The current thesis focused on three themes that will be subsequently discussed: The prevention of anxiety and depression in offspring of patients, parent and child risk and protective factors, and the role of parents in their child’s treatment.

PREVENTING ANXIETY AND DEPRESSION IN OFFSPRING

Anxiety and depression run in families. Offspring of parents with an anxiety or depressive disorder are at 3-4 times increased risk for developing these disorders as well, indicating a clear need for prevention. Despite of the fact that anxiety and depression are highly prevalent and persistent disorders, with high comorbidity and considerable adverse effects on psychosocial functioning, studies on prevention are scarce. In order to prevent offspring anxiety and depression, studies have focused on two different strategies.

One obvious strategy to prevent offspring anxiety and depression is to effectively treat parent anxiety and depression, leading to a decrease in parent anxiety and depressive symptoms and decreasing offspring risk. Recent studies have indeed found effective parent treatment to positively influence offspring mental health (Cuijpers, Weitz, Karyotaki, Garber, & Andersson, 2015; Pilowsky et al., 2008; Weissman et al., 2006; Weissman et al., 2015; Wickramaratne et al., 2011). However, effective parent treatment takes time, and anxiety and depression are known to be recurrent disorders. Therefore, besides decreasing parent anxiety and depression in treatment, a second strategy in preventing anxiety and depression in offspring is to focus on interventions directly increasing offspring mental health. The limited number of studies that investigated offspring preventive interventions have sorted positive effects, with room for improvement (Beardslee et al., 2007; Clarke et al., 2001; Compas et al., 2011; Garber et al., 2009; Ginsburg, 2009).

Combining these two strategies, i.e., offering a preventive intervention for offspring of parents in treatment for anxiety or depression, was the starting point of this thesis. We designed a multicenter, randomized controlled prevention trial to test the efficacy of a brief preventive behavioral therapy (Festen et al., 2010) for offspring (aged 8-18 years) at ultra high risk for anxiety and depression (Chapter 2, the STERK study: Screening and Training: Enhancing Resilience in Kids). Ultra high risk was defined as either reporting elevated symptoms of anxiety and depression, but no disorders (indicated prevention), or meeting at least 2 of 3 criteria of a high risk index: being female, having two affected parents, having a parent with (past) suicidal behavior (selective prevention).

Despite the evident importance of the STERK study, including enough participants to ensure sufficient power appeared extremely difficult. After screening 11079 patient files and additionally contacting 1297 families eligible for baseline screening, 63 children (0.6% of the screened patient files) participated in the baseline assessments and 26 high risk children eventually participated in the intervention study (2% of contacted families with relevant
offspring). The inclusion difficulties we encountered are not uncommon. Combining selective and indicated prevention automatically excludes a larger amount of participants from the study. In the literature, randomized controlled trials focusing on both selective and indicated prevention of anxiety and depression in offspring of patients are very scarce.

One study reported contacting up to 3000 families in order to enroll 94 adolescents (i.e., 3.1% of initially contacted families (Clarke et al., 2001). The most effective (and only other) example of enrolling offspring in randomized controlled trial (RCT) targeting both selective and indicated prevention, is a study by Garber, Clarke, and colleagues (2009), in which adolescents of depressed parents were enrolled (selective prevention), with subclinical depressive symptoms or a history of depression, but no depressive disorder (indicated prevention). After contacting 2494 families, 316 adolescents (12.7% of the initially contacted group) eventually participated in the study (Garber et al., 2009).

It can be hypothesized that these low inclusion rates mean that the studies (and interventions) described above insufficiently tailor parent and offspring needs. In prevention, offspring suffering from (a history of) anxiety or depressive disorders should, by definition, be excluded. In the STERK study, offspring with (a history of) anxiety and depressive disorders (i.e., suffering from anxiety or depression) were therefore excluded. However, studies including offspring with subclinical symptoms or offspring with a history of depression (Clarke et al., 2001; Garber et al., 2009) were able to enroll enough adolescent participants to complete the study. Possibly in these studies, offspring needs (decreasing symptom levels and decreasing risk of recurrence) motivated offspring to participate.

Second, it was hypothesized that parents’ needs were insufficiently met. In most offspring prevention studies, parents are often only scantily involved (Clarke et al., 2001; Garber et al., 2009). In our study, the STERK intervention was an individually tailored training program with only minimal involvement of parents (2 sessions).

Interestingly, an RCT focusing on family cognitive-behavioral preventive therapy for parents with a history of depression and their 9-15-year-old children enrolled a relatively large amount of participants, namely 27% of initially assessed families ($n = 155$ children, $n = 111$ families; Compas et al., 2009). Also, offspring with an anxiety or depressive disorder were not excluded from participation in this study, resulting in a sample of families in which 24-30% of the children exceeded the clinical cutoff of 16 on the CES-D (Center for Epidemiological Studies – Depression scale). This may indicate that parents want to be involved in preventive offspring treatment and families are more eager to participate once offspring have developed anxiety or depression (which means prevention is no longer in order). Thus, parents and offspring are possibly more motivated to participate in treatment, than prevention.

Nevertheless, inclusion rates varying from 2% to 27% are low, which makes one think about the perceived necessity of the studied interventions for parents and offspring, and raises questions about the generalizability of the findings of the completed studies. For the STERK
study, the extreme slow influx of participants, in combination with the restricted time window for completion of the project (48 months) was reason to abort the study well before the originally planned number of participants were enrolled.

In the process of including participants for the STERK study, it became evident to the researchers that this specific group of subjects (parents with anxiety or depressive disorders) was generally reluctant or hesitant to participate in research concerning their children, and that the professionals working with these patients sometimes seemed unaware of the fact that their patients had offspring. Furthermore, professionals appeared unaware of possible offspring risk, and the patient’s family life in general. Professionals also seemed reluctant to address the topic of children and parenting with adult patients who are also parents. This pointed to the urgent need to improve insight in why parents were so hesitant to participate in preventive research, and why professionals appeared unaware of offspring (risk) and possible parenting issues. To increase our knowledge on how to proceed in future studies and how to improve clinical practice to suit the prevention of anxiety and depression in offspring of anxious or depressed patients, both the perspectives of the target group (i.e., patients who are parents and their partners), and the facilitators (i.e., mental health professionals) were studied (Chapters 3 and 4).

Parents’ perspectives on offspring risk for anxiety and depression
The outcome of the qualitative semi-structured interviews, with parents who had previously been contacted to participate in the STERK study, showed that many parents believed that their mental health problems did not influence their children (Chapter 3). Parents seemed unaware of the positive impact of parent treatment on offspring risk, the negative impact of a disorder on offspring and parenting, and the importance of communicating with the child about mental health. Consistent with the completed prevention studies described in the previous paragraph, in most families, offspring intervention only became a priority when offspring developed symptoms. Also, parents expressed to be more motivated for parent-focused preventive interventions, than child focused approaches.

Thus, a parenting program in adult mental health care that meets parental needs and preferences by including psychoeducation and parenting support is a potentially successful strategy for preventing problems in offspring. In fact, positive results have already been reported for two one-hour psychoeducational lectures for parents with depressive disorders, in which children were not involved (Beardslee et al., 1993). This parent focused intervention was found to be as effective as a 6 to 10 session family intervention in increasing family functioning and decreasing internalizing behaviors in children up to 4.5 years follow up (Beardslee et al., 1997). Of course, future studies should further investigate the efficacy of such a proposed parent-focused intervention. Also, mental health professionals’ opinions on parent interventions should be investigated in order to effectively implement a more parent-focused approach in adult mental health care.
Professionals’ opinions on care for offspring of patients

In focus group discussions with healthcare professionals about their opinions on offspring of depressed and anxious patients (Chapter 4), it became evident that professionals in adult mental health care recognize a lack of attention for offspring and family. In addition, professionals expressed a need for assessment of offspring and family as standard practice, including repeated assessment and possible treatment options regarding offspring and the patients’ family. Also, professionals recognized the importance of collaboration between child and adult mental health care institutions.

Knowledge about offspring in general, offspring risk and resilience, parenting and parent-child communication is currently often lacking in adult mental health care. Therefore, providing information for professionals might be a first step towards research on and (preventive) interventions for offspring and their parents. To aid professionals in adult mental health, opportunities for screening on child symptoms and functioning could be provided, making referral to youth mental health centers easier. Child symptoms can be screened using the Strengths and Difficulties Questionnaire (Goodman, 2001), which assesses emotional, conduct, hyperactivity-inattention, peer, and prosocial problems in 5–15 year old children. By providing easily accessible short screening tools for offspring in adult mental health care, asking about offspring psychopathology could more easily become standard practice, which in turn can facilitate cooperation between child and adult services, and faster (preventive) treatment for parents and children at risk. Intervening earlier might mean shorter and more cost-effective interventions.

Interestingly, while current guidelines for youth mental health recommend that offspring of depressed parents should be referred for depression assessment (National Institute for Health and Clinical Excellence (NICE), 2005), information on offspring is currently lacking in guidelines on adult mental health (e.g., National Institute for Health and Clinical Excellence (NICE), 2009). Therefore, it seems important to modify the guidelines for adults mental health to provide information and recommendations regarding potential offspring.

Qualitative approaches in quantitative research

The studies presented in Chapter 3 and 4 clearly showed the important new information qualitative approaches can add to quantitative research. Including patients’ perceptions and needs can improve the quality of randomized controlled trials by better tailoring research and interventions to patients’ needs. Furthermore, involving patients’ opinions and perspectives in an RCT can lead to a higher quality of trial information, well-targeted sharing of research findings and well-informed and motivated patients (Langston et al., 2005).

A review examining the use of qualitative approaches alongside randomized trials (of complex healthcare interventions; Lewin, Glenton, & Oxman, 2009), listed ways in which qualitative methods can be used alongside randomized controlled trials (see Table 8.1).
From this review, it can be concluded that qualitative studies were mainly carried out before a trial, and remain relatively uncommon alongside trials of complex healthcare interventions. In general, in clinical psychology research, the use of qualitative approaches is almost non-existent. A study covering 10 journals over the year 1999 found that only 4 of 454 articles included qualitative approaches (2.4%; Munley et al., 2002).

To examine whether these findings still apply, I systematically reviewed the top 10 journals in the field of clinical psychology, looking for published studies using qualitative approaches. To consider the frequency of publication of qualitative research in the field over the last 5 years (2010-2015), 6214 papers appearing in the top 10 journals in clinical psychology, based on impact factor, were reviewed. Journals reviewed included Annual Review of Clinical Psychology, Clinical Psychology Review, Health Psychology Review, Psychological Medicine, Journal of Clinical Psychiatry, Journal of Consulting and Clinical Psychology, Journal of Abnormal Psychology, Neuropsychology Review, Depression and Anxiety, and Behavior Therapy (see appendix). PsycINFO was systematically searched (2010 – Sept. 2015). The name of each journal plus the term ‘qualitative’ in all text was entered in the search engine (e.g., JN ‘Depression and Anxiety’ AND TX ‘qualitative’). After reviewing 86 hits, 14 research articles included qualitative methods in their study (0.225% of the total number of papers published).

Only 4 of these 14 research articles used qualitative approaches in a randomized controlled trial. These 4 studies investigated patient perceptions on barriers to and facilitators of behavior change and important values, attitudes and beliefs about living with a chronic illness before starting an RCT (Peterson et al., 2013), therapist opinions on contributors to success of, barriers

<table>
<thead>
<tr>
<th>Table 8.1. Ways in which qualitative methods can be used alongside randomized controlled trials</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before a trial</strong></td>
</tr>
<tr>
<td>• To explore issues related to the healthcare question of interest or context of the research</td>
</tr>
<tr>
<td>• To generate hypotheses for examination in the randomized controlled trial</td>
</tr>
<tr>
<td>• To develop and refine the intervention</td>
</tr>
<tr>
<td>• To develop or select appropriate outcome measures</td>
</tr>
<tr>
<td><strong>During trial</strong></td>
</tr>
<tr>
<td>• To examine whether the intervention was delivered as intended, including describing the intervention as delivered</td>
</tr>
<tr>
<td>• To ‘unpack’ processes of implementation and change</td>
</tr>
<tr>
<td>• To explore deliverers’ and recipients’ responses to the interventions</td>
</tr>
<tr>
<td><strong>Before a trial</strong></td>
</tr>
<tr>
<td>• To explore reasons for the findings of the trial</td>
</tr>
<tr>
<td>• To explain variations in effectiveness within the sample</td>
</tr>
<tr>
<td>• To examine the appropriateness of the underlying theory</td>
</tr>
<tr>
<td>• To generate further questions or hypotheses</td>
</tr>
</tbody>
</table>

Source: adapted from Lewin et al. (2009).
General Discussion

to implementation of, and improvements to a culturally responsive parent training program for Chinese American parents (Lau, Fung, Ho, Liu, & Gudiño, 2011), antidepressant nonadherence among veterans treated in primary care clinics (Fortney et al., 2011), and qualitative differences between N-acetylcysteine- and placebo-treated participants with schizophrenia (Berk et al., 2011).

Also, some other registered recent RCT’s (published in journals that were not covered by the top-10 of Clinical Psychology) documented the (intended) use of qualitative approaches for example to investigate patient perspectives on the introduction of imagery in schema therapy (ten Napel-Schutz, Abma, Bamels, & Arntz, 2011), young people's subjective experiences of monitoring and CBT for preventing psychoses (Byrne & Morrison, 2014), parents’ and young children’s experiences of treatment for posttraumatic stress disorder (Dalgleish et al., 2015), patients’ experiences of anxiety and wishes for anxiety treatment in bipolar disorder (Jones et al., 2013), patient experiences with Mindfulness-based Cognitive Therapy (MBCT) for severe health anxiety (Williams, McManus, Muse, & Williams, 2011), patient perceptions on CBT for chronic pain (Day, Thorn, & Kapoor, 2011), patient perceptions on the applicability of Computerized CBT for the treatment of depression in people with multiple sclerosis (Hind et al., 2010), the acceptability of supported cognitive-behavioral self-help for depressed informal carers of stroke survivors (Woodford, Farrand, Watkins, Richards, & Llewellyn, 2014), patient experiences with the online self-help Computerized CBT program for depression, and explanations for the low treatment adherence and effectiveness (Gerhards et al., 2011). Almost all studies used semi-structured interviews with patients during or after treatment to assess patient’s experiences with treatment and their views on the acceptability of the intervention.

For clinical practice, qualitative approaches add to quantitative studies by investigating patients’ experiences with an intervention. For example, participants in an RCT on MBCT for severe health anxiety not only reported beneficial impacts of MBCT on their health anxiety (the outcome measure), but also on their broader functioning (Williams et al., 2011). Using qualitative methodology, differences between randomized groups can emerge that are not captured by rating scales (Berk et al., 2011). More widespread benefits of MBCT reported by patients included an increased ability to relax, reduced anxiety in other situations (e.g., when driving), improved sleep or mood, increased self-acceptance and desire to nurture the self, a more accepting attitude to life in general, and increased ability to cope with everyday stressors (Williams et al., 2011). Some of the beneficial aspects of MBCT mentioned were the flexibility in practices offered and support from the group. The benefit of being in a group has emerged in all of the previous qualitative studies of MBCT (e.g., Allen, Bromley, Kuyken, & Sonnenberg, 2009; Finucane & Mercer, 2006), and highlights the importance of specific and non-specific factors of MBCT. Also, participants in the qualitative study reported that the focusing of attention upon bodily sensations required in MBCT practice did not exacerbate their health anxiety. The qualitative findings in this study help shape the intervention, by using a group
format and offering a variety of MCBT practices to participants. Furthermore, these findings can help tailor psychoeducation for a specific population such as patients with severe health anxiety and highlight aspects that can be altered to make a treatment more acceptable, and ultimately more effective.

Thus, qualitative approaches are scarce alongside randomized controlled trials, even though the ways in which qualitative methods could be used are manifold (Table 8.1). For example, qualitative methods can be used to develop and refine an intervention (see Jones et al., 2013; Peterson et al., 2013) before starting a trial, or to explain variations in effectiveness within a sample. Qualitative approaches are also widely usable, however, areas that are studied are mainly restricted to the fields of schizophrenia (e.g., Berk et al., 2011), chronical illnesses (e.g., Peterson et al., 2013), and ethnic minorities (e.g., Lau et al., 2011). Implementation of qualitative approaches in other areas, such as RCTs studying child (preventive) treatment, can add important information about the feasibility of delivering the treatment in certain settings, and its acceptability to the children and their families (see for example the study protocol of Dalgleish et al., 2015).

**RISK AND RESILIENCE**

To optimize interventions aiming at reducing the intergenerational transmission of anxiety and depression, it would be critical to improve insight in the mechanisms that put offspring at risk. Accordingly, recent studies reviewing the literature on offspring of depressed and anxious parents stress the need for studying mechanisms involved in the transmission of risk (Beardslee et al., 2011; Goodman & Gotlib, 1999; Murray et al., 2009). Following this, the study presented in Chapter 5 tested how two risk factors, perceived emotional maltreatment and implicit negative self-associations, were associated with the intergenerational transmission of anxiety and depression. This study showed that perceived emotional maltreatment in childhood and implicit negative self-associations together played a mediating role in the relationship between parent and offspring anxiety and depression. Parental disorders were likely to pose a risk for the development of offspring anxiety and depressive symptoms, especially when offspring perceived their upbringing as emotionally abusive, which was related to stronger negative self-associations.

Although implicit associations were measured in adulthood, these associations were hypothesized to emerge in childhood or adolescence, before more explicit associations are formed. Recent views on adult implicit associations suggest that implicit, automatic and unintentional processing is the default mode of information processing before more explicit associations develop (see Teachman et al., 2012 for a discussion). However, we did not find evidence to back this up (Chapter 6).

Contrary to our hypotheses, but in line with previous studies on implicit associations in adolescence (e.g., Teachman & Allen, 2007), implicit self-associations in children were not
related to explicit anxiety and depressive symptomatology. High risk offspring \((n = 22, \text{aged 8 to 18 years})\) were found to be less optimistic and more pessimistic about their future than low risk children \((n = 36, \text{aged 8 to 18})\), but high risk offspring did not differ from low risk offspring on implicit negative or positive self-associations with emotional stimuli. In general, all children showed stronger self-happy associations than self-associations related to other feelings (i.e., calm, anxious, sad).

These findings suggest that the relationship between implicit self-associations and explicit anxiety and depression might not yet be present in children and adolescents. This assumption is in line with previous studies in adults that found implicit negative self-associations to play an important role in relapse (Glashouwer & de Jong, 2010), and that found these associations to be related to the number of past episodes in recurrent depression (Elgersma et al., 2013). Thus, negative implicit associations were found to play a role only after patients develop anxiety or depressive disorders.

Accordingly, implicit associations in children do not seem a main target for preventive interventions. However, the finding that high risk offspring display a less optimistic/more pessimistic view of the future underscores the importance of targeting optimism/pessimism, and to investigate ways to increase effectiveness of preventive interventions in high risk offspring.

The role of childhood emotional maltreatment in the intergenerational transmission of risk provides some starting points for the development of prevention modules. To prevent child maltreatment and psychopathology, parenting programs promoting positive parenting may be helpful in adult mental health care. For example, the Triple P—Positive Parenting Program\(^4\) has shown positive effects on maltreatment and associated outcomes, but further replications are needed (MacMillan et al., 2009; Prinz, Sanders, Shapiro, Whitaker, & Lutzker, 2009; Sanders, Cann, & Markie-Dadds, 2003; Thomas & Zimmer-Gembeck, 2007).

THE ROLE OF PARENTS IN THEIR CHILDREN’S TREATMENT SUCCESS

Parent anxiety and depression can affect offspring. But do parent factors influence child treatment outcome? The aim of the study presented in Chapter 7 was to identify predictors of treatment outcome in children and adolescents with anxiety disorders (aged 8-18 years, \(N = 145\)), who were referred to an outpatient center for child and adolescent psychiatry. After a 12-session cognitive behavioral treatment (Kendall, 1990; Nauta et al., 2003), 56.9% of all children were free of all anxiety diagnoses. Three months after treatment, 63.2% no longer met criteria for an anxiety disorder (see Hogendoorn et al., 2012). Predictors related to treatment success were low maternal negative affect, maternal emotional warmth and child extraversion.

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\(^4\) Consisting of different parenting programs aimed to teach parents child-management strategies designed to promote children’s competence and development and to help parents manage misbehavior; an enhanced program included additional components to change parental misattributions and anger.
Chapter 8

Fathers’ temperament and parenting styles, maternal rejection and overprotection, and child age were unrelated to treatment outcome.

The study described in Chapter 7 is the first to demonstrate that mothers’ negative affect and emotional warmth are independently associated with treatment success, and that maternal negative affect and children’s extraversion after treatment predict anxiety levels 3 months after treatment. A logical following recommendation would be for future studies to investigate ways to modify interventions to include strategies to reduce maternal negative affect and promote warm parenting.

Recent studies have linked effective depression-focused parent treatment to decreases in child symptomatology and increases in child wellbeing (Cuijpers et al., 2015; Weissman et al., 2015; Wickramaratne et al., 2011). However, studies including parent interventions in child anxiety treatment have found mixed results, with some studies reporting positive effects (Barrett et al., 1996; Podell & Kendall, 2011), but meta-analyses reporting no additional benefits from such interventions (In-Albon & Schneider, 2006; Manassis et al., 2014).

Most studies on parent interventions in child CBT did not report whether the parent interventions were successful in reducing parents’ psychological distress or increasing positive parenting styles (Breinholst et al., 2012; Ginsburg, 2009). Recently, one study investigated changes in parents’ parenting styles after family CBT and found that family CBT effective for child anxiety also decreased parents’ anxiety-enhancing parenting (i.e., rejection, overprotection) and increased anxiety-reducing parenting (i.e., more autonomy granting and less rejection; Jongerden & Bögels, 2015). Interestingly, this study also found individual child CBT to positively change parenting styles (Jongerden & Bögels, 2015).

A bi-directional effect (parent-to-child and child-to-parent) has been proposed (Settipani, O’Neil, Podell, Beidas, & Kendall, 2013), with child factors influencing parent symptoms and behaviors, and parent factors influencing child symptoms. Indeed, when parents are suffering from a depressive disorder, effectively treating parent symptoms has a positive effect on child symptoms and wellbeing (Cuijpers et al., 2015; Weissman et al., 2015; Wickramaratne et al., 2011). But, as mentioned previously, when children are suffering from anxiety disorders, child individual treatment has a positive effect by decreasing maternal anxiety and anxiety-enhancing parenting and increasing parents’ anxiety-reducing parenting (Jongerden & Bögels, 2015).

Offering general parent interventions for all parents (universally) in child treatment does not seem to add to effective child treatment (In-Albon & Schneider, 2006; Manassis et al., 2014). Recent research on parent involvement in child anxiety treatment found that adding a specific parent intervention to child CBT in which parents were taught to use contingency management (stimulus control, positive reinforcement) to encourage children’s exposures to anxiety provoking situations, was more effective than CBT with other forms of parent involvement or CBT without any form of parent involvement (Manassis et al., 2014). Thus, interventions specifically tailored to focus on child support, positive reinforcement and encouraging exposure add to the effect of
child CBT. This provides initial support for the idea that a certain type of parent involvement may moderate long-term CBT outcomes.

In addition, instead of offering interventions to all parents, only specific at-risk groups could be offered a specifically tailored intervention. Given our limited understanding of the mechanisms of change in interventions for youth (e.g., Kazdin, 1999; Silverman & Kurtines, 1997; Weisz & Kazdin, 2010), future studies need to explicate the conditions under which it may be most helpful to include parents in treatment and in what capacity (as called for by Silverman, Kurtines, Jaccard, & Pina, 2009). Mechanisms through which child and parent factors might be associated with treatment outcome need to be modeled and tested to gain more insight in how to enhance treatment efficacy. Knowledge of how specific parenting behaviors are related to changes in child anxiety in the context of CBT may lead to more precise recommendations regarding parent factors to address in child anxiety treatment. Assessing parent factors prior to the start of treatment could enable clinicians to identify which families may benefit from intervention modification, allowing for treatment personalization. Moving forward to more specialized treatment, i.e., by targeting specific parent symptoms and parenting behaviors, might help increase the rate of anxiety reduction for child CBT, thereby enhancing long-term treatment efficacy and potentially reducing the need for future mental health services.

**ANXIETY AND DEPRESSION: FAMILY MATTERS**

Anxiety and depression ARE family matters. Anxiety and depression run in families. And in the process of preventing the development of anxiety and depression in offspring, family matters. Two approaches to the prevention of offspring anxiety and depression have been discussed. One obvious approach is through effective treatment of parent psychopathology (Cuijpers et al., 2015; Weissman et al., 2015). Effective parent treatment appears to increase offspring functioning by decreasing anxiety and depressive symptoms (Cuijpers et al., 2015; Weissman et al., 2015). This focus on parents in the process of preventing offspring anxiety and depression suits the needs and preferences of parents. Parents who are patients view mental health treatment for themselves as helpful and beneficial. Furthermore, parents report to be more willing to participate in parent-focused preventive interventions, including psychoeducation about offspring risk and resilience and parenting support, than in child focused approaches.

Another prevention approach is focusing on offspring at risk for anxiety and depression. However, preventive programs targeting offspring appear not to suit the intuitive needs of parents, offspring, and mental health professionals given the low influx of participants in preventive intervention studies and the opinions expressed in the research presented in this thesis. Furthermore, parents expressed to be hesitant to participate in offspring prevention research when offspring burden of disease is low and research and intervention participation demands are perceived as enduring and time consuming.
Thus, a parenting program in adult mental health care that meets parents’ and professionals’ needs and preferences by including psychoeducation and parenting support, designed to increase an open discussion about parental illness, offspring risk and parenting is a potentially fruitful strategy for preventing problems in offspring. In addition, making asking about offspring standard practice in adult health care, increasing professionals’ knowledge on offspring and easy accessible tools for screening of psychopathology and functioning might facilitate referral for (preventive) treatment for offspring at risk.

Offspring may be particularly at risk for developing anxiety or depression when parent psychopathology is associated with childhood emotional maltreatment and offspring negative self-associations. In childhood, high risk children have been found to be less optimistic and more pessimistic. However, high and low risk children did not differ with regard to implicit self-associations. In this thesis, both high and low risk children showed stronger self-happy associations, suggesting that negative self-associations might develop later in life. Thus, negative self-associations, although hypothesized to develop in childhood, might just as well develop later in life.

When prevention is no longer an option, cognitive behavioral therapy is an effective treatment for children and adolescents suffering from anxiety or depression. In child anxiety treatment, parent temperament and parenting can affect effective treatment outcome. Higher maternal negative affect, a tendency towards anxious and depressed feelings, has been related to more anxiety symptoms in children three months after treatment. High maternal emotional warmth (i.e., children who reported their mothers to be supportive and affectionate) predicted reductions in anxiety symptoms after treatment. Fathers’ temperament and parenting styles were not found to be related to child treatment outcome. Possibly, when children are in treatment for anxiety disorders, parents can positively contribute to treatment outcome by decreasing their own anxiety and depressive symptoms and by providing an emotional warm, supportive and affectionate environment. Recent research points to a bi-directional effect, with effective parent treatment affecting offspring, and effective child treatment affecting parent factors.

Thus, on the road to family mental health, family matters. A focus on both effective parent treatment in adult mental health care and training parents in stimulus control and positive reinforcement to encourage exposure in child mental health care might enhance long-term treatment efficacy and thus potentially reduce the need for future mental health services.
**APPENDIX**

**Journals searched for systematic review and numbers of articles included**

<table>
<thead>
<tr>
<th>Journal</th>
<th># of articles 2010-2015</th>
<th># of articles identified through database search</th>
<th># of full-text articles included</th>
</tr>
</thead>
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<tr>
<td>Annual Review of Clinical Psychology</td>
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<tr>
<td>Clinical Psychology Review</td>
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<td>Health Psychology Review</td>
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<tr>
<td>Psychological Medicine</td>
<td>1647</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>Journal of Clinical Psychiatry</td>
<td>1455</td>
<td>16</td>
<td>4</td>
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<tr>
<td>Journal of Consulting and Clinical Psychology</td>
<td>619</td>
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<td>1</td>
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<tr>
<td>Journal of Abnormal Psychology</td>
<td>561</td>
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<tr>
<td>Neuropsychology Review</td>
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<tr>
<td>Behavior Therapy</td>
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<td><strong>Total</strong></td>
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<td><strong>86</strong></td>
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