
Recent Advances in Intervention for Early Childhood Anxiety

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Anxiety disorders in older children and adolescents have long been acknowledged as impairing, persistent and predictive of future anxiety and mood-related disorders. Until recently, however, anxiety in preschoolers and younger children has been regarded as relatively uncommon and within normal developmental parameters. Increasing evidence is suggestive that symptoms of anxiety in preschoolers parallel those in older children (Hirshfeld-Becker, Micco, Mazirsky, Bruett, & Henin, 2011) with this under-investigated area attracting increasing interest from researchers and clinicians alike. The present review summarises the empirical literature on early intervention and prevention programs for anxiety in young children (aged 3–7 years) with a specific focus on the application of such programs in the school context and implications for guidance counsellors, an improved understanding of which is critical for informing effective intervention. The studies reviewed demonstrate promising outcomes for anxiety; however, there is still a significant amount of work to be done in terms of our understanding of developmentally appropriate, family-focused and child-led models of anxiety and early intervention and prevention protocols.

■ **Keywords:** child, anxiety, prevention, early intervention, behavioural inhibition

It is widely accepted in the literature that anxiety disorders are among the most prevalent (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003) impairing and persistent (Essau, Condradt, & Petermann, 2000; Ezpeleta, Keeler, Erkanli et al., 2001) psychiatric disorders in children and adolescents (Andres, Hall, Tesson, & Henderson, 1999; Costello, Egger, & Angold, 2004) with lifetime prevalence rates approaching 30% prior to 18 years (Merikangas et al., 2010). If untreated, anxiety has the potential to cause significant disruption to a child's developmental trajectory due to the chronic course, high levels of comorbidity (Kendall et al., 2010; Pine, Cohen, Gurley, Brook, & Ma, 1998; Pollock, Rosenbaum, Marris, Miller, & Biederman et al., 1996; Seligman & Ollendick, 1998) and low rates of remission (McLoone, Hudson, & Rapee, 2006). Anxiety in school-aged children predicts

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below-average academic achievement (McLoone et al., 2006), with longitudinal research reinforcing the relationship between anxiety disorders and later educational underachievement (Ialongo, Edelson, Werthamer-Larsson, Crockett, & Kellam, 1995; Woodward & Fergusson, 2001). Such disruptions in academic performance may be related to difficulties initiating and completing tasks due to the fear that their work will not be 'good enough' (Barrett, 1999). Further, anxious children tend to be highly perfectionistic and hypersensitive to criticism, often becoming preoccupied with their worries. Children may subsequently have difficulty concentrating during class time due to high levels of physiological arousal (Hewitt & Flett, 1993; Mitchelson & Burns, 1998). In many situations, anxiety may also be associated with school refusal, or experiencing distress when attending school, often coping through avoidance and social withdrawal. Further, early childhood anxiety may not be recognised, with many anxious children presenting as shy and cooperative or compliant within the school setting (Albano, Chorpita, & Barlow, 1996).

Increasing evidence is suggestive that symptoms of anxiety in preschoolers parallel those in older children (Egger & Angold, 2006; Hirshfeld-Becker et al., 2011), with this under-investigated area attracting increasing interest from researchers and clinicians alike. The present review summarises the empirical literature on prevention and treatment programs for anxiety in young children (aged 3–7 years), an improved understanding of which is critical for developing effective school-based interventions. The studies reviewed demonstrate promising results for early childhood anxiety; however, there is still a huge amount of work to be done in terms of our understanding of developmentally appropriate, family-focused and child-led models of anxiety and early intervention and prevention protocols.

The Argument for Prevention

Given the early onset and potential cost of anxiety and its disorders to individuals, families and society (Kennedy, Rapee, & Edwards, 2009), and the fact that upwards of 80% of children and adolescents in need of mental health services fail to receive the intervention they require (Cobham, 2012; Essau, 2005), delaying intervention until late childhood or adolescence may not represent the most optimal intervention model (Barrett & Turner, 2001; Esser et al., 1990; Hirshfeld et al., 1997; Merikangas et al., 2011; Olfson et al., 2003). Innovative prevention efforts targeted early in the life course may be more effective (Bayer et al., 2011; Fox, Halpern, & Forsyth, 2008; Hirshfeld-Becker & Biederman, 2002). Further, practice parameters developed for early childhood (Connolly & Bernstein, 2007) recommend early intervention and prevention as an effective approach for alleviating symptoms of anxiety. Nobel prize laureate Heckman (2000) believes that from an economic perspective, attending to the social and emotional needs of young children is the best investment we can make. The school environment represents an optimal context for addressing early child anxiety by offering parent and/or child-based interventions within the school community. This may overcome many of the pragmatic and perceptual barriers to accessing community-based mental health services (Isfud & Rapee, 2005; Kendall, Settapani, & Cummings, 2012), normalising the promotion of positive coping and parenting behaviour, and represents an ideal context for children to practise and perfect skill acquisition (Barrett & Pahl, 2006).

Thus, the school, as the second most frequented setting by children, represents a significant and potential resource to assist children and their families to develop positive coping skills and address behavioural and emotional difficulties (Knoff, 2006). Further, interventions facilitated by members of the school community, such as counsellors or teachers, rather than an external professional, may enhance trust, communication and relationships within the community and contribute to the development of a common language and positive school climate.

Interventions targeted during the early school years presents multiple advantages, given the neuroplasticity of young children (Hirshfeld-Becker & Biederman, 2002; Fox et al., 2012) and the suggestion that maladaptive behaviour and coping strategies are not as 'fixed' at an early age (Hirshfeld-Becker & Biederman, 2002). The involvement of parents in intervention focused at early childhood may also enable interventions to positively impact maladaptive parenting practices thought to be related to risk of childhood anxiety (Hirshfeld-Becker & Biederman, 2002). Such early preventive interventions also have the potential to reduce rates of depression, with anxiety typically preceding comorbid depressive disorders (Bienvenu & Ginsburg, 2007; Flannery-Schroeder & Kendall, 2004), and may be most powerful when targeted at high-risk life transitions, such as entry to primary school or other significant transition points (Hirshfeld-Becker, Micco, Henin, Bloomfield, Biederman, & Rosenbaum, 2008), affording young children and their parents the opportunity to learn positive coping and emotional regulation skills.

However, a significant gap exists in the literature examining the effectiveness of prevention and treatment protocols for younger children (Egger & Angold, 2006; Eley et al., 2003; Spence, Rapee, McDonald, & Ingram, 2001; Sterba, Egger, & Angold, 2007). The following section will review the early anxiety prevention and treatment literature for young children and discuss the implications for such interventions within the school context, with the objective of identifying areas for future research.

Method

For the purposes of this review, prevention was defined as an intervention developed to alleviate or reduce the symptoms of diagnosed anxiety disorders or elevated anxiety levels. A psychological intervention was defined as a structured or unstructured treatment or prevention protocol targeting child/parent or both. A systematic search of data sources was conducted for relevant scientific publications. Studies for inclusion in the review were located through a variety of methods: (1) computer searches on PsychInfo (1990–2012) and MEDLINE (1990–2012) using keywords and names of key researchers in the area; (2) reference lists in relevant reviews and papers; (3) hand searching journals from 1990 to December 2012 in which one or more studies had been identified. The following key search terms were used; child*, pediatric, school/pre-school/kindergarten or school-base, universal, selective, indicated, anxiety/anxious, and early intervention/prevention, treatment, therapy, psychotherapy, CBT. Studies were limited to those published in English and in peer review journals.

For inclusion in the review all studies were required to meet a set of specific criteria

1. Participants selected because of elevated anxiety or internalising symptoms, or a formal diagnosis of any anxiety disorder.
2. All participants in the study were within the age range of 3–8 years and in the majority of cases included parents of children within the specified age range.
3. Interventions were specifically designed to reduce or prevent symptoms of anxiety.
4. One of the primary outcome measures in the study was anxiety symptomatology.
5. Means and standard deviations of outcome measures were reported or could be deduced from data reported in the paper.

The final sample consisted of 19 studies. These are identified in the reference list and summary information relating to individual studies is presented in Table 1.

Studies where data was collected retrospectively were not included due to the potential impact of memory biases. Many of the studies included mixed anxiety disorders, and comorbid anxiety disorders were common. Obsessive Compulsive Disorder (OCD) and Post-Traumatic Stress Disorder (PTSD) were excluded from the study, given the low prevalence rates of these disorders in early childhood and the requirement for specific considerations in terms of both assessment and treatment protocols.

Control groups were defined in terms of active or passive controls (e.g., wait-list and no treatment control groups). Active control conditions were defined as those where participants received a credible intervention, but not considered formal psychological therapy (e.g., supportive counselling, relaxation, bibliotherapy), or was specifically described by the authors as a ‘control’ treatment.

Summary of Prevention and Early Intervention Studies for the Treatment of Early Child Anxiety

Table 1 provides a summary of published early intervention, prevention and treatment programs for this population. The studies are discussed in terms of the target of the intervention, including parent-only intervention or intervention offered directly to the child in combination with parent training and child-only interventions.

Parent Only-Based Intervention for Early Child Anxiety

The inclusion of parents in interventions for early child anxiety is based on research findings for older children and adolescents. The literature suggests that prevention programs targeting parental risk factors may have a significant impact on children’s anxious behaviour and cognitive processes (Barrett, Dadds, & Rapee, 1996; Cobham, Dadds, & Spence, 1998; Fox et al., 2012; Flannery-Schroeder & Kendall, 2000). One of the earliest studies to involve parents as active participants in a preventive intervention for early child anxiety (LaFreniere & Capuano, 1997) demonstrated significant immediate improvements in terms of teacher-rated social competence for the intervention group. The findings provide strong evidence for proposed transactional processes underlying early affective disorders, and for the significance of parenting behaviour on the development and/or maintenance of child anxiety. Similar findings have been obtained for parent-focused interventions developed for

TABLE 1
Summary of Treatment and Prevention Programs for Young Children (3–7 Years)

Author (S)	Sample age	N	Control group	Type of anxiety	Experimental treatment	Focus of intervention	Number of sessions	Follow-up	Results
LaFraniere & Capuano (1997)	2.5–6 y	43	Passive	Mixed Anxiety	Attachment/ Behavioural therapy	Mothers only.	20	No	Anxious withdrawn preschoolers, significant gains in social competence. Reductions in anxious-withdrawn behaviour approached significance.
Rapee & Jacobs (2002)	3.5–4.5 y	7	No CG	Mixed Anxiety	CBT	Parents only.	6	12 month	IG reduction in BI and rates of anxiety disorders diagnoses.
Choate, Pincus, Eyberg & Barlow (2005)	5–8 y	3	No CG	SAD	PCIT	Parents only.	6–7	3 month	Clinically significant change in separation anxiety, maintained at a 3-month follow-up interval.
Rapee, Kennedy, Ingram & Edwards & Sweeney (2005)	3 – 5 y	146	Passive	Mixed Anxiety	Psychoeducation	Parents only.	6	12, 24, and 36 month	Significant reduction in anxiety disorders at 12, 24 and 36 mo and anxiety severity at 24 and 35 mo
Cartwright-Hatton et al. (2005)	2–4 y	43	No CG	Internalising Symptoms	Behavioural parent training <i>Parent Survival Course</i>	Parents only	8	6 month	CBCL Internalising scores normalized at post and 6 month follow up.
Santacruz et al. (2006)	4–8 y	78	Active	Specific Phobia Darkness	Play Therapy	Parents only	5	12 month	Children receiving both approaches to treatment demonstrated improvement in symptoms compared to controls, effects maintained at 12 mo FU

TABLE 1
Continued.

Author (S)	Sample age	N	Control group	Type of anxiety	Experimental treatment	Focus of intervention	Number of sessions	Follow-up	Results
Domitrovic, Cortes & Greenberg (2007)	3–4 y	246	Passive	Social & Emotional Competence	Affective-Behavioural-Cognitive –Dynamic (ABCD) PATHS	Child only.	30	No.	Increased emotion knowledge skills & more socially competent as rated by parents and teachers.
Dadds & Roth (2008)	3–6 y	734	Passive	Mixed Anxiety	CBT REACH for RESILIENCE	Parents only.	6	7 month	Decreases in child problems via teacher report for Internalising symptoms with small effect sizes. No changes were noted in parent’s diagnostic ratings.
Hirshfeld-Becker et al. (2008)	4–7 y	9	No CG	Mixed Anxiety	CBT <i>Being Brave</i>	Parent & child.	7 parent 13 child & parent	24 month	8 out of 9 children demonstrated significant improvement in number of anxiety diagnoses and coping skills.
Kennedy, Rapee & Edwards (2009)	3–4 y	71	No CG	Mixed Anxiety	CBT	Parents only	8	6 month	6 mo FU IG sig greater reduction in anxiety disorder than the WL. 46.7% of treated vs. 6.7% of controls had no anxiety disorders at FU
Monga, Young & Owens (2009)	5–8 y	32	No CG	Mixed Anxiety	CBT <i>Taming “Sneaky Fears”</i> .	Parent & child.	12	2 week	73% of children had at least one anxiety disorder resolve and 44% had all resolve. Significant improvement on SCARED and GAS scores.

TABLE 1

Continued.

Author (S)	Sample age	N	Control group	Type of anxiety	Experimental treatment	Focus of intervention	Number of sessions	Follow-up	Results
Waters et al. (2009)	4–8 y	80	Passive	Mixed Anxiety	GCBT	Parent only Vs. Parent + child	10 Parent only. 10 Parent 10 child	12 month	84%, 74% and 18% of children respectively no longer met criteria for their primary diagnosis and 61%, 60% and 9% lost all anxiety diagnoses. Gains maintained to 1 y.
Hirshfeld-Becker et al., (2010)	4–7 years	64	Passive	Mixed Anxiety	CBT	Parent & child.	7 parent. 13 child and parent.	12 month	At 6 mo, 69% versus 33% of completors showed much or very much improvement; 59% versus 18% had all anxiety disorders resolve. Gains Maintained at 12 mo.
Pahl & Barrett (2010)	4–6 years.	263	WL	Mixed Anxiety	CBT <i>Fun FRIENDS</i> .	Parent & child.	9 + 3 parent information sessions	12 month IG only.	Anxiety Scale ratings decreased for girls.
Rapee, Kennedy, Ingram, Edwards & Sweeney (2010)	36–59mo	146	Passive	Mixed Anxiety	CBT	Parents only.	6	12 & 36 month	Significant decrease in anxiety symptoms at 36 mo follow-up
Comer et al. (2012)	4–8 y	9	Intent to treat	SAD	PCIT .	Parent & child.	12	No.	All but one of the participants who completed treatment showed full diagnostic improvements on principal and co-morbid diagnoses and meaningful functional improvements.

specific phobias in young children (González, Méndez, & Sánchez-Meca, 1996; Méndez, 1986; Méndez & García, 1996; Méndez, González, & Sánchez-Meca, 1997; Santacruz, Mendez, & Sanchez-Meca, 2012), suggesting that interventions addressing parent behaviour in the absence of any direct intervention with a child may effect positive change in levels of child anxiety.

The efficacy of a parent-based, cognitive-behaviour therapy (CBT) intervention protocols for anxiety have also been examined (Rapee & Jacobs, 2002; Rapee, Kennedy, Ingram, Edwards, & Sweeney, 2005; Rapee, Kennedy, Ingram, Edwards & Sweeney, 2010). The intervention examined was a group-based parent intervention focused on principles of parent management, cognitive restructuring and in vivo exposure, with promising results obtained in terms of reduction of anxious symptomatology. The intervention was specifically designed to be brief, in order to provide maximum potential for public health implementation and reduction of anxiety. This protocol is of particular significance for school-based intervention, given the low intensity, limited cost and minimal therapist input, the benefits of which involve enhancing public health accessibility. Such interventions could be easily facilitated by guidance counsellors in the school context, either as a selective, indicated or universal intervention approach.

Similar promising results have been obtained from the CBT-based prevention programs REACH for RESILIENCE (Dadds & Roth, 2008) and the Cool Kids Program, (Rapee et al., 2006), developed exclusively for parents of young children presenting with high levels of anxiety. REACH for RESILIENCE was facilitated within preschools, with decreases in both internalising and externalising difficulties identified. This study contributes significantly to the literature as it represents one of a very few universal trials with this population facilitated within the school context, providing preliminary support for the implementation of universal preventive interventions for the parents of preschool-aged children.

Parent Skills-Based Interventions

General parent-based skills interventions have also been found to be effective for reducing anxiety symptoms in young children (Hirschfeld Becker et al., 2011); for example, a recent trial of a parenting skills training program, the Parent Survival Course (PSC) for preschool-aged children (Cartwright-Hatton, McNicol, & Doubleday, 2006). See White, Agnew, and Verduyn (2002) and White, McNally, and Cartwright-Hatton (2003) for a more detailed description of the program. Results demonstrated a reduction in both internalising and externalising difficulties and provide support for the inclusion of skills-based programs for anxiety in the absence of any direct therapist-child contact. Such programs have significant potential for community-based intervention, and could be easily facilitated as parent-based workshops in the school context. Teacher-based reinforcement of the skills in day-to-day contact with their students may further assist with generalisation across settings, potentially enhancing the intervention effect.

Parent Child Interaction Therapy (PCIT) represents a similar skills-based approach for early child intervention, integrating play therapy with developmental, social learning and behavioral theories, the objective of which is to enhance the parent-child relationship through positive parent practices (Hirshfeld-Becker et al.,

2011). The effectiveness of PCIT for Separation Anxiety Disorder (SAD) has been examined in a pilot study (Choate, Pincus, Eyberg, & Barlow, 2005), and more recently in a randomised study for children under the age of 7 years (Choate et al., 2005). Preliminary data demonstrated improvements from pre- to post-intervention in terms of the severity of SAD compared to the wait-list. This study provides a significant contribution to the literature and offers further support for PCIT as an effective intervention approach for preschool-aged children. Similar results were obtained in a recent feasibility and efficacy study of the CALM program (Coaching, Approach behaviour and Leading by Modeling; Choate et al., 2005; Pincus, Eyberg, & Choate, 2005; Pincus et al., 2010). The innovative inclusion of in-vivo parent coaching for a range of anxiety disorders is a significant strength of this study and has contributed to the increasing body of literature focused on this population. However, the applicability of PCIT within a school context for this population is yet to be established.

Child-Only Intervention

The Preschool Promoting Alternative Thinking Strategies curriculum (PATHS) is one of only a few universal, classroom-based social emotional programs that has been evaluated in a randomised control trial with a population of children under 5 years of age (Domitrovich, Cortes, & Greenberg, 2007). The program was implemented in 20 classrooms and facilitated by classroom teachers on a weekly basis over a 9-month period. Post-intervention effects indicated an improvement in emotion knowledge and processing emotional expressions, and critical areas of improvement with emotion knowledge thought to predict future social functioning (Izard, 2001; Schultz et al., 2000; Schultz, Izard, Ackerman, & Youngstrom, 2001). The findings suggest that the preschool PATHS program delivered as a universal intervention by teachers is promising in terms of improving children's social and emotional competence, self-regulation and social interaction skills within the school environment. These outcomes have important implications for the effectiveness of school-based interventions, with the possibility of teachers, school psychologists or counsellors delivering prevention programs during or after school and therefore reaching large numbers of children and families, a significant advantage given the fact that anxiety is frequently under-diagnosed and under-treated.

Child- and Parent-Based Interventions

More recently, several studies have examined the efficacy of interventions for early child anxiety, which include both child and parental components. For example, the efficacy of a CBT-based intervention for anxiety, the Being Brave program, was examined (Hirshfeld-Becker, Masek et al., 2008; Hirshfeld-Becker, Micco et al., 2008). The program is a developmentally appropriate, manualised CBT-based intervention program for children and their parents targeting identified risk factors for anxiety. Significant reductions in anxiety disorder diagnoses were obtained, with outcomes maintained at 2-year follow-up. The CBT-based intervention protocol for early childhood anxiety Taming 'Sneaky Fears' (Monga, Young, & Owens, 2009) obtained comparable results, with significant reductions in anxiety disorder diagnoses and clinician-rated improvement in functioning. These findings are

comparable to results obtained following CBT protocols for older children (Barrett, Duffy, Dadds, & Rapee, 2001; Barrett, Dadds, & Rapee, 1996; Kendall, 1994; Kendall & Southam-Gerow, 1996) and provide promising preliminary data for the adaptation of a CBT-based parent and child protocol for early childhood and enhancing positive coping skills.

Waters et al. (2009) conducted a trial assessing the efficacy of a group-based, behavioural intervention for young anxious children aged 4–8 years. A parents-only CBT group intervention, Take ACTION, was directly compared with the same intervention delivered to both children and parents, relative to a waitlist-control condition. The 80 children participating in the study were randomly assigned to one of three groups, parent-only intervention, parent + child intervention, or waitlist control. Both active conditions were found to be superior to the waitlist condition, with intervention gains maintained in both conditions at 6- and 12-month follow-up. There were no significant differences between the two active conditions on other outcome measures. The study represents a valuable contribution to the literature, providing support for the exclusive delivery of a CBT intervention to parents of young anxious children as a viable intervention approach.

The first ever school-based efficacy trial of the Fun FRIENDS program (Barrett, 2007) was recently conducted for young children (Pahl & Barrett, 2010). Fun FRIENDS is a developmentally appropriate, play-based CBT intervention and prevention program for anxiety and social and emotional skill development, developed as a downward extension of the FRIENDS for Life program (Barrett, 2004, 2005). Immediately post intervention no significant differences were obtained; however, at 12-month follow-up, improvements were found on anxiety, behavioural inhibition and social-emotional competence for children in the intervention group. The results from this study provide support for the use of universal intervention programs for young children implemented within the school context.

The most recent preventive intervention for anxious preschoolers and their parents involved a trial of the new Strengthening Early Emotional Development (SEED) program (Fox et al., 2012) to promote social, emotional and behavioural competencies. SEED incorporates content from other evidence-based group programs, including the preschool PATHS and the Cool Kids program. The intervention produced improvements in child emotional knowledge and social reasoning skills, in addition to reductions in parental anxiety and development of more positive parental attitudes towards their children. This study provides further support for the potential of preventive programs for early childhood anxiety; however, there is a clear need for further research in this area to expand our current understanding regarding the applicability of universal preventive interventions with young children in the school context.

Implications for School Psychology

The development of strategies to promote the mental health of young children and facilitate positive supportive relationships between parents and children is of fundamental importance, with schools identified as a key setting to achieve this goal in terms of making effective intervention accessible (Essau, Condradt, Saasagawa, & Ollendick, 2012). The school environment represents a favourable context to

facilitate mental health interventions as it provides a familiar environment for learning, potentially enhancing the acceptability of the intervention and providing the opportunity to practise skills in a real world setting. This may assist with reducing stigma associated with help seeking and normalise the promotion of positive parenting education and anxiety management skills, which may translate in terms of improved parental attendance and lower dropout rates.

Given the potential barriers for children and families to access mental health services, early school-based prevention may represent an economically viable and effective context for parents and children to learn positive coping skills and reduce anxiety symptomatology prior to functional impairment. The training of parents and children through a consultative model using the school counsellor as the facilitator may be particularly helpful in terms of long-term follow-up and enhancement of a positive school climate, critical components of effective mental health promotion. Further, the guidance counsellor's involvement and knowledge of the school system may also assist in the integration of preventive models into the standard curriculum and support teachers to reinforce the target skills.

Regardless of whether school counsellors are directly involved in facilitating interventions for early child anxiety, or whether they simply support children and families to access appropriate mental health services, it is critical that they understand the aetiology and presentation of anxiety across the lifespan and the importance of intervening early, given the potential for significant impairment and comorbidity.

Summary

The current article highlights preliminary support in the literature for the effectiveness of brief early intervention and prevention programs for young children, with child-based, parent-only and parent and child-focused interventions found to be effective in terms of reducing anxiety and associated risk, using a number of theoretical frameworks. Given the potential for such programs, and the significant negative impact of anxiety on the lifespan, early intervention programs for this age group should be an area of priority for future research. The school context represents an optimal context for the implementation of such programs; however, there is a need for methodologically rigorous, randomised clinical trials of interventions for children and parents within the school environment, and further empirical identification of risk and protective factors as targets for prevention.

Directions for future research include replication studies and follow up of published research, in addition to studies incorporating larger sample sizes, longer follow-up, and the inclusion of comparison groups. Further investigation of interventions that are in the early stages of development, such as parent-child interaction therapy, attachment-based family therapy, and child-parent protocols for this age group are encouraged, in addition to the inclusion of studies assessing the applicability of such approaches for the school environment.

Many additional questions remain about the prevention of anxiety disorders in this age group, including: Who should prevention efforts target? Which preventive intervention strategies are most effective? Who should be the primary target of intervention — children, parents, or a combination of both in order to enhance

the benefit of intervention? Or whether parent-based intervention, particularly with preschool-aged children, is sufficient. Future research examining theory-based mechanisms of change will help to answer to these questions.

References

- Albano, A.M., Chorpita, B.F., & Barlow, D.H. (2003). Childhood anxiety disorders. In E.J. Mash & R.A. Barkley (Eds.), *Child psychopathology* (2nd ed., pp. 279–329). New York: Guilford.
- Andrews, G., Hall, W., Teesson, M., & Henderson, S. (1999). *The mental health of Australians*. Canberra, Australia: Commonwealth Department of Health and Aged Care.
- Barrett, P. M. (1999). Child anxiety disorders. In C.E. Schaefer (Ed.), *Short-term psychotherapy groups for children* (pp. 249–277). New York: Jason Aronson.
- Barrett, P.M. (2004). *Friends for Life program — Group leader's workbook for children* (4th ed.). Brisbane, Australia: Australian Academic Press.
- Barrett, P.M. (2005). *Friends for Life program — Group leader's workbook for youth* (4th ed.). Brisbane, Australia: Australian Academic Press.
- Barrett, P.M., Dadds, M.R., & Rapee, R.M. (1996). Family treatment of childhood anxiety: A controlled trial. *Journal of Consulting and Clinical Psychology*, 64, 333–342. doi:10.1037/0022-006X.64.2.333
- Barrett, P.M., Duffy, A., Dadds, M., & Rapee, R. (2001). Cognitive-behavioural treatment of Anxiety disorders in children: Long-term (6 year) follow up. *Journal of Consulting and Clinical Psychology*, 69, 135–141. doi:10.1037/0022-006X.69.1.135
- Barrett, P.M., & Pahl, K.M. (2006). School based intervention: Examining a universal approach to anxiety management. *Australian Journal of Guidance and Counselling*, 16(1), 55–75. doi:10.1375/ajgc.16.1.55
- Barrett, P.M., & Turner, C.M. (2001). Prevention of anxiety symptoms in primary school children: Preliminary results from a universal school-based trial. *British Journal of Clinical Psychology*, 40, 399–410. doi:10.1348/014466501163887
- Bayer, J.K., Rapee, R.M., Hiscock, H., Ukoumunne, O.C., Mihalapolous, C., & Wake, M. (2011). Translational research to prevent internalising problems early in childhood. *Depression and Anxiety*, 28, 50–57. doi:10.1002/da.20743
- Bienvenu, J.O., & Ginsburg, G.S. (2007). Prevention of anxiety disorders. *International Review of Psychiatry*, 16(6), 647–654. doi:10.1080/09540260701797837
- Cartwright-Hatton, S., McNicol, K., & Doubleday, E. (2006). Anxiety in a neglected population: Prevalence of anxiety disorders in pre-adolescent children. *Clinical Psychology Review* 26, 817–833. doi:10.1016/j.cpr.2005.12.002
- Choate, M.L., Pincus, D.B., Eyberg, S.M., & Barlow, D.H. (2005). Parent-child interaction therapy for treatment of separation anxiety disorder in young children: A pilot study. *Cognitive and Behavioural Practice*, 12, 126–135. doi:10.1016/S1077-7229(05)80047-1
- Cobham, V.E. (2012). Do anxiety disordered children need to come into the clinic for efficacious treatment? *Journal of Consulting and Clinical Psychology*, 80(3), 465–476. doi:10.1037/a0028205
- Cobham, V.E., Dadds, M.R., & Spence, S.H. (1998). Anxious children and their parents: What do they expect. *Journal of Clinical Child Psychology*, 28, 220–231. doi:10.1207/s15374424jccp2802_9

- Connolly, S.D., & Bernstein, G.A. (2007). Practice parameters for the assessment and treatment of children and adolescents with anxiety disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, 46, 267–283.
- Costello, E.J., Egger, H.L., & Angold, A. (2004). Developmental epidemiology of anxiety disorders. In T.H. Ollendick & J.S. March (Eds.), *Phobic and anxiety disorders in children and adolescents: A clinician's guide to effective psychosocial and pharmacological interventions* (pp. 61–91). New York: Oxford University Press.
- Costello, E.J., Mustillo, S., Erkanli, A., Keeler, G., & Angold, A. (2003). Prevalence and development of psychiatric disorders in childhood and adolescence. *Archives of General Psychiatry*, 60, 837–844. doi:10.1001/archpsyc.60.8.837
- Dadds, M.R., & Roth, J.H. (2008). Prevention of anxiety disorders: Results of a universal trial with young children. *Journal of Child and Family Studies*, 17, 320–335. doi:10.1007/s10826-007-9144-3
- Domitrovich, C., & Greenberg, M. (2007). Improving young children's social and emotional competence: A randomised trial of the preschool 'PATHS' curriculum. *The Journal of Primary Prevention*, 28(2), 67–91. doi:10.1007/s10935-007-0081-0
- Egger, H.L., & Angold, A. (2006). Anxiety disorders. In J.L. Luby (Ed.), *Handbook of preschool mental health: Development, disorders, treatment* (pp. 137–164). New York: Guilford.
- Eley, T.C., Bolton, D., O'Connor, T.G., Perrin, S., Smith, P., & Plomin, R. (2003). A twin study of anxiety related behaviours in preschool children. *Journal of Child Psychology and Psychiatry*, 44, 945–960. doi:10.1111/1469-7610.00179
- Essau, C.A. (2005). Frequency and patterns of mental health services utilisation among adolescent with anxiety and depressive disorders. *Depression and Anxiety*, 22(3), 130–137. doi:10.1002/da.20115
- Essau, C.A., Conradt, J., & Petermann, F. (2000). Frequency, comorbidity, and psychosocial impairment of anxiety disorders in German adolescents. *Journal of Anxiety Disorders*, 14(3), 263–279. doi:10.1177/0743558400154003
- Essau, C.A., Conradt, J., Sasagawa, S., & Ollendick, T.H. (2012). Prevention of anxiety symptoms in children: Results from a universal school-based trial. *Behaviour Therapy*, 2, 450–464. doi:10.1016/j.beth.2011.08.003.
- Ezpeleta, L., Keeler, G., Erkanli, A., Costello, J., & Angold, A. (2001). Epidemiology of psychiatric disability in childhood and adolescence. *Journal of Child Psychology and Psychiatry*, 42, 901–914. doi:10.1111/1469-7610.00786
- Flannery-Schroeder, E.C., & Kendall, P.C. (2000). Group and individual cognitive-behavioral treatments for youth with anxiety-disorders: A randomized clinical trial. *Cognitive Therapy and Research*, 24(3), 251–278. doi:10.1007/s10608-005-3168-z
- Fox, J.K., Halpern, L.F., & Forsyth, J.P. (2008). Mental health checkups for children and adolescents: A means to identify, prevention and minimize suffering associated with anxiety and mood disorders. *Clinical Psychology Science and Practice*, 14, 182–211. doi:10.1111/j.1468-2850.2008.00129.x
- Fox, J.K., Warner, C.M., Lerner, A.B., Ludwig, K., Ryan, J.L., Colognori, D., ... Brotman, L.M. (2012). Preventive intervention for anxious pre-schoolers and their parents: Strengthening early emotional development. *Child Psychiatry Human Development*, 43, 544–559. doi:10.1007/s10578-012-0283-4
- Heckman, J.J. (2000). *Invest in the very young*. Chicago, IL: Ounce of Prevention Fund. Retrieved from <http://www.ounceofprevention.org/downloads/publications/Heckman.pdf>

- Hewitt, P.L., & Flett, G.L. (1993) Dimensions of perfectionism, daily stress and depression: A test of a specific vulnerability hypothesis. *Journal of Abnormal Psychology, 102*, 58–65. doi:10.1037//0021-843X.102.1.58
- Hirshfeld, D.R., Biederman, J., Brody, L., Faraone, S.V., & Rosenbaum, J.F. (1997). Expressed emotion toward children with behavioural inhibition: Associations with maternal anxiety disorder. *Journal of the American Academy of Child and Adolescent Psychiatry, 36*, 910–917.
- Hirshfeld-Becker, D.R., & Biederman, J. (2002). Rationale and principles for early intervention with young children at risk for anxiety disorders. *Clinical Child and Family Psychological Review, 5*, 161–172
- Hirshfeld-Becker, D.R., Masek, B., Henin, A., Blakely, L.R., Pollock-Wurman, R.A., McQuade, J. . . . Biederman, J. (2010). Cognitive behavioural therapy for 4- to 7-year-old children with anxiety disorders: A randomised clinical trial. *Journal of Consulting and Clinical Psychology, 78*(4), 498–510. doi: 10.1037/a0019055
- Hirshfeld-Becker, D.R., Masek, B., Henin, A., Blakely, L.R., Rettew, D.C., Dufton, . . . , Biederman, J. (2008). Cognitive-behavioural intervention with young anxious children. *Harvard Review of Psychiatry, 16*, 113–125.
- Hirshfeld-Becker, D.R., Micco, J., Henin, A., Bloomfield, A., Biederman, J., & Rosenbaum, J. (2008). Behavioural Inhibition. *Depression and Anxiety, 25*, 357–367.
- Hirshfeld-Becker, D.R., Micco, J.A., Mazirsky, H., Bruett, L., & Henin, A. (2011). Applying cognitive-behavioural therapy to the younger child. *Child and Adolescent Psychiatric Clinics of North America, 20*, 349–368. doi: 10.1016/j.chc.2011.01.008
- Ialongo, N., Edelsohn, G., Werthamer-Larsson, L., Crockett, L., & Kellam, S. (1995). The significance of self-reported anxious symptoms in first grade children: Prediction to anxious symptoms and adaptive functioning in fifth grade. *Journal of Child Psychology and Psychiatry, 36*, 427–437. doi:10.1111/j.1469-7610.1995.tb01300.x
- Izard, C.E. (2001). Emotional intelligence or adaptive emotions? *Emotion, 1*, 249–257. doi:10.1037//1528-3542.1.3.249-257
- Kendall, P.C. (1994). Treating anxiety disorders in youth: Results of a randomised clinical trial. *Journal of Consulting and Clinical Psychology, 62*, 100–110.
- Kendall, P.C., Settiani, C.A., & Cummings, C.M. (2012) No need to worry: The promising future of child anxiety research. *Journal of Clinical Child & Adolescent Psychology, 41*, 1, 103–115. doi:10.1080/15374416.2012.632352
- Kendall, P.C., & Southam-Gerow, M.A. (1996). Long-term follow-up of a cognitive-behavioural therapy for anxiety-disordered youth. *Journal of Consulting and Clinical Psychology, 64*, 724–730. doi:10.1037//0022-006X.64.4.724
- Kennedy, S.J., Rapee, R.M., & Edwards, S.L. (2009). A selective intervention program for inhibited preschool-aged children of parents with an anxiety disorder: Effects on current anxiety disorders and temperament. *Journal of the American Academy of Child & Adolescent Psychiatry, 48*(6), 602–609. doi:10.1097/CHI.0b013e31819f6fa,
- Kendall, S., Rodger, J., & Palmer, H. (2010). *Redesigning provision for families with multiple problems – an assessment of the early impact of different local approaches*. London: Department for Education.
- Knoff, H.M. (2006). The seven sure solutions to school-based mental health services success — the necessary collaboration between school and community providers. In S.W. Evans, M.D. Weist, & Z.N. Serpell (Eds.), *Advancing school-based mental*

- health interventions: Best practices and program models* (pp. 6.1–6.21). New Jersey: Civic Research Institute.
- LaFreniere, P.J., & Capuano, F. (1997). Preventive intervention as means of clarifying direction of effects in socialization: Anxious-withdrawn pre-schoolers case. *Development and Psychopathology*, 9, 551–564. doi:10.1017/S0954579497001302
- McLoone, J., Hudson, J.L., & Rapee, R.M. (2006). Treating anxiety disorders in a school setting. *Education and Treatment of Children*, 29, 219–242.
- Méndez, F.X. (1986, June). Escenificaciones emotivas: Un tratamiento para las fobias en niños de corta edad [Emotive performances: A treatment for small children's phobias]. Paper presented at the *Simposio de Terapia Comportamental*, Coimbra, Portugal.
- Méndez, F.X. (1996). *Entrevista sobre miedo a la oscuridad [Dark Fear Interview]*. Murcia, Spain: University of Murcia.
- Méndez, F.X., & García, M.J. (1996). Emotive performances: A treatment package for children's phobias. *Child & Family Behaviour Therapy*, 18, 19–34. doi:10.1300/J019v18n03_02
- Méndez, F.X., González, C., & Sánchez-Meca, J. (1997). Valoración de un programa multicomponente para tratar fobias en la infancia [Assessment of a multicomponent package to treat childhood phobias]. In AEPCP (Eds.), *I Congreso de la Asociación Española de Psicología Clínica y Psicopatología: Libro de Resúmenes* (pp. 157–158). Madrid: Dykinson.
- Mitchelson, K., & Burns, L.R. (1998). Career mothers and perfectionism: Stress at work and at home. *Personality and Individual Differences*, 25, 477–485. doi:10.1016/S0191-8869(98)00069-5.
- Monga, S., Young, A., & Owens, M. (2009). Evaluating a cognitive behavioural therapy group program for anxious five to seven-year-old children: Pilot study. *Depression and Anxiety*, 26, 243–250. doi:10.1002/da.20551
- Olfson, M., Gameroff, M.J., Marcus, S.C., & Waslick, B.D. (2003). Outpatient treatment of child and adolescent depression in the United States. *Archives of General Psychiatry*, 60(12), 1236–1242.
- Pahl, K.M., & Barrett, P.M. (2010). Preventing anxiety and promoting social and emotional strength in preschool children: A universal evaluation of the Fun FRIENDS program. *Advances in School Mental Health Promotion*, 3, 14–25. doi:10.1080/1754730X.2010.9715683
- Pahl, K.M., & Barrett, P.M., & Gullo, M.J. (2012). Examining potential risk factors for anxiety in early childhood. *Journal of Anxiety Disorders*, 26, 311–320. doi:10.1016/j.janxdis.2011.12.013
- Pincus, D.B., Chase, R., Chow, C.W., Weiner, C.L., Cooper-Vince, C., & Eyberg, S.M. (2010, November). Efficacy of modified Parent-Child Interaction Therapy for young children with separation anxiety disorder. Paper presented at the 44th Annual Meeting of the Association of Behavioural and Cognitive Therapies.
- Pincus, D.B., Eyberg, S.M., & Choate, M.L. (2005). Adapting parent-child interaction therapy for young children with separation anxiety disorder. *Education and Treatment of Children*, 28, 163–181. Retrieved from www.pcit.phhp.ufl.edu/Literature/PincusEyberg2005.pdf
- Pine, D.S., Cohen, P., Johnson, J., & Brook, J.S. (2002). Adolescent life events as predictors of adult depression. *Journal of Affective Disorders*, 68, 49–57. doi:10.1016/S0165-0327(00)00331-1.

- Pollock, R.A., Rosenbaum, J.F., Marris, A., Miller, B.S., & Biederman, J. (1996). Anxiety disorders of childhood: Implications for adult psychopathology. *Psychiatric Clinics of North America*, 18, 745–766. doi:10.1016/0010-440X(92)90002-8
- Rapee, R.M., & Jacobs, D. (2002). The reduction of temperamental risk for anxiety in withdrawn preschoolers: A pilot study. *Journal of Behavioural and Cognitive Psychotherapy*, 6, 271–280. doi:10.1017/S1352465802002084
- Rapee, R.M., Kennedy, S., Ingram, M., Edwards, S., & Sweeney, L. (2005). Prevention and early intervention of anxiety disorders in inhibited preschool children. *Journal of Consulting and Clinical Psychology*, 73, 488–497. doi:10.1037/0022-006X.73.3.488
- Rapee, R.M., Lyneham, H.J., Schniering, C.A., Wuthrich, V., Abbott, M.J., Hudson, J.L., & Wignall, A. (2006). *The Cool Kids® Child and Adolescent Anxiety Program Therapist manual*. Sydney, Australia: Centre for Emotional Health, Macquarie University.
- Rapee, P.M., Kennedy, S., Ingram, M., Edwards, S., & Sweeney, L. (2010). Altering the trajectory of anxiety in at risk young children. *American Journal of Psychiatry*, 167(12), 1518–1525. doi:10.1176/appi.ajp.2010.09111619
- Santacruz, I., Mendez, F.J., & Sanchez-Meca, J. (2012). Play therapy applied by parents for children with darkness phobia: Comparison of 2 programs. *Child and Family Behaviour Therapy*, 28,(1) 19–35. doi:10.1300/J019v28n01_02
- Schultz, D., IZard, C.E., & Ackerman, B.P. (2000). Children's anger attribution bias: Relations to family environment and social adjustment. *Social Development*, 9, 284–301. doi:10.1111/1467-9507.00126
- Seligman, L.D., & Ollendick, T.H. (1998). Comorbidity of anxiety and depression in children and adolescents: An integrative review. *Clinical Child and Family Psychology Review*, 1, 125–144. Retrieved from www.ingentaconnect.com/content/klu/ccfp/1998/00000001/00000002/00412670
- Spence, S.H., Rapee, R., McDonald, C., & Ingram, M. (2001). The structure of anxiety symptoms among preschoolers. *Behaviour Research and Therapy*, 39, 1293–1316. doi:10.1016/S0005-7967(00)00098-X
- Sterba, S., Egger, H.L., & Angold, A. (2007). Diagnostic specificity and non-specificity in the dimensions of preschool psychopathology. *Journal of Child Psychology and Psychiatry*, 48, 1005–1013. doi:10.1111/j.1469-7610.2007.01770.x
- Waters, A.M., Ford, L.A., Wharton, T.A., & Cobham, V.E. (2009). Cognitive behavioural therapy for young children with anxiety disorders: Comparison of group-based child + parent versus parent only focused treatment. *Behaviour and Therapy*, 46, 358–374. doi:10.1016/j.brat.2008.01.002
- White, C., Agnew, J., & Verduyn, C. (2002). The Little Hulton project: A pilot child clinical psychology service for preschool children and their families. *Child and Adolescent Mental Health*, 7(1) 1–10. doi:10.1111/1475-3588.00004
- White, C., McNally, D., & Cartwright-Hatton, S. (2003). Cognitively enhanced parent training. *Behavioural and Cognitive Psychotherapy*, 31(1), 9–102. doi.org/10.1017/S1352465803001097
- Woodward, L.J., & Fergusson, D.M. (2001). Life course outcomes of young people with anxiety disorders in adolescence. *Journal of the American Academy of Child and Adolescent Psychiatry*, 40, 1086–1093. doi:10.1097/00004583-200109000-00018

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