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Abstract. The present study examined 1336 twelve- and thirteen-year old Swedish adolescents' experience of parents' reactions to misbehavior and its relations to self-reported internalizing and externalizing problems. Parental reactions were measured as degree of experienced angry outbursts, coldness-rejection and attempted understanding from parents. Internalization and externalization were measured with the Strengths and Difficulties Questionnaire (SDQ). Our findings show that adolescents' internalization and externalization were linked to parental reactions to misbehavior. Adolescents' who reported more parental angry outbursts also reported more externalizing and internalizing problems. Coldness-rejection was similarly related to both problem-styles. Attempted understanding was related to less internalizing and externalizing in adolescents and seems to function as resilience against mental health problems. However, this effect was in turn mediated by attachment.

Children's identity-development and mental well-being are influenced by the caregiving environment in which they grow up (Steinberg & Silk, 2012). Many studies have tried to unfold the knot of a myriad of threads, all tapping into how family dynamics and parental fostering of children affect mental health and development. Attachment theory emphasizes that the early child-caregiver relationship forms an essential bedrock for children's psychological development and how the quality of this attachment-relationship in part predicts future mental well-being (Sroufe, 2005).

According to attachment theory parents (i.e. caregivers who function as attachment figures) have a dual function in that they both need to be a *safe haven* from which the child can explore the world, as well as a *secure base* to which the child can turn to in need of safety and emotional support (Waters, Crowell, Elliott, Corcoran, & Treboux, 2002). Attachment is generally delineated into four types according to quality in child-parent attachment-relationship: Secure-, avoidant-, resistant- and disorganized attachment (Sroufe, 2005). S*ecure* attachment is characterized by a child's trust in attachment figures being available- and reliably offering emotional support when needed. As children mature into adolescence their experience of the early attachment-relationships and caregivers' external support, then gradually forms into internal *attachment representations* or models for emotion-regulation (Becker-Stoll & Zimmerman, 2002). The architecture of these attachment representations have been debated and although there are few clear-cut definitions they can be seen as internal working models or emotional scripts activated in close relationships. Often, they are referred to as generalized expectations about one's self-value but also about how others will respond to the individual, for instance whether one is worthy of love and care, and whether others can be trusted or not. In this sense, attachment theory is a life-span theory. (Becker-Stoll & Zimmerman, 2002; Waters et al., 2002). In the present study when using the term adolescent or teenager we are referring to children who have entered their early teenage years (i.e. aging between 10 and 13). Strictly speaking, we are hence referring to *early adolescence*.

A secure attachment relationship has positive effects also during the adolescent years which have been shown through many studies, linking it to a wide variety of positive adjustment outcomes. To name a few, it has been linked to adolescents' cognitive-, social- and emotional competence, better coping-strategies and social skills, fewer interpersonal conflicts, and less symptoms of psychological problems such as depression, anxiety, attention-problems, eating-disorders, aggressive- and criminal behavior (Allen, 2008; Brumirau & Kerns, 2010; Moretti & Peled, 2004). Another study found that only 5% of families who had experiences of a secure parent-child relationship during childhood later experienced relationship-problems during the child's adolescence (Steinberg & Silk, 2012). In turn, the quality of adolescents' attachment can be partly explained by the mental health problems of their parents. For instance, parents with more stress, anxiety, depression or self-doubt generally are more inept at taking the adolescent's perspective and tend to show less understanding and encouragement of their autonomy (Gondoli & Silverberg, 1997). Secure attachment-representations during adolescence also correlate with higher degree of parental understanding and perceptiveness to the adolescents' emotions (Allen, 2008). Yet, the direction of causality here has been debated and some researchers propose that it might just as well be that teenagers with a secure attachment find it easier to communicate their emotional needs to parents, who in turn become more perceptive (Becker-Stoll, Delius & Scheitenberger, 2001).

The transition from childhood through puberty brings about new challenges and for the adolescent it becomes a balancing act between attachment and autonomy. Adolescence is sometimes described as a time when teenagers rebel against family rules, in order to find their place in the world (Allen, 2008). One important step towards emotional autonomy from parents is the process of de-idealization when teenagers come to realize, perhaps even point out, their parents' flaws and research has shown this process to be facilitated by a secure attachment (Allen, 2008; Steinberg & Silk, 2012; Steinberg & Silverberg, 1986). In addition, adolescents gradually need to be given more freedom to make their own decisions and granted time for relations- and friendships outside of the family (Gavazzi, 2011). Changes like these commonly co-occur with parent-child negotiations or conflicts regarding everyday topics such as clothing, spare-time, household tasks or when to be home in the evening (Laursen & Delay, 2011). As the physical and emotional development of adolescents often are poorly synchronized, it is also common for parents to have either too low expectations or too high demands regarding the adolescents' needs and abilities (Steinberg & Silk, 2012).

Much research on adolescent development has also been occupied on *how* and *what* parents do (or not do) to socialize and discipline their children - a paradigm exploring what is generally known as *parental style*. During adolescence parents are challenged with striking a balance between letting their children develop autonomy but at the same time deterring them from unacceptable or dangerous behaviors. As with attachment, parental style has been shown to impact on children's mental health (Bolghan-Abadi, Kimiaee & Amir, 2011). The variety of parental style conceptualizations that have been proposed are causing some confusion regarding how to best organize parental socialization practices and disciplining strategies (Darling & Steinberg, 1993). Some researchers stress the importance of separating parental style as a more general emotional climate or context in which specific parental practices and disciplinary strategies can have different outcomes and be interpreted differently. To exemplify, depending on the domain and various specific factors, a parent's attempt to

help with cleaning their adolescent's room could potentially be experienced as intrusive by someone, whereas others would regard it as supportive and helpful (Grusec & Davidov, 2010; Steinberg, Lamborn, Dornbusch & Darling, 1992; Darling & Steinberg, 1993).

Barber, Stolz & Olsen (2005) divides parental socialization into *supportive* parenting-behavior and *controlling* parenting-behavior. Supportive parenting-behavior has been linked to less adolescent mental health problems such as depression and better psychosocial functioning. Controlling-behavior, on the other hand, should preferably neither be too high (harsh or punitive) or too low (neglecting). A third parenting factor called *psychological control* has also been included to understand parental socialization. This factor consists of parental attempts to control which intrude on the child's psychological and emotional development through, for instance, inducing shame and guilt or dismissing the child's emotions. Psychological control has been shown to have negative effects on adolescent mental health (Barber et al, 2005). Baumrind (2005) takes on parental style with a distinction between parental warmth and responsiveness on the one hand, and demandingness on the other - creating a four-factor parental-style model including authoritarian (high demand, low warmth), authoritative (high demand, high warmth), permissive (low demand, high warmth) and indifferent (low demand, low warmth) (Steinberg, 2014). The democratic style was later added to complement parental style during adolescence in which parents displayed high warmth and moderate demand. Adolescents who grew up in either authoritative or democratic homes were greatly more competent than their peers in a wide variety of areas such as being more responsible, self-reliant, optimistic, better academic achievements, more emotionally mature and displaying a minimal degree of internalizing and externalizing problems (Baumrind, 1991).

Regarding the distinction between internalizing and externalizing of problems, internalizing is characterized by withdrawal, anxiety, depression and fearfulness (i.e. symptoms of worry and sadness directed inward) whereas externalizing problems more take the form of hyperactivity, defiance, aggression and destructive behavior (i.e. aggressiveness directed outward) (Campbell, 1995; Steinberg, 2014). It is important to note that during adolescence it is not uncommon with internalizing and externalizing problems. Rather they can be seen as natural in the developmental process towards maturation and autonomy. Nevertheless, they can for some adolescents develop into more serious mental health problems and/or personality disorders (Steinberg, 2014). Although boys and girls generally report similar total scores regarding symptoms of psychological health problems, it is a well-documented phenomenon that girls and boys differ in degree and types of psychological symptoms - where girls are more prone to an internalizing style and boys more to externalizing (Lundh, Wångby-Lundh & Bjärehed, 2008). More recent research has also found externalization, measured as criminal behavior, drug-abuse and alcohol consumption, to be strongly influenced by genetics and heritability (Kendler, et al., 2015).

Others within the research field of parental style have more simply divided parental practices into positive parenting on one axis and negative parenting on another (Trifan, 2015). Positive parenting is characterized by factors like warmth, involvement, patience, democratic participation and reasoning and has been linked to positive youth adjustment and less internalizing and externalizing problems (Janssens et al., 2014). In contrast, negative or "harsh" parenting is characterized by physical punishment, verbal hostility, directiveness, lack of patience, lack of explanation for punishment and

coldness-rejection as well as "short-fuse" or angry outbursts (Kakihara, Tilton-Weaver, Kerr & Stattin, 2010; Kerr, Stattin, & Trost, 1999) These negative or harsh parenting practices have been under much research and found to often have detrimental effects on adolescent mental health, linking it to internalizing problems (Dallaire, Pineda, Cole, Ciesla, Jacquez, LaGrange & Bruce, 2006), externalizing problems (Amato & Fowler, 2002) and adult criminality (Fauchier & Straus, 2010).

The importance of parental self-control has also been stressed, and that parents preferably should avoid negative emotional reactions and be patient with adolescents, in contrast to, for example, authoritarian parenting characterized by punishing and controlling behaviors (Halpenny, Nixon & Watson, 2010). The most long-lasting negative effects arise when negative parenting affects adolescent's social adjustment. For instance, adolescents from aggressive homes tend to behave aggressively also outside their homes and in school (Ramsey, Patterson, & Walker, 1990) and later in their romantic relationships (Swinford, DeMaris, Cernkovich & Giordano, 2000). Previous studies are still unclear in terms of describing the exact mechanisms of such developmental transfer, but it has been proposed to stem from either role-modelling (social learning theory), emergence of vicious cycles, and/or adolescents' inability to regulate their anger (Bandura, Ross, & Ross, 1963; Ramsey, Patterson, & Walker, 1990; Shields, Ryan, & Cicchetti, 2001). When parents exhibit negative or harsh parenting practices it seems to have a dual effect in that the child through role-modelling might learn that anger for instance is a way of dealing with conflicts, but also that the child is left without sufficient parental help to regulate emotions. Thus, children's psychological health problems seem to be partly explained by the potential guilt, shame, and anger-inducing behaviors that parents can react with when for instance facing misbehavior.

In the present study we wanted to look more closely on how adolescents' internalizing and externalizing problems are related to their experience of parents' reactions to misbehavior. As opposed to measuring the parents' actual reactions, we are instead taking on an adolescent-centered perspective in asking about their experience of how their parents usually react "*when you have done something they do not like*". Parental reactions to misbehavior in this study are regarded as commonly occurring parental emotional reactions with conceptual similarities to disciplinary strategies and negative/punitive parenting practices.

The overall aim of the present study was to investigate the potential relationship between adolescents' internalizing and externalizing problems and their experience of parents' reactions to misbehavior.

More specifically, we posit that adolescents' level of internalizing and externalizing problems may be related to their experiences of caregivers' angry outbursts, coldness-rejection and/or attempted understanding.

We expect that experience of parental angry outbursts relates more strongly to adolescents' externalization, than to internalization. Although parental angry outbursts most likely also relates to internalizing problems, due to fear reactions and anxiety in the adolescent, we suggest that through role-modelling parental angry outbursts makes the adolescent more likely to react with anger and externalization to stressful situations. Similarly, we expect that there is a stronger relationship between parental coldness-rejection and adolescents' internalization than with externalization, and this may be partly explained by role-modelling in that adolescents' learn such quietly rejecting expressions of negative emotion (Shannon et al., 2007). A third expectation is that the

experience of parents' attempted understanding is negatively related to adolescents' internalization and externalization.

Since research has found a gender difference in the tendency to externalize/ internalize problems we are interested in exploring how these potential relationships appear when we look specifically at boys and girls separately. In addition, we also want to simultaneously explore how attachment relates to internalization and externalization and adolescents' experience of parental reactions.

Method

A brief description of the research program - LoRDIA

Data collected for the present study is part of a larger ongoing longitudinal project LoRDIA (Longitudinal Research on Development in Adolescence). The project's overall aim is to follow adolescents over time in their development regarding factors such as mental-health, personality, family and peers, as well as risk and resilience to drug abuse. The project involves adolescents aged 12 to 17, from four municipalities with 9,000- 36,000 residents in the south-west and south-centered parts of Sweden. Survey-data were also collected from the adolescents' respective parents and teachers.

The first wave of data collections started in 2013 with two cohorts in 6th and 7th grade. These are followed up with annual surveys in both 8th and 9th grade. The final data collection ends with a diagnostic interview for detecting psychiatric- and/or substance-use disorders when the adolescents are at the age of 17. A total of 2,012 adolescents were asked to participate in the project and from these 1,520 (75 %) questionnaires were collected for the first wave. External omission was due to absence from school (9 %) and/or declined consents from parents (10 %) or the child (6 %). The surveys were administered in classroom settings. In addition, caregivers receive a survey by regular mail during wave one and two, while teachers' participate with short reports on the student's' school function each wave. The research program has been approved by the Region Research Ethics Board in Gothenburg, Sweden (No. 362-13).

Participants

For the present study, the sample selected was comprised of data from the first data-collection wave (adolescents aged 12-13), in line with the cross-sectional design, rather than longitudinally focusing on adolescent development. Adolescents following a school plan for intellectually disabled were excluded from the study, as well as others who filled out a simplified version of the questionnaire due to reduced reading or concentration capabilities. This left us with a number of 1383 individuals. Prior to the main data-analyses an additional 47 individuals were excluded due to missing values on either the parental reactions scales (n=32) or SDQ (n=15). For the parental reactions scales we excluded the participants who had missing data on all items, whereas the SDQ (Strengths and Difficulties Questionnarie) exclusion was made when aggregated Internalizing/Externalizing values could not be computed. The total number of participants (N= 1336) were evenly distributed across gender and their mean age was 12.6 years ($SD = 0.64$). See Table 1 for sample descriptives.

Table 1.
Sample Descriptives (n = 1336)

	Girls		Boys		Total
	n	*%*	*n*	*%*	*n*
	694	52	642	48	1336
Do your parents live together?					
Yes	521	40	479	36	1000
No	164	12	156	12	320
Which adults do you live with?					
Both mother and father	557	42	519	39	1076
With mother	46	3	36	3	82
With father	8	<1	7	<1	15
Sometimes with mother, sometimes with father	76	6	66	5	142
With foster parents	4	<1	2	<1	6
Other	1	<1	2	<1	3
Puberty					
Yes	400	31	241	19	641
No	280	22	370	28	650
Economy compared to other families?					
Much less money than other families	6	<1	5	<1	11
Somewhat less money than other families	63	5	63	5	126
Equal money as other families	492	38	418	32	910
Somewhat more money than other families	112	9	132	10	244
Much more money than other families	9	<1	12	<1	21

Procedure

The first wave of data was collected in 2013 (between November and March 2014). All parents and their children received an information letter briefly explaining the purpose of the research project. The information letter also requested parents to actively respond "no" if they wanted their child to not participate in the study. Upon survey administration, written consent was also collected from the adolescent. It was emphasized that participation was voluntary, data would be confidential and that participants were free to withdraw from the study at any time. The survey was group administered at schools in classrooms, whereas absent students got their survey posted to their home by regular mail. The questionnaires were administered by members of the research team and were then filled out individually by each participant. The students answered a structured questionnaire assessing background variables as well as relations to family, peers and teachers, school adjustment and mental health. At least one member of the research team was present during the data-collection and available to answer questions. The approximate time for questionnaire completion was 1.5-2h including a short break halfway.

Measures

For the purpose of this study, the following measures were included:

Parental Reactions. The measures of parental reactions to children's misbehaviors were assessed on three scales: Attempted understanding, Angry outbursts, and Coldness-rejection (Gianotta, Ortega & Stattin, 2013; Tilton-Weaver et al., 2010). The stem-question for these scales was; 'How do your parents react when you do something they do not like?', followed by fourteen statements with answers given on a three point Likert-scale, ranging from 'Never', 'Sometimes' to 'Most often'. The original version was comprised of sixteen items divided into three scales measuring; Angry outburst (e.g., "Becomes very angry and has an outburst"), Attempted understanding (e.g., "Sincerely wants to understand why you did this") and Coldness-rejection (e.g., "Ignore you when you try to explain") (Tilton-Weaver et al., 2010). The original version has previously been tested for factor analysis yielding an acceptable fit, with items loading well on these three factors (Giannotta et al., 2013). In this study a shortened version was used with a one-item reduction for each subscale. Both Angry outbursts and Attempted understanding were composed of four items each, whereas Coldness-rejection was composed of six items. The three parental reaction scales were initially operationalized into separate 'Mother'- and 'Father' measures. For aggregation of 'Mother' and 'Father'-measures, see section 'Statistical analysis' below.

Internalization and externalization of problems. As a measure of degree of adolescent's mental health problems the Swedish self-report version of Strengths and Difficulties Questionnaire (SDQ-S) was used (Goodman, 1997; Goodman, Meltzer, & Bailey, 1998). The questionnaire consists of 25 items and is a broadly used and validated instrument with the aim to detect emotional and behavioral problems (R. Goodman, 1997; R. Goodman et al., 1998). The SDQ was translated into Swedish by Smedje, Broman, Hetta, and von Knorring (1999), and the psychometric properties of the self-reported version have also been validated for Swedish context (Lundh et al., 2008). The 25 SDQ items are divided into five subscales of five items each; hyperactivity/inattention (e.g. I am easily distracted, I find it difficult to concentrate), emotional symptoms (e.g. I am often unhappy, downhearted or tearful), conduct problems (e.g. I fight a lot, I can make other people do what I want), peer problems (e.g. other children or young people pick on me or bully me) and a prosocial behavior scale (e.g. I try to be nice to other people). Answers are given on a three point Likert-scale from 1 = "not true", 2 = "somewhat true" to 3 = "certainly true", and ranging from 0-10 for each scale. With an exception for the prosocial scale, the remaining four scales can be summed to generate a total difficulties scale ranging from 0-40 scores, where a higher score indicates higher degree of general problems.

In this study, the total difficulties scale was divided into two subscales which are preferably used in low risk community samples (Goodman & Goodman, 2009; Goodman, Lamping, & Ploubidis, 2010). The subscales are: internalizing problems and externalizing problems. The externalizing score ranges from 0-20 and is the sum of the conduct and hyperactivity/inattention scales, and is measured with 10 items. Similarly, the internalizing score ranges from 0-20 and is the sum of emotional symptoms and peer problems scales, and is also measured with 10 items. Cronbach alpha's for both the internalizing- and externalizing measures were $\alpha = 0.72$, and $\alpha = 0.70$ respectively, suggesting acceptable internal consistency (Field, 2009).

Attachment. The first LORDIA-wave questionnaire included a measure of adolescents' attachment to 'Mother' and 'Father', consisting of five statements for each

parent such as "I know that mom/dad will be there for me when I need him/her" or "I feel I can try new things since I know mom/dad will support me". Answers are given on a seven point Likert-scale where 1 = "not true at all", 4 = "neutral/mixed" and 7 = "completely true". This rather brief attachment-measure has, to our understanding, not been previously validated. It is important to note that low scores on our attachment-measure not gives evidence of, for instance, disorganized or resistant infant attachment to caregivers, but rather tries to capture somewhat of what characterizes secure attachment representations in adolescence. Similarly to the Parental Reactions-measures, the Attachment measure was also divided into separate 'Mother' and 'Father' scores.

Statistical analyses

Preliminary analysis

First of all, in order to feasibly examine the relations between Internalizing/Externalizing symptoms and the three types of parental reactions for girls and boys respectively, we needed to explore the possibility of converting the separate 'Mother'- and 'Father'-measures into aggregated total 'Parental Reaction' measures. In order to examine the validity of adding up into total Parental Reaction measures we performed three separate paired-samples T-tests. A statistically significant difference was found in Attempted understanding where the estimated mean difference was 0.06, 95% CI [0.05, 0.08], $t(1335) = 7.786$, $p = 0.000$, where mothers showed more Attempted understanding than fathers. However, in light of the small Cohen's d effect-size value for this difference, suggesting low practical significance, we considered adding up the separate mother and father measures legitimate (Cohen, 1988). For Angry outbursts and Coldness-rejection there were no significant differences between 'Mother' and 'Father' mean-scores. The acceptable internal consistencies for each of the added-up parental reaction scales (Angry outbursts $\alpha = 0.82$, Coldness-rejection $\alpha = 0.65$, and Attempted understanding $\alpha = 0.63$) further legitimize their application in the study design.

In order to simultaneously explore the relation of attachment to parental reactions and internalization/externalization we similarly needed to investigate the legitimacy of adding up the separate 'Mother'- and 'Father'-attachment measures into one total Parental Attachment scale. This was done, using a paired-samples T-test. There was a statistically significant difference between mother and father mean scores, where the estimated mean difference was 0.21, 95% CI [0.25, 0.17], $t(1302) = 9.593$, $p = 0.000$. Again, mothers scored higher on Attachment than fathers. Yet considering the relatively small effect-size value for this difference ($d = 0.17$), a combined Parental Attachment measure seemed legitimate. Internal consistency for the combined Parental Attachment measure had a Cronbach's Alpha of 0.87.

Plan for main-analysis

The first analysis was conducted by a correlational analysis in order to explore the potential relationships between adolescents' internalization- and externalization of problems and their experience of parents' reactions to misbehavior. This was followed by six separate independent sample T-tests in order to test for gender differences. The T-tests used gender as grouping variable and tested for mean differences in

externalization and internalization as well as the three parental reactions scales and Attachment respectively as dependent variables.

Finally, regression analyses were used to more closely explore if experience of parental reactions relate differently to boys' and girls' internalization and externalization. In the regression analyses we also wanted to simultaneously control for the eventual effect of Attachment upon internalization and externalization and its relation to parental reactions. Therefore, instead of regular multiple regression analyses we used hierarchical regression. Attachment and the three parental reactions subscales were entered into four separate two-stage hierarchical regressions with externalization and internalization respectively as dependent variables – i.e. two for boys and two for girls. Although Attachment seems chronologically plausible to occur before the parental reactions-variables, we entered it at Stage 2 in order to first explore the unique effects accounted for by parental reactions. All analyses were conducted with SPSS (version 22.0, 2013).

Results

In order to get an overview of the potential relationships between the three types of parental reactions and adolescents' internalization and externalization, we first did an analysis of correlation.

Table 2.
Correlations, internal consistency (Cronbach's alpha) in the main diagonal

Measure	No. of items	1	2	3	4	5	6
1 Externalizing	10	0.72					
2 Internalizing	10	**0.37***	0.70				
3 Attempted understanding	4	-0.24*	-0.19*	0.63			
4 Angry outbursts	4	**0.34***	0.28*	-0.20*	0.82		
5 Coldness-rejection	6	**0.31***	0.29*	-0.28*	**0.58***	0.65	
6 Attachment	5	**-0.31***	-0.29*	**0.43***	**-0.41***	**-0.39***	0.87

* = *p*<0.01 (2-tailed).
Only correlation ≥ 30 in **boldface**.

As can be seen in Table 2, there was a positive correlation between internalization and externalization, in that adolescents with a higher degree of internalization also had more problems of externalization. Similarly, there was a strong positive correlation between the two negative parental reactions: Coldness-rejection and Angry outbursts. As expected, the two negative parental reactions also correlated positively with both externalization and internalization. However, we also expected Coldness-rejection to correlate more strongly with internalization than externalization, but we found that it correlates nearly equally strong to both.

In contrast, Attempted understanding correlated negatively with externalization and internalization. Attempted understanding also correlated negatively with the other two types of parental reactions: Angry outbursts and Coldness-rejection. Finally, Attachment correlated positively with Attempted understanding but negatively with both internalization and externalization of problems as well as the two negative parental reactions: Angry outbursts and Coldness-rejection.

Before continuing to hierarchical regression we wanted to check for expected differences between boys and girls tendency to externalize- and internalize problems, as well as potential gender differences in experienced parental reactions (Attempted understanding, Angry outbursts and Coldness-rejection) and Attachment.

Table 3.

Differences in mean scores for boys and girls on all variables (Independent sample T-tests)

Measure	Girls M (SD)	Boys M (SD)	Total M (SD)	t-test (2-tailed) p	Effect-size Cohen´s d
Externalizing problems	5.19 (2.95)	6.07 (3.35)	5.61 (3.18)	0.000	-0.28
Internalizing problems	4.82 (3.18)	4.23 (3.06)	4.54 (3.14)	0.001	0.19
Attempted understanding	2.47 (0.41)	2.44 (0.40)	2.45 (0.40)	0.125 *ns*	0.07
Angry outbursts	1.48 (0.45)	1.49 (0.45)	1.49 (0.45)	0.717 *ns*	-0.02
Coldness-rejection	1.29 (0.30)	1.30 (0.32)	1.30 (0.31)	0.461 *ns*	-0.03
Attachment	5.68 (1.21)	5.63 (1.10)	5.66 (1.16)	0.376 *ns*	0.04

As Table 3 presents, there was a statistically significant gender difference (however with small effects) in both externalizing- and internalizing of problems. Boys reported higher scores on externalizing problems, the estimated mean difference was 0.88, 95% CI [0.54, 1.22], $t(1334) = 5,10$, $p = 0.000$. Conversely, girls reported higher scores on the internalizing problems scale, the estimated mean difference was 0.59, 95% CI [0.25, 0.92], $t(1334) = 3,44$, $p = 0.001$. We found no statistically significant differences between boys and girls regarding parental reactions or Attachment.

Table 4.

Hierarchical regression analysis. Standardized β-coefficients.

Variable	Girls β	R	R²	ΔR²	Boys β	R	R²	ΔR²
Externalizing of problems								
Step 1		.40	.15	.15		.41	.17	.17
Attempted understanding	-0.10**				-0.20***			
Angry outbursts	0.23***				0.26***			
Coldness-rejection	0.17***				0.10*			
Step 2		.42	.17	.02		.43	.18	.01
Attempted understanding	-0.05 *ns*				-0.15***			
Angry outbursts	0.19***				0.22***			
Coldness-rejection	0.14**				0.08 *ns*			
Attachment	-0.15***				-0.13**			
Internalizing of problems								
Step 1		.36	.13	.13		.32	.10	.10
Attempted understanding	-0.15***				-0.08*			
Angry outbursts	0.15***				0.17***			
Coldness-rejection	0.17***				0.16***			
Step 2		.40	.16	.03		.34	.11	.01
Attempted understanding	-0.07 *ns*				-0.05 *ns*			
Angry outbursts	0.10*				0.14**			

Coldness-rejection	0.13**		0.15**	
Attachment	-0.21***		-0.11*	

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

By first looking specifically at the first models consisting of the three parental reactions scales entered at Step 1, we can see the contribution of each predictor on the dependent variable: Externalization and internalization for girls and boys respectively. The results from the first two hierarchical regression analyses using externalization as dependent variable, reveal that the three parental reactions predictors together explained 15.8% of the variance for girls ($R^2 = 0.158$, $F (3,672) = 42.041$) and 16.8% for boys ($R^2 = 0.168$, $F (3,623) = 41.849$). For internalization of problems the three parental reactions predictors explained 12.7% of the variance for girls ($R^2 = 0.127$, $F (3,672) = 32.503$) and 10.4% for boys ($R^2 = 0.104$, $F (3,623) = 24.013$).

Continuing with Attachment entered at Step 2 of the hierarchical regression analyses; it appears to add little to the explained variance of both girls' and boys' externalization and internalization of problems. The additional variance explained in externalization, due to the introduction of Attachment, was a small 1.6% for girls and 1.3% for boys. The results from the two hierarchical regression analyses using internalization as dependent variable reveal that Attachment explained an additional 2.9% for girls and 0.8% for boys.

On inspection of Table 5 it is important to note the reduction in size of beta-coefficients for Attempted understanding to non-significance in step 2, regarding both girls' and boys' internalization, as well as girls' externalization. A similar effect is found for Coldness-rejection regarding boys' externalization when Attachment was entered. The finding that – when Attachment was introduced the mentioned predictors' beta-values became non-significant – warrants an investigation of possible mediation from Attachment. Firstly, this pattern could indicate possible multicollinearity, yet in the correlation analysis we find that Attachment and Attempted understanding only had a correlation of Pearson $r = .43$. Multicollinearity problems generally arise when variables correlate at $r = .8$ or above (Field, 2009).

In order to test for possible mediating effects of Attachment upon Attempted understanding as well as for Coldness-rejection regarding boys' externalization, we performed four separate Sobel tests. For girls' externalization the Sobel test revealed that the mediating effect of Attachment was significant, $t(-6.00, p = 0.000)$. Regarding both boys' and girls' internalization the Sobel test similarly showed that the mediating effect of Attachment on Attempted understanding again was significant $t(-4.49, p = 0.000)$ and $t(-6.24, p = 0.000)$ respectively. Since Attempted understanding still came out significant when Attachment was entered in step 2 for boys' externalization, but Coldness-rejection came out non-significant instead, we performed a Sobel test to check if Attachment mediated the effect of Coldness-rejection. The test showed that this was the case, $t(5.02, p = 0.000)$.

Discussion

The overall aim of the present study was to explore the potential relationship between adolescents' internalization and externalization of problems and adolescents' experience of parents' reactions to misbehavior. The main contribution of the present

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study to the research field of parental style and parenting practices is the specific focus on adolescents' own experience of everyday types of reactions from parents facing misbehavior and how these are related to their mental health problems (i.e. internalizing and internalizing problems). With the distinction between externalizing and internalizing problems our study design allowed for exploration of the possibly unique effects that experience of parental Angry outbursts, Coldness-rejection and Attempted understanding could have on adolescents' externalization- and internalization-style. In line with previous research on how parenting-factors such as parental style, parenting practices and attachment can influence adolescents' mental health problems, the results from the present study show that adolescents' experience of parental reactions to misbehavior is linked to their mental health problems.

First of all, Angry outbursts was related to both externalization and internalization in the sense that adolescents who experience more parental angry outbursts also have a higher degree of both externalization- and internalization of problems. As expected, Angry outbursts was more strongly related to externalization than internalization. This effect might be due to role-modelling, in the sense that adolescents learn how to deal with stressful or emotionally charged situations by means of how their parents tend to react. Yet other mechanisms of action might contribute to this pattern (Bandura et al., 1963; Ramsey et al., 1990). Parents who are often perceived as reacting with anger to misbehavior by their child might also be less able to help their children regulate their own emotions, in turn making the child more likely act-out or react with anger (Fanti & Henrich, 2010; Chapple, 2003; Shields et al., 2001). Furthermore, over time parents' angry responses might make the child less keen on sharing emotional experiences and seeking support which in itself is likely to increase the risk for developing mental health problems (Kerr & Stattin, 2000; Tilton-Weaver et al., 2010).

Adolescents' tendency to not share their problems with parents and shying away from seeking support, as a response to parental angry outbursts, can be viewed as one possible pathway explaining the relationship found also between internalization of problems and parental angry outbursts. Although Angry outbursts was a stronger predictor than Coldness-rejection for externalization of problems, we found that they had roughly equal effects on internalization. It is also important to note the rather strong relationship found between both problem-styles: Externalization and internalization. Research has found that internalization- and externalization-styles often co-occur (Fanti & Henrich, 2010). In this sense, our finding that parental Angry outbursts and Coldness-rejection reactions have effects on both youth's internalization- and externalization of problems are not surprising.

Regarding parental Coldness-rejection reactions we did not find evidence for our expectation that it might have a stronger relationship with adolescents' internalization of problems than with externalization. The exception was specific for boys where Coldness-rejection did have a stronger effect on internalization than externalization. That adolescents' internalization is related to both parental Coldness/rejection and Angry outbursts can perhaps be seen as resulting from the feelings of fear, anxiety, shame or guilt that both of these types of negative parental reactions can induce, which adolescents' over time might learn as a way of dealing with conflicts or stressful situations. It is also worth noting the rather strong association between Angry outbursts and Coldness-rejection - suggesting that when parents are experienced as exerting negative reactions to misbehavior it is rarely an either/or phenomena. This finding can

be interpreted as if they often work in tandem in the sense that a parent's angry outbursts can be followed by a time-period of Coldness-rejection or vice versa. We also found a minor gender difference regarding Coldness-rejection, in the sense that it was stronger predictor of girls' externalizing problems than boys'.

The third and final expectation was that Attempted understanding would be negatively related to both internalization and externalization, and indeed this seems to be the case. Our findings indicate that adolescents' who more often experience their parents as reacting with Attempted understanding also have less of both externalization and internalization of problems. Parents' attempts to understand as a reaction to their child's misbehavior, thus seems to have a preventive effect on mental health problems. This finding is in line with the multitude of research on supportive parenting practices and its positive effects on adolescent mental health (Robl et al., 2012).

As to our aim of investigating how parental reactions might relate differently to girls' and boys' internalization and externalization, the main gender difference found involved Attempted understanding. Apparently, Attempted understanding was a stronger negative predictor of boys' externalization compared to girls'. Presence of parental attempts to understand thus seems to have more of a preventative effect on boys compared to girls regarding externalizing. For internalization of problems, however, the relationship was reverse, where Attempted understanding was a stronger predictor of girls' internalization than of boys'. It is difficult to speculate as to the reason for this phenomenon, but one possible explanation could be the gender difference found between girls' and boys' overall tendency to internalize/externalize. Perhaps the stronger effect of Attempted understanding on boys' externalization is due to their generally higher degree of externalization. Reversely, the stronger effect of Attempted understanding on girls' internalization might be due to their generally higher degree of internalization. The differences found in internalization/ externalization between boys and girls, although interesting in a social-constructivist perspective, were not surprising given that it has been acknowledged by previous research (Lundh et al., 2008).

In line, with research on various aspects of Attachment and its positive association with adolescents' mental health, our results show that high levels of Attachment is linked not only to less internalization and externalization of problems, but also to lower degrees of experienced Angry outbursts and Coldness-rejection from parents. Although Attachment appeared to contribute little to our model of parental reactions and their effects on internalization and externalization, one of our main findings was that when Attachment was introduced, the effects of Attempted understanding changed to non-significance for girls' externalization. This relationship turned out similar for girls' and boys' internalization of problems, where the introduction of Attachment reduced the effect of Attempted understanding to non-significant. For boys' externalization on the other hand, it was the effect of Coldness-rejection which became non-significant. To sum up, this reveals how the Attachment- and Attempted understanding scales perhaps measure more or less the same thing. However, since there does not appear to exist a multi-collinearity problem between the variables, it seems rather as if we have a case of mediation. Our results indicate that Attachment fully mediates the effects of Attempted understanding, with the exception for boys' externalization where instead it fully mediates the effects of Coldness-rejection. Though not specifically tested for, Attachment also seems to partially mediate the effects of Angry outbursts and Coldness-rejection for both girls' and boys'

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internalizing/ externalizing. This can be seen from the minor reductions in size of beta-values in all four hierarchical regression analyses.

The case of Attachment functioning as a mediator for the effects of parental reactions seems plausible, given that previous research has found attachment to work as a core foundation for children's emotional development into adolescence and adulthood (Sroufe, 2005). Clearly, parents' tendency to react negatively with Angry outbursts or Coldness-rejection, in contrast to more supportively through Attempted understanding, is still related to adolescents' internalization- and externalization of problems. Yet, given that the adolescent has a trusting and secure attachment relationship to his/her parents, perhaps the parental reactions to misbehavior and how they are experienced by the adolescent matter less when it comes to psychological problems.

As a reminder to the reader, even though we use terms such as one construct's "effect" on another we want to caution for the ease of making causal attributions. In line with researchers Kerr, Stattin, & Özdemir (2012) who posit that parental-style conceptualizations have been overly simplified in viewing children as passive recipients of parental socialization, we agree that reverse effects might be equally true. They found that adolescents' tendency to externalize- and/or internalize problems can affect how their parents in turn come to react to misbehavior. Similarly, parents' ways of fostering is likely to be reflexively affected by a child's specific temperament and way of relating with caregivers (Belsky, 1984; Glatz, 2011). Research has also found cultural differences in parenting styles and that authoritarian and more punitive styles are more frequent in cultures with more hierarchical structure where authority-figures demand obedience from others (Trifan, 2015). Parenting style and various disciplining strategies have also changed historically, as nowadays for instance most western-societies have implemented bans on physical punishment (Trifan, 2015). Our investigation of how adolescents' internalizing and externalizing is related to their experience of parental reactions, is perhaps only applicable specifically to this time and culture.

One suggestion for future research on this field, is to triangulate measures of parents' reactions to misbehavior, perhaps also asking the parents themselves for how they usually react when their child has done something they do not like. Another idea would be to use observational research in an attempt to more objectively assess parental reactions to misbehavior. An interesting topic for future research would also be to examine how the relationships between parental reactions and adolescents' internalizing and externalizing problems turn out in a more longitudinal approach. Here, the LORDIA program with its follow up data-collection waves merits such a study design.

Limitations

Of course, there are a number of different limitations in the present study. Among the most obvious limitations can be attributed to the measures applied in the study. First of all, our operationalization of parental reactions in the form of Angry outbursts and Coldness-rejection on the one hand, and Attempted understanding on the other, attempt to measure broad and commonly occurring negative parental reactions to misbehavior. The lack of specificity is likely to lead to participants' subjectively interpreting degree of experienced Angry outbursts for instance, depending in part on how used they are to such reactions, but also on how frequent they have been recently. Here, perhaps a more accurate measure could have involved more specific examples of situations instead of the broadly defined stem-question "What do your parents do when

you have done something they do not like?" Since the parental reactions measures have not been adequately validated in previous research, it is difficult to thoroughly assess their construct validity as well as degree of specificity and sensitivity.

Another concern regarding the parental reactions measures is the limitation arising from using only three-point Likert-scales. The lack of granularity with three-point Likert-scales is a potential problem, as well as the respective roof- and floor-effects they can impose on data. In the case of our parental reactions measures we did indeed find indications of roof- and floor effects such that our data did not appear entirely normally distributed. It is possible that using 7-point Likert-scales, such as the one used for Attachment, would have been better for the parental reactions measures. However, given that we also found skewness in the data distribution of Attachment, it also seems as if the vast majority our non-clinical sample tend to view parent attachment as well parental reactions favorably. Perhaps this is an indication of how the adolescents' have not yet reached the developmental step of de-idealization of their parents? Another option for dealing with three-point Likert-scales could have been to turn the measures into categorical or ordinal variables, yet this would risk even less granularity and variation in response ratings. Furthermore, the aggregation of 'mother' and 'father'-scores for parental reactions and Attachment also artificially increased the level of scale-steps for each measure, doubling them and therefore increasing the granularity.

There is also a potential limitation regarding the aggregation of separate 'mother'- and 'father'-scores into total parental reactions- and Attachment measures. Although beyond the scope of our research question, it would have been interesting to also explore if experience of mothers' and fathers' Angry outbursts, Coldness-rejection etc would relate differently to boys' and girls' internalization and externalization of problems. While checking for the validity of adding up the separate 'mother'- and 'father'-scores we did indeed find minor gender differences, with mothers being scored slightly higher on both Attachment and Attempted understanding. As for now, we can only speculate as to whether for instance girls' experience of mothers' Coldness-rejection, would have a stronger relationship than fathers' regarding internalization/externalization.

A word of caution should be noted regarding the construct validity of the Attachment scale. The five-item measure of Attachment used in the present study is sure to lack the depth and precision of for instance the AICA (adolescent version of AAI – Adult Attachment Interview). Similar to the parental reactions measures, neither has our Attachment measure been adequately validated in previous research. Again, it is therefore difficult to assess its construct validity and whether it is really attachment that is measured. Reviewing the individual items of the Attachment measure it appears to measure a combination of trust, support and closeness to parents, factors that obviously tap into how Attachment generally has been viewed in research. It is also important to note that our Attachment measure is not intended to measure the early parent-child attachment-relationship, but rather seems to try to capture the adolescent's attachment representations.

Finally, there is a limitation with the present study stemming from the rather broad operationalization of internalization and externalization as aggregates from the four original factors: hyperactivity/inattention, conduct problems, emotional symptoms and peer problems. Although this dual division into internalization/externalization is

advised in research on low risk community samples (Goodman & Goodman, 2009; Goodman et al., 2010) it also seems to sacrifice some of its specificity.

In light of the question-marks regarding construct validity in the Parental reactions- and Attachment scales, some might argue that perhaps investigation of such complex family dynamics are best investigated using qualitative research e.g. observational- or interview studies. The main strength, however, with the present study is the large sample size and the possibility this allowed to explore general tendencies in how adolescents' experience of their parents' reactions to misbehavior is associated with their mental health problems. Others may comment on the importance of controlling for effects of additional factors such as puberty, socio-economic conditions, genetics, cultural variations and family-composition. For instance, children's problematic social behaviors have been found to correlate with factors such as growing up in single parent and mother-led families (Robl, Jewell, & Kanotra, 2012). However, controlling for such additional factors was beyond our research-scope with the present study, but could be further investigated in future research within this field.

Conclusion

In conclusion, our findings suggest that parents who are perceived as often reacting with angry outbursts facing misbehavior, or acting cold and rejecting towards the child, also seem to foster children with higher degree of mental health problems. Parents who instead are perceived as reacting with attempted understanding towards their adolescents' misbehaviors, instead appear to foster children with less mental health problems. Interestingly however, our find that Attachment mediated the effects of parents' Attempts to understand and to a lesser extent also the effects of other parental reactions to misbehavior, again puts emphasis on the importance of secure parent-child attachment relationships. The security and trust adolescents feel for their parents, or the lack of it, thus comes out as an important factor mediating the effects that parental reactions have on adolescents' internalizing and externalizing problems.

References

Allen, J. P. (2008). The attachment system in adolescence. In J. Cassidy & P. R. Shaver (Ed:s), *Handbook of attachment: Theory, research, and clinical implications.* New York: The Guilford Press.

Amato, P. R., & Fowler, F. (2002). Parenting practices, child adjustment, and family diversity. *Journal of Marriage and Family, 64*, 703-716. doi:10.1111/j.1741-3737.2002.00703.x

Bandura, A., Ross, D., & Ross, S. A. (1963). Imitation of film-mediated aggressive models. *Journal of Abnormal and Social Psychology, 66*, 3-11. doi:10.1037/h0048687

Barber, B.K., Stolz, H.E. & Olsen, J.A. (2005). *Parental support, psychological control, and behavioral control: Assesssing relevance across time, culture, and method.* Boston, Mass: Blackwell.

Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *Journal of Early Adolescence, 11*, 56-95. doi:10.1177/0272431691111004

Baumrind, D. (2005). Patterns of parental authority and adolescent autonomy. *New Directions for Child and Adolescent Development, 2005*, 61–69. doi: 10.1002/cd.128

Becker-Stoll, F., Delius, A., & Scheitenberger, S. (2001). Adolescents' nonverbal emotional expressions during negotiation of a disagreement with their mothers: An attachment approach. *International Journal of Behavioral Development, 25*, 344-353. doi:10.1080/01650250143000102

Becker-Stoll, F., & Zimmermann, P. (2002). Stability of attachment representations during adolescence: The influence of ego-identity status. *Journal of Adolescence, 25*, 107–124. doi:10.1006/jado.2001.0452

Belsky, J. (1984). The determinants of parenting: A process model. *Child Development, 55*, 83–96. doi:10.2307/1129836

Bolghan-Abadi, M., Kimiaee, S., & Amir, F. (2011). The relationship between parents' child rearing styles and their children's quality of life and mental health. *Psychology, 2*, 230-234. doi:10.4236/psych.2011.23036.

Brumariu, L. E., & Kerns, K. A. (2010). Parent-child attachment and internalizing symptoms in childhood and adolescence: A review of empirical findings and future directions. *Development and Psychopathology, 22*, 177-203. doi:10.1017/S0954579409990344

Campbell, S. B. (1995). Behavior problems in preschool children: A review of recent research. *Journal of Child Psychology and Psychiatry, 36*, 113–149. doi:10.1111/j.1469-7610.1995.tb01657.x

Chapple, L., C. (2003) Examining intergenerational violence: Violent role modeling or weak parental controls? *Violence and Victims, 18,* 143-162. doi:10.1891/vivi.2003.18.2.143

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences.* (2. ed.) Hillsdale: L. Erlbaum Associates.

Dallaire, D. H., Pineda, A. Q., Cole, D. A., Ciesla, J. A., Jacquez, F., LaGrange, B., & Bruce, A. E. (2006). Relation of positive and negative parenting to children's depressive symptoms. *Journal of Clinical Child and Adolescent Psychology, 35*, 313–322. doi:10.1207/s15374424jccp3502_15

Darling, N., & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin, 113*, 487-496. doi:10.1037/0033-2909.113.3.487

Fanti, K. A., & Henrich, C. C. (2010). Trajectories of pure and co-occurring internalizing and externalizing problems from age 2 to age 12: Findings from the national institute of child health and human development study of early child care. *Development Psychology, 46*, 1159-1175. doi:10.1037/a0020659

Fauchier, A., & Straus, M. A. (2010). *Psychometric properties of the adult-recall form of the dimensions of discipline inventory.* Unpublished. Durham: Family Research Laboratory, University of New Hampshire. Available: http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.365.7063

Field, A. (2009). *Discovering statistics using SPSS: (and sex and drugs and rock 'n' roll).* (3. ed.) Los Angeles: SAGE.

Gavazzi, S.M. (2011). *Families with adolescents: Bridging the gaps between theory, research, and practice.* New York: Springer.

Giannotta, F., Ortega, E., & Stattin, H. (2013). An attachment parenting intervention to prevent adolescents' problem behaviors: A pilot study in italy. *Child and Youth Care Forum, 42*, 71-85. doi:10.1007/s10566-012-9189-3

Glatz, T. (2011). *Parents' reactions to adolescents' problematic behaviors* (Doctoral dissertation, Örebro studies in psychology, 22). Örebro: Örebro University. Available: http://urn.kb.se/resolve?urn=urn:nbn:se:oru:diva-20132

Gondoli, D. M., & Silverberg, S. B. (1997). Maternal emotional distress and diminished responsiveness: The mediating role of parenting efficacy and parental perspective taking. *Developmental Psychology, 33*, 861-868. doi:10.1037/0012-1649.33.5.861

Goodman, A., & Goodman, R. (2009). Strengths and difficulties questionnaire as a dimensional measure of child mental health. *Journal of the American Academy of Child and Adolescent Psychiatry, 48*, 400-403. doi:10.1097/CHI.0b013e3181985068

Goodman, A., Lamping, D. L., & Ploubidis, G. B. (2010). When to use broader internalising and externalising subscales instead of the hypothesised five subscales on the Strengths and Difficulties Questionnaire (SDQ): Data from British parents, teachers and children. *Journal of Abnormal Child Psychology, 38*, 1179-1191. doi:10.1007/s10802-010-9434-x

Goodman, R. (1997). The strengths and difficulties questionnaire: A research note. *Child Psychology and Psychiatry and Allied Disciplines, 38*, 581-586. doi:10.1111/j.1469-7610.1997.tb01545.x

Goodman, R., Meltzer, H., & Bailey, V. (1998). The strengths and difficulties questionnaire: A pilot study on the validity of the self-report version. *European Child and Adolescent Psychiatry, 7*, 125-130. doi:10.1007/s007870050057

Grusec, J. E., & Davidov, M. (2010). Integrating different perspectives on socialization theory and research: A domain-specific approach. *Child Development, 81*, 687–709. doi:10.1111/j.1467-8624.2010.01426.x

Halpenny, A. M., Nixon, E., & Watson, D. (2010). *Parents' perspectives on parenting styles and disciplining children* (The national children's strategy research series, 2010). Dublin: Stationery Office.

Janssens, A., Goossens, L., Van, D. N., Colpin, H., Verschueren, K., & Van Leeuwen, K. (2015). Parents' and adolescents' perspectives on parenting: Evaluating

conceptual structure, measurement invariance, and criterion validity. *Assessment, 22*, 473-489. doi:10.1177/1073191114550477

Kakihara, F., Tilton-Weaver, L., Kerr, M., & Stattin, H. (2010). The relationship of parental control to youth adjustment: Do youths' feelings about their parents play a role? *Journal of Youth and Adolescence, 39*, 1442-1456. doi:10.1007/s10964-009-9479-8

Kendler, K. S., Larsson-Lönn, S., Maes, H. H., Lichtenstein, P., Sundquist, J., Sundquist, K. (2015). A Swedish population-based multivariate twin study of externalizing disorders. *Behavior genetics.* doi:10.1007/s10519-015-9741-7

Kerr, M., Stattin, H. (2000). What parents know, how they know it, and several forms of adolescent adjustment: Further support for a reinterpretation of monitoring. *Developmental Psychology, 36*, 366-380. doi:10.1037//0012-1649.36.3.366

Kerr, M., Stattin, H., & Trost, K. (1999). To know you is to trust you: Parents' trust is rooted in child disclosure of information. *Journal of Adolescence, 22*, 737-752. doi:10.1006/jado.1999.0266

Kerr, M., Stattin, H., & Özdemir, M. (2012). Perceived parenting style and adolescent adjustment: Revisiting directions of effects and the role of parental knowledge. *Developmental Psychology, 48*, 1540–1553. doi:10.1037/a0027720

Laursen, B., & Delay, D. (2011). Parent-child relationship. In B. Brown & M. Prinstein (Ed:s), *Encyclopedia of adolescence, Volume 2* (s. 233-240). New York: Academic Press.

Lundh, L.-G., Wångby-Lundh, M., & Bjärehed, J. (2008). Self-reported emotional and behavioral problems in Swedish 14 to 15-year-old adolescents: A study with the self-report version of the Strengths and Difficulties Questionnaire. *Scandinavian Journal of Psychology, 49*, 523–532. doi:10.1111/j.1467-9450.2008.00668.x

Moretti, M. M., & Peled, M. (2004). Adolescent-parent attachment: Bonds that support healthy development. *Paediatrics and Child Health, 9*, 551–555.

Omer, H. (2011). *The new authority: Family, school, and community.* New York: Cambridge University Press.

Ramsey, E., Patterson, G. R., & Walker, H. M. (1990). Generalization of the antisocial trait from home to school settings. *Journal of Applied Developmental Psychology, 11*, 209-223. doi:10.1016/0193-3973(90)90006-6

Robl, J. M., Jewell, T. D., & Kanotra, S. (2012). The effect of parental involvement on problematic social behaviors among school-age children in Kentucky. *Maternal and Child Health Journal, 16*, 287–297. doi:10.1007/s10995-012-1187-4

Shannon, K. E., Beauchaine, T. P., Brenner, S. L., Neuhaus, E., & Gatzke-Kopp, L. (2007). Familial and temperamental predictors of resilience in children at risk for conduct disorder and depression. *Development and Psychopathology, 19*, 701-727. doi:10.1111/j.1469-7610.2004.00228.x

Shields, A., Ryan, R. M., & Cicchetti, D. (2001). Narrative representations of caregivers and emotion dysregulation as predictors of maltreated children's rejection by peers. *Developmental Psychology, 37*, 321-337. doi:10.1037//0012-1649.37.3.321

Smedje, H., Broman, J. E., Hetta, J., & von Knorring, A. L. (1999). Psychometric properties of a swedish version of the "strengths and difficulties questionnaire.". *European Child and Adolescent Psychiatry, 8*, 63-70. doi:http://dx.doi.org/10.1007/s007870050086

Sroufe, L. A. (2005). Attachment and development: A prospective, longitudinal study from birth to adulthood. *Attachment and Human Development, 7*, 349-367. doi:10.1080/14616730500365928

Steinberg, L. (2014). *Adolescence* (10th edition). New York: McGraw-Hill.

Steinberg, L., Lamborn, S. D., Dornbusch, S. M., & Darling, N. (1992). Impact of parenting practices on adolescent achievement: Authoritative parenting, school involvement and encouragement to succeed. *Child Development, 63*, 1266–1281. doi:10.2307/1131532

Steinberg, L., & Silk, J. S. (2012). Parenting adolescents. In M. H. Bornstein (ed.), *Handbook of parenting, Volume 1: Children and parenting* (s. 103-134). New York: Psychology Press.

Steinberg, L., & Silverberg, S. B. (1986). The vicissitudes of autonomy in early adolescence. *Child Development, 57*, 841–851. doi:10.2307/1130361

Swinford, S. P., DeMaris, A., Cernkovich, S. A., & Giordano, P. C. (2000). Harsh physical discipline in childhood and violence in later romantic involvements: The mediating role of problem behaviors. *Journal of Marriage and Family, 62*, 508–519. doi: 10.1111/j.1741-3737.2000.00508.x

Tilton-Weaver, L., Kerr, M., Pakalniskeine, V., Tokic, A., Salihovic, S., & Stattin, H. (2010). Open up or close down: How do parental reactions affect youth information management? *Journal of Adolescence, 33*, 333-346. doi:10.1016/j.adolescence.2009.07.011

Trifan, T. A. (2015). *Multiple prespectives in harsh parenting* (Doctoral dissertation, Örebro studies in psychology, 31). Örebro: Örebro University. Available: http://urn.kb.se/resolve?urn=urn:nbn:se:oru:diva-42417

Waters, E., Crowell, J., Elliott, M., Corcoran, D., & Treboux, D. (2002). Bowlby's secure base theory and the social/personality psychology of attachment styles: Work(s) in progress. *Attachment and Human Development, 4*, 230-242. doi:10.1080/14616730210154216