

Are Adolescent Sex Offenders' Peer Relationships related to Attachment to Parents? Does Adaptive and Maladaptive Emotion Regulation Mediate that Relationship?

by

Milira D. Cox

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Approved by

Margaret K. Keiley, Chair, Professor and Director of Clinical Research of Human Development and Family Studies
Stephen A. Erath, Associate Professor of Human Development and Family Studies
Adrienne Duke, Assistant Professor of Human Development and Family Studies

Abstract

Adolescents who have sexually offended commonly report offending someone within their peer network. However, little research has investigated factors that may contribute to poor quality of peer interactions. The purpose of this study is to examine how adolescents' attachment to their parents and peers, and both adaptive and maladaptive emotion regulation are related. Additionally, this study examines the mediational role of adaptive and maladaptive emotion regulation. For this study, 187 incarcerated adolescents at a correctional facility in Alabama completed self-report questionnaires regarding demographic information, attachment to their parents and peers, and both adaptive and maladaptive emotion regulation ability. We found that adolescents' attachment to their parents is related to adaptive and maladaptive emotion regulation, as well as adolescents' attachment to peers. Through path analyses, this study was the first to test and find that adaptive and maladaptive emotion regulation ability mediated the relationship between attachment to parents and peers.

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Introduction

According to the Office of Juvenile Justice and Delinquency Prevention (OJJDP; Finkelhor, Ormrod, & Chaffin, 2009), more than 85% of male adolescent sexual offenders report offending a person between ages 12 and 17 years old. Approximately 64% of these offenders report that their victim was a peer, and 25% report that their victim was a family member. While victims (Clark et al., 2011; Resnick, Walsh, Schumacher, Kilpatrick, & Acierno, 2013) and effects of sexual abuse on victims (Gupta et al., 2011; Kremer, Orbach, & Rosenbloom, 2013; Steine et al., 2012; Trickett, Noll, & Putnam, 2011) have been widely studied, very few studies have investigated the sexual offenders themselves. Moreover, even less is known about the relational network of adolescents who have sexually offended (Keiley, Zaremba-Morgan, Datubo-Brown, Pyle, & Cox, in press; Ryan, Leversee, & Lane, 2011; Seto & Lalumiere, 2010). Yet, the statistics above highlight a significant need for further investigation of adolescent sexual offenders and their relationships with peers and parents, as well as their ability to control arousal and emotion. Investment in these efforts will provide a concrete foundation and direction for policy and intervention for this population.

As children progress through the transitional era of adolescence, their involvement with peers begins to increase while interactions with parents decrease (Larson, Richards, Moneta, Holmbeck, & Duckett, 1996). Researchers have argued that during adolescence, children often extend attachment behaviors from parents to peers,

but ultimately refer to parents as their secure base (Allen, Porter, McFarland, McElhaney, & Marsh, 2007; Nickerson & Nagle, 2005). Conversely, others have countered that during adolescence, adolescents value friendship and popularity more than their relationships with parents and thus these interactions with friends are more influential in decision making than in pre-adolescence (LaFontana & Cillessen, 2010). Adolescents are more likely to seek help and advice from peers than parents, and often feel that they can disclose information to friends more freely during this time than they can to parents (Fuligni & Eccles, 1993; Fuligni, Eccles, Barber, & Clements, 2001; Nickerson & Nagle, 2005). Yet, while adolescence is a time when most children can successfully break away from their families and start to establish solid peer relations, others are not quite as successful (Abela, Hankin, Sheshko, Fishman, & Stolow, 2012; Fields & Prinz, 1997; Steinberg, 2001). Researchers who have investigated the population of sexual offenders argue that shifting the balance of attachment from parents to peers depends on the adolescent's attachment bond with their parent (Marshall, 2010). As children mature they begin to dismiss their parent as the primary attachment figure, and gain a sense of autonomy. However, parents of insecure youth can make the transition increasingly difficult; therefore increasing feelings of ambivalence towards the parents, feelings of loneliness, and higher levels of uncertainty and anxiety (Marshall, Hudson, & Hodkinson, 1993). Interestingly, youth who report insecure attachments to their parents also report poorer quality of friendship with peers, and demonstrate higher levels of externalizing behaviors, including sexual aggression (Marshall, Hudson, & Hodkinson, 1993; Zaremba & Keiley 2011). Previous research also indicates that those who have an insecure attachment are also known to struggle

with regulating their emotions. We know that maladaptive emotion regulation and insecure attachment are associated with one another (Burk & Burkhart, 2003; Cicchetti & Toth, 1995), and that insecure attachment can create trouble in relationships with peers from childhood through the transition to adolescence. However, while several studies have examined both parental and peer attachment relationships (Fuligni & Eccles, 1993; Fuligni et al., 2001; Nickerson & Nagle, 2005), few have examined the direct affiliation between the two domains of attachment (Allen et al., 2007; Kerns, Contreras & Neal-Barnett, 2000). Even fewer have studied this association in the population of adolescents who have sexually offended.

Using data from the longitudinal Multiple Family Group Intervention (MFGI) program (see Keiley, Zaremba-Morgan, Datubo-Brown, Pyle, & Cox, in press for details), the current study aims to investigate the association between adolescent relationships with peers and attachment to parents, among adolescents incarcerated for sexual offending. Furthermore, this analysis investigates adolescents' adaptive and maladaptive emotion regulation as mediators of this relationship, controlling for race and age.

Review of the Literature

Attachment to Parents and Attachment to Peers

Attachment theory (Ainsworth, 1990; Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1958, 1982) provides the structure for conceptualizing the nature and effects of the parent-child dyad. Attachment theory also suggests that the bonds developed

between a child and caregiver during infancy will ultimately influence relationships that develop later in life (Bowlby, 1977; 2005). Allen et al. (2007) found that attachment security with parents can also extend to interactions with peers. Additionally, they found that security is negatively related to depressive symptoms and externalizing behaviors. Adolescents who perceive themselves as securely attached to parents are more likely to seek emotional support from peers, are more popular, and have healthier relationships overall (Allen et al., 2007). Investigators have argued that although security itself isn't significantly related to acceptance by peers, it is possible that adolescents learn social skills and how to handle intimacy/closeness from their family of origin, and then practice these skills within relationships with friends (Lieberman, Doyle, & Markiewicz, 1999). Other researchers have suggested that securely attached individuals report fewer interpersonal problems with peers (Nelis & Rae, 2009), greater peer competence (Cook, Buehler, & Fletcher, 2012), and lower levels of rejection and victimization (Rubin, Dwyer, Booth-LaForce, Kim, Burgess, & Rose-Krasnor, 2004).

As our knowledge about peer attachment continues to grow, researchers have highlighted the importance of these relationships within normative groups. In their largest contribution to the literature, Armsden and Greenberg (1987) proposed and found that peer attachment incorporates three dimensions – trust, communication, and alienation – in order to remain consistent with original theories on early attachment within the parent-child relationship (Armsden & Greenberg, 1987). The researchers described the significance of the peer attachment relationship, especially during adolescence when youth begin to seek intimacy and closeness outside of their family networks. Adolescents who were secure in their parental relationship reported higher

levels of social support, closeness, and overall satisfaction, as well as lower levels of conflict and negativity. However, other researchers argue that during adolescence, children are not establishing attachment bonds with peers in order to replace their bond with parents (Gorrese & Ruggieri, 2012). Instead, the researchers reaffirmed that adolescents with secure attachment to parents will develop an additional secure bond with peers. Furthermore, adolescents who do not have a secure relationship with parents will also lack security in their peer relationships as well (Gorrese & Ruggieri, 2012).

Adolescents who sexually offend commonly have developed an insecure attachment to their parents, due to the often chaotic environment in which they have been raised; environments in which caregivers have been unavailable and/or unresponsive. Additionally, sex offenders often describe their parents as cold, distant, rejecting, hostile, abusive, and/or emotionally detached (Maniglio, 2012). Adolescents with sexual offenses also lack the confidence and social skills to support the development of intimate friendships (Maniglio, 2012; Marshall, Hudson, & Hodgkinson, 1993). Furthermore, these adolescents often try to accommodate for their lack of intimacy by means of control or power through inappropriate sexual behaviors (Maniglio, 2012). Perhaps further examination of these relationships will reveal a common factor other than patterns of attachment.

Although a great deal is known about adolescents' attachment to parental figures, and an increasing amount is known about the bond adolescents develop with friends, little is known about whether a direct relationship exists between adolescents' attachment to parents and their attachment to peers (Carlo, McGinley, Hayes, &

Martinez, 2012; Gorrese & Ruggieri, 2012; Laible, Carlo, & Raffaelli, 2000).

Furthermore, our knowledge of the attachment to parents and peers for adolescents who have sexually offended is incredibly limited. The current study will examine if attachment to parents is related to attachment to peers in the population of adolescents who sexually offend.

Attachment to Parents and Emotion Regulation

Although parental figures have an unequivocal affiliation with children's ability to regulate emotions (Hudson & Ward, 1997), Contreras and Kerns (2000) have debated the role of emotion regulation in the association between parent attachment and peer relationships, suggesting that while both are indirectly related, emotion regulation may indeed be the missing link between them (Kerns, Contreras & Neal-Barnett, 2000).

Interestingly, previous research on attachment uncovered the indirect effect of parent's affective behaviors on children (Robinson, Emde, & Korfmacher, 1997). Parents who are capable of regulating their own emotions are seen as warm, responsive, and trustworthy, creating nurturing environments for their children, and ultimately promoting secure attachment (Bowlby, 1977; 2005). Securely attached children are able to maintain close proximity to their caregivers, which provides the opportunity for them to observe and experience how the caregivers deal with emotionally arousing situations. In addition, securely attached children are also able to explore, thus encountering situations in which they are able to implement, sometimes successfully and sometimes not, what regulation strategies they have established. Insecure children are not able to regulate emotional arousal as well (Kerns, Contreras & Neal-Barnett, 2000).

Unlike their secure counterparts, insecure (avoidant, anxious, disorganized) children have difficulty managing stressful situations, and maintaining exploration and self-confidence in unfamiliar settings (Creasey & Hesson-McInnis, 2001). During highly arousing and stressful events children who are avoidant tend to restrict the expression of anger and distress, then withdraw or flee from interpersonal interactions. Children who are anxious become hyper-vigilant to their own symptoms of arousal and also to the situation in which they experience this high arousal. These children show heightened distress and increased levels of fear, anger, or aggression, ultimately distancing those who they hope will comfort them (Mikulincer & Florian, 1998). Disorganized children tend to respond to high arousal with very few consistent strategies, often fighting and fleeing, or simply freezing. These response patterns become habitual over time, thus those who are insecure will revert to their habitual way of responding – fight, flight, or freeze – in stressful situations.

Zaremba and Keiley (2011) examined the mediational effects of affect regulation in the relationship between attachment to parents and internalizing/externalizing behaviors in adolescent males who sexually offend. Their findings suggest that parental attachment is positively associated with affect regulation and is negatively associated with affect dysregulation in this population. In other words, when the adolescents are securely attached to their parents they have a greater ability to regulate their emotions, and vice versa. Those who have poor attachment have more problems regulating their emotions. Furthermore, these results suggest that maladaptive regulation may be an important mechanism by which attachment affects internalizing and externalizing behaviors for these adolescents which may make attachment to peers more or less

viable. In other words, the researchers have shown that maladaptive traits, or poor emotion regulation skills, may be the link between attachment and problem behaviors among adolescents who sexually offend. This is consistent with previous theories that suggest that insecurely attached adolescent sex offenders have trouble regulating their emotions in social situations, which in turn promote aggressive (sexual) behaviors (Marshall, 2010). The current study will examine this possibility.

Emotion Regulation and Peer Attachment

Few studies have examined the connection between emotion regulation and peer attachment. However, previous studies have focused specifically on outcomes such as adolescent's ability to adjust while managing peer-conflict and problem behaviors (Laible, Carlo, Panfile, Eye, & Parker, 2010; Yeager, Trzesniewski, Tirri, Nokelainen, & Dweck, 2011; Zalewski, Lengua, Wilson, Trancik, & Bazinet, 2011). Laible and her colleagues did find that the link between parent and peer attachment is mediated through aspects of emotional competence, in particular, the ability to use appropriate social behavior. Nevertheless, we know that in the population of adolescents who offend sexually, a lack in social competence/social skills, social awkwardness or isolation, and poor peer relationships are all common factors (Marshall, 1989; Zaremba & Keiley, 2011). Other researchers have focused on anxiety and depression, which are disorders of emotion regulation that often develop during adolescence, and their influence on the quality of friendships (Aldao, Nolen-Hoeksema, & Schweizer, 2010; Nelis & Rae; 2009; Nolen-Hoeksema, 2012). Likewise, these disorders are also commonly diagnosed among adolescent sex offenders (Zaremba & Keiley, 2011).

In the population of adolescents with sexual offenses, only a limited amount of research has examined the association between emotion regulation and attachment to peers. We know that adolescents who sexually offend have higher rates of anxiety than other adolescent offenders, and also have higher levels of social anxiety and fear or distress during social situations (Maniglio, 2012; Marshall, Hudson, & Hodgkinson, 1993; Zaremba & Keiley, 2011). They feel more social distress and perceive themselves to be less socially competent than their counterparts; thus, indicating that these adolescents may lack the ability to regulate their emotions during social interactions (Maniglio, 2012; Seto & Lalumiere, 2010). Maladaptive affect regulation, or affective dysregulation, can contribute to problem behaviors in adolescents who sexually offend (Zaremba & Keiley, 2011) that might limit their abilities to socialize well with peers. Keiley et al. (in press) in their longitudinal study of the effects of the Multiple Family Group Intervention on adolescent boys who sexually offend found that improvement in managing maladaptive emotional arousal decreases problem behavior and also increases parental attachment. When maladaptive emotion regulation decreases, adolescents increase their ability to depend on their parents and feel more closeness with their parents (Keiley et al., in press). Perhaps the same is true for their connections with their peers. We will investigate this in the current study.

Attachment to Parents, Emotion Regulation, and Attachment to Peers

While few studies have examined the relationship between parent and peer attachment as it relates to emotion regulation, one study found that adolescents who report feeling less attached to both parents and peers experience more depression

overall (Kullik, 2013). Additionally, the findings from this study also indicate significant sex differences in the mediational role of emotion regulation. While internal-dysfunctional regulation is a partial mediator for the association of attachment to peers and depression among girls, internal- and external-dysfunctional emotion regulation partially mediates the relation of attachment to parents and depressive disorders in boys (Kullik, 2013). Previous findings have suggested that separate associations exist between attachment to parents and peers, and emotion regulation. However, recent studies indicate that these relationships may be more interdependent than first thought (Keiley et al., in press; Kerns, Contreras, & Neal-Barnett, 2000; Kullik, 2013). Research on the effect of attachment to parents on attachment to peers, as possibly mediated by adaptive and maladaptive affect regulation, is scarce, and even less is known about these relationships in the population of adolescents who have sexually offended. A vast majority of the studies mentioned earlier have examined predominantly European-American populations. The current study will include both European-American and African-American male adolescents, from the population of adolescent sex offenders.

Hypotheses

The hypotheses for this thesis are represented in Figure 1. We first hypothesize that an association exists between adolescent attachment to parent and adolescent attachment to peers. Secondly, we hypothesize that a relationship exists between attachment to parents and adolescents' emotion regulation (both adaptive and maladaptive). Thirdly, we believe that a relationship between both maladaptive and

adaptive affect regulation and adolescent attachment to peer also exists. We also hypothesize that in the final model (Figure 1, below) the path between parent and peer attachment will be zero, when all the other paths are in the model, indicating that the effect of parental attachment on peer attachment is through both adaptive and maladaptive emotion regulation; that mediation does exist.

Method

Participants

The sample for this research study will be drawn from a larger intervention study of a Multiple Family Group Intervention (MFGI) program. All of the adolescents in this study are incarcerated for committing a sexual offense(s) and court-ordered to serve their sentence at the Department of Youth Services (DYS) juvenile correctional facility in Alabama. These adolescents have committed various sexual offenses, including (but not limited to) fondling and molestation, receiving and/or giving anal or oral sex, digital penetration, and forced vaginal intercourse. Some have perpetrated for a short period of time and others for years. These offenses had occurred with younger siblings, other family members, or others in the community. As a part of their treatment the adolescents were involved in the Accountability Based Sex Offender Program (ABSOP; Burkhart, Peaton, & Sumrall, 2009). As part of their ABSOP treatment, they are required to attend the MFGI. All parents, and other family members, were also invited to attend the MFGI, but some are unable or unwilling to attend; in the case of non-attendant parents, the adolescents are still required to attend.

The adolescents in ABSOP are housed in dorms, each serving 12 to 16 boys, and they are constantly supervised unless alone in their bedroom. During the day, they are involved in treatment (individual and/or group therapy), school, and free time for reading, TV, socializing, and/or sports. Despite their structured lifestyle, these adolescents still experience numerous problems with their behaviors, attachment, and affect regulation while incarcerated. Many opportunities exist in which the adolescents interact with other incarcerated peers, dorm staff, therapists, and educators. Inability to regulate physiological arousal levels often contributes to physical fights and verbal altercations with others. These and other externalizing behavior problems displayed while incarcerated cause penalties and consequences for the adolescents. Being incarcerated and separated from family and friends, these adolescents also experience intense internalizing difficulties such as anxiety, depression, and somatic disorders. In addition, attachment is especially relevant since the adolescents are only allowed visitation with family members once a month (twice a month if they are part of the MFGI program). Therapists and case managers, however, often keep primary caregivers informed of their adolescent's observable behaviors and difficulties by phone. The majority of adolescents are incarcerated for approximately one year.

Sample

One hundred and eighty-seven (187) male adolescents who sexually offended are included in this study from the multiple family groups that were conducted from 2006 to 2013. The adolescents range from 12 to 19 years old, with a mean age of 15.71 (*SD*

= 1.6). The majority of participants are European-American (61%), but African Americans (32%) and Hispanics (6%) are also included.

Procedures

Caregivers were invited to attend the MFGI program by the adolescent's DYS therapist or by letter. The adolescents and caregivers who attend the program are given the opportunity to be part of the research segment. All who agreed to participate in the study submitted signed informed research consents. Self-reported questionnaires were administered to all participants (adolescents and caregivers) on the first day of the intervention and on the last day of the intervention (four months later). Only reports from the adolescents will be used for the current study.

Measures

Demographics. The adolescents complete a brief survey of demographic information including responses on age, race, and current school. Adolescents also report number of siblings, family position, and living arrangement prior to incarceration.

Attachment. The adolescents also complete the ***Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987)***, a 53-item instrument that assesses both affective and cognitive components of adolescents' attachment to caregivers and adolescents' attachment to peers. Adolescents use a five-point Likert scale from 1 (*almost never or never use this strategy*) to 5 (*almost always or always use this strategy*) to rate questions such as "My friends encourage me to talk about my

difficulties,” and “I have to rely on myself when I have a problem to solve.” The alpha for the attachment to parents is .95; for attachment to peers it is .93.

Affect regulation. Adolescents complete the ***Emotion Regulation Checklist (ERC; Shields & Cicchetti, 1997)***, a 24-item self-report measure completed on a 4-point Likert scale ranging from 1 (*almost always*) to 4 (*never*), according to the extent each item fits for the adolescent. The Lability– Negativity subscale measures ‘maladaptive affect regulation’ including mood lability, lack of flexibility, and dysregulated negative affect. Sample items are ‘I often have angry outbursts,’ and ‘I have wide mood swings.’ The alpha for this scale is .81. The Emotion Regulation subscale measures ‘adaptive affect regulation’ including situationally-appropriate affective displays, emotional self-awareness, and empathy. Sample items from this scale are ‘I display appropriate negative emotions in response to hostile, aggressive, or intrusive acts by peers’ and ‘I show concern towards others when they are upset or distressed.’ The alpha for this subscale is .67. The ERC was developed to distinguish between emotionally well-regulated versus dysregulated children and adolescents. For the purposes of this study, analyses were conducted using adaptive affect regulation and maladaptive affect regulation as separate constructs as reported by the adolescent.

Plan of Analysis

First we conducted the appropriate univariate and bivariate preliminary analyses to examine the distribution and central tendencies of each variable, and the relationships among them. Next, to test the proposed hypotheses, we conducted a path

analysis to examine the relationship among adolescents' attachment to their parent, maladaptive emotion regulation, adaptive emotion regulation, and adolescents' attachment to their peer in male adolescents who had sexually offended following the procedures outlined in Baron and Kenny (1986) for testing mediation. All models were fit using Mplus software (Version 6; Muthen & Muthen, 1998-2010) which allows for Full Information Maximum Likelihood (FIML) that allows the use of all cases in the analysis even if they are missing some portion of data.

Results

Preliminary analysis

Mean scores and standard deviations for each of the measures used in this study, and adolescent race and age, are summarized in Table 1. A bivariate analysis was conducted to examine the relationships that each variable had with the others to determine preliminary associations, as shown in Table 2. All of the relationships between the main study variables were significant; no significant relationships existed between the main study variables and age and race, except for the relationship between age and attachment to parent. On average, older adolescents indicated less connection to their caregivers than did the younger adolescents.

Evaluation of Mediational Hypothesis

In the current study we fit a mediation path analysis in order to test the hypothesis that maladaptive and adaptive emotion regulation mediates adolescent's

attachment to parents and the effect it has on adolescent's attachment to peers. The following criteria, proposed by Baron and Kenny (1986) for determining mediation, were used: (a) the predictor variable must explain variance in the outcome variable; (b) the predictor variable must explain variance in the proposed mediator(s); (c) the mediator(s) must explain variance in the outcome variable; and (d) when the mediator(s) is included in the model the predictor no longer explain variance in the outcome variable. Each criterion was tested and satisfied in a set of four models.

Model 1 revealed that the association between the predictor (attachment to parent) and the outcome (attachment to peer) was statistically significant ($\beta=.28$, $p<.01$, $r=.29$), when controlling for race and age (as illustrated in Figure 2). This indicates that a secure attachment to parents is related to better attachment to peers, and predicts 8.6% of the variance of attachment to peers. In other words, adolescents who feel closer to their parents, feel that they can depend on their parents, and feel loved by their parents have higher levels of attachment to peers.

Model 2 revealed that the associations between the predictor (attachment to parent) and the proposed mediators (maladaptive and adaptive emotion regulation) were both statistically significant (Maladaptive: $\beta=-.13$, $p<.05$; $r=-.25$; Adaptive: $\beta=.21$, $p<.01$; $r=.31$), indicating that secure attachment to parent is related to higher levels of adaptive emotion regulation and lower levels of maladaptive emotion regulation, and vice versa (as illustrated in Figure 3). This model also indicates that adolescent's attachment to parent predicts 6% of the variance of maladaptive and 9.6% of the variance of adaptive emotion regulation.

Model 3 revealed that the associations between the proposed mediators (maladaptive and adaptive emotion regulation) and the outcome (attachment to peer) were statistically significant (Maladaptive: $\beta = -.51$, $p < .01$, $r = -.30$; Adaptive: $\beta = .41$, $p < .01$, $r = .30$), indicating that higher levels of maladaptive emotion regulation are related to lower quality of peer attachment, and higher levels of adaptive emotion regulation are related to higher quality of peer attachment, and vice versa (as illustrated in Figure 4). This model also suggests that together maladaptive and adaptive emotion regulation predict 18.2% of the variance of adolescent's attachment to peers. In other words, adolescents' ability to regulate their emotions collectively influences their attachment to peers.

Finally, in order to determine whether or not maladaptive and adaptive emotion regulation mediated the relationship between the adolescent's attachment to their parent and adolescent's attachment to peers, all four variables were included in Model 4 (as illustrated in Figure 5). Baron and Kenny's (1986) criterion was satisfied in that upon inclusion of both possible mediators (maladaptive and adaptive emotion regulation), the significant relationship between the predictor (adolescent's attachment to parent) and the outcome (adolescent's attachment to peer) no longer existed ($\beta = .14$, $p > .05$; $r = .15$), indicating that emotion regulation does, indeed, mediate the relationship between adolescent's attachment to their parents and their attachment to peers. To ensure that the path between the predictor and outcome variables is indeed zero, we conducted a delta chi-square test, and the results of the test revealed that H_0 : the path between attachment to parent and attachment to peer is zero in the population, controlling for

everything else in the model, could not be rejected [$\Delta X^2=2.44$, $\Delta df=1$; X^2 Crit ($\alpha=.05$, $df=1$) =3.84; $2.44<3.84$]. In other words, this test confirmed that full mediation exists.

Model 4 highlights the most important findings of the current study. Secure attachment to parents is related to higher levels of adaptive emotion regulation and lower levels of maladaptive emotion regulation. In turn adolescents with high levels of adaptive emotion regulation and low levels of maladaptive regulation experience higher levels of attachment to peers. Insecure attachment is related to higher levels of maladaptive emotion regulation and lower levels of adaptive emotion regulation. In turn, adolescents with low levels of adaptive regulation and high levels of maladaptive regulation experience lower levels of attachment to peers. Although attachment to parent is no longer directly related to attachment to peers in this model, it is directly related to maladaptive and adaptive emotion regulation, which is directly related to attachment to peers. Therefore, adolescents' attachment to their parents is related to their attachment with peers through their ability to regulate their emotions. The final model allows us to predict more than one-fifth of the variance in attachment to peers ($R^2=21.9\%$), however there were no significant changes in the variance of maladaptive ($R^2=6.2\%$) and adaptive ($R^2=9.6\%$) emotion regulation that were predicted. This may indicate that there are other important variables contributing to the variance in emotion regulation that should be considered for future studies. In sum, these findings illustrate the valuable roles of attachment to parents and both maladaptive and adaptive emotion regulation ability during adolescence. Adolescents who are insecurely attached to their parents have more maladaptive emotion regulation skills and fewer adaptive skills. Those who are securely attached have more adaptive emotion regulation skills and

fewer maladaptive ones. These maladaptive and adaptive emotion regulation skills are related to their ability to connect with friends.

Discussion

In today's society, adolescence is a launching period from which children begin to branch away from their safe nests, and start to soar on their own. It is also a time when children begin to experience a number of stressful changes, begin to build supportive peer networks outside of their families, and lastly, begin to make risky decisions (Dahl, 2011; Pfeifer et al., 2011). Furthermore, adolescents begin to learn from their ability to cope with daily life stressors, based on their ability to handle situations in the past. Some children are able to make the transition smoothly, yet others are not as successful (Abela et al., 2012; Fields & Prinz, 1997; Steinberg, 2001). Some of these adolescents have sexually offended. Adolescents who have insecure attachments to their parents, and lack the ability to regulate their emotions, can find the transition from childhood to adolescence quite arduous. However, in the population of adolescents with sexual aggression, this time of transitioning can have more serious and long-term effects. In the current study we hypothesized that in the population of adolescents with sexual offenses, the adolescent's attachment bond with their parents would predict their closeness with peers, expecting that this relationship would be mediated by the adolescent's ability to regulate their emotions (Kerns et al., 2000). Our results support these hypotheses.

It was found that maladaptive and adaptive emotion regulation mediated the relationship between adolescent sex offenders' attachment to their parents and the

attachment bond they have with friends. This is consistent with previous literature that suggests that emotion regulation is the link between early attachment bonds with parents and the relationships that children create during adolescence (Kerns et al., 2000); and, that early attachment relationships can predict relationships developed later in life (Bowlby, 1977; 2005; Marshall, 2010). Attachment to parents is a negative predictor of maladaptive emotion regulation, and a positive predictor for adaptive emotion regulation. In the final model, adolescents who were securely attached had higher adaptive emotion regulation ability and lower maladaptive ability, whereas those who were insecure had higher maladaptive emotion regulation ability but lower adaptive ability. Furthermore, higher adaptive ability was related to higher levels of peer attachment, and higher maladaptive ability was related to lower levels of peer attachment. The results of our study pinpoint an indirect connection between the adolescents' relationship with their parents and their relationship with peers. However this connection is directly linked by the adolescent's maladaptive and adaptive ability to manage their own arousal.

Our results empirically support the conceptual framework of Kerns, Contreras, and Neal-Barnett (2000) that proposes a mediational relationship between affect regulation, and attachment to parents and friends in normative samples. Our results also support previous studies on adolescent sex offenders, which suggests that affect regulation (adaptive and maladaptive) ability mediates the relationship between attachment and externalizing behaviors in adolescents who offend sexually (Zaremba & Keiley, 2011); as well as other studies that promote awareness of the need for specific interventions in this population (Keiley, 2007; Keiley et al. in press).

The most noteworthy findings from this study shed light on a new area of focus that has not been explored in this population. We already know that adolescents who sexually offend are most commonly insecurely attached to their parents, and have poor quality peer relationships. We also know that it is within these peer relationships that the adolescents struggle most, act out with inappropriate sexual behaviors, and lack the ability to manage high arousal (Marshall, 2010; Zaremba & Keiley, 2011). Our study exposes the indirect relationship between adolescents' relationships with their parents and peers, by highlighting the link that brings the two domains together. We have also determined the specific effects of emotion regulation, by examining the mediational roles of the adolescent's maladaptive and adaptive ability to regulate their emotions. Although this study cannot explain the cause for the poor quality of peer relationships, or the cause for good or poor ability to regulate emotions, the results of this study introduces the importance of considering each of these factors when developing an intervention or rehabilitation program for adolescents who sexually offend.

Limitations

A noteworthy limitation is that some of the adolescents are approaching the end of their criminal sentence and their treatment for sexually offending. Furthermore, the experience of being incarcerated could influence their attachment relationships with parents and peers; especially for the younger boys who are still developing these skills. While studies have shown that an increasing number of adolescent sex offenders are insecurely attached, and have more maladaptive affect regulation traits, we can assume that an atmosphere such as a prison or residential facility does not grant the opportunity

for improvement in areas such as development or improvement in attachment relationships with peers, or adaptive emotion regulation ability. Another limitation of this study is that no control group existed. Therefore, the results might only be generalizable for adolescent males who have sexually offended and have been treated for their offense(s) and not for those who have not been incarcerated.

Measurement limitations also existed. All measures for the current study were self-report, and therefore the findings may be different if different reporting sources were included. Additionally, since this is a cross-sectional analysis, not an experiment, we cannot predict causal effects of variables. Moreover, it is possible that adolescents' maladaptive and adaptive emotion regulation ability predicts their attachment relationship with parents, or that their attachment with parents actually mediates the relationship between maladaptive and adaptive emotion regulation and attachment with peers.

Strengths

Based on the limited amount of literature in the population of adolescents who have offended sexually, a major strength of this study is simply its contribution to what is already known in the field. Additionally, the current study adds to the scant research on these adolescents' attachment relationship with peers. Although one can argue the use of the term 'attachment' when describing relationships with peers, the use of the term in the current study highlights the value and ultimately the effect of having a sense of closeness with peers during adolescence. Moreover, it also sheds light on how important it is to develop a sense of closeness with peers in the population of

adolescents who sexually offend. Perhaps if society started to pay closer attention to helping adolescents develop and maintain closeness and dependability in peer relationships, including the development of adaptive emotion regulation skills, these adolescents would have a better chance at adjusting to this transitional period. Instead, we tend to groom these adolescents to be independent, leaving them to figure everything out on their own.

Future implications

While race and age together were not significant predictors of attachment to parents, age was negatively correlated with attachment to parents. This may be an indication that older adolescents have poor attachment bonds with their parents, and vice versa. Perhaps it is possible that older adolescents experience more life events in which their parents are not available (i.e. prison, having multiple caregivers, foster-care, etc.). Future studies may choose to investigate this further.

Although our study examined adolescents who were currently incarcerated, the number of youth who are actually charged and sentenced after sexually offending is only a small percentage of the total population (Finkelhor, Ormrod, & Chaffin, 2009). However, this does not change the fact that there is an absolute need for some type of effective intervention. Future researchers may choose to examine the effects of intervention in improving the quality of the attachment bonds adolescents have with their parents, strengthening the adolescent's ability to regulate their emotions, and testing whether or not the improvements affect the adolescent's quality of attachment with peers.

Summary

This study contributes information to the field of adolescents who have offended sexually about the relationship between the parental attachment, peer relations, and emotion regulation. In general, we found that the adolescent's attachment bond with their parent predicts the adolescent's closeness with peers. Our study also indicates that emotion regulations mediates these relationships. A positive relationship existed between the adolescent's relationship with parents and their adaptive emotion regulation ability, and a negative relationship with maladaptive emotion regulation ability. Furthermore, the adolescent's emotion regulation ability was also positively (adaptive) and negatively (maladaptive) related to the adolescent's closeness with peers. In conclusion, we found that in the population of adolescents who sexually offend, early attachment, emotion regulation, and peer relationships are all significantly related.

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Tables

Table 1

Descriptive statistics (mean, standard deviation, range) of primary measures and demographic variables (N=187).

Variables	Mean (SD)	Range
Attachment to Parent (T1)	3.63 (0.80)	1-5
Attachment to Peer (T2)	3.57 (0.75)	1-5
Maladaptive Emotion Regulation (T2)	2.14 (0.43)	1-4
Adaptive Emotion Regulation (T2)	2.81 (0.55)	1-4
Age (adolescent)	15.71 (1.6)	12-19
European American (adolescent)	61%	

Table 2

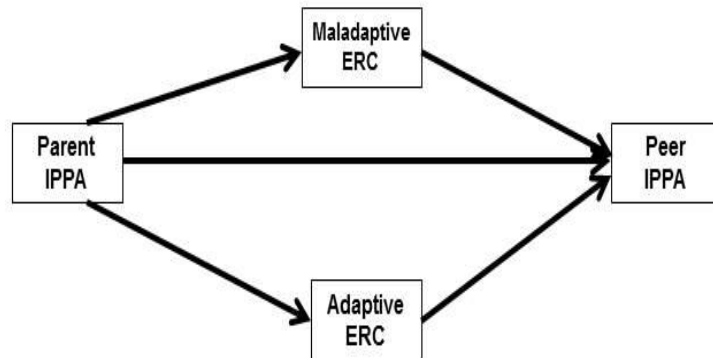
Estimated correlations among all study variables (N=187).

	1	2	3	4	5	6
1. Attachment to Parent (t1)	1.00					
2. Attachment to Peer (t2)	0.30**	1.00				
3. Maladaptive Emotion Regulation (t2)	-0.25*	-0.39***	1.00			
4. Adaptive Emotion Regulation (t2)	0.31**	0.39***	-0.33***	1.00		
5. Adolescent Age	-0.21**	-0.10	-0.03	0.03	1.00	
6. Adolescent Race	-0.08	-0.13	-0.16	0.05	0.04	1.00

Note. * $p < .05$; ** $p < .01$; *** $p < .001$;
Pretest: t1; Posttest: t2

Figures

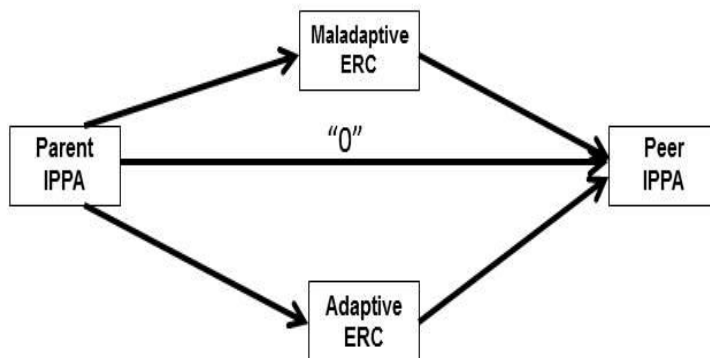
Figure 1. Conceptual model: Adolescent attachment to parents and attachment to peer mediated by maladaptive and adaptive affect regulation.



Step 1: Parent IPPA -> Peer IPA

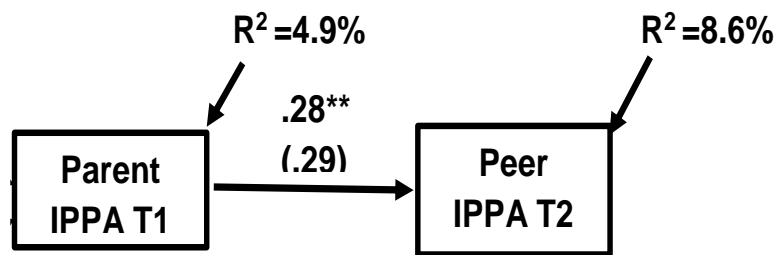
Step 2: Parent IPPA -> Maladaptive ERC and Adaptive ERC

Step 3: Maladaptive ERC and Adaptive ERC -> Peer IPPA



Step 4: Parent IPPA -> Maladaptive and Adapt ECR -> Peer IPPA
and Parent IPPA to Peer IPPA is "0"

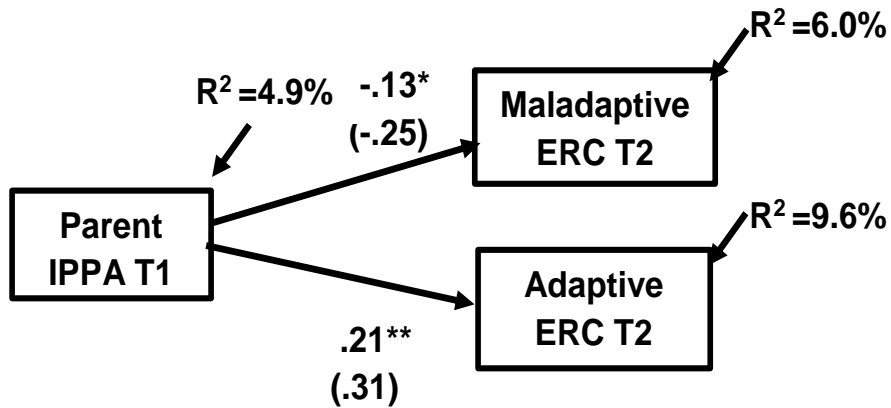
Figure 2. Adolescent's attachment to peers regressed on adolescent's attachment to parents, controlling for age and race.



Model fit: $\chi^2 = .50$, $df = 2$, $p = .78$; RMSEA = 0.00, $p = .86$

Regression coefficients are presented with the estimated correlations in parentheses

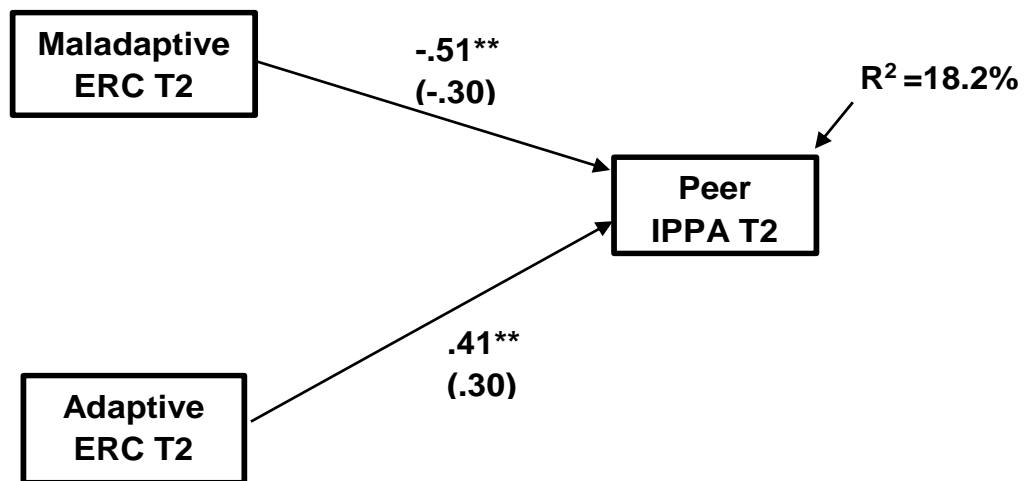
Figure 3. Adolescent's maladaptive and adaptive affect regulation regressed on adolescent's attachment to parents, controlling for age and race.



Model fit: $X^2 = 6.33$, $df = 4$, $p = .18$; RMSEA = 0.06, $p = .38$

Regression coefficients are presented with the estimated correlations in parentheses

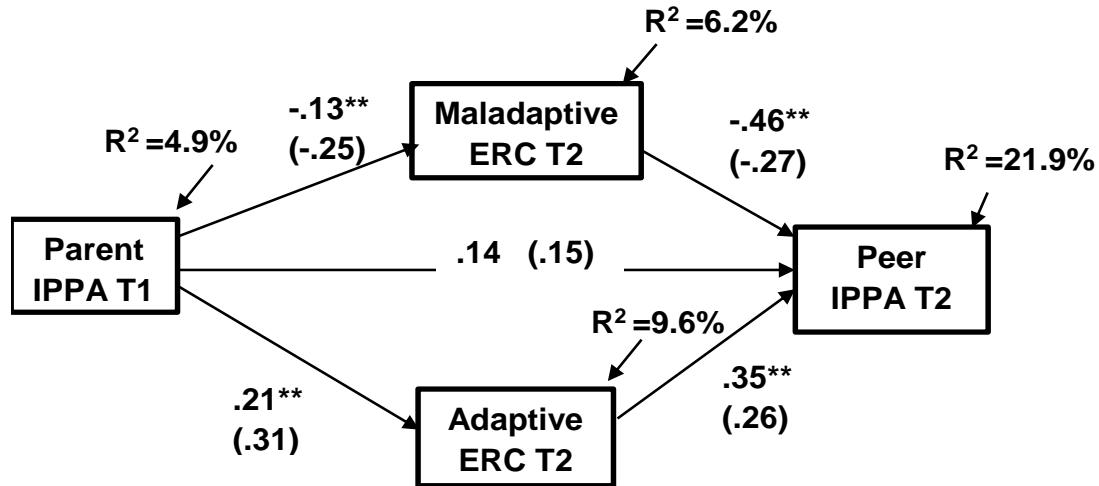
Figure 4. Adolescent's attachment to peers regressed on maladaptive and adaptive affect regulation, controlling for age and race (non-significant).



Model fit: $X^2 = 15.72$, $df = 3$, $p = 0.00$; RMSEA = 0.15, $p = .01$

Regression coefficients are presented with the estimated correlations in parentheses

Figure 5. Adolescent's attachment to peers regressed on adolescent's maladaptive affect regulation, adolescent's adaptive affect regulation, and adolescent's attachment to parents, when controlling for age and race.



Model fit: $X^2 = 17.25$, $df = 7$, $p = 0.02$; RMSEA = 0.09, $p = .11$ ($\Delta X^2 = 2.44$, $\Delta df = 1$; Critical $X^2 = 3.84$; H_0 : Path from parent IPPA T1 to peer IPPA T2 is zero: Do not reject).

Regression coefficients are presented with the estimated correlations in parentheses

Appendix

Adolescent Questionnaire

Demographic Information Questionnaire – Adolescent

ID: _____

DIRECTIONS: For each question, please circle or write in your answer.

Unique Identifier:

1st Initial of your first name ____

1st Initial of your last name ____

Last 4 digits of your social security # _____

1. Today's Month ____ Day __ Year ____

2. Are you filling out this questionnaire at:

a. the start of the group (pre-test)

Before attending group sessions

b. the end of the group (post-test)

After attending group sessions

3. Location of the group?

a. Mt. Meigs

b. Family Children Services

4. How old are you? ____ (years)

5. Are you male or female?

a. Male

b. Female

6. What is your racial or ethnic background?

a. African American

b. Asian

c. Cape Verdean

d. Haitian

e. Hispanic

f. Jamaican

g. Native American

h. Caucasian

i. Other _____

7. What grade are you currently in?

a. 6th

b. 7th

c. 8th

d. 9th

e. 10th

f. 11th

g. 12th

8. How many brothers or sisters do you have?

In each case write how many

a. Number of brothers _____

b. Number of sisters _____

c. Number of step-brothers _____

d. Number of step-sisters _____

e. Number of half-brothers _____

f. Number of half-sisters _____

g. Number of foster brothers _____

h. Number of foster sisters _____

9. In your family, are you

a. The oldest child

b. A middle child

c. The youngest child

d. An only child

10. Who do you live with? (for most of the time)

a. Mother and father

b. Mother

c. Father

d. Foster parent

e. Step-parent

f. A relative (please write in who you live with) _____

g. Other _____

DIRECTIONS: Below is a list of items that describe kids. For each item that describes you now or within the past 6 months, please circle 2 if the item is *very true or often true* of you. Circle 1 if the item is *somewhat or sometimes true* of you. If the item is *not true* of you, circle 0.

Please print where appropriate and answer all questions about yourself.

<i>Please Print</i>	0=Not True	1=Somewhat or Sometimes True	2=Very True or Often True
1. I act too young for my age.....	0	1	2
2. I have an allergy (Describe):.....	0	1	2
3. I argue a lot.....	0	1	2
4. I have asthma.....	0	1	2
5. I act like the opposite sex.....	0	1	2
6. I like animals.....	0	1	2
7. I brag.....	0	1	2
8. I have trouble concentrating or paying attention.....	0	1	2
9. I can't get my mind off certain thoughts (describe):.....	0	1	2
10. I have trouble sitting still.....	0	1	2
11. I'm too dependent on adults.....	0	1	2
12. I feel lonely.....	0	1	2
13. I feel confused or in a fog.....	0	1	2
14. I cry a lot.....	0	1	2
15. I am pretty honest.....	0	1	2
16. I am mean to others.....	0	1	2
17. I daydream a lot.....	0	1	2
18. I deliberately try to hurt or kill myself.....	0	1	2
19. I try to get a lot of attention.....	0	1	2
20. I destroy my own things.....	0	1	2
21. I destroy things belonging to others.....	0	1	2
22. I disobey my parents.....	0	1	2
23. I disobey at school.....	0	1	2
24. I don't eat as well as I should.....	0	1	2
25. I don't get along with other kids.....	0	1	2
26. I don't feel guilty after doing something I shouldn't.....	0	1	2
27. I am jealous of others.....	0	1	2
28. I am willing to help others when they need help.....	0	1	2
29. I am afraid of certain animals, situations, or places, other than school (describe):.....	0	1	2
30. I am afraid of going to school.....	0	1	2
31. I am afraid I might think or do something bad.....	0	1	2
32. I feel that I have to be perfect.....	0	1	2
33. I feel that no one loves me.....	0	1	2
34. I feel that others are out to get me.....	0	1	2
35. I feel worthless or inferior.....	0	1	2
36. I accidentally get hurt a lot.....	0	1	2
37. I get in many fights.....	0	1	2
38. I get teased a lot.....	0	1	2
39. I hang around with kids who get in trouble.....	0	1	2
40. I hear sounds or voices that other people think aren't there (describe):.....	0	1	2
41. I act without stopping to think.....	0	1	2
42. I would rather be alone than with others.....	0	1	2
43. I lie or cheat.....	0	1	2
44. I bite my fingernails.....	0	1	2
45. I am nervous or tense.....	0	1	2
46. Parts of my body twitch or make nervous movements (describe):.....	0	1	2
47. I have nightmares.....	0	1	2
48. I am not liked by other kids.....	0	1	2
49. I can do certain things better than most kids.....	0	1	2
50. I am too fearful or anxious.....	0	1	2

Please Print

	0=Not True	1=Somewhat or Sometimes True	2=Very True or Often True
51. I feel dizzy.	0	1	2
52. I feel too guilty.	0	1	2
53. I eat too much.	0	1	2
54. I feel overtired.	0	1	2
55. I am overweight.	0	1	2
56. Physical problems <i>without known medical cause</i> :			
a. Aches or pains (<i>not</i> stomach or headaches)	0	1	2
b. Headaches.	0	1	2
c. Nausea, feel sick.	0	1	2
d. Problems with eyes (<i>not</i> if corrected by glasses) (describe): _____	0	1	2
e. Rashes or other skin problems.	0	1	2
f. Stomachaches or cramps.	0	1	2
g. Vomiting, throwing up.	0	1	2
h. Other. (describe): _____	0	1	2
57. I physically attack people.	0	1	2
58. I pick my skin or other parts of my body (describe): _____	0	1	2
59. I can be pretty friendly.	0	1	2
60. I like to try new things.	0	1	2
61. My school work is poor.	0	1	2
62. I am poorly coordinated or clumsy.	0	1	2
63. I would rather be with older kids than with kids my own age.	0	1	2
64. I would rather be with younger kids than with kids my own age.	0	1	2
65. I refuse to talk.	0	1	2
66. I repeat certain acts over and over (describe): _____	0	1	2
67. I run away from home.	0	1	2
68. I scream a lot.	0	1	2
69. I am secretive or keep things to myself.	0	1	2
70. I see things that other people think aren't there (describe): _____	0	1	2
71. I am self-conscious or easily embarrassed.	0	1	2
72. I set fires.	0	1	2
73. I can work well with my hands.	0	1	2
74. I show off or clown around.	0	1	2
75. I am shy.	0	1	2
76. I sleep less than most kids.	0	1	2
77. I sleep more than most kids during the day and/or night (describe): _____	0	1	2
78. I have a good imagination.	0	1	2
79. I have a speech problem (describe): _____	0	1	2
80. I stand up for my rights.	0	1	2
81. I steal at home.	0	1	2
82. I steal from places other than home.	0	1	2
83. I store up things I don't need. (describe): _____	0	1	2
84. I do things other people think are strange (describe): _____	0	1	2
85. I have thoughts that other people would think are strange (describe): _____	0	1	2
86. I am stubborn.	0	1	2
87. My moods or feelings change suddenly.	0	1	2
88. I enjoy being with other people.	0	1	2
89. I am suspicious.	0	1	2
90. I swear or use dirty language.	0	1	2
91. I think about killing myself.	0	1	2
92. I like to make others laugh.	0	1	2
93. I talk too much.	0	1	2
94. I tease others a lot.	0	1	2
95. I have a hot temper.	0	1	2

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Please Print

	0=Not True	1=Somewhat or Sometimes True	2=Very True or Often True
96. I think about sex too much.	0	1	2
97. I threaten to hurt people.	0	1	2
98. I like to help others.	0	1	2
99. I am too concerned about being neat or clean.	0	1	2
100. I have trouble sleeping (describe): ____	0	1	2
<hr/>			
101. I cut classes or skip school.	0	1	2
102. I don't have much energy.	0	1	2
103. I am unhappy, sad, or depressed.	0	1	2
104. I am louder than other kids.	0	1	2
105. I use alcohol or drugs for non-medical purposes (describe): _____	0	1	2
<hr/>			
106. I try to be fair to others.	0	1	2
107. I enjoy a good joke.	0	1	2
108. I like to take life easy.	0	1	2
109. I try to help other people when I can... ..	0	1	2
110. I wish I were the opposite sex.	0	1	2
111. I keep from getting involved with others.	0	1	2
112. I worry a lot.	0	1	2

Please be sure you have answered all items.

Please write down anything else that describes your feelings, behavior, or interests.

Family Assessment Device

Instructions: This contains a number of statements about families. Please reach each statement carefully and decide how well it describes your own family. You should answer according to *how you see your family*. For each statement, there are four possible responses. Circle the number that best reflects how much you agree with the statement. Try not to spend too much time thinking about each statement, but respond quickly and as honestly as you can. If you have trouble with one, answer with your first reaction. Please be sure to answer every statement. Questions are *about your immediate family*.

	Strongly Agree			Strongly Disagree
1. Planning family activities is difficult because we misunderstand each other.	1	2	3	4
2. In time of trouble or crisis, we can turn to each other for support.	1	2	3	4
3. We cannot talk to each other about the sadness we feel.	1	2	3	4
4. People in our family are accepted for what they are.	1	2	3	4
5. We avoid discussing our fears and concerns.	1	2	3	4
6. We can express our feelings to each other.	1	2	3	4
7. There are a lot of bad feelings in the family.	1	2	3	4
8. We feel accepted for what we are.	1	2	3	4
9. Making decisions is a problem for our family.	1	2	3	4
10. We are able to make decisions about how to solve problems.	1	2	3	4
11. We don't get along well together.	1	2	3	4
12. We confide in each other (tell each other private things).	1	2	3	4

10. I often worry my friends and partners will not want to stay with me.

1 2 3 4 5
Not at all like me Very much like me

11. I want to merge completely with another person.

1 2 3 4 5
Not at all like me Very much like me

12. My desire to merge sometimes scares people away.

1 2 3 4 5
Not at all like me Very much like me

13. I find it relatively easy to get close to others.

1 2 3 4 5
Not at all like me Very much like me

14. I do not often worry about someone getting too close to me.

1 2 3 4 5
Not at all like me Very much like me

15. I am somewhat uncomfortable being close to others.

1 2 3 4 5
Not at all like me Very much like me

16. I am nervous when anyone gets too close.

1 2 3 4 5
Not at all like me Very much like me

17. I am comfortable having others depend on me.

1 2 3 4 5
Not at all like me Very much like me

18. Often, friends and partners want me to be more intimate than I feel comfortable being.

1 2 3 4 5
Not at all like me Very much like me

Inventory of Parent and Peer Attachment

Please circle the answer that *best describes your feelings or beliefs* about each of these statements:

Section I

1. My parents respect my feelings.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

2. I feel my parents are successful as parents.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

3. I wish I had different parents.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

4. My parents accept me as I am.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

5. I have to rely on myself when I have a problem to solve.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

6. I like to get my parents' point of view on things I'm concerned about.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

Inventory of Parent and Peer Attachment continued:

Please circle the answer that best describes your feelings or beliefs about each of these statements:

7. I feel it's no use letting my feelings show.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

8. My parents sense when I'm upset about something.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

9. Talking over my problems with my parents makes me feel ashamed or foolish.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

10. My parents expect too much from me.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

11. I get upset easily at home.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

12. I get upset a lot more than my parents know about.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

13. When we discuss things, my parents consider my point of view.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

Inventory of Parent and Peer Attachment continued:

Please circle the answer that best describes your feelings or beliefs about each of these statements:

14. My parents trust my judgment.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

15. My parents have their own problems, so I don't bother them with mine.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

16. My parents help me to understand myself better.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

17. I tell my parents about my problems and troubles.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

18. I feel angry with my parents.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

19. I don't get much attention at home.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

20. My parents encourage me to talk about my difficulties.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

Inventory of Parent and Peer Attachment continued:

Please circle the answer that best describes your feelings or beliefs about each of these statements:

21. My parents understand me.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

22. I don't know whom I can depend on these days.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

23. When I am angry about something, my parents try to be understanding.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

24. I trust my parents.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

25. My parents don't understand what I'm going through these days.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

26. I can count on my parents when I need to get something off my chest.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

27. I feel that no one understand me.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

Inventory of Parent and Peer Attachment continued:

Please circle the answer that best describes your feelings or beliefs about each of these statements:

28. If my parents know something is bothering me, they ask me about it.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

Section II

1. I like to get my friends' point of view on things I'm concerned about.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

2. My friends sense when I'm upset about something.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

3. When we discuss things, my friends consider my point of view.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

4. Talking over my problems with my friends makes me feel ashamed or foolish.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

5. I wish I had different friends.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

6. My friends understand me.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

Inventory of Parent and Peer Attachment continued:

Please circle the answer that best describes your feelings or beliefs about each of these statements:

7. My friends encourage me to talk about my difficulties.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

8. My friends accept me as I am.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

9. I feel the need to be in touch with my friends more often.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

10. My friends don't understand what I'm going through these days.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

11. I feel alone, lonely, or apart when I am with my friends.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

12. My friends listen to what I have to say.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

13. I feel my friends are good friends.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

Inventory of Parent and Peer Attachment continued:

Please circle the answer that best describes your feelings or beliefs about each of these statements:

14. My friends are fairly easy to talk to.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

15. When I am angry about something, my friends try to be understanding.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

16. My friends help me to understand myself better.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

17. My friends are concerned about my well-being.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

18. I feel angry with my friends.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

19. I can count on my friends when I need to get something off my chest.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

20. I trust my friends.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

Inventory of Parent and Peer Attachment continued:

Please circle the answer that best describes your feelings or beliefs about each of these statements:

21. My friends respect my feelings.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

22. I get upset a lot more than my friends know about.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

23. It seems as if my friends are irritated with me for no reason.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

24. I tell my friends about my problems and troubles.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

25. If my friends know something is bothering me, they ask me about it.

1	2	3	4	5
Almost always or always true.	Often true.	Sometimes true.	Seldom true.	Almost never or never true.

Emotion Regulation Checklist

The following statements describe how people respond to different situations. Please circle the number that *best describes how you respond*. Be sure you give an answer for all of the statements.

1. I am a cheerful child.

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

2. I move quickly from a good mood to a bad mood.

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

3. I respond well (positively) to adults when they act friendly or neutral to me.

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

4. I don't get angry, worried, distressed, upset, or worked up when changing from one thing to another. I shift well from one activity to another.

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

5. When I am emotionally upset or frustrated by something that happens, I start to feel better pretty quickly (I don't stay sad or worried for a long time).

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

6. I am easily frustrated.

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

7. I respond well (positively) when friends act friendly or neutral to me.

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

8. **It is easy for me to have an angry outburst or temper tantrums when I get angry.**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

9. **I can wait to get something I really want.**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

10. **I like it when other people are upset (for example, I like teasing others or I laugh when another person gets hurt or punished).**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

11. **I don't get carried away during exciting situations or too excited at the wrong time or place.**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

12. **I am whiny or clingy with adults.**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

13. **I often bother other people because I am too active or too excited about something.**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

14. **I get angry when adults set limits (tell me that I cannot do something).**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

15. **I can say when I am feeling sad, angry or mad, fearful or afraid.**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

16. **I feel sad or I have no energy.**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

17. **I get too excited when trying to get other people to play or do things with me.**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

18. **I show very little feeling. People think I don't have feelings.**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

19. **I act negatively (I get scared or speak to friends in an angry tone of voice) when my friends are acting neutral or trying to be friendly.**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

20. **I do things without first thinking them through.**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

21. **I show concern and understanding when others are upset or distressed.**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

22. **My excitement bothers other people.**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

23. **When friends are mean to me or treat me badly, I have normal negative feelings such as anger, fear, or frustration.**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

24. **I show negative feelings (anger, fear, or frustration) when I try to get someone to play or do something with me.**

Rarely/Never	Sometimes	Often	Almost Always
1	2	3	4

CISS-Adolescent (Enderl, N. & Parker, J.)

Instructions: The following are ways people react to various difficult, stressful, or upsetting situations. Please circle a number from 1 to 5 for each item. Indicate how much you engage in these types of activities when you encounter a difficult, stressful, or upsetting situation.

Not at All					Very Much				
1	2	3	4	5					
1	2	3	4	5	1.	Schedule my time better.			
1	2	3	4	5	2.	Focus on the problem and see how I can solve it.			
1	2	3	4	5	3.	Think about the good times I've had.			
1	2	3	4	5	4.	Try to be with other people.			
1	2	3	4	5	5.	Blame myself for putting things off.			
1	2	3	4	5	6.	Do what I think is best.			
1	2	3	4	5	7.	Become preoccupied with aches and pains.			
1	2	3	4	5	8.	Blame myself for having gotten into this situation.			
1	2	3	4	5	9.	Window shop.			
1	2	3	4	5	10.	Outline my priorities.			
1	2	3	4	5	11.	Try to go to sleep.			
1	2	3	4	5	12.	Treat myself to a favorite food or snack.			
1	2	3	4	5	13.	Feel anxious about not being able to cope.			
1	2	3	4	5	14.	Become very tense.			
1	2	3	4	5	15.	Think about how I solved similar problems.			
1	2	3	4	5	16.	Tell myself that it is really not happening to me.			
1	2	3	4	5	17.	Blame myself for being too emotional about the situation.			
1	2	3	4	5	18.	Go out for a snack or meal.			
1	2	3	4	5	19.	Become very upset.			
1	2	3	4	5	20.	Buy myself something.			
1	2	3	4	5	21.	Determine a course of action and follow it.			
1	2	3	4	5	22.	Blame myself for not knowing what to do.			
1	2	3	4	5	23.	Go to a party.			
1	2	3	4	5	24.	Work to understand the situation.			
1	2	3	4	5	25.	"Freeze" and not know what to do.			
1	2	3	4	5	26.	Take corrective action immediately.			
1	2	3	4	5	27.	Think about the event and learn from my mistakes.			
1	2	3	4	5	28.	Wish that I could change what had happened or how I felt.			
1	2	3	4	5	29.	Visit a friend.			
1	2	3	4	5	30.	Worry about what I am going to do.			
1	2	3	4	5	31.	Spend time with a special person.			
1	2	3	4	5	32.	Go for a walk.			
1	2	3	4	5	33.	Tell myself that it will never happen again.			
1	2	3	4	5	34.	Focus on my general inadequacies.			
1	2	3	4	5	35.	Talk to someone whose advice I value.			
1	2	3	4	5	36.	Analyze my problem before reacting.			
1	2	3	4	5	37.	Phone a friend.			
1	2	3	4	5	38.	Get angry.			
1	2	3	4	5	39.	Adjust my priorities.			
1	2	3	4	5	40.	See a movie.			
1	2	3	4	5	41.	Get control of the situation.			
1	2	3	4	5	42.	Make an extra effort to get things done.			
1	2	3	4	5	43.	Come up with several different solutions to the problem.			
1	2	3	4	5	44.	Take time off and get away from the situation.			
1	2	3	4	5	45.	Take it out on other people.			
1	2	3	4	5	46.	Use the situation to prove that I can do it.			
1	2	3	4	5	47.	Try to become organized so I can be on top of the situation.			
1	2	3	4	5	48.	Watch TV.			
Not at All					Very Much				