State of Research on Internalizing Disorders in Children and Adolescents: Is It Still in Its Infancy?

Tina In-Albon
Clinical Psychology and Psychotherapy, University of Basel, Switzerland

Keywords
Internalizing disorders · Anxiety disorders in children and adolescents · Depression in children and adolescents · Psychotherapy · Prevention · Psychotherapy research · Classification

Summary
Internalizing disorders are the most common mental disorders in children and adolescents. It is a fact that anxiety disorders and depression do not vanish over time. On the contrary, they are stable and represent significant risk factors for the development of further mental disorders in adulthood. Therefore, these disorders deserve more attention regarding early recognition, prevention and care, as these children often suffer in silence for too long before receiving adequate professional help. To improve their care, various specialists who are in regular contact with children and adolescents should be included in the process. Furthermore, children and adolescents themselves should be educated about mental problems. If anxiety and depressive disorders are recognized several well-evaluated treatment programs are available, which have demonstrated sustained effects. In addition, improvements in early recognition and enhancements in efficacy and effectiveness of treatment and prevention programs should be supported and warranted.

Schlüsselwörter
Internalisierende Störungen · Angststörungen im Kindes- und Jugendalter · Depression im Kindes- und Jugendalter · Psychotherapie · Prävention · Psychotherapieforschung · Klassifikation

Zusammenfassung
Introduction

In the editorial for the special issue of the magazine Verhaltenstherapie on ‘Behavioral Therapy in Children and Adolescents’ [Schneider 2000], Silvia Schneider asked the question: ‘Is behavioral therapy for children still in its infancy?’ One can anticipate that the answer to this question is ‘yes’. The 4 reasons given at that time for the neglect of mental disorders in childhood and adolescence were: 1) Children grow out of mental disorders and so they require no special attention; 2) the scarcity of available care for children with mental disorders; 3) difficulties in doing research with children (too costly and therefore some ethical problems); and 4) controlled group comparisons in psychotherapeutic research are the exception rather than the rule for proof of efficacy.

Twelve years later, I would like to address, using the current literature, some of these reasons given and to reformulate the question: Has behavioral therapy for children outgrown its infancy yet? In addition to describing the current status of epidemiology and psychotherapeutic research, I will address classification, prevention, and content of therapy. I will limit myself in this review to anxiety and depressive disorders.

Epidemiological Overview

Most reviews of the epidemiology of mental disorders in childhood and adolescence have found lifetime prevalence rates of about 20%, so that the relative uniformity of this prevalence can be assumed to be valid, despite methodological differences across the studies [e.g., Ihle and Esser, 2002; Petermann 2005; Steinhausen et al., 1998]. This prevalence rate is also supported by a recent U.S. study of 10,123 adolescents between 13 and 18 years of age, which resulted in a prevalence of 22.2% for mental disorders [Merikangas et al., 2010]. There are fewer studies of prevalence rates in younger children, but these already show thought-provoking prevalences. A study by Carter et al. [2010] showed that among 6-year-olds, 1 child out of 5 met the criteria for a mental disorder with impairment (21.6%). Without impairment, the prevalence was 32%. Kuschel et al. [2008] studied 3- to 6-year-old kindergarten children in Germany. Depending on who made the assessment (parents or teachers), the prevalence rates were between 0.5 and 9.4%, with internalizing disorders definitely reported more frequently than externalizing ones. This distribution is consistently shown in epidemiological studies, so that clearly anxiety disorders are the most common mental disorders in childhood and adolescence, followed by attention deficit and hyperactivity disorder (ADHD) and aggressive behavioral disorders. Anxiety and depressive disorders are combined under the rubric of internalizing disorders, while aggressive behavioral disorders and ADHD are considered externalizing disorders. In a study with adolescents and young adults [Wittchen et al., 1998], affective disorders and anxiety disorders were diagnosed with about equal frequency. While fewer than 3% of children under 13 years of age are affected by depression, the prevalence rises to 6% among adolescents between 13 and 18 years old [Costello et al., 2006]. As for gender differences, epidemiological studies show that internalizing disorders in girls and boys occur with equal frequency in childhood, but that female adolescents have higher prevalence of internalizing disorders than male adolescents [Merikangas et al., 2010; Steinhausen et al., 1998]. With respect to the onset of mental disorders, studies show that the majority of adults with mental disorders had already been diagnosed at a young age. The prospective study by Kim-Cohen et al. [2003] showed that 50% of 26-year-olds with the current diagnosis of a mental disorder already had a mental disorder by the age of 11–15. Anxiety disorders appear much earlier than affective disorders [Kessler et al., 2005; Wittchen et al., 2000a]. In what follows, we consider the 4 reasons given in the introduction for the neglect of mental disorders in childhood and adolescence.

Do Children and Adolescents Grow Out of Mental Disorders?

The first reason given by Schneider [2000] for the neglect of mental disorders in children and adolescents was the long-standing view that children outgrow behavioral problems ‘on their own’. Since the editorial appeared, several retrospective and prospective studies have demonstrated impressively that mental disorders in childhood and adolescence, particularly anxiety disorders, represent a significant risk factor for the development of mental disorders in adulthood [In-Albon, 2011]. Woodward and Fergusson [2001] showed that adolescents with an anxiety disorder had an increased risk of developing anxiety or affective disorders as young adults, to become addicted to drugs, and to display weak academic performance. The spectrum of disorders that develop as a result of anxiety disorders is very broad, ranging from anxiety and depressive disorders to pain disorders to alcohol dependence [e.g., Brückl et al., 2007; Copeland et al., 2009]. Findings on the progression of anxiety disorders are associated with stability. The review by Ihle and Esser [2002] reported that mental disorders are highly stable at all ages. The stability rate of emotional disorders showed that about half of mentally disturbed 13-year-olds still had emotional disorders at the age of 18. However, there are also controversial findings. In the Early Developmental Stages of Psychopathology (EDSP) study of 14- to 24-year-olds, only 19.7% of those affected at baseline still met the criteria for anxiety disorder at the 2-year follow-up [Wittchen et al., 2000b], with a large variance among the different anxiety disorders. The question of whether these adolescents were doing well later on, however, must be answered negatively. Only 10% of the adolescents who had met...
the criteria for a specific phobia at baseline no longer had any disorder 10 years later. 41% of the adolescents reported specific phobias, and a total of 73% were diagnosed with another anxiety or depressive disorder [Emmelkamp et al., 2009]. The same is true of depressive disorders. If left untreated, the depression usually undergoes chronic relapses, so that after a certain improvement, between 40 and 90% of affected children and adolescents experience at least one more episode of depression [Birmaher et al., 1996]. It can thus be said that mental disorders in childhood and adolescence are not outgrown by themselves, but on the contrary, strongly influence further development.

**Provision of Care**

Early detection is a key to the optimal care of affected children and adolescents. The internalizing disorders are particularly difficult to recognize from the outside, since their core symptoms are related to impaired inner experiences and avoidant behavior. According to a German [Esau, 2005] and an American study [National Institute of Mental Health (NIMH), 2001], only about 20% of all children and adolescents who were rated as needing treatment for mental health problems, actually received professional help. Another German study [Meltzer et al., 2000] verified that children with externalizing disorders receive professional help more frequently than those with internalizing problems. These considerations are linked to the question of how mental disorders in childhood and adolescence could be recognized better and earlier. Pediatricians have an important but difficult role to play here. They are often the first point of contact for children and adolescents with mental disorders or their parents, because mental illness can often present as physical complaints. The results of a survey of pediatricians in Switzerland [In-Albon et al., 2010] showed that the presence of mental health disorders in pediatric practice was rated at 15%, internalizing disorders at 7%, and externalizing disorders at 9%. It was also found that ADHD is diagnosed very frequently in pediatric practice, and the pediatricians felt confident about their diagnosis of this disorder. Compared to externalizing disorders, internalizing disorders were also common, but the pediatricians felt unsure of their diagnoses of anxiety and depressive disorders; they said they would like additional training in these areas.

In summary, with regard to detection and provision of care, just as in 2000, we can assume a significant deficiency of care and failure to recognize internalizing disorders in children and adolescents. This is true even though training programs for child and adolescent psychotherapists, with a focus on behavioral therapy, have been growing steadily in recent years, and outpatient psychotherapy clinics have been opened. One reason for this deficiency, specifically for Switzerland, is that psychological psychotherapy is not covered by basic health insurance, and thus psychotherapy with a psychologist can be quite expensive. At least as of January 2013, title protection is being introduced for psychologists and psychotherapists. The availability of care is no better in Germany, therefore there are further obstacles to receive psychological treatment, which need to be explored in the future. Because of the fact that even with good psychotherapeutic care it cannot yet be assumed that the therapies used are evidence-based, dissemination of evidence-based therapies is vital. England currently is playing a pioneering role in improving access to evidence-based methods. After initial experiences with the adult program, there is now also a focus on children and adolescents. A key feature of the project is the training of specialists in evidence-based methods (currently by teaching parents about oppositional behavior, behavioral therapy for anxiety disorders and depression in childhood and adolescence). Regular supervision is also provided. In terms of sustainability, a principal point of the whole project is that therapeutic success must be measured and the results presented both during and after therapy. The initial results for child and adolescent psychotherapy are eagerly awaited (www.iapt.nhs.uk).

**Psychotherapy Research**

Since the publication of the special issue in 2000 on behavioral therapy in children and adolescents, the number of efficacy studies with controlled group comparisons has increased considerably, so that in contrast to 2000, randomized controlled trials (RCTs) are now the rule rather than the exception in clinical child and adolescent psychotherapy. Due to the large number of studies, there are already several review articles available on the efficacy of psychotherapy for anxiety disorders [In-Albon and Schneider, 2007; Silverman et al., 2008], and depressive disorders [Reineke et al., 1998; Weisz et al., 2006] in children and adolescents. Table 1 provides an overview of the effect sizes of meta-analyses of the efficacy of psychotherapy for anxiety and depressive disorders. It can be concluded that psychotherapy is effective for anxiety disorders in childhood and adolescence and for depressive disorders in adolescence [e.g., James et al., 2005], but that for anxiety disorders, only cognitive behavioral therapy (CBT) meets the criteria for an evidence-based psychotherapeutic process. There is so far little evidence regarding the efficacy of psychoanalytic therapy or systemic therapy [American Academy of Child and Adolescent Psychiatry (AACAP), 2007]. Though in 2008 the German Scientific Advisory Board for Psychotherapy (Wissenschaftlicher Beirat Psychotherapie) approved systemic therapy for affective disorders and stress disorders in children and adolescents, this evaluation was based almost exclusively on studies of depression in children and adolescents, and not on anxiety disorders. A treatment study of anxiety disorders in children and adolescents showed that the combination of CBT and systemic therapy yielded no better results.
than ‘pure’ CBT [Siqueland et al., 2005]. According to the report of the Scientific Advisory Board, client-centered psychotherapy, psychodrama, neuropsychology, Eye Movement Desensitization and Reprocessing (EMDR), and hypnotherapy for children and adolescents currently offer insufficient evidence of efficacy; they are therefore not indicated as treatments for anxiety disorders in children and adolescents (www.wbpsychotherapie.de). The treatment effects in anxiety disorders are considered to be not only efficacious, but sustainable [Kendall et al., 2004; Saavedra et al., 2010]. The treatment outcomes are not limited to the symptoms of anxiety, but also show the reduction of symptoms of depression [In-Albon and Schneider, 2007]. For anxiety disorders, however, the studies reviewed in the meta-analyses looked at ‘efficacy’ (under ideal, laboratory conditions) and not ‘effectiveness’ (under usual clinical condition). Furthermore, predominantly school-aged children were included in the treatment studies, so the question remains to what extent behavioral therapy is also effective in preschool children. Another point is that most treatment studies with children combined various anxiety disorders (separation anxiety disorder, social phobia, generalized anxiety disorder) and, by comparison with adults, there are fewer disorder-specific RCTs in the field of anxiety disorders. These points are addressed below. Effectiveness research is still in its early stages, although back in 1999 a treatment study was published in which an effect size of -0.08 was measured for traditional therapies [Weiss et al., 1999]. This effect had improved only slightly in a follow-up study 2 years later [Weiss et al., 2000]. Bachmann et al. [2010] studied effectiveness in a naturalistic outpatient setting in 9 psychiatric practices for children and adolescents. Small to moderate treatment effects were reported for anxiety disorders and ADHD, but no significant effects were found for depressive disorders and conduct disorder. Preschool children with anxiety disorders were the subject of recent treatment studies [Hirshfeld-Becker et al., 2010; Schneider et al., 2011]. In an American treatment study with a waiting list control design for children aged 4–7 years, several anxiety disorders were combined (separation anxiety disorder, social phobia, agoraphobia, specific phobia). The responder rate of the intent-to-treat analysis was 59% [Hirshfeld-Becker et al., 2010]. The study by Schneider et al. [2011] is a randomized and controlled psychotherapeutic trial with children between 5 and 7 years of age who suffer from separation anxiety disorder. The 43 children with a primary diagnosis of separation anxiety disorder were assigned to either a 16-week disorder-specific therapy or a 12-week waiting list. The findings were that 76% of the children no longer met the diagnostic criteria for the disorder after treatment, and avoidance behavior in situations of separation declined significantly in the opinion of the children and their mothers and fathers.

To improve the efficacy of therapies, additional methods should be developed and evaluated in the future, such as computer-assisted behavioral therapy [e.g., Khanna and Kendall, 2010; Spence et al., 2011], or the modification of cognitive distortions [Cowart and Ollendick, 2011; In-Albon and Schneider, 2012a].

### Disorder-Typical Psychotherapeutic Trials

Study of disorder specificity of anxiety disorders in children is still in its infancy. Most treatment studies combine children with various anxiety disorders, and as a result there are few disorder-specific findings in either basic research or in treatment research on the individual anxiety disorders. Social phobia is an exception. Kremberg and Mitte [2005] have provided an overview of the efficacy of CBT for social phobia. The post-comparison of treatment and control groups across 9 studies showed a high effect size (Hedges’ g = 0.82). 2 recent treatment studies from Germany for children with social phobia reported highly promising data on efficacy and the stability of the results [Tuschen-Caffier et al., 2010; Melfsen et al., 2011]. In an American-Swedish 1-session treatment study of specific phobia [Ollendick et al., 2009], 2 active treatment conditions were compared (1-session treatment vs. education support treatment) and 1 wait-list control group. The 1-session treatment lasted a maximum of 3 h and involved the

<table>
<thead>
<tr>
<th>Anxiety disorders</th>
<th>Effect size according to Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-Albon and Schneider [2007]</td>
<td>d = 0.86 (n = 24), FU d = 1.36</td>
</tr>
<tr>
<td>Silverman et al. [2008]</td>
<td>d = 0.91 (n = 4)</td>
</tr>
<tr>
<td>Depressive disorders</td>
<td></td>
</tr>
<tr>
<td>Reinecke et al. [1998]</td>
<td>d = 1.02 (n = 6), FU d = 0.61</td>
</tr>
<tr>
<td>Lewisinsohn and Clarke [1999]</td>
<td>d = 1.27 (n = 12)</td>
</tr>
<tr>
<td>Weisz et al. [2006]</td>
<td>d = 0.34 (n = 35, including prevention studies and varying severity of depression)</td>
</tr>
<tr>
<td>Klein et al. [2007]</td>
<td>d = 0.53 (n = 11)</td>
</tr>
</tbody>
</table>

*aAccording to Cohen, d = 0.2 indicates a small effect, d = 0.5 an average effect, and d = 0.8 a large effect. 
*bThe number of studies performed that were included in the meta-analysis is in parentheses. 
FU = follow-up.
processing of catastrophizing thoughts, gradual confrontation in vivo, and behavioral tests. The educational support treatment condition lasted the same length of time, but there were no in vivo confrontations. The effects of both the 1-session treatment (d = 1.84) and the educational support treatment (d = 1.23) can be interpreted as high. Good effects (d = 0.58) of the ‘psychoeducation’ treatment component were also reflected in our meta-analysis [In-Albon and Schneider, 2007].

Concerning treatment research on anxiety and depressive disorders, 2 large treatment studies should be mentioned, which investigated the efficacy of psychotherapy, psychopharmacotherapy, and combined treatment: the Treatment for Adolescents with Depression Study (TADS) [TADS Team, 2007] and the Child-Adolescent Anxiety Multimodal Study (CAMS) [Walkup et al., 2008]. Both studies were characterized by a multi-centric approach and a study design with 4 conditions (CBT alone, psychotropic drugs alone (selective serotonin reuptake inhibitors (SSRIs)), CBT and SSRIs combined, placebo condition). The Treatment of SSRI-Resistant Depression in Adolescents (TORDIA) study [Brent et al., 2008] was conducted with depressed adolescents who had not responded to first-line treatment with SSRIs.

The CAMS consisted of a sample of 488 children aged 7–17 with a primary diagnosis of anxiety (separation anxiety disorder, generalized anxiety disorder, or social phobia). Children were excluded who avoided school due to anxiety or who had a prior non-response to an SSRI or to CBT. The children were randomly assigned to the 4 conditions. The CBT condition consisted of 14 sessions (12 sessions with the child/adolescent, 2 sessions with the parents, duration 12 weeks) using the ‘Coping Cat’ manual [Kendall and Hedtke, 2006], drug treatment (12 weeks of the SSRI sertraline, dosage range 25–200 mg/day, 8 sessions), the combined CBT and SSRI condition, and the placebo condition. The main measure of success used was the overall Global Improvement Scale, which was filled out by the therapist. The combination condition treatment showed an improvement of 80.7%, the CBT condition 59.7%, the sertraline condition 54.9%, and the placebo condition 23.7%. Thus the combination condition yielded the best results. On closer examination of the results of the CBT condition, these children had less insomnia, fatigue, and restlessness after treatment, as well as fewer discontinuations of treatment. One critical note is that the Coping Cat program had proved its efficacy with 16 sessions, but not with 14 sessions [Kendall, 1994; Kendall et al., 1997]. Fewer therapy sessions could be an explanation for the relatively low effect size of CBT (Hedges’ g = 0.31). Regarding the efficacy of the SSRI treatment, there is evidence that adolescents benefit from it more than children do [Bridge et al., 2007]. However, its efficacy in adolescents is significantly lower than in adults [Steinhausen, 2010]. We will have to await the data from the follow-up study for conclusions and recommendations. See Rynn et al. [2011] for an overview of pharmacotherapy in children and adolescents with anxiety disorders.

The TADS sample consisted of 439 children between 12 and 17 years of age with a primary diagnosis of major depression. Directly after the treatment [TADS Team, 2004], the combination treatment (CBT and SSRIs) and the drug treatment with fluoxetine showed superior results. CBT was less effective than either of these conditions and was not significantly more effective than the placebo condition. However, looking at the follow-up data after 36 weeks, the picture is more nuanced. The responder rates after 36 weeks of combination treatment were 86%, 81% after SSRI treatment, and 81% after CBT – that is, in the long term, there were no longer any significant differences among the treatments. The combination or SSRI treatment accelerated the response to therapy, while the addition of CBT to medication increased the safety of the latter. Brent [2006] noted critically that the effect sizes of CBT turned out to be less compared to other effect sizes for treatment studies of depression, and that many treatment components at a lower dose do not necessarily result in better efficacy, according to the adage ‘less is often more’.

TORDIA [Brent et al., 2008] focused on adolescents with depressive disorders who had not responded to first-line treatment with SSRIs. The adolescents were randomly assigned to 4 conditions: 1) switch to another SSRI, 2) switch to another SSRI plus CBT, 3) switch to venlafaxine, 4) switch to venlafaxine plus CBT. 334 adolescents participated in the study; their mean age was 16 (12–18 years). The results showed that for adolescents who did not respond to initial treatment with an SSRI, switching to another antidepressant in combination with CBT proved most effective [Brent et al., 2008].

Regarding the efficacy of psychotherapy in adolescents with mild and moderate depression, CBT and interpersonal therapy (IPT) are recommended [Ihle et al., 2004]. 2 studies showed positive effects for IPT [Mufson et al., 1999; Rossello and Bernal, 1999] and family therapy [Brent et al., 1997; Diamond et al., 2002]. In the long term, however, there were less positive results in the efficacy of psychotherapeutic treatment methods [Pössel and Hautzinger, 2006]. The evidence-base of treatment for depression in children has to be rated as unsatisfactory [Ihle et al., 2004]. At present there are no psychotherapeutic trials from German-speaking countries, so that while the components of the treatment manuals that are presently available in German [Ihle and Herrle, 2003; Harrington, 2001] can be recommended, yet their efficacy, especially over the long term, remains to be proven.

**Setting in Psychotherapy**

In psychotherapy with children and adolescents, the setting in which the treatment is carried out is an important component. There is no difference in efficacy with treatment of anxiety and depression if the therapy is carried out individually or in a group [In-Albon and Schneider, 2007; Silverman et al., 2008; Pössel and Hautzinger, 2006]. An additional variable of set-
tting, unlike in psychotherapy with adults, is the question of whether the parents should be included in the treatment of their child’s anxiety. Based on the findings that various parental factors – such as critical parenting, parental anxiety, or a troubled parent-child relationship – play a role in the development and maintenance of anxiety disorders [Hudson and Rapee, 2005; Schneider et al., 2009], one might assume that parents should be involved in the treatment of their children. Several reviews, however, showed no difference in efficacy between treatments that were child-focused and those that involved the parents [Casey and Berman, 1985; In-Albon and Schneider, 2007; Silverman et al., 2008]. Interestingly, a study by Silverman et al. [2009] showed that under the child-focused condition, maternal anxiety was reduced and the parent-child relationship improved. The authors assume a reciprocal influence between child and parental variables. This raises the question for clinical practice: For which child or which family is which setting the most effective? At present, the following are recommended: The parents of younger children and parents who are themselves anxious should be included in the treatment of children [Bodden et al., 2008]. With regard to parental anxiety, however, it will require more research to determine when the parents should undergo therapy themselves. In support of the child-focused approach, clinical experience suggests that an increase in the child’s self-esteem and perceived self-efficacy is vital. If the parents are overprotective, so that the child does not have the experience of feeling that he can be trusted, child-centered therapy may be more effective. The child should have the experience that he is being trusted to overcome his anxieties on his own. Here also we see reciprocal effects: The children’s self-confidence is further increased if the parents realize that the child himself can address his anxieties, and they therefore trust him more and grant him more autonomy [Kendall et al., 2003].

In treatment for depression, no systematic studies have been made of the effectiveness of additional parental involvement. For adolescent patients, it is advised to keep parental involvement in treatment to a minimum, because the parents become less important as role models, and a therapeutic relationship that is independent of the parents can be important to support the process of separation from the parents and to raise the adolescent’s self-esteem [Pössel, 2009]. When selecting the setting for treatment of depression, severity, previous history, motivation, possible suicidal tendencies, and social and family resources all play a role. Depending on these factors, the choice must be made between outpatient and inpatient treatment [Ihle et al., 2004].

Classification and Diagnosis

The upcoming edition of the Diagnostic and Statistic Manual of Mental Disorders (DSM, www.dsm5.org) has prompted a number of articles on the question of classification. Thus for DSM-5, a separation is being discussed between diagnostic symptoms and functional impairment based on the symptoms. The impairment and distress caused by a disorder should be regarded as a consequence rather than as a necessary criterion for a diagnosis, so the recommendation is to remove the criterion of functional impairment/distress from the diagnostic criteria [Rapee et al., 2012]. Rapee et al. [2012] summarized the problems affecting the criterion of impairment as follows: If there are comorbid disorders, it is difficult to attribute the impairment to a specific disorder. Moreover, the concept of clinically significant distress or impairment is vague, subjective, and tautological, and the concept is inconsistent with that of the International Classification of Diseases 10 (ICD-10). When working with children, an additional limitation is that many children undergoing diagnostic interviews have difficulty understanding the issue of impairment. The concept of functional impairment might therefore be described more clearly, for example by behavioral descriptions and reference to anchor values. A possible disadvantage of excluding the impairment criterion would be an increase in prevalence rates [e.g., Merikangas et al., 2010]. One recommendation to reduce prevalence of disorder could be by raising the symptom severity criteria for given diagnoses. The objective measurement of the construct of impairment will thus play an important role in the future [Rapee et al., 2012]. A child-friendly procedure for recording the impairment and distress (‘Impairment and Distress Rating’) is introduced by In-Albon and Schneider [2012b]. On the disorder-specific level, the following changes are being discussed for the DSM-5: For social phobia, it is recommended that the concept of social anxiety disorder be used in the future, as patients seldom completely avoid social situations, but they do often suffer from intense anxiety. Furthermore, the subtype ‘generalizing’ would be eliminated and a new subtype, ‘predominantly performance anxiety’, would be incorporated [Bögels et al., 2010]. Whether test anxiety and non-speaking because of selective mutism are specific subtypes of social anxiety disorder will have to be investigated in future studies. Concerning separation anxiety disorder, it is being discussed whether the requirement that the disorder must have begun before age 18 should be discarded, and whether the number of symptoms and their duration are empirically established criteria (www.dsm5.org). Possible modifications to the DSM will probably contribute to changes in the ICD-11 criteria in the direction of stronger empirical evidence. One revision, for example, should be that generalized anxiety disorder should no longer be hierarchically listed above the other anxiety disorders of childhood and adolescence (such as emotional separation anxiety disorder, disorder with social anxiety in childhood, and phobic disorder of childhood). Furthermore, the criteria for determining that the anxiety is excessive and unreasonable are going to be reviewed for children with anxiety disorders. These points are common reasons for discrepancies between the DSM and the ICD, i.e., why a child might not meet the criteria for an ICD.
diagnosis, whereas the DSM criteria are met. There will also again be discussion for the DSM-5 of a combined diagnosis of ‘disorder with anxiety and depression’. This diagnosis was already one of the research criteria of DSM-4 and is included in ICD-10. The empirical factors bearing on this are the high comorbidity of anxiety disorders and depression [Axelson and Birmaher, 2001] and common etiological factors [Barlow et al., 2004].

Diagnosis is linked to the classification, and there is continuous development underway in this area. A reliable and valid diagnosis is an essential prerequisite for successful treatment. Both the Guidelines for Diagnosis and Treatment of Depressive Disorders [Ihle et al., 2004] and the Guidelines for Diagnosis and Psychotherapy of Anxiety and Phobic Disorders in Childhood and Adolescence [Schneider and Döpfner, 2004] emphasize the use of various different diagnostic methods, such as diagnostic interviews and both self- and parent-and teacher-rating scales. Barkmann et al. [2011] provide a recent overview in their book ‘Klinisch-psychiatrische Ratingsskalen für das Kindes- und Jugendalter’ (Clinical and Psychiatric Rating Scales for Childhood and Adolescence). Additional materials for diagnosis and treatment may be found in the 4th volume of the ‘Lehrbuch der Verhaltenstherapie’ (Textbook of Behavioral Therapy) [Meinschmidt et al., 2012].

Prevention

Knowledge transfer is the key step toward prevention, early detection, and easier access to the health-care system – both to reduce gaps in knowledge and to counteract stigmatization. There are 2 assessed booklets in the German language that aim to explain anxiety [Schneider and Borer, 2007] and depression in adolescents [Schiller and Allgaier, 2011] in a low-threshold way. Both booklets have resulted in better understanding and good acceptance [Schneider and Borer, 2003], as well as changes in attitude [Allgaier et al., 2011]. There are also German-language empirically based prevention programs for anxiety and depressive disorders. The ‘Lars & Lisa’ program [Pössel et al., 2003, 2004] was developed as a universal training program for prevention of depression. The target group is adolescents aged 14–15. The program’s methods consist of self-management therapy, cognitive restructuring, social skills, and self-assertiveness training. ‘FRIENDS’ [Barrett et al., 2000, 2003] is the universal prevention program for anxiety and depression in children aged 7–12 years. FRIENDS is based on behavioral therapy, and its goal is to convey skills and techniques in 3 areas: the physiological, the cognitive, and learning. Various studies have examined and confirmed the efficacy and acceptance of this program [Barrett et al., 2003, 2006; Essau et al., 2004]. Eimecke et al. [2010] supplemented the FRIENDS training program with parental training and studied its efficacy in indicated prevention with 8- to 12-year-old children. The parental training program had no additional effect on changing introversive symptoms. However, all the parents felt more competent in dealing with their children after their training. ‘GO!’ [Junge et al., 2002, 2007] is a universal training program for adolescents between 14 and 18 years of age, designed for prevention of anxiety and depression. The concept is based on cognitive-behavioral models that relate to anxiety, depression, social skills training, and stress management.

The question of setting also arises in prevention research. A recent study points out that, in prevention, as in psychotherapy for anxiety disorders, there is no difference in efficacy between child- and parent-focused programs [Simon et al., 2011]: There was anxiety reduction in both the parent- and child-focused group. In universal prevention, the question arises whether programs should be disorder-specific, or whether it would be even more useful to implement programs that promote mental health in general. This idea refers to such programs as improvement of emotion regulation and increase of social-emotional skills and self-esteem. Petermann et al. [2007] developed a training program to promote emotional, social, and moral development among children of primary school age. The children learn, for example, to identify their feelings and to deal appropriately with feelings and conflict situations. The findings showed an increase in social skills and a decrease in social-emotional problems [Maréés and Petermann, 2009].

Therapeutic Content

A few empirically validated treatment manuals for anxiety disorders have been published in recent years. As table 2 shows, however, disorder-specific manuals for anxiety are still rather rare. The best-evaluated programs have been developed for various anxiety disorders. The content of these manuals varies quite little. As more and more components were incorporated into the treatments, however, it was shown that ‘less is often more’, and that it does not make sense to supplement the treatment sessions with as many components as possible. There has to be enough time allowed to put into practice what one has learned. Regarding exposure exercises, new research findings are being incorporated, for example that it is crucial for successful exposure therapy that the exercises be performed in various contexts. The availability of retrieval cues for patients also seems to be helpful, because that reminds clients, when they are outside the therapy context, of the new learning that took place in the therapy context [Arch and Craske, 2009]. In therapy with children, this could be, for example, an ‘affirmation stone’ or ‘confidence-boosting card’ that fits easily into the child’s pocket and book-bag.

There are 2 manuals for the treatment of depressive disorders, as described in the section on psychotherapy research, but RCTs are still pending for them [Ihle and Herrle, 2003; Harrington, 2001].
In-Albon

Summary and Outlook

Has behavioral therapy for children with anxiety and depressive disorders outgrown its infancy yet? This question from the introduction cannot be clearly answered either positively or negatively at present. Since the publication of the special issue of VERHALTENSTHERAPIE on children and adolescents in the year 2000, many studies have appeared showing that internalizing disorders in childhood and adolescence are both common and stable, and that they represent a significant risk factor for the development of mental disorders in adulthood. Yet these ‘silent disorders’ are often overlooked and affected children and adolescents receive inadequate care. These facts clearly show the need for early detection, prevention, and effective treatment of internalizing disorders. Potentially high-risk development of children and adolescents could be positively shaped by programs for prevention and intervention. A good knowledge of the risk and protective factors is a prerequisite for development of effective prevention and treatment programs.

<table>
<thead>
<tr>
<th>Anxiety disorder</th>
<th>Empirically validated interventions</th>
<th>Therapy manuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Different anxiety disorders</td>
<td>psychoeducation, reduction of dysfunctional thoughts, graduated stimulus confrontation, operant procedures, relaxation techniques</td>
<td>Coping Cat [Kendall and Hedtke, 2006]</td>
</tr>
<tr>
<td>Specific phobia</td>
<td>1-session treatment; participating model-learning, cognitive behavioral therapy intervention programs with and without parent training (individually and in groups); psychoeducation, reduction of dysfunctional thoughts, graduated stimulus confrontation, operant procedures, relaxation techniques</td>
<td>no disorder-specific manual currently available</td>
</tr>
<tr>
<td>Social phobia</td>
<td>cognitive behavioral therapy intervention programs with and without parent training (individually and in groups); psychoeducation, reduction of functional thoughts, social skills / self-assertiveness training, graduated stimulus confrontation</td>
<td>Petermann and Petermann [2010]</td>
</tr>
<tr>
<td>Separation anxiety disorder</td>
<td>cognitive behavioral therapy intervention programs with and without parent training; psychoeducation, reduction of dysfunctional thoughts, graduated stimulus confrontation, operant procedures</td>
<td>Joormann and Unnewehr [2002]</td>
</tr>
<tr>
<td>Generalized anxiety disorder</td>
<td>cognitive behavioral therapy intervention programs with and without parent training; psychoeducation, reduction of dysfunctional thoughts, graduated stimulus confrontation, operant procedures</td>
<td>Beck et al. [2006]</td>
</tr>
<tr>
<td>Performance anxiety</td>
<td>cognitive behavioral therapy intervention programs with and without parent training; psychoeducation, reduction of dysfunctional thoughts, graduated stimulus confrontation, relaxation techniques, assertiveness training</td>
<td>Tuchsenn-Caffier et al. [2009]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Buch und Döpfner [2012]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Separation Anxiety Program for Families (Trennungangstprogramm für Familien, TAFF, Schneider, 2004, in preparation)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>no disorder-specific manual currently available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>treatment program for children and adolescents with anxiety and obsessive-compulsive disorders (Therapieprogramm für Kinder und Jugendliche mit Angst- und Zwangsstörungen, THAZ), Vol. 1: Performance anxiety [Suhr and Döpfner, 2005]</td>
</tr>
</tbody>
</table>

Common components of the treatment of anxiety and depressive disorders are [Ihle et al., 2004; In-Albon, 2011; Pössel, 2009]: 1) psychoeducation, 2) cognitive interventions (training for self-instruction and problem-solving), 3) behavioral techniques (for anxiety disorders: reducing avoidance behavior through exposure exercises; for depressive disorders: behavioral activation), and 4) relapse prevention. The following additional components may be useful in treatment: relaxation techniques, encouragement of emotional and social skills.

Due to the high comorbidity of anxiety disorders and depression, Barlow et al. [2011] developed a unified protocol for transdiagnostic treatment for adults with anxiety and depressive disorders. The theory behind this is the tripartite model, which showed that negative affect and low positive affect are the overriding factors in unipolar depression and various anxiety disorders [Chorpita et al., 1998]. This was also confirmed for children and adolescents [Chorpita, 2002]. The program consists of several modules and uses 3 main strategies: 1) change and reassessment of cognitive processes, 2) prevention of emotional avoidance, and 3) behavioral change [Allen et al., 2005]. The program was adapted for children and adolescents, and evaluation studies are currently underway for group therapy [Ehrenreich et al., 2009; Ehrenreich et al., 2012].

Tab. 2: Empirically validated interventions and German-language manuals for the individual anxiety disorders in children and adolescents [according to In-Albon, 2011]
programs. Looking at the current state of research, however, there is no comprehensive, empirically based model of the impact of protective and risk factors.

The number of published controlled psychotherapeutic trials has increased considerably in the past 12 years. In summary, it can be stated that behavioral therapy is particularly effective and sustained in its impact on anxiety disorders in childhood and adolescence and for depressive disorders in adolescence. If a pharmacological treatment is required, SSRIs are the treatment of choice. There are clinically relevant findings with respect to the issue of setting. The current state of research indicates that there are no differences in efficacy when behavioral therapy is conducted individually or in a group, or is child-focused or done with the parents’ involvement. However, we still do not know which setting is best for which child or which family. Further research is also needed in effectiveness, treatment of preschool children and youth, disorder-specific treatment studies, and the efficacy of individual disorder treatment components. In view of the forthcoming revision of the classification system, we will have to wait to see the impact of the changes on the diagnoses and prevalence rates of mental disorders in childhood and adolescence. Possible changes in diagnostic criteria in turn lead to adjustments in diagnostic methods, such as clinical diagnostic interviews that are based on the classification systems. Since reliable and valid diagnosis is an essential prerequisite for successful treatment, there is ongoing development in this area. It remains to be clarified how internalizing disorders can be prevented. One possibility could be the dissemination of information to pediatricians and teachers about how to recognize the symptoms of anxiety and depression, as well as teaching adolescents themselves, e.g., with educational brochures. One factor that is a predictor, and not only an epiphenomenon of internalizing disorders, is self-esteem [Sowislo and Orth, 2012], which plays a key role in preventive programs for mental health. There are empirically tested German-language manuals for the treatment of anxiety disorders; but the efficacy of existing German-language manuals for treatment of depressive disorders has not yet been verified. In addition to increasing the efficacy of existing programs, a key task will be to disseminate empirically validated programs into clinical practice.

Disclosure Statement

I hereby certify that I have no conflicts of interest.

Translated by Susan Welsh
welsh_business@verizon.net

References

Schneider S, Borer S: Primäre Prävention von Angst-Symptomen bei Jugendlichen. Z. Ge-

Schössler J, Bernal G: The efficacy of cognitive-behav-

Silverman WK, Pina AA, Viswesvaran C: Evidence-
based psychosocial treatments for phobias and anxi-


Siqueland L, Rynn M, Diamond GS: Cognitive behav-
ioral and attachment based family therapy for anx-

Simon E, Bögel SM, Voncken JM: Efficacy of child-

Sowislo JF, Orth U: Does low self-esteem predict de-
pression and anxiety? A meta-analysis of longitudi-
nal studies. Psychol Bull DOI: 10.1037/a0028931.

Spence SH, Donovan CL, March S, Gamble A, An-


Schneider S, Houweling JEG, Gommlich-Schneider S, Klein C, Nüdel B, Wolke D: Effect of maternal panic disorder on mother-child interaction and rela-


Silverman WK, Pina AA, Viswesvaran C: Evidence-
based psychosocial treatments for phobias and anxi-


Siqueland L, Rynn M, Diamond GS: Cognitive behav-
ioral and attachment based family therapy for anx-

Simon E, Bögel SM, Voncken JM: Efficacy of child-

Sowislo JF, Orth U: Does low self-esteem predict de-
pression and anxiety? A meta-analysis of longitudi-
nal studies. Psychol Bull DOI: 10.1037/a0028931.

Spence SH, Donovan CL, March S, Gamble A, An-


Schneider S, Houweling JEG, Gommlich-Schneider S, Klein C, Nüdel B, Wolke D: Effect of maternal panic disorder on mother-child interaction and rela-


Silverman WK, Pina AA, Viswesvaran C: Evidence-
based psychosocial treatments for phobias and anxi-


Siqueland L, Rynn M, Diamond GS: Cognitive behav-
ioral and attachment based family therapy for anx-

Simon E, Bögel SM, Voncken JM: Efficacy of child-

Sowislo JF, Orth U: Does low self-esteem predict de-
pression and anxiety? A meta-analysis of longitudi-
nal studies. Psychol Bull DOI: 10.1037/a0028931.

Spence SH, Donovan CL, March S, Gamble A, An-


