

Perceptions of
Parental Privacy Invasion:
Linkages with Psychosocial Adjustment Problems
and Emotion Regulation in Adolescence

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Date: 08-06-2012

Abstract

Adolescence is a period of major changes. Cognitive developments make adolescents more capable and willing to make their own decisions, as well as more demanding of privacy. Privacy management seems important in parent-adolescent relationships, as parents contribute substantially to their children's psychosocial development. With a group of 102 adolescents ($M = 14.82$), we examined the association between youths' perception of parental privacy invasion, emotion regulation and psychosocial maladjustment. A higher sense of parental privacy invasion was linked to a higher level of emotion regulation difficulties and anxiety. In addition, we found emotion regulation difficulties mediated the relationship between perception of invasive parenting and anxiety. There was no association found between perceived invasion and minor delinquency. Our research suggests that perceived parental privacy invasion has important links with adolescent well-being.

Keywords: privacy invasion, adolescence, psychosocial maladjustment, emotion regulation, anxiety, minor delinquency

Perceptions of Parental Privacy Invasion: Linkages with Psychosocial Adjustment Problems and Emotion Regulation in Adolescence

Increases in self-awareness and cognitive abilities make youths more capable and willing to make their own decisions, as well as more demanding and in need of privacy (Petronio & Caughlin, 2006; Hawk, Keijsers, Hale, & Meeus, 2009). Parental respect for increased privacy demands in this developmental period is important, and privacy management seems critical for the relationships between parents and adolescents. Youths consider consistently overstepping their privacy as negative parenting behavior (Petronio, 1994). Moreover, intrusive parenting behaviors relate to adolescent adjustment. For example, negative (Morris, Steinberg, Sessa, Evenevoli, Silk, & Essex, 2001) and overprotective (Nishikawa, Sundbom, & Häggelhöf, 2010) parenting is firmly associated with psychosocial problems in children and adolescents. Despite a reasonable amount of research on parenting practices and externalizing difficulties (e.g., Barber & Harmon, 2002), a relatively small number of studies focus on links between parenting behaviors and internalizing symptoms (Gaertner, Fite, & Colder, 2010). Furthermore, research shows that parents contribute significantly to their children's emotional development, including emotion regulation (Repetti, Taylor, & Seeman, 2002; Thompson, 1994; Von Salisch, 2001), and cross-sectional research indicates that maternal negative interaction patterns (e.g. disapproval) positively relate to emotion regulation difficulties in adolescents (Yap, Schwartz, Byrne, Simmons, & Allen, 2010). Correlational research shows linkages between emotion regulation and adolescent emotional and behavioral problems (Silk, Steinberg, & Morris, 2003). For example, longitudinal research showed a positive association between anger regulation difficulties and an increased risk of substance use, risky sexual behavior, and behavioral maladjustment in middle adolescence (Hessler & Katz, 2010; Nichols, Mahadeo, Bryant, & Botvin, 2008), while deficits in emotion regulation are also a contributing factor to the development of anxiety (Southam-Gerow & Kendall, 2002; Silk et al., 2003) and rule breaking behavior (Hessler & Katz, 2010). Research thus shows linkages between invasive parenting behaviors, psychosocial problems and emotion regulation difficulties. These results seem to underline the importance of emotion regulation for adolescent psychosocial development. However, little research addresses linkages between youths' perceptions on parental privacy invasion, psychosocial adjustment and emotional dysregulation in adolescents. The current research investigates these linkages, aiming to address the gaps in the established literature.

Conceptualization and operationalization of parental privacy invasion

In adolescence, developing a stable identity is crucial for psychological welfare, wherefore the adolescent needs a sense of independence. Both excessive autonomy and its absence put social and emotional development at risk (Kakihara & Tilton-Weaver,

2009). For these reasons, development of privacy is an important part of children's individuation (Kerr & Stattin, 2000; Wolfe & Laufer, 1974). Establishing privacy is achieved by sharpening boundaries (Petronio, 1994), namely by claiming increased ownership of space, possessions, and information around which youngsters require personal control (Parke & Sawin, 1979). This personal control is mainly achieved by parents granting their children some personal space, and by increasingly recognizing and respecting their privacy boundaries (Parke & Sawin, 1979). However, conflict may arise when boundaries drawn by the adolescent differ from parental ideals (Kakihara & Tilton-Weaver, 2009). Parents can demand access to adolescents' personal domains, through which experiences of privacy invasion can occur (Smetana, Metzger, Gettman, & Campione-Barr, 2006).

Emotion regulation and parenting behaviors

Recent research suggests that the family is of great importance in acquiring the foundations of regulatory skills early in life. More specifically, a recent review argues that the family context influences emotion regulation in childhood in three ways, namely through children's observation of family models, family emotional climate (e.g. through parent-child attachment, parenting styles and expressivity), and parental socialization behaviors (Morris, Silk, Steinberg, Myers, & Robinson, 2007). For example, cross-sectional research regarding the relationship between maternal parenting and emotion regulation difficulties shows that maternal behavioral and psychological control (Manzeske & Stright, 2009) and maternal negative interaction style (Yap et al., 2010) have direct positive linkages to adolescent emotion regulatory dysfunctions. Furthermore, recent research suggests that parental overprotection negatively affects adolescents' emotion regulation. More specifically, correlational research shows that parental overprotection is negatively associated with emotional control, emotional self-awareness, situational responsiveness, and the total mean score on these emotion regulation skills (MacDermot, Gullone, Allen, King, & Tonge, 2009).

Although operationalizations of emotion regulation vary across studies, this study focuses on the functionalist emotion regulation model (Thompson, 1994; Gross, 1998). According to this model, emotion regulation refers to intrinsic and extrinsic processes that influence the experience and expression of emotions in individuals. These processes monitor, modify, and evaluate emotional experience and expression, enabling one to achieve personal goals (Thompson, 1994; Gross, 1998). The functionalist model thus conceptualizes emotion regulation as the usage of cognitive and behavioral strategies to impact emotion experience and expression.

In addition, research focusing on the relationship between two specific emotion regulation strategies (reappraisal and suppression, as conceptualized by Gross, 1998) and perceived overprotective parenting shows positive correlations between

overprotective parenting and the use of suppression strategies, and negative correlations with the use of reappraisal strategies (Jaffe, Gullone, & Hughes, 2010). This suggests that adolescents from overprotective families seem less adept in adaptively redefining situations that may trigger emotional responses (reappraisal) and, therefore, seem to suppress the emotional expression to limit its emotional impact on their environment (Gross, 1998; Gross & John, 2003). However, further research (Gross & John, 2003) indicates that using suppression as an emotion regulation strategy relates to reports of both increased experience of negative and decreased experience of positive affect. Additionally, suppression relates to reports of lower self-esteem, lower life satisfaction and lower relationship qualities (Gross & John, 2003). Indeed, these results suggest suppression is a counterproductive strategy and, as a result, could possibly be labeled as a difficulty in adaptively regulating one's emotions. These findings stress the relevance of intrusive parenting with respect to emotional and related psychosocial functioning.

Linking parental privacy invasion to adolescent psychosocial maladjustment

Parenting skills often relate to the incitement of several problem behaviors in adolescents (Laird, Pettit, Bates, & Dodge, 2003), including anxiety and rule breaking behaviors. There are multiple emotions that cause problems in adolescence. Common internalizing symptoms during adolescence include worrying, anxiety and depression (Bariola, Gullone, & Hughes, 2011). This study will focus exclusively on anxiety. When researching the link with parental privacy invasion, there are several reasons for selecting anxiety rather than other aspects of internalizing symptoms. Anxiety is one of the most common internalizing emotions during adolescence (Ollendick, King, & Muris, 2002). Besides panic, research shows that generalized anxiety is the most prevalent form of anxiety in the Dutch adolescent population (Crocetti, Hale, Fermani, Raaijmakers, & Meeus, 2009). Furthermore, a substantial part of anxiety studies focuses on non-clinical samples. Specifically, a non-clinical longitudinal study on early adolescence suggests that internalizing problems can be chronic, and create further difficulties throughout life. To prevent such symptoms, a healthy emotional development is crucial. Parenting behavior has a massive imprint on emotional development in early life (Crocetti et al., 2009). For example, excessive parental control and involvement can lead to adolescent anxiety, due to a lower experience of autonomy (Gaertner, Fite, & Colder, 2010; Ruben & Mills, 1991). Lacking a sense of autonomy may decrease the possibility of developing effective coping skills, and can foster dependency. Brown and Siegel (1988) state that adolescents who do not feel in control over their own lives can develop problematic internalizing symptoms later on. Other possible causes of internalizing difficulties in adolescence are a lack of parental warmth and excessive degrees of rejection and protection. So, in this manner, invasive parental behaviors seems to be linked to adolescent anxiety (Kakihara & Tilton-Weaver, 2009).

Secondly, several studies indicate a relation between parents' invasive behaviors and adolescent rule breaking behaviors. Adolescent rule breaking behaviors include truancy (Barber & Harmon, 2002), rule violations (Bagwell & Coie, 2004) and misbehavior at home, school or the community (Laird & Marrero, 2010). Substantial research has related low levels of parental behavioral control with adolescent rule breaking behaviors (e.g. drug use, truancy and antisocial behavior; Barber & Harmon, 2002). Behavioral control refers to managing behaviors through a regulating structure, which comprises actions such as supervision and setting rules and limits (Barber, 1996). Research shows that more parental control positively relates to lower adolescent behavioral adjustment (e.g. minor delinquency and substance use; Barber, Olsen, & Shagle, 1994; Loeber & Stouthamer-Loeber, 1998). However, a lack of parental regulating structure correlates to increased rule breaking behaviors (Barber et al., 1994). So, both excessively low and high parental control seems associated with increased rule breaking behaviors. However, other research shows contrary results, as high parental monitoring is negatively associated with behavior problems and substance use in early adolescence (Raboteg-Šarić, Rijavec, & Brajša-Žganec, 2001). Overall, these results indicate that too high or too low parental monitoring evokes adolescent rule breaking behaviors. Additionally, a longitudinal study demonstrated that ineffective parenting has an indirect effect on minor delinquent behaviors in middle adolescence (Simons, Chao, Conger & Elder, 2001). Joining deviant peers during middle adolescence was particularly the case if parents showed lower parental control during early adolescence. As a result, the tendency to exhibit delinquent behavior became more probable.

Besides parenting, several cross-sectional studies showed another risk factor (e.g. adolescent disclosure) for displaying delinquent behaviors. For instance, results indicate that parental monitoring is a less powerful predictor of adolescent delinquent activities than adolescent disclosure (Keijsers, Branje, Van der Valk, & Meeus, 2010; Kerr & Stattin, 2000; Waizenhofer, Buchanan, & Jackson-Newsom, 2004). In addition, high concealment levels and low disclosure levels of young adolescents are strongly associated with high levels of rule breaking behaviors (Laird & Marrero, 2010). In conclusion, substantial research indicates certain parenting behaviors as possible risk factor for the development of anxiety and rule breaking behaviors. However, as mentioned before, emotion regulation could also be an associating factor. As it is not clear whether and how emotion regulation affects this association, the present study will examine this relationship.

The Present Study

The main aim of this study is to investigate whether perceived parental privacy invasion relates to psychosocial maladjustment (e.g. anxiety and rule breaking behavior), and whether emotion regulation mediates this relationship in our school-based community

sample. Firstly, based on prior research on parenting behaviors and emotion regulation (Jaffe et al., 2010; MacDermot et al., 2009; Manzeske & Stright, 2009; Yap et al., 2010), we expect that youths' perceptions of parental privacy invasion hold positive relations with emotion regulation difficulties (H1). Secondly, research regarding anxiety and intrusive parenting behaviors (Gaertner et al., 2010) shows linkages between youths' perceptions of parental privacy invasion and anxiety. As a result, we further expect to find that perceived invasion holds a positive relation to anxiety (H2). Based on a positive relationship between emotion regulation difficulties and anxiety (Southam-Gerow & Kendall, 2002), we further hypothesize that emotion regulation difficulties are positively related to anxiety. We expect emotion regulation difficulties to mediate the relationship between both perceived parental privacy invasion and anxiety (H3). Thirdly, based on research on overprotective parenting and adolescent problem behavior (Barber et al., 1994; Barber & Harmon, 2002; Loeber & Stouthamer-Loeber, 1998; Simons et al., 2001), we expect that parental privacy invasion is positively related with adolescent rule breaking behaviors (H4). Based on a positive relationship and a strong association between rule breaking behaviors and difficulties regulating anger (Hessler & Katz, 2010; Nichols et al., 2008) in prior studies, we further hypothesize that emotion regulation difficulties are positively related to rule breaking behaviors. In conclusion, based on the previously reported linkages between emotion regulation difficulties and both adolescent behavioral problems in this research, we expect emotion regulation difficulties to mediate the relationship between perceived parental privacy invasion and rule breaking behaviors (H5).

Method

Participants

The sample consisted of adolescent participants ($N = 102$), 50 boys versus 52 girls, which was taken from one Dutch high school and had different educational levels (31% VWO, 46% HAVO, 25% VMBO). The age of the participants ranged from 13 to 17 ($M = 14.82$, $SD = 0.74$), the modal age was 15 (48%). Adolescents mostly identified themselves as Dutch (97.1%), while three participants indicated another ethnicity. Additionally, youths indicated that they mostly lived with both parents ($N = 81$), the remaining 21 participants were divided among other family structures (e.g. mother only, father only etc.). Although most adolescents indicated their parents to be Dutch, the distribution of parental ethnicity further differed for mothers and fathers. Mothers were indicated as Dutch (62.4%), followed by Moroccan/Algerian (15.8%) and Turkish (10.9%). The remaining 10.9% of the participants indicated maternal ethnicity to be Surinam/Netherlands Antilles (4%), Indonesian (2%) and the remaining 5% of the participants had mothers of another ethnicity. Fathers were 56.9% Dutch, 15.7%

Moroccan/Algerian, 9.8% Turkish, 6.9% Surinam/Netherlands Antilles and 10.8% of fathers were from undefined heritage.

Measures

Youths' Perceptions of Parental Privacy Invasion. Youths were asked to report on perceived parental privacy invasion, through a Dutch translation of the Intrusiveness subscale from the Level of Expressed Emotion questionnaire (LEE; Hale, Raaijmakers, Gerlsma, & Meeus, 2007). This subscale measure consists of seven items, scored on a 5-point Likert scale ranging from 1 (*totally untrue*) to 5 (*totally true*). A sample question is "My parents interfere in my private affairs". Reliability of this subscale was good ($\alpha = .848$). Validity and reliability of the scale were discussed by Hale and colleagues (2007). A confirmatory factor analyses showed that the LEE can be applied to adolescents. The intrusiveness subscale had a good internal consistency, and all the inter-correlations between the scales were significant. Furthermore, the factors of the LEE had moderate correlations with adolescent depression and anxiety.

Emotion Regulation Difficulties. Adolescents reported on the extent to which they were having difficulties regulating their emotions, using a Dutch translation of the 32-item Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). Items were scored on a 5-point Likert-scale, ranging from 1 (*almost never*) to 5 (*almost always*). An example item was, "I experience my emotions as overwhelming and out of control". Reliability for this scale was sufficient ($\alpha = .897$). The DERS is further divided into six subscales. For our research, however, we used the composite score on the whole DERS, computed as a total mean. The validity of this scale has been extensively discussed by Gratz and Roemer (2004). Furthermore, validity and reliability were recently demonstrated in a sample of Dutch adolescents. This was done through a repeated factor structure, finding good average reliability for the subscales ($\alpha = .81$) and significant associations between DERS dimensions with both internalizing and externalizing problems, supporting concurrent and construct validity (Neumann, Lier, Gratz, & Koot, 2010).

Adolescents' experience of anxiety. Adolescents indicated to what extent they experienced feelings of anxiety, nervousness and worrying. The students graded their feelings by filling in the Dutch modified version of the SCARED (Muris, Bodden, Hale, Birmaher, & Mayer, 2007). SCARED-NL contains 38 items, each with a 3-point Likert-scale ranging from almost *never* (1), and *sometimes* (2) to *often* (3). Reliability of the scale was good ($\alpha = .881$). The SCARED is divided into five subscales. Yet, our research focuses on the composite score of the total SCARED, computed as a total mean. Both validity and reliability have been displayed in various studies (Su, Wang, Fan, Su, & Gao, 2008; Isolan, Salum, Osowski, Amaro, & Manfro, 2011), including Dutch studies (Hale, Raaijmakers, Muris, & Meeus, 2005; Crocetti, Hale, Fermani, Raaijmakers, & Meeus,

2009). The SCARED showed to have a good internal consistency (assessed by means of Cronbach's Alpha) and test-retest reliability. The SCARED has also shown good discriminant validity, differentiating between youths with and without anxiety disorders, and between individuals with specific anxiety disorders (Birmaher et al., 1997, Birmaher et al., 1999), and good convergent validity. The SCARED had a strong sensitivity and specificity (Muris, Merckelbach, Mayer, & Prins, 2000). Hale and colleagues (2005) conducted a confirmatory factor analysis, and found that the five-factor analysis of the Dutch version of SCARED provided a good fit in a Dutch adolescent sample.

Minor Delinquency. Adolescents indicated how many times they displayed minor delinquency behaviors, by filling out a 16-item questionnaire of the Minor Delinquency Scale (Baerveldt, Rossem, & Vermande, 2003). Items were scored on a 4-point Likert scale, ranging from 1 (*never*) to 4 (*four times or more*). An example question was, "*Have you stolen a bike in the past 12 months?*". Reliability for this scale was sufficient ($\alpha = .887$) in our research, and has been checked for validity in Dutch samples (Baerveldt, 1992; Baerveldt et al., 2003). The individual items were constructed as one scale, when a confirmatory factor analysis was conducted (Baerveldt et al., 2003). The total scale had a sufficient internal consistency ($\alpha = .91$) and proved to be one-dimensional, as the eigenvalue for the first factor was 8.6 and the second 1.5. Thus, these values show that the Minor Delinquency Scale has sufficient construct validity. This indicates that minor delinquent activities are factually measured by this questionnaire.

Procedure

Our sample was taken from a Dutch high school situated in Utrecht, the Netherlands. To provide parents an opportunity to decide whether they involved their children in this investigation, parents were provided with passive permission forms. The final sample consisted of 109 adolescents, after a total of 6 adolescents opted out for our research. Participating students filled in questionnaires relevant to our research, completing them in approximately 20 minutes. Instructions on how to answer the questionnaire were printed on the booklet. Results were processed anonymously, to ensure the participants' privacy. School personnel further handled the distribution and collection of filled in questionnaires. Also, to compensate for the willingness of the school's personnel, we offered to give a presentation on our research results and their implications.

Strategy of Analyses

To test our aforementioned hypotheses, we implemented regression analyses, using SPSS software. In total, we conducted four analyses. Firstly, since perceived parental privacy invasion was always an independent variable in our hypotheses, we conducted an initial examination of this variable. For initial exploration of the data, we ran two one-way ANOVA analyses, to determine whether there were age or gender differences in youths' perceptions of privacy invasive parenting. Next, we performed three hierarchical

regression analyses to examine whether gender, age, and youths' perceptions of parental privacy invasion predicted emotion regulation difficulties, anxiety, and rule breaking behaviors. The hierarchical regression analyses for anxiety and rule breaking behaviors further tested for mediation by emotion regulation difficulties.

In the hierarchical regression analysis for emotion regulation difficulties, age and gender were entered as control variables in step 1. In step 2, we entered perceived parental privacy invasion as our main predictor. Additionally, two-way interactions between the predictor variable x controls and between the controls themselves (Age x Gender) were added in step 3, and three-way interactions in step 4.

In the hierarchical regression analyses for anxiety and minor delinquency, step 1 and 2 remained the same as for emotion regulation difficulties. However, to test whether emotion regulation difficulties mediated the relationship between our main predictor and outcome variables (rule breaking behavior and anxiety), we entered emotion regulation difficulties as a predictor in step 3. Additionally, two-way interactions between the predictor variables x controls and between the controls themselves (Age x Gender) were added in step 4, and three-way interactions in step 5.

The mediation hypotheses would be supported if the perceived parental privacy invasion regression coefficient decreased due to the addition of emotion regulation difficulties. The direct effect of perceived parental privacy invasion on psychosocial maladjustment is then transferred to the indirect effect of emotion regulation difficulties. A slight decrease in the regression coefficient, or decreasing the regression coefficient to nonsignificance, would respectively suggest partial or full mediation. As follow-up analyses for mediation, we conducted Sobel tests. If the Sobel test statistic is significant ($p < .05$), it is assumed that significance of the direct effect of youths' perceived parental privacy invasion on psychosocial problems is transferred to the significance of the indirect effect of emotion regulation on psychosocial problem behavior.

By entering a two-way interaction model, moderation by the control variables (age and gender) was assessed. When the interaction was significant, it is assumed that a control variable further influences the strength and direction of the relationship between two variables. If the two-way interaction-model was significant, we conducted follow-up analysis to further examine the effect of the control variable by performing regression analysis for each value of the control variable. In a three way interaction model, it is examined whether both age and gender influenced the relationship between two of the tested variables. If any significant three-way interaction model existed, we conducted follow-up analysis by running a regression analysis for each value for both control variables.

Results

Initial examinations

Table 1 shows the means, standard deviations and intercorrelations between all the variables of interest. Emotion regulation difficulties were positively correlated with anxiety, and showed moderate positive correlations with minor delinquency and perceived parental privacy invasion. There was also a moderate correlation between minor delinquency and age (see Table 1). Correlations indicated that emotion regulation difficulties related to both increased reports of anxiety and increased reports of minor delinquency by adolescents. In addition, correlations indicated that higher parental privacy invasion was related to increased reports of emotion regulation difficulties.

As another initial examination of our dataset, we conducted two one-way ANOVA analyses to test for either age or gender differences, while youths' perceptions of parental privacy invasion were entered as the dependent variable. Conclusively, both the one-way ANOVA for age, $F(4, 95) = 1.60, p = .181$, and the one-way ANOVA for gender, $F(1, 100) = .419, p = .519$, showed no significant results.

Perceived parental privacy invasion and emotion regulation

To test whether youths' perceived parental privacy invasion predicted emotion regulation difficulties [H1], a hierarchical regression analysis was conducted. As the findings from the hierarchical regression analysis in Table 2 show, step 1 was not significant (Adj. $R^2 = -.016, p = .810$), indicating that gender and age did not significantly explain the variance in emotion regulation difficulties. However, step 2, in which we added perceived parental privacy invasion as a predictor, was significant ($\Delta R^2 = .123, p = .004$). In this model, adolescent emotion regulation difficulties were significantly predicted by perceived parental privacy invasion only ($\beta = .227, p < .001$). The results thus supported our hypothesis (H1) regarding a positive relationship between perceived parental privacy invasion and emotion regulation. Step 3, in which we added the two-way interactions, was not significant ($\Delta R^2 = .018, p = .583$), and neither was step 4, in which we entered the three-way interaction ($\Delta R^2 = .009, p = .337$). This suggested that age and gender of our participants did not qualify the positive relationship between privacy invasion and emotion regulation difficulties. Step 2 was defined as the final model, as it was the last significant step.

Perceived parental privacy invasion, emotion regulation, and anxiety

A regression analysis was conducted to test whether youths' perceived parental privacy invasion predicted anxiety [H2], and whether it was mediated by emotion regulation difficulties [H3]. As seen in Table 3, step 1 was not significant, but did show a trend (Adj. $R^2 = .033, p = .072$). It is noteworthy to mention the significance of gender ($\beta = .228, p = .023$). Step 2 was not significant, but also showed a trend ($\Delta R^2 = .017, p = .072$). In step 2, age ($\beta = .009, p = .926$) and perceived parental privacy invasion ($\beta = .132, p =$

.189) were not significantly associated with anxiety. These results led to the rejection of the second hypothesis, which stated that perceived privacy invasion would be positively related to anxiety. In contradiction to parental privacy invasion and age, gender ($\beta = .220, p = .028$) was significantly related to anxiety. This finding indicated that (in step 2) neither age or youths' perceptions of parental privacy invasion and age were associated with anxiety.

Step 3, in which emotion regulation was added, was significant ($\Delta R^2 = .350, p < .001$). Emotion regulation difficulties ($\beta = .633, p < .001$) were significantly and positively related to anxiety. So, more emotion regulation difficulties were associated with a higher level of anxiety. As in step 1 and 2, gender ($\beta = .218, p = .007$) was also related to anxiety in step 3. Furthermore, age ($\beta = .009, p = .905$) and perceived parental privacy invasion ($\beta = -.094, p = .273$) were not significantly associated with anxiety. Step 4 as a total was not significant ($\Delta R^2 = .022, p = .608$) indicating no two-way interactions involving age or gender. Step 5, which included three-way interactions involving both age and gender, was also not significant ($\Delta R^2 = .010, p = .437$).

Overall, step 3 was defined as the final model, as emotion regulation explained 35% of the variance in anxiety. The third hypothesis concerned the mediating effect of emotion regulation, and displayed significant results in step 3. Following from these results, the Sobel test was conducted as a follow-up analysis. The Sobel test statistic showed that emotion regulation significantly (Sobel = 3.312, $p = .001$) carried the influence of youths' perceptions of parental privacy invasion to anxiety. In conclusion, the Sobel test confirmed the third hypothesis. This indicates that the positive link between youths' perceptions of parental privacy invasion and anxiety was only apparent when including emotion regulation as a mediator.

Perceived parental privacy invasion, emotion regulation, and minor delinquency

The fourth and fifth hypotheses predicted a link between youths' perceived parental privacy invasion and minor delinquency [H4], and that this link would be mediated by emotion regulation difficulties [H5]. As the findings from the hierarchical regression analysis in Table 4 show, step 1 in total was significant (Adj. $R^2 = .114, p = .001$). Both age ($\beta = .212, p = .027$) and gender ($\beta = -.291, p = .003$) were significantly related to minor delinquency. These significant results were important indicators for follow-up analyses.

In step 2, no significant result was found ($\Delta R^2 = .010, p = .297$). This result indicated that perceived parental privacy invasion was not related to minor delinquency. Therefore, the hypothesis that perceived parental privacy invasion is positively related to minor delinquency [H4] was rejected. Yet, age ($\beta = .195, p = .045$) and gender ($\beta = -.296, p = .002$) remained significantly related to minor delinquency.

Step 3 indicated a non-significant result ($\Delta R^2 = .029, p = .073$), but came close to

the alpha-level of 5%. This implied a trend for the effect of emotion regulation difficulties ($\beta = .181, p = .073$). Moreover, age ($\beta = .195, p = .043$) and gender ($\beta = -.297, p = .002$) remained significantly related to minor delinquency and therefore were stable variables in model 1, 2 and 3.

The fourth step showed a significant result ($\Delta R^2 = .170, p = .001$). An important finding was the significance of emotion regulation difficulties ($\beta = .515, p < .001$), which was not found in the previous steps. Within this fourth step, age ($\beta = .449, p = .002$) and gender ($\beta = -.295, p = .001$) remained significantly related to minor delinquency. Additionally, perceived parental privacy invasion ($\beta = -.229, p = .090$) showed no significance and therefore had no significant relation with minor delinquency. Furthermore, interaction effects were examined by adding Gender x Age ($\beta = -.365, p = .012$), Perceived Parental Privacy Invasion x Age ($\beta = -.055, p = .589$), Perceived Parental Privacy Invasion x Gender ($\beta = .439, p = .002$), Emotion Regulation x Age ($\beta = .043, p = .652$), Emotion Regulation x Gender ($\beta = -.508, p = .001$). Age showed no significant interactions. However, all the interactions between gender and the independent variables parental privacy invasion and emotion regulation were significant. Additionally, the interaction between gender and age was also significant. Therefore, another regression analysis was conducted for boys and girls separately. The significant interactions are displayed in figure 1, 2 and 3. Figure 1 shows the interaction between perceived parental privacy invasion and gender on minor delinquency. No significant relation between perceived privacy invasion and minor delinquency was found for boys ($\beta = -.186, p = .184$). In contrast, higher perceived parental privacy invasion associated with more minor delinquent activities in girls ($\beta = .607, p < .001$). Figure 2 shows the interaction between emotion regulation difficulties and gender on minor delinquency. Girls' reports showed a trend for higher scores on emotion regulation difficulties to predict lower reports of minor delinquency ($\beta = -.244, p = .081$). However, boys' reports showed that more emotion regulation difficulties were associated with more minor delinquency ($\beta = .393, p = .006$). Furthermore, it is noteworthy that, regardless of the level of emotion regulation difficulties, boys' scores on minor delinquent activities were higher compared to girls. Finally, Figure 3 shows the interaction of age and gender on minor delinquent activities. It was found that boys had higher scores on minor delinquent activities than girls, regardless of Age x Gender. Additionally, results showed that age was an important predictor for minor delinquency in boys, as an older age was related to more minor delinquency ($\beta = .301, p = .036$). This was not true for girls, as minor delinquency did not differ across age groups ($\beta = -.052, p = .697$).

Finally, three-way interactions were entered in step 5, and the step as a total was not significant ($\Delta R^2 = .017, p = .310$, Table 4). Model 4 was thus retained as the final model in the regression analysis. Overall, these results indicated different predictors of

minor delinquent activities for boys and girls. Conclusively, no follow up analysis was conducted as no significant result for emotion regulation difficulties occurred. Thus, no mediation by emotion regulation was found.

Discussion

This study examined the interrelations of youths' perceptions of parental privacy invasion, adolescent emotion regulation difficulties, and psychosocial maladjustment. We examined the constructs of interest through a cross-sectional study, using adolescent self-report measures on perceived parental privacy invasion, emotion regulation difficulties, anxiety, and rule breaking behaviors. Parental respect for increased privacy demands in adolescence is important, and privacy management seems critical for the relationships between parents and adolescents (Petronio, 1994). Setting rules and monitoring youths' behavior by parents is a common process. However, youths consistently consider exceeding their privacy boundaries as negative parenting behavior (Petronio, 1994). In general, prior literature suggests that intrusive parenting relates to both adolescent psychosocial problems (Morris et al., 2001; Nishikawa, Sundbom, & Hägglhög, 2010) and emotion regulation difficulties (Yap et al., 2010; MacDermot et al., 2009). However, these studies did not examine youths' perceptions. This study focused on youths' perceptions of parental privacy invasion, psychosocial adjustment and emotional dysregulation in adolescents.

Our research focused on five hypotheses, based on prior research. Firstly, we expected that youths' perceptions of parental privacy invasion would be positively related with emotion regulation difficulties (H1). Secondly, we expected that youths' perceptions of parental privacy invasion would be positively associated with anxiety problems (H2), and that emotion regulation difficulties would mediate this relationship (H3). Furthermore, we expected a positive relation between perceived parental privacy invasion and adolescent rule breaking behaviors (H4). The last hypothesis stated that emotion regulation difficulties would mediate the positive association between youths' perceptions of invasion and their rule breaking behaviors (H5). Overall, we found that perceived parental privacy invasion was positively related to reports of emotion regulation difficulties (H1). There was no direct link found between invasive behaviors and anxiety (H2), but we did find a mediating effect of emotion regulation difficulties (H3). Furthermore, we found that perceived parental privacy invasion was not positively related to rule breaking behaviors (H4) and that there was no mediation by emotion regulation difficulties (H5). The current research may therefore contribute to improvement of family relationships and related adolescent psychological well-being, as the findings may provide an increased understanding of the importance of family privacy management with regard to adolescent psychosocial health.

Links between invasion and emotion regulation difficulties

A recent review of familial influence on emotion regulation development (Morris et al., 2007) posits that parents are of great influence to their children's emotion regulation. When parenting involves intrusive behavior, excessive regulation of children's activities, and a minimal level of age-appropriate autonomy granting, children are at risk for developing emotion regulation difficulties (Morris et al., 2007). Although intrusive parenting generally includes parental privacy invasion, none of the described literature on the relationship between parenting and emotion regulation has explicitly focused on measuring perceived parental privacy invasion. We found that our measure of parental invasion correlated positively with emotion regulation difficulties. This is in line with previous research on associations between emotion regulation difficulties and both intrusive (e.g. overprotection, high parental control; MacDermot et al., 2009; Manzeske & Stright, 2009) and negative parenting (Yap et al., 2010). In addition, we found that perceived privacy invasion significantly predicted emotion regulation difficulties in a hierarchical regression, after controlling for age and gender. These results supported our first hypothesis. However, this differs from previous research (Jaffe et al., 2010), which found intrusive parenting (e.g. overprotection) was no longer a significantly related maladaptive emotion regulation (e.g. suppressing emotions) after controlling for temperamental variables, while significant correlations between parental overprotection and suppression use existed initially. As a result, our study extends prior research on relationships between parenting and emotion regulation difficulties, by uniquely including perceived parental privacy invasion as a measure and finding that this measure is a significant predictor of emotion regulation difficulties.

Furthermore, we did not find gender differences for youths' reports of emotion regulation difficulties, measured as an overall score on the DERS. This was in line with the developers' initial psychometric evaluation of the DERS with adults (Gratz & Roemer, 2004). However, the lack of gender differences could be due to usage of an overall score, as recent research validating the DERS for adolescents in a Dutch sample found gender differences for three specific emotion regulation difficulties (i.e., Lack of Emotional Awareness, Difficulties Engaging in Goal-Directed Behavior When Distressed, and Nonacceptance of Negative Emotional Responses; Neumann et al., 2010). This may suggest that these emotion regulation aspects develop differently for boys and girls, and may therefore lead to gender-specific difficulties in regulating emotions in adolescence. Future longitudinal research should examine whether gender-specific developmental pathways indeed exist for these aspects of emotion regulation difficulties.

As a result of their cognitive, physiological and social development, adolescents require more privacy (Petronio & Caughlin, 2006; Hawk et al., 2009). However, parents need to balance between granting autonomy and monitoring their adolescents, as both

excessive autonomy and control puts social and emotional development at risk (Kakihara & Tilton-Weaver, 2009). More specifically, our results suggest that adolescent perception of privacy invasive parenting plays an important role in emotion regulation. Consequently, perceived parental privacy invasion may contribute to emotion regulation difficulties in adolescents.

Links between invasion, emotion regulation and anxiety

Anxiety is one of the most common internalizing emotions during adolescence (Ollendick, King, & Muris, 2002). Previous studies have linked excessive parental control and involvement with adolescent anxiety (Gaertner et al., 2010). Besides parenting behaviors, emotion regulation difficulties also hold a positive link with anxiety (Southam-Gerow & Kendall, 2002). A healthy emotional development is crucial for preventing internalizing difficulties (Crocetti et al., 2009). Therefore, it is useful to research the link between parental privacy invasion and anxiety, and the role of emotion regulation difficulties on this link. Based on earlier literature, we expected to find that perceived privacy invasion held a positive relation to anxiety in our school-based community sample. We further hypothesized that emotion regulation difficulties would mediate the association between perceived parental privacy invasion and anxiety.

The results of the study did not support both hypotheses. There was no linkage found between youths' perceptions of parental privacy invasion and anxiety, in contrast to prior studies. A study regarding internalizing emotions stated that feelings of privacy invasion can affect the welfare of adolescents negatively, in terms of internalizing symptoms (Hasebe, Nucci, & Nucci, 2004). However, anxiety could have a different association with invasive parental behaviors, as compared to other internalizing symptoms.

Although there was no positive link between youths' perceptions of parental privacy invasion and anxiety, the mediating hypothesis was confirmed. In addition to mediating effect of emotion regulation difficulties on the link between youths' perceptions of parental privacy invasion and anxiety, we found that more emotion regulation difficulties were associated with a higher level of anxiety, explaining 35% of the variance in anxiety. This is in line with previous research on associations between emotion regulation difficulties and negative emotions (Parrot, 1993). The focus on anxiety extends prior research that only examined combined internalizing symptoms. The results show that emotion regulation difficulties mediate the relation between parenting and anxiety. This suggests that when adolescents experience more parental invasive behaviors, they also experience more emotion regulation difficulties, which results in a higher level of anxiety. The association between emotion regulation difficulties and anxiety was found for both boys and girls. There were no substantial differences between the sexes.

A noteworthy finding was the mediating role of emotion regulation. This is an interesting result since there is an association between parental invasive behaviors and emotion regulation difficulties, and between emotion regulation and anxiety, while no relation between perceived parental privacy invasion and anxiety existed. This finding suggests a contribution of an unknown variable that possibly moderates the influence of parental privacy invasion on anxiety, but still permits a direct link between emotion regulation difficulties and anxiety. This effect is also known as indirect-only mediation (Zhao, Lynch, & Chen, 2010). A possible explanatory variable is attachment (Zimmerman, Mohr, & Spangler, 2009), and temperament (Jaffe et al., 2010) and a certain personality type. Another possible explanation for our finding lies in genetics. For example the serotonin transporter 5-HTT. Serotonin (5-HT) is a key modulator of emotional reactivity and behavior. The short allele variant of the 5-HTT gene seems to lower the threshold to emotional stimuli, and therefore leads to a higher level of emotional reactivity. The impaired capacity to regulate emotions can cause an increased risk of developing mental problems like anxiety (Zimmerman et al., 2009), due to a higher baseline activity of the amygdala (Hariry & Holmes, 2006). Due to the emotional reactivity, conflictual adolescent-parent interactions may arise. In conclusion, the short allele variant of the 5-HTT gene could ensure that emotion regulation difficulties are a contributing factor for the development of anxiety, but also minimalizes the influence of parental privacy invasion on anxiety. The 5-HTT gene therefore seems to be a possible explanation for the results in our study. However, the association with this study is still indistinct.

Links between invasion, emotion regulation and rule breaking behavior

As children enter adolescence, rule-breaking behaviors occur more frequently (Hessler & Katz, 2010). Firstly, substantial research has shown that low levels of parental behavioral control are positively associated with adolescent rule breaking behaviors, such as drug use and truancy (Barber & Harmon, 2002). On the other hand, higher parental monitoring has also been associated with lower adolescent adjustment, such as minor delinquent behaviors and substance use (Barber et al., 1994; Loeber & Stouthamer-Loeber, 1998). Thus, excessive parental behaviors – either too lenient or too strict - are associated with rule breaking behaviors in adolescence. Secondly, emotion regulation difficulties are linked with more rule breaking behaviors among adolescents (Caffray & Schneider, 2000; Hessler & Katz, 2010; Nichols et al., 2008). Hence, developing adaptive emotion regulation strategies is important to avoid externalizing problem behaviors (Eisenberg et al., 2001). From this perspective, it is important to examine the linkages between youths' perceptions of parental privacy invasion and rule breaking behaviors, and whether this link is mediated by emotion regulation difficulties.

Based on prior literature, we expected to find a positive association between youths' perceptions of parental privacy invasion and adolescent rule breaking behaviors,

measured as minor delinquent behaviors. We also expected that emotion regulation difficulties mediated the link between youths' perceptions of parental privacy invasion and rule breaking behaviors. The first hypothesis was partially supported. The prediction that youths' perceptions of parental privacy invasion and adolescent rule breaking behaviors were positively related was rejected. However, high perceived parental privacy invasion was associated with more minor delinquency in girls. This finding is not in line with previous research, as higher parental monitoring was negatively associated to behavior problems in girls (Raboteg-Šarić, Rijavec, & Brajša-Žganec, 2001). These differing results are possible due to a smaller sample size of the current research and slightly dissimilar questionnaires. Furthermore, the aforementioned result of the current research was in line with previous studies, as more parental control positively related to lower adolescent behavioral adjustment (Barber et al., 1994; Loeber & Stouthamer-Loeber, 1998).

Furthermore, emotion regulation difficulties were positively associated with minor delinquency in boys. This relation is supported by prior research, which demonstrated a positive association between anger regulation difficulties and an increased risk of substance use and behavioral maladjustment in middle adolescence (Hessler & Katz, 2010; Nichols, Mahadeo, Bryant, & Botvin, 2008). Moreover, more emotion regulation difficulties were related to more minor delinquent activities in boys in our research. A recent study showed a similar result for younger boys (e.g. 7 to 13 years), as boys with aggression problems reported less adaptive emotion regulation strategies compared to nonaggressive boys (Orobio de Castro, Merk, Koops, Veerman, & Bosch, 2005). These results suggest that emotion regulation difficulties contribute to the development of rule breaking behaviors with boys, and start at an earlier age than the investigated age group in our research. Moreover, boys' scores on minor delinquent activities were higher than for girls in our research, regardless of the emotion regulation level. This is consistent with previous research, as boys tend to engage more in (minor) delinquent activities than girls (Rhodes & Fischer, 1993; Weerman & Bijleveld, 2007). For example, boys violate the law more often than girls (Rhodes & Fisher, 1993; Weerman & Bijleveld, 2007) and commit more minor offences (Weerman & Bijleveld, 2007). In their turn, girls display more truancy, runaway behaviors, social and personal problems (Rhodes & Fischer, 1993).

Finally, noteworthy results were found on age and gender despite no specific hypotheses on these predictors. Specifically, age was an important predictor for minor delinquent activities in boys, as an older age was associated with more minor delinquency. This is consistent with other research (Loeber & Farrington, 2000). Additionally, gender seemed to moderate the interrelations between minor delinquency and both perceived parental privacy invasion and emotion regulation difficulties.

Subsequently, gender seemed to moderate the relationship between perceived parental privacy invasion and minor delinquency. More recent research argues that an unequal balance between protective and risk factors was also important for a higher risk of later delinquent behaviors (Stouthamer-Loeber, Loeber, Wei, Farrington, Wikström, 2002). A possible risk factor was a disadvantaged neighborhood, as friendship was a possible protective factor. This unequal balance between risk and protective factors is possibly influenced by emotion regulation difficulties, as it is a likely risk factor. Future research should examine the role of emotion regulation in regard of risk and protective factors, and the moderation of age and gender on minor delinquency.

The fifth hypothesis predicted a positive association between youths' perceptions of parental privacy invasion and adolescent rule breaking behaviors, mediated by emotion regulation difficulties. Contrary to the assumption, this hypothesis was fully rejected. In other words, no mediating effect of emotion regulation difficulties occurred. However, prior research indicated that emotion regulation mediated the link between maternal warmth and conduct problems (Eisenberg, Gershoff, Fabes, Shepard, Cumberland, Losoya, Guthrie, & Murphy, 2001; Valiente, Eisenberg, Spinrad, Reiser, Cumberland, Losoya, & Liew, 2006). Thus, examining other components of parental behaviors and emotion regulation may provide an explanation on the link with the expression of externalizing behavior problems. Future research should therefore focus on maternal and paternal parenting behaviors separately.

Limitations

The present research has several considerable strengths, including the relatively unique examination of anxiety, as opposed to an examination of general internalizing problems. Another strength is that we used both an internalizing and externalizing perspective on psychosocial maladjustment, namely minor delinquency and anxiety. A final strength of our study is that we measured the concepts of interest through questionnaires that were previously validated for the Dutch adolescent population. Although our study has its strengths, it also has limitations. First, as we used a cross-sectional research design, meaning that the findings from this study cannot be used for causal explanation. Additionally, we conceptualized perceived parental privacy invasion as an antecedent of emotion regulation difficulties and psychosocial maladjustment. However, the directionality of relations between the variables could well be different. To determine the directionality of effects, future research should consist of longitudinal and experimental designs.

Second, our research relies heavily on self-report measures. This means that the collected data could be influenced by reporter bias. Jaffe and colleagues (2010) argue that temperament could also influence how adolescents report on their own emotion regulation and perceptions of parenting, further biasing the results. In addition,

adolescent temperament could explain the indirect mediation found in this study. However, self-reports offer valuable insight on subjective internal processes like emotion regulation. The reporter bias in self-reports suggests that future research should include multi-method and multi-informant measurements to examine both internal processes and observable behaviors of the constructs of interest. This enables a more objective examination of internal processes involved.

Finally, our research relies on mean scores across several subscales of emotion regulation and anxiety. As a result, our findings give general insight on relationships between the constructs as a whole. However, nothing can be inferred on which aspects (i.e. subscales) of emotion regulation difficulties and anxiety relate to youths' perceptions of parental privacy invasion. Future research should include these subscales in the examination, to get a more detailed view of which aspects of the outcome variables are related to perceptions on parental privacy invasion.

Conclusions

This is the first study, to our knowledge, that examines the interrelations between perceived parental privacy invasion, emotion regulation difficulties, and psychosocial maladjustment, measured here as anxiety and rule breaking behaviors. Our research suggests that perceived parental privacy invasion has important links with adolescent well-being. While not directly linked to adolescent maladjustment, perceived parental privacy invasion did relate to emotion regulation difficulties, which were further associated with child and adolescent emotional problems. The findings may provide an increased understanding of the importance of family privacy management with regard to adolescent psychosocial health. Furthermore, it may help to stimulate parents to discuss privacy issues with their adolescent children, aiming to come to mutually acceptable agreement on desired privacy boundaries.

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Table 1

Descriptives and Intercorrelations for variables of interest (N = 102)

Variable	<i>M</i>	<i>SD</i>	Intercorrelations			
			2	3	4	5
1. Emotion regulation difficulties	2.31	0.56	.604**	.203*	.362**	.061
2. Anxiety	1.43	0.24		.035	.151	.028
3. Minor delinquency	1.32	0.52			.123	.217*
4. Perceived parental privacy invasion	3.11	0.88				.127
5. Age	14.82	0.74				

Note. * $p < .05$; ** $p < .01$.

Table 2

Summary of Hierarchical Regression Predicting Emotion Regulation Difficulties (ER) with Age, Gender and Perceived Parental Privacy Invasion (N = 100)

	<i>B</i>	<i>SE</i>	β	<i>Adj. R</i> ²	ΔR^2
Step 1				-.016	
Age	0.062	.102	.062		
Gender	0.049	.203	.025		
Step 2				.100	.123**
Age	0.000	.097	.000		
Gender	0.008	.191	.004		
Perceived parental invasion	0.357	.097	.357***		
Step 3				.090	.018
Age	.076	.152	.076		
Gender	.009	.192	.004		
Perceived parental invasion	.225	.146	.225		
Age x Perceived Parental Invasion	-.026	.090	-.030		
Gender x Perceived Parental Invasion	.250	.196	.185		
Age x Gender	-.124	.207	-.095		
Step 4				.090	.009
Age	.097	.154	.097		
Gender	.041	.195	.020		
Perceived parental invasion	.202	.148	.201		
Age x Perceived Parental Invasion	.112	.169	.128		
Gender x Perceived Parental Invasion	.283	.199	.210		
Age x Gender	-.119	.207	-.091		
Age x Gender x Perceived Parental Invasion	-.193	.200	-.192		

Note. Adj. = Adjusted.

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

Table 3

Summary of Hierarchical Regression Predicting Anxiety with Age, Gender, Perceived Parental Privacy Invasion and Emotion Regulation Difficulties (N = 100)

	<i>B</i>	<i>SE</i>	β	<i>Adj. R</i> ²	ΔR^2
Step 1				.033	
Age	.032	.099	.032		
Gender	.454	.197	.228*		
Step 2				.041	.017
Age	.009	.100	.009		
Gender	.439	.197	.220*		
Perceived parental privacy invasion	.132	.100	.132		
Step 3				.395	.350***
Age	.009	.079	.009		
Gender	.434	.156	.218**		
Perceived parental privacy invasion	-.093	.085	-.094		
Emotion regulation difficulties	.630	.083	.633***		
Step 4				.386	.022
Age	-.111	.127	-.111		
Gender	.441	.157	.221*		
Perceived parental privacy invasion	-.194	.122	-.194		
Emotion regulation difficulties	.677	.129	.681***		
Age x Gender	.188	.171	.144		
Perceived Parental Privacy Invasion x Age	-.055	.080	-.064		
Perceived Parental Privacy Invasion x Gender	.214	.172	.159		
Emotion Regulation Difficulties x Age	.080	.086	.082		
Emotion Regulation Difficulties x Gender	-.094	.173	-.073		

(continued)

Table 3 (continued)

	<i>B</i>	<i>SE</i>	β	<i>Adj. R</i> ²	ΔR^2
Step 5				.384	.010
Age	-.086	.131	-.085		
Gender	.423	.160	.212*		
Perceived parental privacy invasion	-.176	.124	-.177		
Emotion regulation difficulties	.667	.131	.670***		
Age x Gender	.150	.173	.115		
Perceived Parental Privacy Invasion x Age	-.082	.141	-.094		
Perceived Parental Privacy Invasion x Gender	.205	.175	.153		
Emotion Regulation Difficulties x Age	-.061	.141	-.062		
Emotion Regulation Difficulties x Gender	-.087	.173	-.068		
Age x Gender x Perceived Parental Privacy Invasion	.014	.173	.013		
Age x Gender x Emotion Regulation Difficulties	.219	.179	.182		

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

Table 4

Summary of Hierarchical Regression Predicting Minor Delinquency with Age, Gender, Perceived Parental Privacy Invasion and Emotion Regulation Difficulties (N = 100)

	<i>B</i>	<i>SE</i>	β	<i>Adj. R</i> ²	ΔR^2
Step 1				.114**	
Age	.214	.095	.212*		
Gender	-.583	.190	-.291**		
Step 2				.115	.010
Age	.196	.097	.195*		
Gender	-.595	.190	-.296**		
Perceived parental privacy invasion	.101	.096	.101		
Step 3				.135	.029
Age	.196	.096	.195*		
Gender	-.597	.188	-.297**		
Perceived parental privacy invasion	.036	.102	.036		
Emotion regulation difficulties	.182	.100	.181		
Step 4				.275	.170**
Age	.453	.139	.449**		
Gender	-.593	.172	-.295**		
Perceived parental privacy invasion	-.229	.134	-.229		
Emotion regulation difficulties	.516	.142	.515***		
Age x Gender	-.481	.187	-.365*		
Perceived Parental Privacy Invasion x Age	-.048	.088	-.055		
Perceived Parental Privacy Invasion x Gender	.594	.188	.439**		
Emotion Regulation Difficulties x Age	.043	.094	.043		
Emotion Regulation Difficulties x Gender	-.656	.189	-.508**		

(continued)

Table 4 (continued)

	<i>B</i>	<i>SE</i>	β	<i>Adj. R</i> ²	ΔR^2
Step 5				.278	.017
Age	.450	.143	.402**		
Gender	-.590	.175	-.294**		
Perceived parental privacy invasion	-.239	.135	-.239		
Emotion regulation difficulties	.537	.142	.536***		
Age x Gender	-.434	.189	-.330*		
Perceived Parental Privacy Invasion x Age	-.099	.154	-.114		
Perceived Parental Privacy Invasion x Gender	.581	.191	.430**		
Emotion Regulation Difficulties x Age	.227	.154	.229		
Emotion Regulation Difficulties x Gender	-.668	.189	-.518**		
Age x Gender x Perceived Parental Privacy Invasion	.110	.188	.109		
Age x Gender x Emotion Regulation Difficulties	-.300	.196	-.247		

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

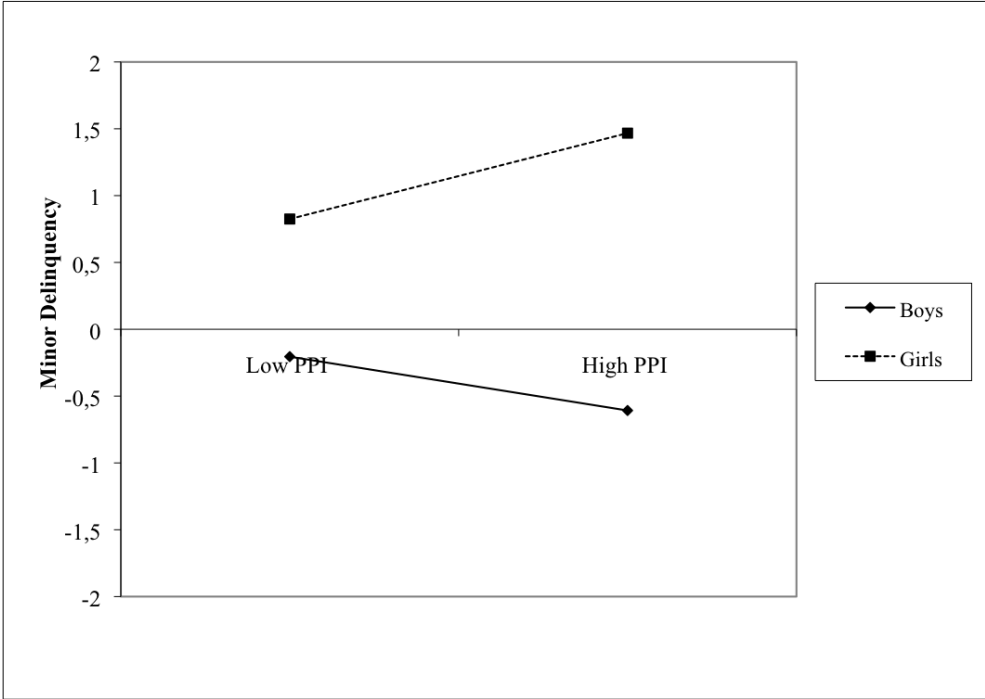


Figure 1. Interaction of perceived parental privacy invasion (PPI) and gender on minor delinquency

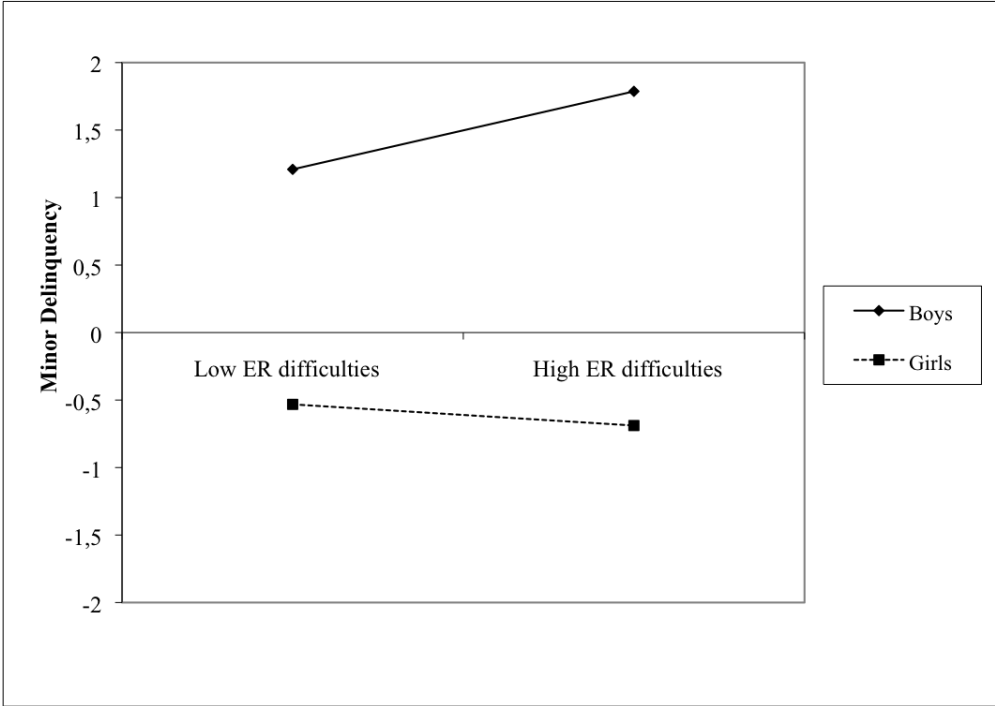


Figure 2. Interaction of emotion regulation difficulties and gender on minor delinquency

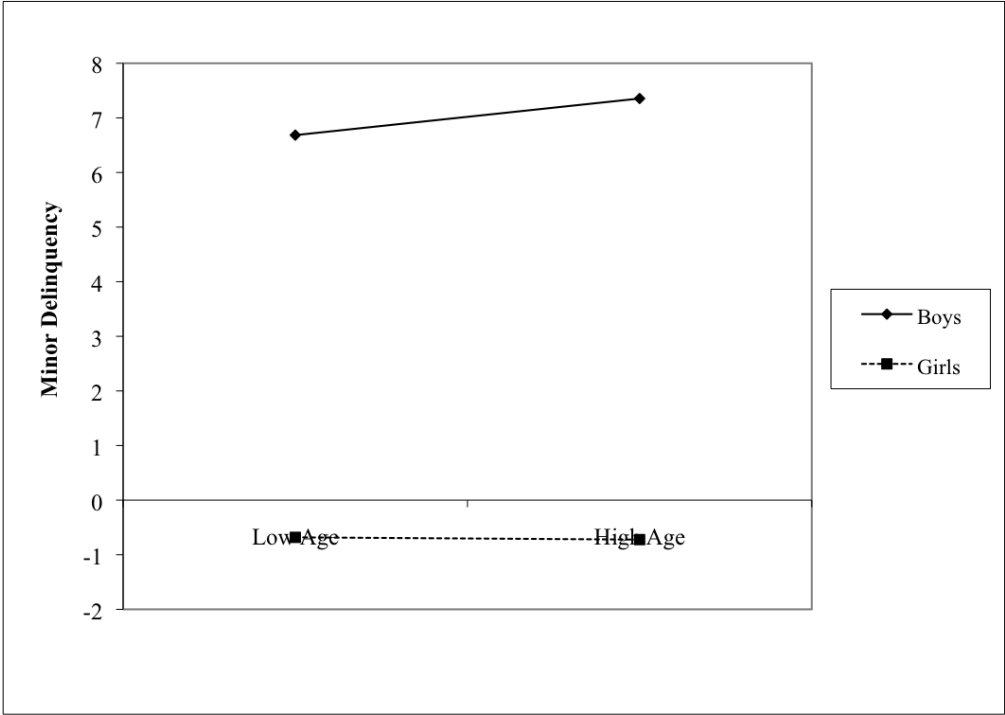


Figure 3. Interaction of age and gender on minor delinquency