to reduce the crime rate. Stigmatizing shame is intended to label someone based on their actions and has been shown to be related to increases in crime rates. For this study the focus is on what the literature has called

internalized shame or trait shame where a person internalizes a belief that they are bad and inadequate. Internalized shame seems to be similar to stigmatizing shame in that the negative labels that result from stigmatized shame are internalized and believed as truth resulting in internalized shame.

In the literature, shame has been identified as one mechanism through which parents use psychological control (Barber, 1996). Fung and Lau (2012) found the two constructs are highly correlated in Chinese families. For instance, parents who are prone to feelings of shame are likely to use psychological control (Mills et al., 2007; Scarnier, Schmader, & Lickel, 2009). More broadly, shame in relation to psychological control has been studied more so for the adult and not for children and youth. Unfortunately, not much research has been published examining the relation between psychological control and shame in adolescents. This study was designed to focus on this gap by looking at the effect that psychological control has on feelings of shame in adolescents.

Studies have also shown that shame is related to externalizing behavior. Losoncz and Tyson (2007) found that stigmatizing shame leads to more externalizing behavior whereas reintegrative shame leads to less externalizing. They found that the child's respect for the person shaming the child moderated the effect so that the more respect the child had for the person shaming them the less externalizing they tended to exhibit because the child viewed the shaming as constructive. Shame has also been related to adolescents drinking at a younger age, use of dangerous drugs, driving under the influence, and having unprotected sex in young adulthood, some of which could be classified as externalizing behavior (Stuewig et al., 2015). In addition, shame has been shown to be connected with anger (Tangney et al., 1996), aggression (Thomaes, Bushman, Stegge & Olthof, 2008), and higher rates of recidivism for inmates (Hosser, Windzio,

& Greve, 2008). In summary, because studies have shown that parental psychological control and shame are related and that shame and externalizing behavior are related, it seems likely that internalized shame partially mediates the relationship between psychological control and externalizing behavior.

Parent and Adolescent Gender Differences Related to Psychological Control, Shame and Externalizing Behaviors

Although it is important to consider and control for gender differences, it is difficult to predict the impact that gender will have on externalizing behavior, parental psychological control, or internalized shame, therefore, in this section the gender differences of all three variables will be discussed. Throughout the literature there are noted gender differences in adolescent externalizing behavior. For instance, externalizing behaviors aremore frequent in boys than in girls, especially at an early age. Other studies have found females being less likely than males to engage in delinquency and externalizing behaviors (Harris-McKoy & Cui, 2013). The rate at which individuals increase externalizing behavior has been found to be greater for males than for females (Hicks et al., 2007).

For both genders, there are particular environmental factors that lead to externalizing behavior. For boys, peer violence leads to delinquency (Henneberger, Durkee, Truong, Atkins, & Tolan, 2012). For boys, maltreatment has a direct influence on externalizing behavior. Whereas for girls, internalizing symptoms have been found to mediate a relationship between maltreatment and externalizing behavior (Maschi, Morge, Bradley, & Hatcher, 2008). Family structure has a distinct influence on externalizing behavior for boys and girls. For boys in single parent families and girls in stepfamilies, delinquency is more likely to occur than in two parent families (Vanassche, Sodermans, Matthijs, & Swicegood, 2014). Parental influence on

externalizing also varies by gender. Verbal abuse and corporal punishment have been shown to lead to externalizing behavior for both genders. However, corporal punishment is mediated by different parenting variables for males and females. For males, self-control and hostile views of relationships mediate corporal punishment and externalizing whereas for females a hostile view of relationships mediates this relationship (Evans, Simons, & Simons, 2012).

Findings regarding gender differences in parental use of psychological control and the effects on the adolescent are somewhat contradictory. There is evidence that psychological control increases depression and anxiety as well as externalizing behavior, but only for female adolescents (Pettit, Laird, Dodge, Bates, & Criss, 2001). However, other studies have found that psychological control used by mothers, increases depressive symptoms in males but not in females (Soenens, Luyckx, Vansteenkiste, Duriez, & Goossens, 2008). On the other hand, Lansford, Laid, Pettit, Bates, and Dodge (2014) found that psychological control increases internalizing behavior in both males and females.

In the literature, gender differences in parental use of psychological control have found that male adolescents perceive their mothers as using more psychological control than their fathers (Soenens, Luyckx, Vansteenkiste, Duriez, & Goossens, 2008). Other studies have found similar findings with both male and female adolescents perceiving their mothers as using more psychological control than their fathers (Lansford, Laird, Pettit, Bates, & Dodge, 2014). Maternal use of psychological control has been found to have a stronger influence on antisocial behavior than paternal use of psychological control (Roman, Human, & Hiss, 2012). In addition, maternal psychological control has been found to be related to depressive symptoms and peer victimization (Batanova & Loukas, 2014). However, father's use of psychological control has been shown to lead to both externalizing and internalizing behaviors (Lansford, Laird, Pettit,

Bates, & Dodge, 2014). Additionally, maternal and paternal psychological control have been shown to be related to relational aggression, however, for maternal psychological control there is a bidirectional relationship between relational aggression and psychological control (Kuppens, Grietens, Onghena, & Michiels, 2009). The relation between parental psychological control and physical aggression is mediated by the quality of the adolescent's relationship with the other parent. For instance, paternal psychological control was related to aggression when the mother-child relationship was poor (Murray, Dwyer, Rubin, Knighton-Wisor, & Booth-LaForce, 2014).

There is little information in the empirical literature on gender differences in internalized shame. However, narcissism has been shown to be related to shame and anger, especially for boys (Thomaes, Stegge, Olthof, Bushman, & Nezlek, 2011). Girls generally report shame more than boys (Harris, 2006; Else-Quest, Higgins, Allison, & Morton, 2012). Girls also experience more shame in relation to abuse (Feiring, Taska, & Lewis, 2002). Girls also show more shame when failing tasks after having been maltreated (Alessandri & Lewis, 1996). Girls experience more shame in their belief in their ability to do math than boys do (Frenzel, Pekrun, & Goetz, 2007). Because of these various findings regarding gender differences in externalizing behavior, in parental and adolescent gender difference related to psychological control, and gender differences in shame, this study will examine differences in the relationship of the study variables for adolescent girls and adolescent boys.

The Current Study

Figure 1 shows the measurement and hypothesized model for the current study. To date no studies could be found that have examined the effects of psychological control on externalizing behavior in adolescents with internalized shame as a mediating variable, even

cross-sectionally. A strength of this study is that it will examine the relationship between these variables longitudinally using three waves of data.

The following hypotheses will be tested:

1) Mother psychological control at time 4 will be positively related to adolescent externalizing behaviors at time 6 (controlling for externalizing behaviors and father psychological control at time 4) for boys and girls.

2) Father psychological control at time 4 will be positively related to adolescent externalizing behaviors at time 6 (controlling for externalizing behaviors and mother psychological control at time 4) for boys and girls.

3) Mother psychological control at time 4 will be positively related to adolescent shame at time 5 for boys and girls

4) Father psychological control at time 4 will be positively related to adolescent shame at time 5 for boys and girls.

5) Adolescent shame at time 5 will be positively related to adolescent externalizing behavior at time 6 for boys and girls.

6) Adolescent shame, measured at time 5, will be a partial mediator of the relationship between mother and father psychological control, measured at time 4, and adolescent externalizing behavior, measured at time 6.

The literature review of gender differences is contradictory and insufficient to predict how the paths in the structural model might be different for boys and girls. Therefore, rather than creating hypotheses, the study will answer the following research question:

Using group comparison, this study will ask, how do the relationships between mother psychological control, father psychological control, shame, and externalizing behavior differ

based on gender of the adolescent? And since both mother psychological control and father psychological control are predictors in the model, the paths between variables for parent/child gender combinations can be examined.

Method

Participants

The data for this study was taken from waves 4, 5, and 6 of the Flourishing Families Project, a longitudinal study of inner-family life. The first 3 waves of data were not used because the measure for shame was not included in those waves. For the design of this study, both mother and father predictor variables were needed which led to the inclusion of 311 two-parent families at wave 6. Of these 311 families, there were 154 male adolescents (Mean age at wave 6 = 16.28, $SD = .98$) and 157 females (Mean age at wave 6 = 16.21, $SD = .99$). The average age at wave 6 of fathers was 50.19 years ($SD = 5.95$) and of mothers was 48.38 years ($SD = 5.45$).

In terms of ethnicity, 80.8% of mothers, 87.5% of fathers, and 78.6% of adolescents were European American; 5.1% of mothers, 5.6% of fathers, and 4.9% of adolescents were African American; and 14.1% of mothers, 7.3% of fathers, and 16.5% of adolescents were from other ethnic groups or were multiethnic. Regarding family income, 9.8% of the families made less than $59,000 per year, 34% made between $60,000 and $99,000 a year, 32% made between $100,000 and $139,000, with the remaining 24% making more than $140,000. The average number of children in these families was 2.45 ($SD = 1.04$).

Procedure

Participants in this study were recruited in a large, northwestern city using a purchased national telephone survey database (Polk Directories-InfoUSA). Families living in targeted census tracts that mirrored the socio-economic and racial diversity of the area were

identified as potential participants. All families with a child between the ages of 10 and 14 were able to participate in the study. Eligible families were contacted using a multi-stage recruitment protocol. Families were contacted directly, first by a letter of introduction. Home visits and phone calls were then made to confirm if the families were willing to participate. Interviewers then made an appointment to come to the family's home to administer questionnaires and tape a family interaction task.

In order to ensure diversity in the sample, families were recruited into the study through family referral processes. At the conclusion of their in-home interview, families were invited to identify two additional families in the recruitment area that matched study eligibility. This type of limited-referral approach permitted us to identify eligible families in the targeted area that were not represented in the Polk Directory. This strategy proved to be particularly useful in increasing the participation of families of color in the study. The Polk Directory national database was generated using telephone, magazine, and internet subscription reports, therefore, families of color (especially those of lower socio-economic status) were not appearing in the purchased database to the degree desired and needed. This strategy increased the social, economic and ethnic diversity of the sample.

Of the 692 families, 423 agreed to participate at wave 1, a 61% response rate. Of those, 372 were determined to have a child within the target age range. An additional 128 eligible families were identified through family referrals, resulting in a total of 500 families at wave 1 (335 two parent families; 165 single parent families). Only the two parent families were used in this study since the model examines both mother and father psychological control as separate predictor variables. Of the 335 two-parent families, 92.8% (n = 311) were still participating at Wave 6. Full Information Maximum Likelihood was used via AMOS's data imputation program

to deal with missing values where necessary, though little data was found missing (less than 0.4%).

Measures

  Mother and father psychological control. Mother and father psychological control was measured at wave 4 using the *Psychological Control Scale – Youth Report* (Barber, 1996). This scale is a Likert type scale ranging from 1 (*never*) to 5 (*very often*). The adolescents answered separately how often their mothers and fathers behaved in the way described in each item. Sample items included "If I hurt my mother's, father's feelings, she/he stops talking to me until I please her/him again" and "My mother/father is less friendly with me if I do not see things her/his way". Cronbach alphas for the wave 4 adolescent report on mothers was .86 and on fathers was .87. The mean of the summed items for mothers was used for mother psychological control, and the mean of the summed items for father was used for father psychological control in the model.

  Adolescent internalized shame. Shame was measured at Wave 5 using the "Inadequate" subscale of the *Internalized Shame Scale* (Cook, 2001). Using a 5-point Likert scale varying from 1 (*never*) to 5 (*almost always*), adolescents responded regarding how often they experienced the item. Sample items included "I feel like I am never quite good enough" and "I think that people look down on me". Wave 5 Cronbach's Alpha reliability coefficients were .94 for female adolescents and .93 for male adolescents. As shown in Figure 1, the mean of the eight items was used for the variable adolescent internalized shame in the model.

  Adolescent externalizing behavior. A latent variable called adolescent externalizing behavior will be created from the reports of the adolescent, of the mother, and of the father for wave 6 and for control at wave 4. Each of these participants responded to a 9-item measure of

antisocial behavior taken from the Youth and Family project. The nine items came from the delinquency subscale of the *Child Behavior Checklist-Youth Self-Report* (Achenbach & Edelbrock, 1987). The scale ranged from 0 (*not true*) to 2 (*often true*) with sample items such as "My child (I) lie(s) or cheat(s)" and "My child (I) steal(s) things from places other than home", and "My child (I) uses alcohol or drugs". Cronbach alphas for waves four and six were .78 and .75 for adolescents, .77 and .79 for mother's report about adolescent, and .66 and .79 for father's report about adolescent. The mean of items was used for each of these measured indicators. The factor loadings for adolescent report, mother report, and father report for girls were .99, .92, and .93 and for boys were .97, .92, and .90.

Covariates

Age of the adolescent, household income, parental education, and a dummy variable for race (Caucasian vs. other races) will be used as control variables in the model. As shown in Figure 1, the paths from the control variables to Adolescent Externalizing Behavior Wave 6 and the mediating variable, Adolescent Internalized Shame Wave 5 will be included in the model.

Analysis Plan

Descriptive statistics including means, standard deviations, and correlations were computed for all measured variables. Then t-tests were calculated to determine if there are significant differences between boys and girls on measured variables. Measurement models for the psychological control, shame, and externalizing variables were then analyzed to examine factor loadings for the externalizing behavior latent variable. Lastly, group comparison using AMOS 23 (Arbuckle 20145) was completed to examine whether there were differences in the strength of the relationships between variables based on adolescent gender. Bias corrected bootstrapping (Preacher & Hayes, 2008) with 2000 draws was used to test for mediation.

Results

Mean Scores and Correlations

Means and standard deviations for the predictor, mediator, and outcome variables were calculated for both boys and girls, as can be seen in Table 1. Parental psychological control was reported for both mothers and fathers with scores being higher for mothers than for fathers. Girls mean scores for psychological control scores for mother and father were 1.92 (SD = .72) and 1.77 (SD = .65), respectively. Mean scores for boys' reports of psychological control for mother were 1.93 (SD = .69) and for father 1.87 (SD = .67). The mean score for the mediating variable, adolescent shame, time 5, was higher for girls than for boys (2.06, SD = .97 vs. 1.79, SD = .83). The mean scores for the outcome variable, externalizing behavior, time 6, was higher for boys (self-report: .31, SD = .29; mother report: .20, SD = .21; and for father report: .25, SD = .20) than for girls (self-report: .25, SD = .27; for mother report: .18, SD = .20; and for father report: .17, SD = .26). Independent t-tests were computed to determine if the differences between boys and girls reports were significantly different, and the only variable with significantly different means was adolescent shame, time 5 (t =-2.70, df = 333, p < .05) with girls being higher.

In terms of correlations, mother psychological control was significantly correlated with externalizing behavior for both boys (for all three responders (r ranged from .16 to .21)) and girls (r ranged from .25 to .29). Father psychological control had similar correlations with adolescent externalizing behavior for both boys (r ranged from .18 to .20) and girls (r ranged from .19 to .32). Mother and father psychological control was also significantly related to adolescent shame for both boys (r. = 24 for mother psychological control and r = .28 for father psychological control) and girls (r = .25 for mother psychological control, and r = .26 for father psychological control). Adolescent shame was significantly correlated with adolescent externalizing behavior at

time 6 for both boys (*r* ranged from .17 to .19) and girls (*r* ranged from .20 to .29). These correlations appear to be in the expected directions.

Group Comparison

A fully unconstrained model where all paths were free to vary between boys and girls was compared to a fully constrained model where all paths were constrained to be equal for boys and girls. The X^2 difference test showed that the models were significantly different from each other (134.92 – 55.59 = 79.32, *df* of 30 – *df* of 16 =*df* of 24, *p* < .001). The next step was to start with a fully constrained model and release one path at a time and then examine the resulting fit indices. Then a second path was released and fit indices were examined. This was continued until releasing additional paths showed that the resulting model had poorer fit than the preceding model. As shown in Figure 2, the model with the best fit was one in which three paths were unconstrained (mother psychological control, time 4 to adolescent externalizing behavior, time 6; father mother psychological control, time 4 to adolescent externalizing behavior, time 6; and adolescent shame, time 5, to adolescent externalizing behavior, time 6). The fit indices showed the model was a good fit to the data (X^2 = *54.62, df* = 40, *p* = .062, *CFI* = .967, *RMSEA* = .048).

Structural Results

As can be seen in Figure 2, adolescent externalizing behavior at time four and adolescent age were used as control variables. Age significantly predicted adolescent externalizing behavior at time six (boys β = .18, *p* < .05 and girls β = .19, *p* < .05). This means that an increase in age was accompanied by an increase in externalizing behaviors. In addition, mother psychological control, time four, significantly predicted adolescent externalizing behavior at time six for both boys and girls (β = .19, *p* < .05 for boys and β = .32, *p* < .001), and as discussed above, the group comparison showed that this relationship was stronger for girls. Father psychological control,

time four, also significantly predicted adolescent externalizing behavior at time six (β .20, *p* < .01 for boys and β = .26, *p* < .001 for girls), and this relationship was also stronger for girls. These results lend support to the first and second hypotheses regarding parental psychological control being positively related to adolescent externalizing behaviors.

Tests for Mediation

Figure 2 shows that mother psychological control was related to adolescent shame at time five (β = .22, *p*<.01 for boys and β = .25, *p*<.001 for girls) as was father psychological control (β = .26, *p*<.001 for boys and β = .24, *p*<.001). These findings give support to hypotheses three and four that psychological control would be positively related to shame one year later. In addition, adolescent shame at time five predicted adolescent externalizing behavior at time six (β = .18, *p*<.05 for boys and β = .25, *p*<.001 for girls) with this relationship being stronger for girls than for boys. These results support the fifth hypothesis that shame would be positively related to adolescent externalizing behavior at time six.

Bias corrected bootstrapping (Preacher & Hayes, 2008) with 2000 draws was used to determine if adolescent shame, time five, significantly mediated the relationship between the two parental psychological control variables at time four and adolescent externalizing behavior at time six. The results showed that adolescent shame partially mediated the relationship between both mother psychological control and father psychological control and adolescent externalizing behavior for both girls and boys (Girls: Mother psychological control – Adolescent Externalizing Behavior, β = .0600, 95% *CI*: .017 to .124, *p* < .01; Father psychological control – Adolescent Externalizing Behavior, β = .0625, 95% *CI*: .013 to .119, *p* < .001; For Boys: Mother psychological control – Adolescent Externalizing Behavior, β = .0396, 95% *CI*: .028 to .106, *p* <

.05; Father psychological control – Adolescent Externalizing Behavior, $\beta = .0468$, 95% *CI*: .019 to .112, $p < .01$).

Discussion

The current study sought to investigate the relationship between parental psychological control and adolescent externalizing behavior with adolescent internalized shame as a potential mediating variable. The findings showed that parental psychological control, for both mother and father, was related to adolescent externalizing behavior, for both boys and girls. In addition, mother and father psychological control was related to adolescent internalized shame for both boys and girls. Adolescent internalized shame was also related to externalizing behavior for boys and girls. Shame partially mediated the relationship between parental psychological control and adolescent externalizing behavior. These results support the six hypotheses that were under investigation for this study.

In terms of gender differences, girls reported experiencing more shame than boys. This finding is congruent with previous studies (Harris, 2006; Else-Quest, Higgins, Allison, & Morton, 2012). Boys and their parents reported more externalizing behavior than girls and their parents. Harris-McKoy and Cui (2013) similarly found that adolescent boys exhibit more delinquency and other externalizing behaviors than do girls.

The finding that parental psychological control is related to adolescent externalizing behavior is consistent with findings in several studies (Helwig et al., 2014; Pettit et al., 2001; Lansford et al., 2014; Arim & Shapka, 2008; Soenens & Vansteenkiste, 2009). According to Self-Determination Theory, a possible explanation for the relationship between parental psychological control and adolescent externalizing behavior is that adolescents who experience their parents using high psychological control are likely to be frustrated in fulfilling three basic

psychological needs: autonomy, competence, and relatedness (Soenens & Vansteenkiste, 2009).

Psychological control, as reported earlier, is a method through which parents use guilt induction

and shaming strategies to increase the internal pressure in their adolescent child resulting in the

adolescent feeling that they are being controlled, that they are incapable, and that the relationship

with the parent is conditional (Soenens & Vansteenkiste, 2009). Therefore, adolescents may

rebel against the source of control, their parents, by engaging in externalizing behavior in order

to gain autonomy. Adolescents may turn to friends as a way to fulfill their need for relatedness.

These friends may be those of whom the parents do not approve, and such friends may be the

avenue through which adolescents are introduced to and engage in externalizing behavior.

Studies have shown that adolescents exhibit higher externalizing behaviors when their peers are

also engaging in externalizing behavior (Monahan, Rhew, Hawkins, & Brown, 2013). Peers have

also been shown to be the most proximal influence when it comes to externalizing behavior

(Henneberger et al., 2012).

The finding that internalizing shame mediates the relationship between parental

psychological control and adolescent externalizing behavior is a new finding that has not been

previously reported in the literature. A possible explanation for the link between psychological

control and internalized shame is offered by Harper and Hoopes (1990) who have identified three

family dynamics that are related to the development of internalized shame in children. The three

family dynamics are dependency, intimacy, and accountability. Two of these three family

dynamics (dependency and intimacy) are related to the three basic needs from Self-

Determination Theory: autonomy, competence, and relatedness (Soenens & Vansteenkiste,

2009). The dynamic of dependency is defined as the ability of parents to allow a child to be

dependent on them for the child's needs early in life and the ability of parents to allow the child

to be more independent of the parent as the child matures (Harper and Hoopes, 1990). When a parent does not adapt their behavior, related to dependency, to the development and maturity of an adolescent by allowing more autonomy for the adolescent, the result is likely internalized shame in the adolescent. Similarly, low intimacy or an adolescent feeling a lack of connection with or relatedness to their parent is likely to result in internalized shame in the child.

Another possible explanation for the relationship between parental psychological control and adolescent internalized shame is that parental shaming behavior and use of psychological control are highly correlated constructs (Fung & Lau, 2012). Therefore in this study parental psychological control may have acted as a possible "marker" for parental shaming behavior with parents using behavior such as implying a child is bad, that something about the child is wrong, or that the child will never be any good.

A third possible explanation could be that, as was found in other studies, parents who experience shame themselves are prone to using psychological control (Mills et al., 2007; Scarnier, Schmader, & Lickel, 2009). In this case an adolescent may develop internalized shame based on their sense of their parent's internal state in addition to the psychologically controlling behaviors used by the parent.

In terms of the relationship between shame and externalizing behaviors, Stuewig et al. (2015) found that shame in adolescent was related to specific externalizing behaviors, such as underage drinking, drug use, and engaging in unprotected sex. The psychodynamic theory of shame (Harper, 2011) suggests that shame prone individuals develop a schema where they see themselves as bad and they expect others to shame or mistreat them. This suggests that individuals with a shame based schema are likely to seek shaming experiences and engage in

high risk behaviors because they consider themselves as "bad" and the social norms against these behavior do not have as much influence.

Another possible explanation for the relationship between shame and externalizing behavior goes back to Self-Determination Theory (Soenens & Vansteenkiste, 2009). Adolescents may experience feelings of incompetence in response to their parent using psychological control and these feelings of incompetence can transform into internalized shame. This could result in an adolescent engaging in externalizing behavior in order to show their parent that they are not in control. In addition, the adolescent would want to increase a sense that they are capable which may reduce the feelings of internalized shame that the adolescent is experiencing. The knowledge that shame mediates the relationship between psychological control and externalizing behavior allows for additional clinical intervention, which is discussed below.

Implications for Marriage and Family Therapists

The findings of this study give family therapists a direction and focus for treatment when helping families where an adolescent engages in externalizing behavior. Parental psychological control was found to be directly related to and predictive of adolescent externalizing behavior, indicating that one area of particular focus should be how the parent interacts with and disciplines the adolescent. Psychoeducation about the three basic psychological needs of autonomy, competence, and relatedness from Self-Determination Theory (Soenens & Vansteenkiste, 2009) and encouraging new skills might help reduce negative parenting practices such as guilt and shaming behaviors which are inherent in the use of psychological control. In addition, psychoeducation about the family dynamics of intimacy, dependency, and accountability as well as the resulting shame in family members (Harper & Hoopes, 1990)

delivered by a warm and caring therapist would create a safe environment that would allow for all members of a family to start a conversation about shame.

Evidence based family therapy models that are directed at treating delinquency and other externalizing behaviors include Functional Family Therapy (Alexander, Waldon, Robbins, & Neeb, 2013), Multisystemic Therapy (Henggeler, Schoenwald, Borduin, Rowland, & Cummingham, 2009), Multidimensional Family Therapy (Liddle, 2009; 2016), and Brief Strategic Family Therapy (Szapocznik, Schwartz, Muir, & Hendricks-Brown, 2012). Each of these models are founded on a family systems perspective and the premise that externalizing behaviors are developed and maintained through problematic patterns of family interaction. In addition, family functioning is critical in developing positive change in adolescents. Treatment should therefore focus on changing interpersonal dynamics among all family members because changes in family relationships will reduce externalizing behaviors in adolescents.

A therapist using Functional Family Therapy conducts relational assessments by eliciting and observing interactions in each dyad in the family. With Multisystemic Therapy a flexible approach is used that focuses on the adolescent, the parents, the family, and influences outside of the family unite. A therapist might meet with an adolescent alone, with the parents alone, or with the parents and adolescent together depending on the domains that influence the problem bringing the family in for treatment. In Multidimentional Family Therapy a therapist works on improving family communication, parenting skills, and rebuilding the relationship between adolescents and their parents. With Brief Strategic Family Therapy the goal is to change patterns of family interactions that allow or encourage problematic adolescent behaviors. All of these treatment models have interventions that would focus on replacing psychological control as a problematic parenting strategy with more positive parenting behaviors that strengthen emotional

attachments and connection. Therapists would model alternative behaviors and offer directives and suggestions for alternative parenting behaviors. The results found in this study support these interventions with the finding that problematic psychological control is related to adolescent externalizing behaviors and reducing parental use of psychological control may result in a decrease in externalizing behaviors.

The finding that internalized shame in the adolescent mediates the relationship between parental psychological control and adolescent externalizing behavior has implications for intervening daily with the adolescent's shame in addition to changing family patterns. Acceptance and Commitment Therapy has been shown to reduce dysfunctional, internalized shame in psychotherapy (Luoma, Kohlenberg, Hayes, Bunting, & Rye, 2008; Yadavaia & Hayes, 2012). Luoma and colleges (2012) found that adding Acceptance and Commitment interventions that target shame to substance abuse treatment resulted in longer lasing improvements in shame as well as in substance use. The findings of this study imply that a combination of interventions that target family interaction patterns and interventions that specifically target the adolescent's shame may result in the greatest reduction in externalizing behaviors.

Limitations and Future Research

There were several limitations in this study. The families included in the study were from a community population from the northwestern United States. Though the demographics of the participants in the study reflected the demographics of that region in terms of race and ethnicity, the results found may not generalize to other geographical regions in the United States, other ethnicities, or other cultures. In addition, the families consisted of two-parent families with a mother and a father. Single parent families, cohabitating parents, or blended families may alter the relationships found between variables in the study.

More research is needed in order to test the generalizability of these findings to other ethnicities, cultures, and family structures both in the United States and in other countries. In addition, since there have been no published studies examining internalized shame as a mediating variable between parental psychological control and adolescent externalizing behavior, more research needs to be done to replicate these findings. This study also only included adolescents so caution is urged in generalizing the findings to children of other ages.

Conclusion

This study examined the relationship between parental psychological control and adolescent externalizing behavior with adolescent internalized shame as a mediating variable. Findings showed that parental use of psychological control was related to adolescent externalizing behaviors. In addition to the effect of psychological control, the adolescent's shame was also found to be a process through which parental psychological control was related to externalizing behaviors. According to self-determination theory the frustration of three basic psychological needs (autonomy, competence, and relatedness) underlie the relationship between parental psychological control and adolescent externalizing behavior. The frustration of these needs may also be the reason that adolescent internalized shame mediates the relationship. Further research is needed to replicate and expand these findings across cultures, ethnicities, and ages.

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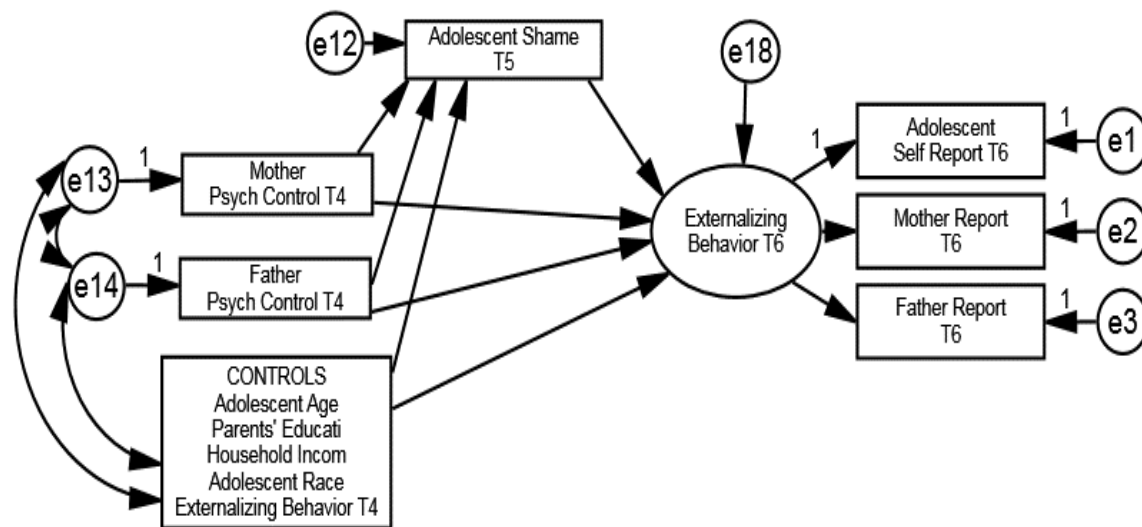Figure 1 Measurement and Conceptual Model

Table 1 Means, Standard Deviations, and Correlations for All Measured Variables (N=311 families; 157 daughters, 154 sons).

	1	2	3	4	5	6	7	8	9
1.Mother Psychological Control T4	**1.0**	.72***	.26***	.25***	.26***	.29***	.38***	.18*	.36***
2.Father Psychological Control T4	.71***	**1.0**	.25***	.26***	.19**	.32***	.30***	.15	.22**
3.Adolescent Shame T5	.24***	.28***	**1.0**	.29***	.20**	.28***	.24***	.16*	.17*
Adolescent Externalizing Behavior T6									
4. Adolescent Report T6	.21**	.20**	.17*	**1.0**	.46***	.41***	.53***	.30***	.29***
5. Mother Report T6	.16*	.18*	.19**	.39***	**1.0**	.58***	.50***	.51***	.48***
6. Father Report T6	.20**	.19**	.18*	.46***	.74***	**1.0**	.48***	.62***	.56***
Adolescent Externalizing Behavior T4									
7. Adolescent Report T4	.17*	.19**	.14	.64***	.39***	.36***	**1.0**	.41***	.46***
8. Mother Report T4	.10	.19**	.16*	.25***	.52***	.42***	.45***	**1.0**	.55***
9. Father Report T4	.16*	.17*	.12	.41***	.45***	.59***	.51***	.59***	**1.0**
10. Adolescent Age	.11	.10	.06	.17*	.18*	.18*	.10	.09	.01
11. Adolescent Race	.23**	.26**	.12	.04	-.09	.02	-.04	-.01	.02
12. Family Size	.16*	.13	.17*	-.09	-.13	-.06	-.11	-.07	-.06
13. Parent Education	-.06	-.02	-.07	-.02	-.12	-.10	-.03	-.08	-.11
14. Household Income	-.07	-.02	-.08	.04	.04	-.02	.08	.07	.03
Mean Girls	1.92	1.77	2.06	.25	.18	.17	.18	.08	.11
S.D. Girls	.72	.65	.97	.27	.20	.26	.26	.17	.17
Mean Boys	1.93	1.87	1.79	.31	.20	.25	.36	.21	.25
S.D. Boys	.69	.67	.83	.29	.21	.20	.20	.15	.15

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

Girls on top of diagonal – read down/Boys are on bottom of diagonal – read across

Table 1 Continued

	10	11	12	13	14
1.Mother Psychological Control T4	.14	.23**	.13	-.10	.10
2.Father Psychological Control T4	.06	.10	.21**	-.13	.03
3.Adolescent Shame T5	.10	.05	.03	-.01	.09
Adolescent Externalizing Behavior					
4. Adolescent Report T6	.24***	.16*	-.06	-.09	-.03
5. Mother Report T6	.18*	.11	-.05	-.08	-.03
6. Father Report T6	.19**	.17*	-.03	-.04	-.02
Adolescent Externalizing Behavior					
7. Adolescent Report T4	.34***	.10	-.05	-.14	-.01
8. Mother Report T4	.23**	.13	-.03	-.04	-.03
9. Father Report T4	.24***	.06	-.02	-.05	.02
10. Adolescent Age T6	**1.0**	.01	-.04	-.02	-.12
11. Adolescent Race	.02	**1.0**	-.06	-.03	-.08
(European American vs all others)					
12. Family Size	-.13	.16*	**1.0**	-.05	-.06
13. Parent Education	-.08	-.04	.21**	**1.0**	.18*
14. Household Income	.04	-.13	.03	.31***	**1.0**
Mean Girls	16.22	NA	4.58	4.78	$86.12K
S.D. Girls	.95	NA	1.02	1.49	$ 6.78K
Mean Boys	16.25	NA	4.35	4.87	$87.04K
S.D. Boys	.96	NA	.97	1.49	$ 6.61K

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

Girls on top of diagonal/Boys are on bottom of diagonal

Figure 2 Structural Equation Results for Mother and Father Psychological Control at Time 4 Predicting Adolescents Externalizing Behavior T6 with Adolescent Shame T5 as Mediating Variable (with age of child and Externalizing Behavior T4 as Control Variables; N=168 girls and 167 boys).

$X^2 = 54.62$, $df = 40$, $p = .062$
$CFI = .967$, $RMSEA = .048$
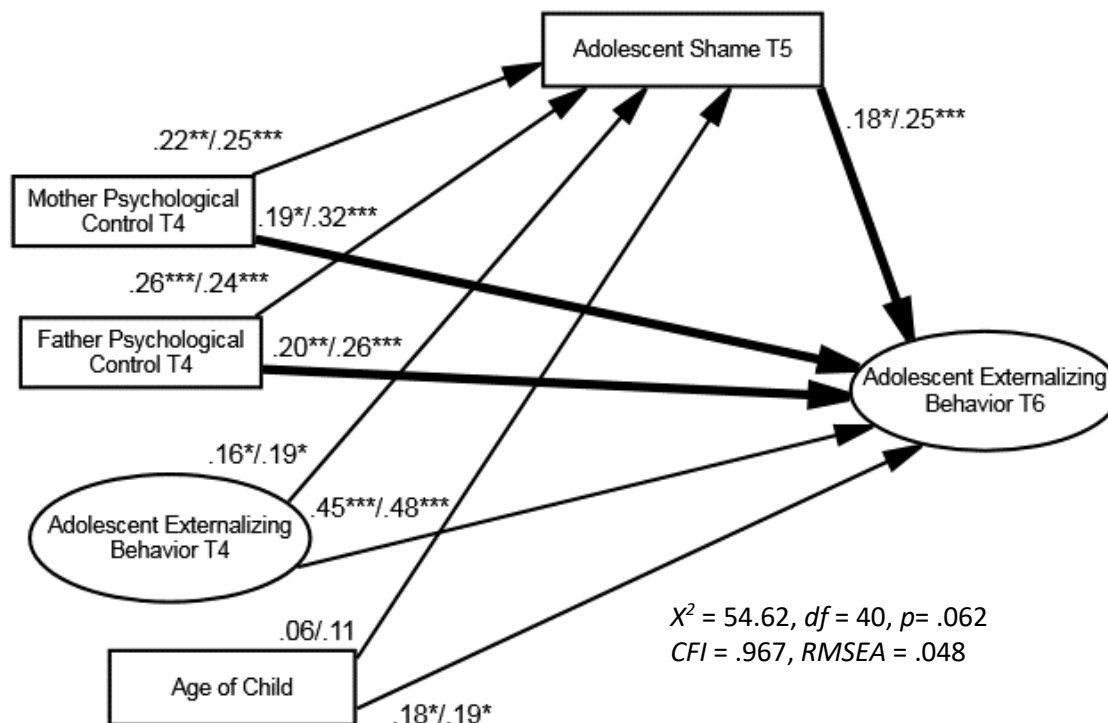
*p<.05, **p<.01, ***p<.001

NOTE: Paths where girls and boys were significantly different are bolded. Boys' coefficients are before the slash; girls' coefficients are after the slash

NOTE: Other control variables (adolescent race, family size, father education, and household income) were included in the model, but they were not statistically related to the outcome and mediator variable so they are not included here for the sake of simple presentation.