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The Relationship between Parenting and Internalizing Problems in Childhood

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Abstract

Several types of stress factors are likely to be implied in the development, maintenance, and transmission of internalizing symptomatology: genetic/temperamental factors, cognitive factors, family factors, and societal/cultural factors. Nonetheless, family factors—especially those related to parenting—seem to be crucial during childhood, because children are nested within their families and family factors are able to indirectly influence other factors as well. The current chapter focuses on the relationship between parental style and internalizing symptoms in childhood. In the first part of the chapter, the most important studies on the topic are reviewed in detail and differences in parenting behaviors between mothers and fathers are illustrated. A discussion on the cognitive and metacognitive factors as possible pathways of the relation between parenting and childhood symptoms is also proposed. The last part of the chapter reviews studies investigating the efficacy of parental involvement in cognitive behavior therapy for children who exhibit internalizing symptoms.

Keywords: childhood internalizing symptoms, parenting, anxiety, depression, metacognition, cognitive behavior therapy

1. Introduction

Internalizing problems in childhood and adolescence are a significant, persistent, and debilitating problem, undermining social and school functioning [1–3].

Epidemiological and clinical studies suggest that these disorders persist into adulthood and may contribute to an increased risk of suicide attempts, alcohol use, depression, and severe social restrictions [4–6].

Since these symptoms tend to manifest early in life, and are chronic and persistent, early recognition and treatment are especially desirable. However, surprisingly, internalizing disorders in children are still often overlooked and, consequently, underdiagnosed [7].

Although theoretical models suggest that family processes and parenting are important factors in the development, maintenance, and transmission of internalizing symptomatology [8, 9], meta-analytic and review contributions have provided mixed support for this association. In particular, previous studies identified a linkage between childhood anxiety and the broad parenting dimensions of rejection and control. Parental rejection is hypothesized to undermine children's emotion regulation by weakening self-esteem, promoting a sense of helplessness, and prompting development of negative self-schemas, leading to heightened sensitivity toward anxiety and depression [10, 11]. Parental control involves excessive parental regulation of children's life and activity, instructing the children on how to think or feel [12, 13]. Moreover, high control exerted by parents in contexts in which it would be developmentally appropriate for children to act independently, can induce decreased level of self-efficacy and perceived helplessness, thus increasing levels of anxiety and depression [10, 11, 14, 15]. Contrariwise, some parental practices encouraging children's autonomy and independence may increase children's perceptions of mastery over the environment.

Interestingly, several retrospective studies concluded that anxious adults generally remember their parents as being rejecting and controlling [16–18].

Nonetheless, the recent controversy over the theoretical models pointing out that parental practices are associated with child psychological problems have led to questions about the link between parenting and children's psychological health. Twin studies [19–23] have suggested that additional genetic effects account for a small portion of variance in children's trait anxiety and depression compared to non-shared environment (i.e. non-parenting factors). On the other hand, these kinds of studies have shown that, albeit small, the role of the shared environment factors in explaining children's differences for anxiety traits and depression symptoms is present, and it can include parenting influences. However, it is important to note that certain aspects of parenting (e.g. controlling parenting) could make children within a family alike, hence acting as a shared environmental influence for anxiety [24].

Two meta-analytic studies [25, 26] reported that parenting accounted for 4 and 8% of the variance in childhood anxiety and depression, respectively. Therefore, parenting behaviors—albeit not having an overall big impact—show stronger associations with depressive symptoms than with anxiety symptoms. It has been suggested that the observed stronger associations of parenting with depressive rather than anxiety symptoms may indicate that parenting is more likely to have an impact on children's mood compared to their fears (see below).

The intergenerational transmission of internalizing symptoms has been confirmed by both “top-down” studies, which have consistently demonstrated increased risk of anxiety disorder in children of affected parents, and by “bottom-up” studies, which have shown increased rates of disorder in the parents of affected children [27]. In a recent review, Eley and colleagues [28] suggest that maternal control may contribute more to the maintenance than to the onset of childhood anxiety, and that the association between maternal control and anxiety symptoms is significantly influenced by genetic factors.

Etiological models of anxiety underlined the mutual relationship between parents and children in the development and maintenance of childhood anxiety. Several authors [14, 29] highlighted the importance of recognizing that both the parent and the child play a role in creating a shared dynamic of maternal control and childhood anxiety. Familiarity for anxiety can follow two distinct pathways, often interacting with each other: a direct biological/genetic vulnerability pathway and learning experiences. Specific learning experiences implicated in the development and/or the maintenance of anxiety in children could include directly experiencing aversive events (direct conditioning) and learning while observing experiences happening to others (observational or vicarious learning). In addition, children may increase their anxiety or fears through negative information or beliefs transmitted by others (e.g. parents, teachers, or peers). Thus, modeling of negative responding from parents, as well as moderating the effects of how children experience aversive events or fears when having a direct experience, observing others, or receiving fear relevant information from adults, can reinforce information-processing bias in children.

In addition to these two pathways, interactional mechanisms such as gene-by-environment interplay and active/passive/evocative correlations can complicate the framework. Child and parent behaviors and beliefs may reinforce or moderate each other in a feedback loop [30]. For example, young children's inhibited behaviors have been shown to evoke overprotective parental behavior, which potentially increases the level of children's inhibition across development, putting them at a higher risk for anxiety disorders [17]. Individual differences in temperament, behavior, and cognitive characteristics can influence parental behaviors and parenting in general.

However, investigating the role of parenting in relation to anxiety and depression remains difficult for several reasons [27]. Firstly, studies' methodology influences the degree of association between parenting and youth reported anxiety/depressive symptoms. Observational assessments of parenting and diagnostic interviews for anxiety/depressive disorders are typically associated with stronger effects compared to parent or child reports. Secondly, studies vary in the operational definitions of parenting. Finally, the importance of parental factors is likely to vary according to the different stages of children's development. Since published studies have considered children and adolescents of different age ranges, generalizable and conclusive results are far from being reported.

2. Parenting and internalizing symptoms in childhood

Overall, four types of stress factors are likely to be implied in the development, maintenance, and transmission of internalizing symptomatology: genetic/temperamental factors, cognitive factors, family factors, and societal/cultural factors [31–39].

Nonetheless, family factors—especially those related to parenting—seem to be crucial during childhood, because children are nested within their families and family factors are able to indirectly influence the other factors as well.

According to Pinquart [40], parenting dimensions can be described in terms of either a dimensional or a categorical approach. The first approach, on the one hand, focuses on individual dimensions of parental behaviors, such as responsiveness (i.e. being accepting, nurturing, supportive,

sensitive, and warm) and demandingness (i.e. control). Parental demandingness, in turn, can be employed through behavioral/harsh/psychological control and autonomy granting. Parental responsiveness and all the forms of parental demandingness have a different impact on child outcomes, mainly based on the frequency of their use and on the child characteristics. The second approach, on the other hand, defines four parenting styles (i.e. authoritative, authoritarian, permissive, and neglectful) according to the combinations of responsiveness and demandingness. Considering both the dimensional and the categorical approach in describing the relationship between parenting and internalizing problems can be useful, since different researchers often use different approaches and methodologies. Therefore, including both approaches—as in Pinquart's meta-analysis [40]—facilitates a clear and complete portrait of the possible associations.

Internalizing problems are those encompassing anxiety, depressive symptoms, somatic complaints, and social withdrawal [41]. The prevalence of internalizing symptoms, after the transition to formal schooling, is higher in girls than in boys [42]. Hundreds of studies have addressed the relation between parenting and one or more internalizing problems. Moreover, many reviews and meta-analyses tried to systematize the results deriving from all of the published researches [25, 26, 30, 43–45]. However, most of existing reviews and meta-analyses considered few studies; reported associations without distinguishing among different parenting behaviors/child outcomes; did not control for initial levels of internalizing symptoms; did not distinguish among results derived from different research designs and failed to describe possible moderators of the link between parenting dimensions and internalizing problems.

Recently, Pinquart [40] was able to overcome the abovementioned problems and found small concurrent and longitudinal associations between parenting dimensions/styles and internalizing symptoms. Specifically, harsh and psychological control were found to predict increases of internalizing symptoms over time; while parental warmth, behavior control, autonomy granting, and authoritative parenting were found to predict decreases of internalizing symptoms over time. At the same time, internalizing symptoms were predictive of parental psychological control. Moreover, the association between parenting and internalizing symptoms appeared to be moderated by effects of sampling, child age and gender, dependent variable (i.e. anxiety or depressive symptoms), parental gender, rater of parenting and internalizing symptoms, quality of measures, and publication status. Overall, controlling for such variables, a small amount of variance in internalizing symptoms remains to be explained by parenting, this leading to small effect sizes. Interestingly, significant gender differences emerged when comparing studies conducted on parenting and male versus female child anxiety. Pinquart's meta-analysis [40] reported stronger associations of parental warmth with internalizing symptoms in studies with more girls, attributing this result to gender differences in the prevalence of internalizing symptoms [42] and to girls' higher sensitivity to the quality of daily interpersonal relationships [46]. Moreover, stronger negative associations emerged between behavioral control and internalizing symptoms in studies with more boys, possibly indicating that parental monitoring is more important for neutralizing internalizing symptoms among boys [47].

Among internalizing disorders, social anxiety disorder represents the most studied condition so far. Parenting traits such as overcontrol, lack of warmth or rejection, and overprotection have been consistently described as predictors of social anxiety disorder [17, 31–33, 37, 48–51]. However, Brook and Schmidt's review [52] contributed to better specify all of the negative rearing practices associated with social anxiety disorder: practices of control, overprotection, rejection, neglect, lack

of warmth or affection, anxious parenting, insensitivity, restrictiveness, social isolation, criticism, shame tactics, behavioral rigidity, and concern with the opinions of others. Moreover, Brook and Schmidt [52] explained the mechanisms through which the parenting practices most frequently observed in association with children's anxiety would promote it. On the one hand, overcontrol exerted by parents is likely to diminish a child's ability to explore the environment autonomously, possibly promoting anxiety in situations of perceived fear. On the other hand, rejecting parents usually establish an insecure attachment with their children, which is in turn related to the development of anxiety disorders and depression.

The apparently robust relation between maternal/paternal overcontrol and child anxiety, though, is not found in early childhood. Needlessly helping or interfering with the child's behavior or feelings thus seems to be salient for the development of anxiety only when children grow older [43]. The same can be said for maternal autonomy granting, which is associated to anxiety in children older (but not younger) than 5 years [26, 43]. On the other hand, parental overprotection, which is characterized by excessively protective and cautious behaviors, is significantly associated with child anxiety even in early childhood [43]. Such a finding confirms that distinguishing between these two dimensions of overinvolvement is crucial at this age. Another interesting result regarding very young children is that the lack of paternal challenging behavior is associated with more anxiety. This speaks to the importance of investigating both mothers' and fathers' parenting, as parents have different roles within the family and dysfunctionality of the role of one of them might have specific consequences (see also the following paragraph of the present chapter).

As noted by Moller and colleagues [43], the association between parenting behavior and child anxiety is rather complex and several variables have been found to moderate it, at least in early childhood. Among the significant moderators of such relationship, there is the number of observational tasks that were used to measure child anxiety, so that higher effect sizes were found for studies with fewer observational tasks. Measurement method of parenting behavior also emerged as a significant moderator, with higher effect sizes for studies using multiple assessment measures. In the same vein, measurement method of child anxiety emerged as another significant moderator. Indeed, studies using questionnaires to measure child anxiety lead to opposite results compared with studies using observations to assess child anxiety. This counterintuitive finding has important implications for future research, as the unique aspects of child anxiety measured by questionnaires and observations suggest the importance of using multiple methods when assessing such a complex construct. Another moderator of the relationship between parenting behavior and child anxiety is represented by study design, as the studies which allow to catch a significant link are typically prospective or longitudinal, suggesting a low concurrent association between the two constructs (at least in early childhood). Nevertheless, very few longitudinal studies have been conducted on this topic, leaving the question regarding the direction between parenting behavior and child internalizing problems open. Two further research questions that need to be addressed by future researches concern the possibility that some children are more susceptible to effects of parenting than others and the generalizability of the results to single parent families or families with parents of the same gender. So far, studies were mostly conducted on two-parent families with a father and a mother present, who were generally non-anxious individuals of Caucasian origin and middle-high socioeconomic backgrounds [43]. Under these specific conditions, parenting

seems to affect emotionally reactive children to a larger extent than other children [53, 54]. In addition, even in the cases in which both maternal and paternal behaviors were assessed, simultaneous interactions among the child and both parents were not observed, thus limiting our comprehension of the full picture.

It is noteworthy to remember that we are far from being able to report conclusive knowledge on the association between parenting and internalizing symptoms, because a limited number of studies have been so far published on cross-lagged associations and in particular on cross-lagged effects of parenting styles [40]. Nonetheless, these are not the unique reasons, as the operationalization of both constructs—parenting and internalizing problems—is likely to be different in every study; multiple informants are often missing; experimental designs are rare, as well as researches conducted on ethnic minorities or atypical populations.

3. Differences in parenting behaviors between mothers and fathers

Research on parenting and internalizing symptomatology has primarily focused on the child and his/her mother. Thus, the father's contribution to parenting is encapsulated in the 'parent' response, implying both father and mother have identical parenting styles [52]. In order to increase knowledge on father behaviors and anxious symptoms, Greco and Morris [55] investigated the association of father behavior with child social anxiety. The results suggested that fathers were more controlling with socially anxious children during the collaborative task, but no more rejecting than fathers of non-socially anxious children. Thus, authors conclude that including fathers in psychopathology research is important for future investigations of anxiety, especially since it is probable that mothers and fathers make unique and individual contributions to the family environment.

However, very few studies have directly compared anxiety/depression-promoting parenting behaviors between mothers and fathers. A few years ago, Hudson and Rapee [56] examined the use of parental control by mothers and fathers during interactions with their anxious and non-anxious children. Specifically, parents were asked to work together with their anxious child to complete a series of difficult puzzles and together with their other (non-anxious) child in a challenging task. Results indicated that fathers of clinically anxious children were more controlling during the task compared to mothers.

In contrast with Hudson and Rapee [56], Rork and Morris [57] did not find differences in the levels of parental warmth or control between mothers and fathers during a multi-family interaction task. Whereas another study, by Bögels and Van Melick [58], investigating differences in parental report of rejecting behavior and psychological control in mothers and fathers of non-anxious children, found that fathers rated themselves as more psychologically controlling and rejecting than mothers.

The recent study of Teetsel et al. [59] revealed that anxious fathers reported higher control compared to anxious mothers; and anxious mothers reported higher use of punishment and reinforcement of children's dependence in anxiety provoking situations compared to fathers.

Moller and colleagues [43] examined the associations between parenting and child anxiety, and investigated—by means of two meta-analyses—whether maternal and paternal parenting behaviors have different effects on the development and maintenance of child anxiety. The analysis of 31 studies published between 1997 and 2014 showed that, besides the overall small role played by parenting behaviors in early childhood anxiety, fathers' (and not mothers') challenging parenting behavior is associated with less child anxiety.

The study by Milevsky et al. [60], conducted on a sample of adolescents, aimed at investigating the effect of parenting on self-esteem, life-satisfaction, and depression in adolescence. The authors found that, although the advantage of authoritative mothering over permissive mothering is evident for each assessed outcome, such an advantage is less defined for fathers and only evident for depression.

Interestingly, the findings of the study conducted by McKinney and Renk [61] suggest that different combinations of maternal and paternal parenting (e.g. a permissive father with an authoritarian mother) are related to late adolescents' emotional adjustment. Specifically, late adolescents having at least one authoritative parent would show better adjustment.

4. The role of cognitive and metacognitive factors in the relationship between parenting and symptoms

Although a relationship between parental style and psychopathology in childhood has been established, few studies have explored in deep this relationship also considering possible link factors. Some studies proposed cognitive and metacognitive factors as possible pathways of the relation between parenting and childhood symptoms.

McGinn et al. [62], exploring the aforementioned variables, did not find a relationship between care or control from parents and anxiety in children. On the other hand, they found that negative cognitive schema mediated the relationship between abusive or neglectful parenting and depression [62].

Gallagher and Cartwright-Hatton [63] reported that a punitive, harsh, or inconsistent discipline is associated with trait anxiety. This parental discipline style was associated with both cognitive distortions and metacognition, which in turn partially mediate the relationship between parenting and anxiety. Moreover, children of over-reactive parents showed more dysfunctional beliefs about worry.

Another study, conducted on young adults (aged 18–23 years), found that intolerance of uncertainty mediated the relation between perceived anxious rearing behaviors and anxiety and worry [64].

A recent study by Nanda et al. [65] showed that parental psychological control was a predictor of child anxiety symptoms. Furthermore, the relationship between parental psychological control and anxiety is mediated by cognitions regarding perceived control.

Other authors have suggested that controlling parents prevent their children from developing independence, which in turn may contribute to feelings of helplessness or uncontrollability which are associated with symptoms of anxiety [66–68].

5. Parental involvement in cognitive behavior therapy for internalizing symptoms

Cognitive behavior therapy (CBT) has been found to be efficient for the treatment of anxiety disorders in children and youth [69–72]. Literature showed that CBT reaches an efficacy with an average of 60% remission at post-treatment [73].

In order to improve the efficacy of the treatment, a parental involvement has been considered. Principal aims for parental involvement are: removal of parental reinforcement of anxious child behavior, teaching anxiety management skills to parents, and reduction of family conflicts [74]. Specific components of protocols are: Psychoeducation, Parenting Training, Parental Modeling of Coping, Contingency Management, Cognitive Restructuring, Parental Anxiety Management, Collaborative Problem Solving, Communication skills, and Relapse Prevention [75].

Reviews [74, 76, 77] and meta-analyses [73, 78–80] have suggested that family-based CBT is efficient for the treatment of childhood anxiety; on the other hand, there are no differences in the outcomes among individual, group, or family-based treatment [75].

Studies comparing CBT treatments with parental involvement and control conditions (e.g. waiting list), showed a higher effect of the first condition, even if inconsistent findings derive from studies comparing parent-involved CBT and child-focused CBT [75]. Barrett et al. [81] and Wood et al. [82] (2006) showed that both family anxiety management (in addition to child-focused CBT) and family CBT produced greater efficacy than child-focused CBT alone. Other studies did not find differences between parent-involved CBT and child-focused CBT [69, 83, 84].

Although existing results are variegated, the efficacy of the treatment seems to be affected by children's age and gender, and presence versus absence of parental anxiety [85]. Some studies highlighted a positive effect of involving parents in the treatment when children are young [81, 86] or male [87], and when a parent has an anxiety disorder [85, 86]. Other studies did not find these results or found that parental involvement was less effective when parents suffered from anxiety disorders [83].

6. Conclusions

The purpose of this chapter was to integrate theoretical and empirical knowledge regarding the association between parenting and childhood internalizing problems. A strong body of evidence supports the relationship between these two constructs. Meta-analytic analyses, in particular, revealed that parental control is more strongly associated with child anxiety than parental rejection and that various sub-dimensions of parenting are differentially associated with childhood depression, especially parental hostility toward the child.

Although the literature on the topic suggests there may be a role of parenting in the development of internalizing disorders, many questions about the direction and mechanisms underlying the link also stay on [88]. For example, few studies have explored the role of temperament

in children's reactivity to different types of parenting or in influencing the type of parenting. Additionally, more studies are needed on the role of shared genetic factors in the association between parenting, parents and child personality/temperament, and risk for anxiety pathology [30].

Moreover, the great majority of studies include a single parent, who is almost always the mother. Thus, it is hard to generalize results to the caregivers in general, or understand if they are specific to parents of a particular sex or in a particular childcare role. More studies exploring differences in parenting styles and child-rearing outcomes in different cultures, ethnicities, and socioeconomic status are necessary to extend the results to diverse populations.

As reported by McLeod et al. [25, 26], a very modest association between parenting and child internalizing symptoms exists. This could derive from the fact that many studies focused on the role of single factors in association with anxiety and depression. Future researches should therefore investigate interactional mechanisms between parenting and a range of other variables, including biological vulnerability and life events/lifestyle factors [89] in order to fully understand this complex relationship.

Based on the literature, it is clear that a shared genetic risk factor contributes to a general vulnerability for anxiety, and that unique individual characteristics and environmental experiences may mediate the specific expression of this vulnerability. In addition, parenting characteristics such as modeling of negative responding, as well as moderating the effects of how children experience aversive events or fears when having a direct experience, observing others, or receiving fear relevant information from adults, can reinforce information-processing bias in children.

Although parenting *per se* may not be the strongest predictor of internalizing disorders, identifying children who present a combination of vulnerability factors (e.g. problematic parenting and difficult temperament) may address the development of timely interventions. In addition, tailoring interventions focused on parenting behaviors associated with childhood depression and anxiety, may represent an important goal for future research in order to improve clinical care of children affected by internalizing disorders and to prevent the full-blown manifestation of such conditions.

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References

- [1] Merikangas KR, He JP, Burstein M, Swanson SA, Avenevoli S, Cui L, et al. Lifetime prevalence of mental disorders in US adolescents: Results from the National Comorbidity Survey Replication–Adolescent Supplement (NCS-A). *Journal of the American Academy of Child & Adolescent Psychiatry*. 2010;**49**(10):980-989. DOI: 10.1016/j.jaac.2010.05.017
- [2] Beesdo-Baum K, Knappe S. Developmental epidemiology of anxiety disorders. *Child and Adolescent Psychiatric Clinics* 2012;**21**(3):457-478. DOI: <http://dx.doi.org/10.1016/j.chc.2012.05.001>
- [3] Ramsawh HJ, Chavira DA, Stein MB. Burden of anxiety disorders in pediatric medical settings: Prevalence, phenomenology, and a research agenda. *Archives of Pediatrics & Adolescent Medicine*. 2010;**164**(10):965-972. DOI: 10.1001/archpediatrics.2010.170
- [4] Pine DS, Cohen P, Gurley D, Brook J, Ma Y. The risk for early-adulthood anxiety and depressive disorders in adolescents with anxiety and depressive disorders. *Archives of General Psychiatry*. 1998;**55**(1):56-64. DOI: 10.1001/archpsyc.55.1.56
- [5] Bittner A, Egger HL, Erkanli A, Jane Costello E, Foley DL, Angold A. What do childhood anxiety disorders predict? *Journal of Child Psychology and Psychiatry*. 2007;**48**(12):1174-1183. DOI: 10.1111/j.1469-7610.2007.01812.x
- [6] Bolton JM, Cox BJ, Afifi TO, Enns MW, Bienvenu OJ, Sareen J. Anxiety disorders and risk for suicide attempts: Findings from the Baltimore epidemiologic catchment area follow-up study. *Depression and Anxiety*. 2008;**25**(6):477-481. DOI: 10.1002/da.20314
- [7] Barrett PM, Duffy AL, Dadds MR, Rapee RM. Cognitive-behavioral treatment of anxiety disorders in children: Long-term (6-year) follow-up. *Journal of Consulting and Clinical Psychology*. 2001;**69**(1):135. DOI: 10.1037/0022-006X.69.1.135
- [8] Fox NA, Henderson HA, Marshall PJ, Nichols KE, Ghera MM. Behavioral inhibition: Linking biology and behavior within a developmental framework. *Annual Review of Psychology*. 2005;**56**:235-262. DOI: 10.1146/annurev.psych.55.090902.141532
- [9] Vasey MW, Dadds MR, editors. *The Developmental Psychopathology of Anxiety*. Oxford: Oxford University Press; 2001
- [10] Garber J, Flynn C. Predictors of depressive cognitions in young adolescents. *Cognitive Therapy and Research*. 2001;**25**(4):353-376. DOI: 10.1023/A:1005530402239
- [11] Kaslow NJ, Deering CG, Racusin GR. Depressed children and their families. *Clinical Psychology Review*. 1994;**14**(1):39-59. DOI: 10.1016/0272-7358(94)90047-7
- [12] Steinberg L, Elmer JD, Mounts NS. Authoritative parenting, psychosocial maturity, and academic success among adolescents. *Child Development*. 1989;**60**:1424-1436. DOI: 10.1111/j.1467-8624.1989.tb04014.x
- [13] Barber BK. Parental psychological control: Revisiting a neglected construct. *Child Development*. 1996;**67**(6):3296-3319. DOI: 10.1111/1467-8624.ep9706244861

- [14] Rapee RM. The development of generalized anxiety. In: Vasey MW, Dadds MR, editors. *The Developmental Psychopathology of Anxiety*. London: Oxford University Press; 2001, 2001. pp. 481-503
- [15] Wood J. Effect of anxiety reduction on children's school performance and social adjustment. *Developmental Psychology*. 2006;**42**(2):345-349. DOI: 10.1037/0012-1649.43.2.416
- [16] Masia CL, Morris TL. Parental factors associated with social anxiety: Methodological limitations and suggestions for integrated behavioral research. *Clinical Psychology: Science and Practice*. 1998;**5**(2):211-228. DOI: 10.1111/j.1468-2850.1998.tb00144.x
- [17] Rapee RM. Potential role of childrearing practices in the development of anxiety and depression. *Clinical Psychology Review*. 1997;**17**(1):47-67. DOI: 10.1016/S0272-7358(96)00040-2
- [18] Hudson JL, Rapee RM. Parent-child interactions and anxiety disorders: An observational study. *Behaviour Research and Therapy*. 2001;**39**(12):1411-1427. DOI: 10.1016/S0005-7967(00)00107-8
- [19] Gregory AM, Eley TC. Genetic influences on anxiety in children: What we've learned and where we're heading. *Clinical Child and Family Psychology Review*. 2007;**10**(3):199-212. DOI: 10.1007/s10567-007-0022-8
- [20] Boomsma DI, Van Beijsterveldt CEM, Hudziak JJ. Genetic and environmental influences on anxious/depression during childhood: A study from the Netherlands twin register. *Genes, Brain, and Behavior*. 2005;**4**(8):466-481. DOI: 10.1111/j.1601-183X.2005.00141.x
- [21] Van Beijsterveldt CEM, Verhulst FC, Molenaar PCM, Boomsma DI. The genetic basis of problem behavior in 5-year-old Dutch twin pairs. *Behavior Genetics*. 2004;**34**(3):229-242. DOI: 10.1023/B:BEGE.0000017869.30151.f0
- [22] Scaini S, Ogliari A, Eley TC, Zavos H, Battaglia M. Genetic and environmental contributions to separation anxiety: A meta-analytic approach to twin data. *Depression and Anxiety*. 2012;**29**(9):754-761. DOI: 10.1002/da.21941
- [23] Scaini S, Belotti R, Ogliari A. Genetic and environmental contributions to social anxiety across different ages: A meta-analytic approach to twin data. *Journal of Anxiety Disorders*. 2014;**28**(7):650-656. DOI: 10.1016/j.janxdis.2014.07.002
- [24] Gregory AM, Eley TC: The genetic basis of child and adolescent anxiety. In: Silverman WK, Field AP, editors *Anxiety Disorders in Children and Adolescents*. Cambridge: Cambridge University Press; 2011. p. 161-178.
- [25] McLeod BD, Weisz JR, Wood JJ. Examining the association between parenting and childhood depression: A meta-analysis. *Clinical Psychology Review*. 2007;**27**(8):986-1003. DOI: 10.1016/j.cpr.2007.03.001
- [26] McLeod BD, Wood JJ, Weisz JR. Examining the association between parenting and childhood anxiety: A meta-analysis. *Clinical Psychology Review*. 2007;**27**(2):155-172. DOI: 10.1016/j.cpr.2006.09.002

- [27] Creswell C, Murray L, Stacey J, Cooper P. Parenting and child anxiety. In: Silverman WK, Field AP, editors. Cambridge: Cambridge University Press; 2011. pp. 299-322
- [28] Eley TC, Napolitano M, Lau JY, Gregory AM. Does childhood anxiety evoke maternal control? A genetically informed study. *Journal of Child Psychology and Psychiatry*. 2010;**51**(7):772-779. DOI: 10.1111/j.1469-7610.2010.02227.x
- [29] Barlow DH. *Anxiety and its Disorders: The Nature and Treatment of Anxiety and Panic*. New York: Guilford press; 2004
- [30] Wood JJ, McLeod BD, Sigman M, Hwang WC, Chu BC. Parenting and childhood anxiety: Theory, empirical findings, and future directions. *Journal of Child Psychology and Psychiatry*. 2003;**44**(1):134-151. DOI: 10.1111/1469-7610.00106
- [31] Chavira DA, Stein MB. Childhood social anxiety disorder: From understanding to treatment. *Child and Adolescent Psychiatric Clinics of North America*. 2005;**14**:797-818. DOI: 10.1016/j.chc.2005.05.003
- [32] Hudson JL, Rapee RM. The origins of social phobia. *Behavior Modification*. 2000;**24**:102-129. DOI: 10.1177/0145445500241006
- [33] Hidalgo RB, Barnett SD, Davidson JRT. Social anxiety disorder in review: Two decades of progress. *International Journal of Neuropsychopharmacology*. 2001;**4**:279-298. DOI: 10.1017/S1461145701002504
- [34] Manassis K, Hudson JL, Webb A, Albano AM. Beyond behavioral inhibition: Etiological factors in childhood anxiety. *Cognitive and Behavioral Practice*. 2005;**11**:3-12. DOI: 10.1016/S1077-7229(04)80003-8
- [35] Merikangas KR. Vulnerability factors for anxiety disorders in children and adolescents. *Child and Adolescent Psychiatric Clinics of North America*. 2005;**14**:649-679. DOI: 10.1016/j.chc.2005.06.005
- [36] Muris P. Freud Was right...about the origins of abnormal behavior. *Journal of Child and Family Studies*. 2006;**15**:1-12. DOI: 10.1007/s10826-005-9006-9
- [37] Ollendick TH, Hirshfeld-Becker DR. The developmental psychopathology of social anxiety disorder. *Biological Psychiatry*. 2002;**51**:44-58. DOI: 10.1016/S0006-3223(01)01305-1
- [38] Rapee RM, Spence SH. The etiology of social phobia: Empirical evidence and an initial model. *Clinical Psychology Review*. 2004;**24**:737-767. DOI: 10.1016/j.cpr.2004.06.004
- [39] van Brakel AML, Muris P, Bögels SM, Thomassen C. A multifactorial model for the aetiology of anxiety in non clinical adolescents: Main and interactive effects of behavioural inhibition, attachment, and parental rearing. *Journal of Child and Family Studies* 2006;**15**:569-579. DOI: 10.1007/s10826-006-9061-x
- [40] Pinquart M. Associations of parenting dimensions and styles with internalizing symptoms in children and adolescents: A meta-analysis. *Marriage & Family Review*. 2017;**53**:613-640. DOI: 10.1080/01494929.2016.1247761

- [41] Achenbach TM. Integrative Guide for the 1991 CBCL/4±18, YSR, and TRF Profiles. Burlington: University of Vermont, Department of Psychiatry; 1991
- [42] Silverman WK, Carter R. Anxiety disturbance in girls and women. In: Worell J, Goodheart CD, editors. Handbook of girls' and women's Psychological Health. New York: Oxford University Press; 2006. pp. 60-68
- [43] Möller EL, Nikolić M, Majdandžić M, Bögels SM. Associations between maternal and paternal parenting behaviors, anxiety and its precursors in early childhood: A meta-analysis. *Clinical Psychology Review*. 2016;**45**:17-33. DOI: 10.1016/j.cpr.2016.03.002
- [44] Percy R, Creswell C, Garner M, O'Brien D, Murray L. Parents' verbal communication and childhood anxiety: A systematic review. *Clinical Child and Family Psychology Review*. 2016;**19**:55-75. DOI: 10.1007/s10567-015-0198-2
- [45] Yap MBH, Jorm AF. Parental factors associated with childhood anxiety, depression, and internalizing problems: A systematic review and meta-analysis. *Journal of Affective Disorders*. 2015;**175**:424-440. DOI: 10.1016/j.jad.2015.01.050
- [46] Flook L. Gender differences in adolescents' daily interpersonal events and well-being. *Child Development*. 2012;**82**:454-461. DOI: 10.1111/j.1467-8624.2010.01521.x
- [47] Stattin H, Kerr M. Parental monitoring: A reinterpretation. *Child Development*. 2000;**71**:1071-1085. DOI: 10.1111/1467-8624.00210
- [48] Caster JB, Inderbitzen HM. Hope. Relationship between youth and parent perceptions of family environment and social anxiety. *Journal of Anxiety Disorders*. 1999;**13**:237-251. DOI: 10.1016/S0887-6185(99)00002-X
- [49] Hollenstein T, Granic I, Stoolmiller M, Snyder J. Rigidity in parent-child interactions and the development of externalizing and internalizing behavior in early childhood. *Journal of Abnormal Child Psychology*. 2004;**32**:595-607. DOI: 10.1023/B:JACP.0000047209.37650.41
- [50] Neal JA, Edelmann RJ. The etiology of social phobia: Toward a developmental profile. *Clinical Psychology Review*. 2003;**23**:761-786. DOI: 10.1016/S0272-7358(03)00076-X
- [51] Stark KD, Humphrey LL, Crook K, Lewis K. Perceived family environments of depressed and anxious children: child's and maternal figure's perspectives. *Journal of Abnormal Child Psychology*. 1990;**18**:527-547. DOI: 10.1007/BF00911106
- [52] Brook CA, Schmidt LA. Social anxiety disorder: A review of environmental risk factors. *Neuropsychiatric Disease and Treatment*. 2008;**4**:123-143
- [53] Belsky J, Pluess M. Beyond diathesis stress: Differential susceptibility to environmental influences. *Psychological Bulletin*. 2009;**135**:885-908. DOI: 10.1037/a0017376
- [54] Pluess M, Belsky J. Differential susceptibility to parenting and quality child care. *Developmental Psychology*. 2010;**46**:379-390. DOI: 10.1037/a0015203

- [55] Greco LA, Morris TL. Paternal child-rearing style and child social anxiety: Investigation of child perceptions and actual father behavior. *Journal of Psychopathology and Behavioral Assessment*. 2002;**24**(4):259-267. DOI: 10.1023/A:1020779000183
- [56] Hudson JL, Rapee RM. Parent-child interactions in clinically anxious children and their siblings. *Journal of Clinical Child and Adolescent Psychology*. 2002;**31**(4):548-555. DOI: 10.1207/S15374424JCCP3104_13
- [57] Rork KE, Morris TL. Influence of parenting factors on childhood social anxiety: Direct observation of parental warmth and control. *Child and Family Behavior Therapy*. 2009;**31**(3):220-235. DOI: 10.1080/07317100903099274
- [58] Bögels, S. M., van Melick, M. The relationship between child-report, parent self-report, and partner report of perceived parental rearing behaviors and anxiety in children and parents. *Personality and Individual Differences* 2004;**37**(8):1583-1596. DOI: 10.1016/j.paid.2004.02.014
- [59] Teetsel RN, Ginsburg GS, Drake KL. Anxiety-promoting parenting behaviors: A comparison of anxious mothers and fathers. *Child Psychiatry and Human Development*. 2014;**45**(2):133-142. DOI: 10.1007/s10578-013-0384-8
- [60] Milevsky A, Schlechter M, Netter S, Keehn D. Maternal and paternal parenting styles in adolescents: Associations with self-esteem, depression and life-satisfaction. *Journal of Child and Family Studies*. 2007;**16**(1):39-47. DOI: 10.1007/s10826-006-9066-5
- [61] McKinney C, Renk K. Differential parenting between mothers and fathers: Implications for late adolescents. *Journal of Family Issues*. 2008;**29**(6):806-827. DOI: 10.1177/0192513X07311222
- [62] McGinn LK, Cukor D, Sanderson WC. The relationship between parenting style, cognitive style, and anxiety and depression: Does increased early adversity influence symptom severity through the mediating role of cognitive style? *Cognitive Therapy and Research*. 2005;**29**(2):219-242. DOI: 10.1007/s10608-005-3166-1
- [63] Gallagher B, Cartwright-Hatton S. The relationship between parenting factors and trait anxiety: Mediating role of cognitive errors and metacognition. *Journal of Anxiety Disorders*. 2008;**22**(4):722-733. DOI: 10.1016/j.janxdis.2007.07.006
- [64] Zlomke KR, Young JN. A retrospective examination of the role of parental anxious rearing Behaviors in contributing to intolerance of uncertainty. *Journal of Child and Family Studies*. 2009;**18**(6):670-679. DOI: 10.1007/s10826-009-9269-7
- [65] Nanda MM, Kotchick BA, Grover RL. Parental psychological control and childhood anxiety: The mediating role of perceived lack of control. *Journal of Child and Family Studies*. 2012;**21**(4):637-645. DOI: 10.1007/s10826-011-9516-6
- [66] Chorpita BF, Barlow DH. The development of anxiety: The role of control in the early environment. *Psychological Bulletin*. 1998;**124**(1):3-21. DOI: 10.1037/0033-2909.124.1.3

- [67] Rubin KH, Mills RS. Conceptualizing developmental pathways to internalizing disorders in childhood. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*. 1991;**23**(3):300-317. DOI: 10.1037/h0079019
- [68] Wood JJ. Parental intrusiveness and Children's separation anxiety in a clinical sample. *Child Psychiatry and Human Development*. 2006;**37**(1):73-87. DOI: 10.1007/s10578-006-0021-x
- [69] Barrett PM. Evaluation of cognitive-behavioral group treatments for childhood anxiety disorders. *Journal of Clinical Child Psychology*. 1998;**27**(4):459-468. DOI: 10.1207/s15374424jccp2704_10
- [70] Hudson JL, Rapee RM, Deveney C, Schniering CA, Lyneham HJ, Bovopoulos N. Cognitive-Behavioral treatment versus an active control for children and adolescents with anxiety disorders: A randomized trial. *Journal of the American Academy of Child and Adolescent Psychiatry*. 2009;**48**(5):533-544. DOI: 10.1097/CHI.0b013e31819c2401
- [71] Kendall PC, Flannery-Schroeder E, Panichelli-Mindel SM, Southam-Gerow M, Henin A, Warman M. Therapy for youths with anxiety disorders: A second randomized clinical trial. *Journal of Consulting and Clinical Psychology*. 1997;**65**(3):366-380. DOI: 10.1037/0022-006X.65.3.366
- [72] Walkup JT, Albano AM, Piacentini J, Birmaher B, Compton SN, Sherrill JT, et al. Cognitive Behavioral therapy, sertraline, or a combination in childhood anxiety. *The New England Journal of Medicine*. 2008;**359**(26):2753-2766. DOI: 10.1056/NEJMoa0804633
- [73] James AC, James G, Cowdrey FA, Soler A, Choke A. Cognitive behavioural therapy for anxiety disorders in children and adolescents. *Cochrane database Systematic Reviews*. 2013;**6**. DOI: 10.1002/14651858.CD004690.
- [74] Barmish AJ, Kendall PC. Should parents be co-clients in cognitive-Behavioral therapy for anxious youth? *Journal of Clinical Child and Adolescent Psychology*. 2005;**34**(3):569-581. DOI: 10.1207/s15374424jccp3403_12
- [75] Wei C, Kendall PC. Parental involvement: Contribution to childhood anxiety and its treatment. *Clinical Child and Family Psychology Review*. 2014;**17**(4):319-339. DOI: 10.1007/s10567-014-0170-6
- [76] Creswell C, Cartwright-Hatton S. Family treatment of child anxiety: Outcomes, limitations and future directions. *Clinical Child and Family Psychology Review*. 2007;**10**(3):232-252. DOI: 10.1007/s10567-007-0019-3
- [77] Drake KL, Ginsburg GS. Family factors in the development, treatment, and prevention of childhood anxiety disorders. *Clinical Child and Family Psychology Review*. 2012;**15**(2):144-162. DOI: 10.1007/s10567-011-0109-0
- [78] Crowe K, McKay D. Efficacy of cognitive-behavioral therapy for childhood anxiety and depression. *Journal of Anxiety Disorders*. 2017;**49**:76-87. DOI: 10.1016/j.janxdis.2017.04.001

- [79] Ishikawa S, Okajima I, Matsuoka H, Sakano Y. Cognitive behavioural therapy for anxiety disorders in children and adolescents: A meta-analysis. *Child and Adolescent Mental Health*. 2007;**12**(4):164-172. DOI: 10.1111/j.1475-3588.2006.00433.x
- [80] Scaini S, Belotti R, Ogliari A, Battaglia M. A comprehensive meta-analysis of cognitive-behavioral interventions for social anxiety disorder in children and adolescents. *Journal of Anxiety Disorders*. 2016;**42**:105-112. DOI: 10.1016/j.janxdis.2016.05.008
- [81] Barrett PM, Dadds MR, Rapee RM. Family treatment of childhood anxiety: A controlled trial. *Journal of Consulting and Clinical Psychology*. 1996;**64**(2):333-342. DOI: 10.1037//0022-006X.64.2.333
- [82] Wood JJ, Piacentini JC, Southam-Gerow M, Chu BC, Sigman M. Family cognitive Behavioral therapy for child anxiety disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*. 2006;**45**(3):314-321. DOI: 10.1097/01.chi.0000196425.88341.b0
- [83] Bodden DHM, Bögels SM, Nauta MH, De Haan E, Ringrose J, Appelboom C, et al. Child versus family cognitive-Behavioral therapy in clinically anxious youth: An efficacy and partial effectiveness study. *Journal of the American Academy of Child and Adolescent Psychiatry*. 2008;**47**(12):1384-1394. DOI: 10.1097/CHI.0b013e318189148e
- [84] Waters AM, Ford LA, Wharton TA, Cobham VE. Cognitive-behavioural therapy for young children with anxiety disorders: Comparison of a child + parent condition versus a parent only condition. *Behaviour Research and Therapy*. 2009;**47**(8):654-662. DOI: 10.1016/j.brat.2009.04.008
- [85] Simon E, Dirksen C, Bögels S, Bodden D. Cost-effectiveness of child-focused and parent-focused interventions in a child anxiety prevention program. *Journal of Anxiety Disorders*. 2012;**26**(2):287-296. DOI: 10.1016/j.janxdis.2011.12.008
- [86] Cobham VE, Dadds MR, Spence SH. The role of parental anxiety in the treatment of childhood anxiety. *Journal of Consulting and Clinical Psychology*. 1998;**66**(6):893-905. DOI: 10.1037//0022-006X.66.6.893
- [87] van der Bruggen CO, Bögels SM, van Zeilst N. What influences parental controlling behaviour? The role of parent and child trait anxiety. *Cognition & Emotion* 2010;**24**(1):141-149. DOI: 10.1080/02699930
- [88] Silverman WK, Kurtines WM, Jaccard J, Pina AA. Directionality of change in youth anxiety treatment involving parents: An initial examination. *Journal of Consulting and Clinical Psychology*. 2009;**77**(3):474. DOI: 10.1037/a0015761
- [89] Murray L, Creswell C, Cooper PJ. The development of anxiety disorders in childhood: An integrative review. *Psychological Medicine*. 2009;**39**(9):1413-1423. DOI: 10.1017/S0033291709005157