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General Discussion
GENERAL DISCUSSION

The research presented in this dissertation had as its central focus the prediction of outcome of the treatment of childhood anxiety disorders. Identification of relevant predictors could lead to treatments that take into account children’s potential for change. Pinpointing why therapy helps only some persons who suffer from a clinical disorder has been posed as a criterion for a mature science of therapeutics (Marks, 2002). In the present study a selection of variables that were thought to have prognostic validity for successful CBT outcome were explored in a population of children with anxiety disorders.

What Works for Whom?

Previously, attempts have been made to shed a light on the topic ‘What works for whom’ (Fonagy, Target, Cottrell, Phillips, & Kurtz, 2002). Lambert and Asay (1999) proposed a model in which variance in outcome of adult treatment could be accounted for by four general factors. These factors were described in the introduction and variables pertaining to them were assessed throughout this thesis, i.e. (1) specific therapeutic techniques, technical factors and treatment modalities, (2) extra-therapeutic variables; environmental factors and client characteristics, (3) relationship variables, and (4) placebo-effects. The results of the present dissertation will be briefly described below, followed by the interpretation of our findings, clinical implications and recommendations, and some remarks on the strengths and limitations of the study.

Specific Therapeutic Techniques, Treatment Modalities and Technical Factors

The modalities to which children were randomized were individual CBT and group CBT for childhood anxiety disorders. Adherence checks were proposed as a means to assess variability in the treatment dosage, thus creating the means to examine intervention-outcome relations as higher dosages of therapeutic interventions are expected to result in improved treatment outcomes (Doss & Atkins, 2006).

Main findings.

Chapter 2 reported a rather consistent pattern of no differences in treatment response for individual CBT or group CBT. The percentages of children who were free of any anxiety disorder at post-treatment were 48% in the individual CBT and 41% in the group CBT; 62% versus 54% being free of their primary disorder at post-treatment. Differences in treatment outcome between the individual and group formats were non-significant for the intent-to-treat sample as well as for the sample of treatment completers. Similarly, regression analyses with pre- and post-treatment scores and treatment format as a predictor did not show any significant difference between individual CBT and group CBT.
In Chapter 2 the results were presented in terms of diagnostic status, effect-sizes and pre-post-treatment changes. The subsequent chapters included additionally analyses with Reliable Changes scores and Clinically Significant Change indices. For the sake of completeness and accuracy we will also report in this discussion a comparison of individual CBT and group CBT with the measurements that reflect not only statistically significant but also clinically meaningful change. Comparison of the recovered versus the not or partially recovered population (CBCL-Int and MASC) using a dichotomy based on the RC-scores and CS-index did not show any significant differences in treatment outcome for individual CBT and group CBT ($\chi^2 (1, = 124) = 0.52, p = ns; \chi^2 (1, = 118) = 0.01, p = ns$). Treatment format did not account for variance in Reliable Change on the CBCL-Int and MASC either ($\Delta R^2 = 0.01, p = ns; \Delta R^2 = 0.00, p = ns$).

In contrast, technical variables did show differential effects for children who responded to the treatment compared to those who did not sufficiently respond. Therapists’ level of adherence to the treatment protocol in the first treatment sessions, regardless of the treatment format, was significantly lower for children who did not benefit sufficiently from the treatment, e.g. children who still met diagnostic criteria on the ADIS-C/P for an anxiety disorder at post-treatment (in the sample described in chapter six and the sample of treatment completers; $n = 124$). However, adherence did not predict Reliable Change (CBCL-Int and MASC) and did not predict treatment recovery (CBCL-Int and MASC).

**Interpretation of the findings.**

The findings of no significant differences between the individual and group CBT were consistent across outcome measures, methods of analysis and informants. These results are similar to findings in previous studies that had smaller sample sizes and thus lower statistical power (Flannery-Schroeder & Kendall, 2000; Manassis et al., 2002; Muris, Mayer, Bartelds, Tierney, & Bogie, 2001). Thus, equal results can be expected with regard to recovery for individual CBT and group CBT.

As was brought forward in Chapter 2, there is still a possibility that similar results were obtained through different processes. There are some hints in the data that support this suggestion. Chapter 6 showed that alliance was significantly related to treatment outcome in individual CBT, whereas this relation was not found in the group format. Unfortunately, we did not assess variables related to group processes. Though adherence in the early treatment sessions was significantly lower for children who did not recover on the ADIS, this variable did not contribute to the prediction of treatment outcome using other methods of measurement or other methods of analysis. Moreover, these effects were quite modest and not consistent across outcome measures. The consistently high levels of adherence may have resulted in low variability and ceiling effects reducing the statistical power to evaluate the prognostic value of these indices.
Implications.

Equal results can be expected with regard to treatment recovery for individual CBT and group CBT. The choice for offering individual CBT or group CBT could be based on pragmatic considerations such as therapeutic resources, referral rates or the preference of the parents and the child. Offering parents and children a choice may enhance treatment involvement, which has been identified as a significant predictor for child treatment outcome for conduct problems (Nye, Zucker, & Fitzgerald, 1995).

Various methods of analyses and multiple-informants all consistently reported no significant differences in treatment outcome or recovery for individual and group CBT; therefore children from both formats could be combined into one research-population for further analyses. For the sake of accuracy interaction effects of treatment format were nevertheless studied in subsequent analyses.

Extra-therapeutic Variables; Environmental Factors

The environmental factors included in the present study pertain to parenting and parental internalizing symptoms. Parental rearing and parental anxiety and depression were assessed as possible prognostic indices for their previously established relation with elevated levels of child anxiety (Beidel & Turner, 1997; McLeod, Wood, & Weisz, 2006; Rapee, 1997; Weissman et al., 2005). It was hypothesized that variables contributing to increased levels of child anxiety might have obstructed treatment from being effective since these anxiety enhancing or maintaining variables were not addressed in the treatment. Fathers and mothers were assessed separately as previous studies showed differences in paternal and maternal rearing (Aunola & Nurmi, 2005; Bögels, Bamelis, & Van der Bruggen, 2008).

Main findings.

Parenting and parental factors that contributed significantly to the prediction of treatment outcome were self reported paternal rejection, paternal anxiety and depressive symptoms and maternal emotional warmth (Chapter 3). Predictors that remained significant after Bonferroni correction were self-reported paternal depressive and anxiety symptoms and child-reported maternal emotional warmth. Predictors that were identified across outcomes (also including Bonferroni trends) were paternal self-reported rejection and paternal depressive symptoms. Higher levels of paternal rejection and paternal anxiety and depressive symptoms were consistently associated with a less favorable treatment outcome and a higher level of maternal emotional warmth was incidentally associated with a less favorable treatment outcome.

Partial correlations revealed that the pre-treatment levels of self-reported paternal anxiety and depression significantly correlated with post-treatment levels of parent-reported internalizing symptoms. Self-reported paternal rejection and father reported depressive symptoms showed trends; each accounted for 3% of variance in Reliable Change in parent-reported children’s internalizing symptoms ($\Delta R^2 = 0.03, p < .10; \Delta R^2 = 0.03, p < .10$). Maternal overprotec-
tion showed a trend explaining 2% of the variance in Reliable Change in parent-reported internalizing symptoms ($\Delta R^2 = 0.02$, $p < .10$). Variance in Reliable Change in child-reported anxiety symptoms revealed a trend for child reported maternal overprotection (3%) ($\Delta R^2 = 0.03$, $p < .10$).

**Interpretation of the findings.**

Our results revealed that children whose father showed more depressive symptoms and acted more rejecting were the least likely to recover from treatment outcome. Paternal rejection was one of the variables that consistently contributed to outcome, across outcome measures and methods of analyses. Paternal overprotection and paternal anxiety symptoms also exerted a negative impact upon the likelihood for recovery. Child-reported maternal emotional warmth was also found to impact negatively upon the likelihood of parent-reported recovery.

A predictive role was expected for parental variables because reviews and meta-analyses revealed that these variables can contribute to the development of anxiety (Bögels & Brechman-Toussaint, 2006; Chorpita & Barlow, 1998; McLeod, Wood, & Weisz, 2006; Rapee, 1997). A consistent finding was the significant contribution of various paternal factors in the prediction of treatment outcome. This finding is somewhat surprising given the results of a meta-analysis that showed stronger associations between maternal psychopathology than paternal psychopathology and the presence of internalizing problems, though the effect-sizes were all small in magnitude (Connell & Goodman, 2002). The objective of the present study however was not the cross-sectional investigation of associations between internalizing or anxiety problems and parental variables, but investigation of potential predictors for treatment outcome. The scarce results in previous studies investigating maternal and paternal predictors for CBT outcome of childhood anxiety disorders also showed differential results for mothers and fathers (Crawford & Manassis, 2001; Rapee, 2000).

The question “are these findings similar for boys and girls?” that immediately arose given these results was answered by means of interaction-effects; no effects for gender were found. Perhaps it is not as much the gender of the child that is important, but the identification in general of children with their fathers as a role model on how to cope with anxiety provoking situations. A recent study showed that more variance in anxious symptoms was accounted for by (individual) gender-role orientation compared to actual identity (Muris, Meesters, & Knoops, 2005). Notably, whether the gender-role orientation also extents to gender specific identification merely rests on speculation. There is some evidence that parent-child interactions more generally tend to be affected by the other parent (Buhrmester, Camparo, Christensen, Gonzalez, & Hinshaw, 1992) and that the involvement of fathers in care giving increased in case of life-events (Wood & Repetti, 2004).

Involvement of fathers in daily care giving also led us to question whether the results with regard to parents are not an artefact of their absence in the therapeutic process. The FRIENDS treatment includes four parent sessions, which had to be attended by at least one parent. The
sessions were significantly more frequent attended by mothers compared to fathers, but the mean number of attended sessions was for both above three (mothers; $M = 3.59$, $sd = 0.67$, fathers; $M = 3.26$, $sd = 1.08$; $t(141) = 2.19$, $p < .05$).

Implications.
The finding that child reported maternal emotional warmth predicted less favourable outcomes was puzzling. However, a systematic review using Round Robin data suggested that children may be less reliable informants with regard to family interaction processes such as warmth and cohesion compared to their parents or elder counterparts (Eichelsheim, Dekovic, & Buist, Submitted). Round Robin designs can be used in the assessment of social interaction data in which each person interacts with every other person and reports on this interaction (Warner, Kenny, & Stoto, 1979). Interinformant differences in reports on family relationships were mainly explained by characteristics of the child (Eichelsheim, Dekovic, & Buist, Submitted). These results imply that children who described their mother as more emotionally warm may not have described the actual expressed maternal emotional warmth, but may have expressed their experience of their mothers emotional warmth biased by personal characteristics. It should be noted that in our research population there was no significant relationship between child’s report of maternal emotional warmth and mothers report on their emotional warmth ($r = .12$, $p = ns$). Children’s reports of maternal emotional warmth did predict treatment outcome, therefore it would be informative to know whether this variable actually reflected emotional warmth or a different child characteristic with prognostic value.

Our findings insinuate that though maternal variables appear more potent for the development of increased levels of child anxiety, paternal variables may be more potent with regard to the prediction of therapeutic recovery. Buhrmester et al. showed that in interactions the paternal role of fathers of sons with ADHD was different compared to the paternal role of fathers of sons without ADHD, in triadic interaction (i.e. child-mother-father) fathers of ADHD sons showed rescue-coercion toward the mother (Buhrmester, Camparo, Christensen, Gonzalez, & Hinshaw, 1992). During triadic interactions fathers of normal children tended to be more supportive towards their partner whereas mothers tended to be more intrusive towards fathers (Lindsey & Caldera, 2006). Parenting of children with anxiety disorders is likely to be more demanding compared to the parenting of non-anxious children, a supportive coercive mother-father bond may be even more important for the upbringing of anxious compared to non-anxious children. As anxious children of fathers that displayed higher levels of depressive or rejecting symptoms were less likely to recover from treatment, it may have been that these fathers acted in a less supportive and coercive manner towards their parenting-partner and while participating in triadic interactions. There is some support showing that fathers of clinically anxious children displayed less support toward their partner (Bögels, Bamelis, & Van der Bruggen, 2008).
Extra-therapeutic Variables; Client Factors

The client characteristics assessed in the present study included various aspects of social performance (e.g. assertion, responsibility, cooperation and self-control). Two kinds of comorbidity (total comorbidity and other comorbidity) and severity were also assessed as client characteristics with the potency to predict treatment outcome. ‘Total comorbidity’ differentiates between anxiety disordered children with or without a co-occurring disorder. ‘Other comorbidity’ differentiates between anxious children with or without a comorbid disorder other than anxiety.

Main findings.

Various aspects of social performance (assertion, responsibility, cooperation and self-control) were investigated as predictors of treatment outcome for children with anxiety disorders in Chapter 4. The strongest and most consistent predictors for treatment success were the performance measures assertion and self-control. Results were consistent across mothers and fathers and various methods of analyses. Children were more likely to recover from all anxiety disorders if they were described as having higher levels of self-control, assertion and cooperation. The prediction of treatment recovery with regard to parent-reported internalizing symptoms improved by including father-reported self-control, and mother-reported assertion and cooperation. Similarly to the analyses conducted with the ADIS the results from analyses conducted with the CBCL showed that higher levels of self-control, assertion and cooperation predicted treatment success. Father reported self-control was consistent across outcomes as this variable also predicted treatment recovery based on children's self-reported anxiety symptoms.

A higher level of pre-treatment self-control was significantly associated with greater Reliable Change in child reported anxiety symptoms ($r = -.20$, $p < .05$). Father reported self-control accounted significantly for 4% of the variance in child reported anxiety symptoms ($\Delta R^2 = 0.04$, $p < .05$). Self-control showed a consistent contribution to the prediction of treatment outcome, across outcome measures (ADIS, MASC and CBCL), informants (child, mother and father) and methods of analyses (t-tests, logistic regression, partial correlations and correlation with Reliable Change in self-reported anxiety symptoms).

Further analyses showed that at pre-treatment children with an anxiety disorder were described as having significant lower levels of social performance compared to a normative population. Anxious children with Social Phobia showed even more impaired levels of assertion, cooperation and responsibility compared to anxiety disordered children without SOP, though the presence or absence of SOP did not impact upon the likelihood to recover from anxiety.

In order to study the impact of comorbidity on treatment outcome the sample of anxious children was split twice into different diagnostic groups; one including children with a single anxiety disorder and the other a primary anxiety diagnosis and one or more comorbid dis-
orders (labeled ‘total comorbidity’); secondly a differentiation was made between children with one or more anxiety disorders versus children with one or more anxiety disorders and a comorbid disorder other than anxiety (labeled ‘other comorbidity’).

Both ‘other comorbidity’ and ‘severity’ contributed to the prediction of less favourable treatment outcomes with regard to post-treatment diagnostic status and treatment recovery. Some of the variance in reliable change in self-reported anxiety symptoms was significantly accounted for by ‘other comorbidity’ and ‘severity’, indicating less improvement in anxiety symptoms in children with ‘other comorbidity’. Conversely, more improvement in self-reported anxiety symptoms and negative affectivity self-statements was found for children with higher levels of severity. Our findings also showed less improvement in self-reported depressive symptoms for children with anxiety-only comorbidity compared with children with ‘no-comorbidity’ and children with ‘other-comorbidity’. Children with ‘other comorbidity’ present showed more improvement in negative affectivity self-statements.

Interpretation of the findings.

The social performance measures self-control and assertion were remarkably potent predictors of treatment outcome. Self-control refers to behaviors that emerge in conflict situations (e.g. taking turns, responding to conflict situations) and assertion refers to behaviors such as asking others for information, introducing oneself, and responding to the actions of others (see Chapter 4; Gresham & Elliott, 1990). Chorpita and Barlow (1998) defined control as the ability to personally influence events and outcomes in one’s environment, which appears for the most part similar to our definition of self-control. The association between a diminished sense of control with the (immediate) expression of anxiety was also reported elsewhere (Weems, Silverman, Rapee, & Pina, 2003). This may elicit the question whether diminished self-control is a symptom of increased anxiety levels. Our measure of self-control does not seem specific for anxiety, as a study on children with ADHD showed that these children were also described as significantly lower in control using the same measurement instrument (Van der Oord et al., 2005). Van der Oord et al. (2005) furthermore showed that children with ADHD suffered from significantly lower levels of assertion, similar to children in the present study.

As suggested in Chapter 4 assertion might facilitate practicing skills in social settings and might facilitate implementation of newly learned skills in daily life. Children with lower pretreatment levels of assertion may therefore be less likely to recover from the treatment.

Assessment of pretreatment associations showed that variance in pretreatment symptoms could partly be accounted for by ‘other comorbidity’. Children with a comorbid condition other than anxiety (e.g. depression, ADHD) showed significantly higher levels of pretreatment symptoms, not only for child-reported anxiety symptoms and parent-reported internalizing symptoms, but also for self-reported depressive and parent-reported externalizing symptoms. Children with ‘other comorbidity’ not only suffered from higher pretreatment symptom levels but were also less likely to have recovered at post treatment. ‘Severity’ showed a negative
impact on treatment recovery of its own. In sum, comorbidity with disorders such as ADHD and Depression did appear to obstruct the effectiveness of CBT for CAD. Furthermore, children with anxiety comorbidity might benefit from a spin-off of the treatment to co-occurring depressive symptoms. Reliable change in parent-reported internalizing and externalizing symptoms was not accounted for by other comorbidity, total comorbidity or severity.

Implications.
Social performance variables may enable us to differentiate between children who are more or less likely to recover from the treatment. Social performance difficulties may result from cognitive styles in which non-threatening or ambiguous situations are interpreted as threatening (Suarez & Bell-Dolan, 2001). A possible maintaining mechanism between social performance difficulties and anxiety is illustrated by Hopko et al. (2001), who propose that (social) performance deficits may have different origins; performance deficits may result from skills deficits (primary failure), from anxiety problems (secondary failure) or from a combination of anxious responding and skills deficits (tertiary failure). This model illustrates that anxious children may be more prone to suffer from performance difficulties compared to non-anxious children, but are not automatically impaired in social performance. The results presented in this thesis combined with results from other studies (Gaub & Carlson, 1997; Van der Oord et al., 2005) suggest that social performance difficulties may not be specific for anxiety problems, but may be characteristic for childhood behavior problems more generally.

Self-control more specifically was an important predictor for negative treatment outcomes. These results suggest that diminished levels of self-control might prevent treatment from being effective. The mechanism through which self-control negatively impacted upon or undermined the therapeutic process is yet unknown. A diminished sense of control might be related to an undermining disbelief in the ability to successfully apply therapeutic techniques or skills when confronted with anxiety provoking situations. Future research could be of great value for treatment outcome by addressing the mechanisms through which self-control influenced the therapeutic process.

Anxious children with Social Phobia showed more impaired levels of assertion, cooperation and responsibility compared to anxious children without Social Phobia but equally impaired levels of self-control. This could indicate that though social performance is affected in general in children with behaviour problems, there might be specificity in the impairment with regard to various forms of social performance.

The suggestion that social performance difficulties may be characteristic for childhood behavior problems more generally might have implications for the children in our study who suffered from a comorbid condition other than anxiety; it makes one wonder whether anxious children with a comorbid condition other than anxiety are more likely to suffer from decreased social performance? The two definitions or dichotomies of comorbidity came essentially down to three diagnostic groups; no-comorbidity, anxiety-comorbidity and
other-comorbidity. Comparison of the children in these three groups showed that the group of anxious children with a comorbid disorder other than anxiety suffered from the most impaired levels of social performance. Children with a comorbid condition other than anxiety showed significantly more impaired levels of father and mother reported self-control ($F(2,103) = 5.59, p < .01$; $F(2,117) = 6.21, p < .01$ respectively) and cooperation ($F(2,103) = 8.76, p < .001$; $F(2,118) = 3.60, p < .05$ respectively), and father reported assertion ($F(2,103) = 4.86, p < .05$) and responsibility ($F(2,103) = 4.73, p < .05$), mother reported assertion and responsibility showed trends in the same direction (.05 < $p$ < .10) compared to children with anxiety comorbidity or no comorbidity. Differences in primary, secondary and tertiary failure might have contributed to the more severe symptoms we found on almost all measures of functioning (internalizing and externalizing behavior problems, depressive symptoms).

Previous studies (e.g. Kendall, Brady, & Verduin, 2001; Rapee, 2003) did not show a negative impact of comorbidity on treatment outcome for CAD. These differential findings may originate from our inclusion of separate measures for comorbidity and severity in the analyses and the use of a more refined method to define clinically significant recovery. As children with ‘other comorbidity’ showed higher pretreatment symptom levels one could say that they are in greater need for change. Additionally, these children are less likely to show recovery at post-treatment. Adapting treatments to the needs of these children appears a necessary challenge for the future in order to prevent that children either enroll succinctly from one treatment into another or that children’s daily lives become filled with participating in various treatments. In chapter 5 we already brought forward that clinicians should not only take the current impairment and suffering from anxiety into account, but also make a strategic decision whether one treatment ingredient might obstruct the effectiveness of a second ingredient. Future studies should therefore try to delineate more precisely in which aspects of other comorbidity obstruct treatment from being effective, in order to be able to offer children treatments that are tailored to their needs (e.g., Chorpita, Taylor, Francis, Moffitt, & Austin, 2004). Especially intriguing is the question why change in depressive symptoms was greater in children with anxiety comorbidity, especially as there was less change in anxiety symptoms in children with co-occurring disorders other than anxiety. We suggested that the effects of CBT for anxiety disorders might generalize to depressive symptoms, but that the presence of a mood or externalizing disorder in itself interferes with anxiety treatment. For instance, the reduced activity levels and motivation associated with depression may create a barrier to practicing and generalizing new skills which are essential for anxiety treatment. A barrier to treatment outcome might be created by the levels of positive and negative affectivity, as these variables are often put forward to explain both differences and similarities between anxiety and depressive symptoms (Lonigan, Phillips, & Hooe, 2003). Low positive affectivity specifically has been associated with Depression. Changes in positive affectivity in the study by Lonigan, Phillips and Hooe (2005) were not explained by differences in anxiety and depression whereas changes in negative affectivity were correlated both with changes
in anxiety and depressive symptoms. The present study did not assess the predictive value of negative and positive affectivity but as they appear related to changes in anxiety and depression they might prove valid for future studies as prognostic indices.

Relationship Variables

Main findings.
Analyses of relational and technical process-variables revealed an association between child-therapist alliance and Reliable Change in child-reported anxiety symptoms (Chapter 6). Moreover, therapeutic alliance was significantly lower for children who did not benefit (sufficiently) from the treatment as assessed with parent-reported internalizing symptoms. Furthermore, child-therapist alliance during the end of the FRIENDS treatment was significantly higher for children who showed recovery at post-treatment with regard to parent-reported internalizing symptoms.

However, the therapeutic alliance did not add to the overall prediction of either parent-reported treatment recovery or child reported treatment recovery. Children in the ICBT condition with a stronger alliance were more likely to be diagnosis free at the end of treatment compared to children with a stronger alliance in the GCBT condition. The interaction of alliance by treatment format accounted for 6% of variance in Reliable Change in child reported anxiety symptoms. Therapeutic alliance did not show a partial correlation with treatment outcome.

Interpretation of the findings.
Therapeutic alliance accounted for some of the variance in treatment outcome, but this finding was not consistent across methods of analyses or outcome measures. Contrary to our expectations the overall findings with regard to the impact of alliance on the treatment outcome and recovery were non-significant. These non-significant findings could have resulted from generally high alliance levels leading to ceiling effects and thus reducing the statistical power to detect significant effects of alliance on outcome.

Implications.
Though the data do hint that relationship variables may influence treatment outcome, the results are very modest and not consistent across outcome measures and informants. We think it is premature to conclude that a good alliance is irrelevant for CBT outcome of childhood anxiety disorders, though the overall impact of therapeutic alliance may not be as crucial for recovery as has been suggested (DiGiuseppe, Linscott, & Jilton, 1996; Green, 2006). A significant interaction effect of therapeutic alliance and treatment format was revealed, suggesting that in individual CBT a stronger alliance does relate to a more favorable treatment outcome. These findings might have been stronger if children and parents were offered a choice for
either group or individual CBT as a recent study showed that treatment preferences affected the therapeutic relationship (Iacoviello et al., 2007).

Expectancy and Placebo-Effects
The model by Lambert (1995) defined the fourth area of factors that may account for treatment outcome as ‘placebo-effects’. Though CBT or active treatments might result in better outcomes (e.g. larger effect-sizes) compared to the effects obtained in placebo-conditions, part of these effects might be explained by the same factors (i.e. expectancy, conditioning and verbal information). As we did not include a wait-list condition, we were not able to determine whether placebo effects might explain some of the variance in treatment outcome. However, some of our data suggest that expectancy might have played a role for (active) treatment outcome. Self-reported anxiety was assessed two times prior to the treatment, a significant decline in symptoms was found for this anticipatory period ($p < .001$).

Our findings that anxiety symptoms declined significantly in the anticipatory period prior to treatment hint that placebo effects (expectancy, conditioning, verbal information) may have accounted for some of the variance in outcome. Expectancy may not only bring about change in placebo conditions or during waiting periods, but may also impact upon the therapeutic process. For instance, it was shown that depressed adolescents with greater expectations for improvement were more likely to benefit from treatment (Curry et al., 2006). Patients’ expectations regarding outcome also showed to be a significant predictor in adult treatment of Panic Disorder (Dow et al., 2007a). Furthermore, part of the placebo-effect may be a retest effect, as there is some evidence that retesting leads to significant drops of small effect-sizes at retest (Arrindell, 1993; Ormel, Koeter, & Van den Brink, 1989).

A factor that might impact on the therapeutic process in both placebo and active treatment conditions are client motivation and readiness for change. Studies on treatment outcome of substance abuse have started to include measures for readiness of change and motivation (Blanchard, Morgenstern, Morgan, Labouvie, & Bux, 2003; Henderson, Saules, & Galen, 2004; Hernandez-Avila, Burleson, & Kranzler, 1998). Blanchard et al. (2003) explain that there are five stages through which people progress when changing behavior; the precontemplation, contemplation, preparation, action and maintenance stages. There are some results that suggest that the stages of readiness for change account for variance in treatment outcome of substance abuse (e.g. Henderson, Saules, & Galen, 2004; Hernandez-Avila, Burleson, & Kranzler, 1998). Motivation and readiness for change may also be valid predictors for the treatment of children with anxiety disorders, though change processes may vary depending on the nature and complexity of the target behaviour and external stressors and supports, among other things (Girvin, 2004).
Clinical Recommendations

One of the often given reasons for offering CBT in a group format is the hypothesized greater cost-effectiveness of group treatment compared to individual treatment (e.g. Flannery-Schroeder, Choudhury, & Kendall, 2005; Silverman et al., 1999). The results of a meta-analysis suggest less cost-effectiveness of adult anxiety group CBT compared to individual CBT (Tucker & Oei, 2007). The present study cannot adequately address this issue, as a true study of cost-effectiveness includes costs such as health care costs (i.e. treatment), child- and family costs (e.g. traveling expenses, baby-sitters) and costs occurring in other sectors (e.g. absence from work) (Bodden, Dirksen, & Bögels, 2008). A study into the cost-effectiveness of individual CBT and group CBT might help therapists take evidence-based and cost-effective choices.

Given that findings with regard to treatment outcome and recovery were similar for individual CBT and group CBT clinicians could consider offering their clients a choice between the two formats. Congruence between preference and treatment format might contribute to a transfer of control from the therapist to the client, and thereby enhance the personal feeling of control in clients. This latter appeared a noteworthy predictor for favorable treatment outcomes. Congruence between preference and treatment format may also enhance clients expectations regarding treatment effectiveness, and thereby enhance treatment outcome (Dow et al., 2007a).

The inclusion of fathers in the treatment process is one of the strongest recommendations we would like to make. Of course, their role in the therapeutic process and the impact of fathers as a role model in coping with anxiety provoking situations needs further exploration.

Assessing whether children suffer from social performance difficulties may be relevant for the selection of effective treatment strategies. Helping children learn adequate social skills might be the method of choice for children who suffer from primary failure whereas learning to cope with anxiety might be the method of choice for children who suffer from secondary failure. In case of tertiary failure children might be best helped with a combination of anxiety reducing strategies and social skills training.

We conclude with regard to comorbidity that though recovery for children with comorbidity other than anxiety is possible it is less likely. Furthermore, these children are in need of greater change as the change obtained with a short-term treatment protocol such as FRIENDS may not result in sufficient change for these children. A further exploration of the mechanisms through which other comorbidity obstructs treatment recovery may give valuable insight in how to effectively tailor treatments to individuals needs. Current treatment protocols tend be homotypically oriented; they focus on one problem (e.g., Depression, Social Phobia, ADHD) or one cluster of problems (anxiety disorders, behavioral disorders). In clinical practice, a vast number of the participants meet criteria for a comorbid condition; homotypic as well as heterotypic (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003). As a result, children with comorbid problems might have to enroll in several treatments one after another (or simultaneously) to address all their problems. It has been suggested that children
with differential symptom constellations might benefit from individually tailored treatments, such as the modular treatment approach developed by Chorpita (2007). Modular treatments could tailor the treatment to the individual's needs, for instance by assessing whether children suffer from primary, secondary or tertiary failure and subsequently selecting the necessary modules. Modular treatment could have the additional advantage of being able to treat co-occurring problems. The first findings on modular treatment for anxiety (Chorpita, Taylor, Francis, Moffitt, & Austin, 2004) showed promising results.

Some strengths and weaknesses of the study.
Among the strengths of the present study is the multi-informant perspective on outcome including clinician, parental and child data, and the inclusion of fathers in the parental perspective. Furthermore, the present study includes a large sample of clinically referred and treated children which leads to appropriate numbers that allow more sophisticated statistical analyses. Reliable Change scores and Clinically Significant Change indices were used to describe pre-to-post-treatment changes and treatment recovery as these indices represent a closer approximation of true treatment gains by correcting for measurement errors. Statistical analyses and building of prediction models were conducted with RC-scores and CS-indices as outcome measures.

The present study delineated predictors of CBT outcome, which are currently poorly understood for childhood anxiety disorders. Previous studies on the predictive value of parental variables were inconsistent, studies on the predictive value of comorbidity were scarce and studies on the predictive value of social performance were absent. Therefore, the present study is an informative supplement to the current field. Furthermore, the impact of format for treatment outcome was assessed, though many researchers implicitly choose for either individual or group CBT, such a choice lacked empirical evidence in either direction. Importantly, the inclusion of real and sometimes complex clinical cases with a high comorbidity rate allows generalization of the findings to other clinical settings.

There are also several limitations to the present study that bear comment. We did not include a waitlist condition by design, for which our overriding argument was that there had been sufficient demonstration that CBT is superior to wait-list control. Furthermore we did not include a placebo-condition as the second major goal of the present study was to explore predictors for CBT outcome, and not for placebo outcome. Predictors for CBT outcome might not be relevant or applicable for the prediction of placebo outcome and vice-versa.

Currently, mediators and moderators tend to be studied as a means to broaden our understanding of the mechanisms that facilitate or hinder treatment outcome. Moderators specify for whom and under what conditions the treatment works, mediators identify possible mechanisms through which a treatment might achieve its effects (Dow et al., 2007b; Kraemer, Wilson, Fairburn, & Agras, 2002). The concept of predictor is close to the concept of moderator, and several of the predictors that were included in the present study may indeed
be viewed as moderators. However, moderators are baseline or pre-randomization characteristics that can be shown to have an interaction effect with treatment and do not change over treatment. Moderators have been described as third variables that affect the zero-order correlation between two other variables and may be qualitative (site, gender or treatment format) or quantitative (e.g., level of reward) (Baron & Kenny, 1986). Moderators always precede what they moderate, which in turn precedes outcome; mediators always come between what they mediate and the outcome (Kraemer, Wilson, Fairburn, & Agras, 2002). Several of our predictors could be labeled moderators or might show to be mediators on the long run; however our variables did not meet criteria for mediator analyses.

The present study mainly addressed the question ‘for whom’ the treatment works, and much less ‘what’ works. Though our results showed positive effects we can only assume that these effects have been obtained through the CBT ingredients, as we did not explore whether the presumed active ingredients actually accounted for the degree of change. By showing evidence that the treatment worked, we might be tempted to pass too easily over all the difficult steps required in the chain of scientific proof to establish causal links between a proposed therapeutic procedure, its underlying mechanisms of change, and client outcomes (Jensen, Weersing, Hoagwood, & Goldman, 2005). Kazdin brings forward that identification of predictors (or risk factors) might tempt us to suggest that we ought to address these risk factors and adapt treatments accordingly (Kazdin, 2007). However, this would lead us to overlook the mechanism through which the risk factor works. Kazdin differentiates between risk factors and causal risk factors and advocates we should investigate in a second step causality of risk factors (or predictors) and the mechanisms that are at work in therapy before adapting treatments. Nevertheless, our study has contributed to a growing field of knowledge on the evaluation for whom CBT works, thereby helping the science of psychiatric therapy a small step further in its development to a mature science.