The aim of the present study was to investigate the short- and long-term effectiveness of FRIENDS for Life as an indicated school-based prevention program for childhood anxiety and depression in a naturalistic setting. In addition to the effectiveness of FRIENDS for Life, we investigated the program integrity and participants’ and parents’ appraisal of the program. We also studied the measurement properties of the child self-report questionnaire used in this study to measure symptoms of anxiety and depression and the prevalence of anxiety and depression symptoms in a large sample of multi-ethnic children.

In this chapter, we summarize the main findings, and reflect on methodological aspects of the study and the generalizability of the results. We will then address implications for the prevention of childhood anxiety and depression in general, and discuss policy and practice, and indicated prevention. Finally, we discuss implications for the use of FRIENDS for Life in practice and directions for future research.

**MAIN FINDINGS**

**SCREENING FOR ANXIETY AND DEPRESSION SYMPTOMS**

Chapter 3 showed that the factor structure of the Revised Child Anxiety and Depression Scale (RCADS; Chorpita, Yim, Moffitt, Umemoto, & Francis, 2000) was replicated in the baseline sample of our trial. The RCADS showed itself to be a reliable and valid instrument when screening for anxiety and depression symptoms in our sample of multi-ethnic school-aged children. The correspondence between the RCADS and teacher-report of anxiety and depression symptoms (Problem Behavior at School Interview, Erasmus MC, 2000) was low, with correlations ranging from -0.01 to 0.25. Although our findings are in line with the literature regarding the limited agreement between children’s self-report and other informants’ reports of internalizing problems (Achenbach, McConaughy, & Howell, 1987; Mesman & Koot, 2000), we expected that teachers would at least be able to identify children scoring in the 90th percentile of anxiety and depression symptoms. This was not the case however. These results once again emphasize the importance of children’s own reporting when screening for anxiety and depression symptoms. At the same time, our findings corroborated our confidence in the RCADS as a tool for child reports on the main outcome of the prevalence and intervention studies discussed below.

**THE PREVALENCE OF ANXIETY AND DEPRESSION SYMPTOMS IN VARIOUS ETHNIC GROUPS**

Children with a non-Western background reported more anxiety symptoms than children with a Western background. This is in line with the majority of previous studies, which found that children with a non-native background had a higher risk for internalizing problems (Belhadj Kouider, Koglin, & Petermann, 2014). Neither socio-economic status nor rejection by classmates explained the difference in symptoms.
between these groups. For depression symptoms, we hardly found ethnic differences. As the prevalence of depression rises quickly in adolescence (Birmaher et al., 1996), the expected ethnic differences in prevalence may appear only at a later age than addressed in this study.

**EFFECTIVENESS OF FRIENDS FOR LIFE**

After their participation in FRIENDS for Life, children in the intervention group self-reported significantly fewer anxiety and depression symptoms than children who did not participate in the intervention, immediately after the last session, and 6 and 12 months after participation. The levels of anxiety and depression symptoms continued to decrease over time in the intervention group, with effect sizes ranging from -0.3 to -0.6 for anxiety symptoms and from -0.4 to -0.6 for depression symptoms, and decreased to a level comparable to the general population after 12 months. Previous studies that investigated FRIENDS for Life as an indicated prevention program reported intervention effects on anxiety symptoms for up to 24 months (Bernstein, Bernat, Victor, & Layne, 2008; Bernstein, Layne, Egan, & Tennison, 2005; Dadds et al., 1999; Dadds, Spence, Holland, Barrett, & Laurens, 1997). A trial from New Zealand found no effects on depression two and four years after the intervention (Hunt, Andrews, Crino, Erskine, & Sakashita, 2009). No data from that trial were available for the comparison between the intervention and control group on a shorter term post-intervention. It should be noted, however, that the homework part of the program, which is associated with higher effects in depression prevention (Stice, Shaw, Bohon, Marti, & Rohde, 2009), was poorly implemented in that study or not at all.

Teachers did not report any differences in change of symptom levels between the intervention and control group. This did not correspond with children's self-reported decrease in anxiety and depression symptoms. As teachers hardly identified children with elevated self-reports on the RCADS, this suggests that teachers may not be able to adequately identify anxiety and depression symptoms in children. The non-convergence of teacher ratings with child self-reports is not attributable to a lack of reliability of the latter, given the strong psychometric properties of the RCADS.

Peer reports of the intervention and control group's internalizing problems showed a striking pattern over time: immediately after the intervention, classmate reports indicated an increase in internalizing symptoms in children who participated in FRIENDS for Life but not for the children in the control group. After the post-intervention measurement, the peer-reported symptom levels decreased in the intervention group, and after 12 months no significant differences were found between the intervention and control group. The peer-reported symptom levels of the control group remained stable over time. This finding suggests that classmates, who saw children leave class 10 times during a 10-week period to join the FRIENDS for Life sessions, became more focused on internalizing problems in participants between the pre- and post-intervention measurement. The decrease in symptoms after the post-intervention measurement could be explained by fading attention to participants’
behavior after completion of the program.

The effects of FRIENDS for Life were not significantly different for subgroups of children as defined by age, ethnic background, comorbid externalizing problems, and peer rejection. However, immediately post-intervention, children with more severe initial depression symptoms reported a stronger decrease in symptoms. Further, immediately post-intervention, children from lower SES schools seemed to benefit more from the intervention. These differences disappeared in the longer term. Moreover, girls reported a stronger decrease in anxiety symptoms over time. This may be related to the fact that girls were more compliant to the program, as demonstrated by the process evaluation.

FRIENDS FOR LIFE IN DAILY SCHOOL PRACTICE

Prior to the study, FRIENDS for Life had been implemented in Amsterdam elementary schools by prevention workers from a local mental health service for several years. We found that the prevention workers implementing the program adhered largely, but not completely, to protocol. This was most likely the result of their experience with the program and their ability to tailor the program to children’s needs. This suggestion is supported by the finding that children appraised the program more positively, and found it more useful, when the adherence to protocol by the prevention workers was lower. Although the general assumption is that higher adherence to protocol is related to better program outcomes (Dane & Schneider, 1998; Durlak & DuPre, 2008), a certain degree of adaptation of a program may have positive effects on its outcomes (Durlak & DuPre, 2008). In our study, stronger adherence to protocol was not related to better outcomes on anxiety and depression symptoms. It should be noted, however, that the overall adherence to protocol was good. Children’s higher appraisal of program usefulness was associated with fewer anxiety symptoms post-intervention. Children participated very well during the sessions, and were on average present in 9 out of 10 regular sessions. We did not have information on their presence at the booster session. By contrast, parent sessions were poorly attended. Unfortunately, this is a common problem when implementing school-based prevention programs (Neil & Christensen, 2009). When interviewed by telephone, parents mentioned that they were not informed or informed too late about the sessions, or were not able to attend the sessions during school time.

METHODOLOGICAL CONSIDERATIONS

DESIGN

The study had a quasi-experimental design. When programs have already been implemented in practice, it is often not feasible or even not appropriate to randomly assign individuals or organizations to study conditions (Craig et al., 2008; Gilbody...
In several schools, the program had been implemented already for several consecutive years and was part of the standard curriculum. We found it inappropriate to subject these schools to a (cluster) randomization process, with the risk of being refused to implement FRIENDS for Life during the research period. The implication of this lack of randomization is that intervention and control schools may not have been completely comparable. Fortunately, except for ethnicity and socioeconomic status of the schools (SES), selected children in intervention and control schools were comparable regarding baseline self-, teacher- and peer-reported anxiety and depression symptoms, age, and gender. The intervention group was ethnically more heterogeneous than the control group, with 80% versus 44% children from non-Dutch background, respectively. Furthermore, the intervention schools and selected intervention children had a lower SES than the control schools and children. Therefore, we adjusted all analyses for ethnicity and SES. Analyses showed that the differences between intervention and control group became only marginally smaller through these adjustments. Still, there may have been differences between the intervention and control schools regarding characteristics we did not assess. For example, there may have been differences between intervention and control schools with regard to the application of other (universal) prevention programs, which may have affected our results. However, although we tried to collect data about this aspect, these data were far from complete, and could therefore not be taken into account in the analyses.

We used a wait-list control group. A previous FRIENDS for Life study, investigating the program in both a universal and an indicated format, found no differences in anxiety symptoms between the intervention group and an attention control group (e.g., discussion sessions, general information sessions) immediately post-intervention, suggesting that FRIENDS for Life was not more effective than reading a Harry Potter novel to children (Miller et al., 2011). The continuing decrease of anxiety and depression symptoms over time in our intervention group advocate that these improvements were indeed caused by the intervention since placebo effects 12 months post-intervention are unlikely (Merry et al., 2011).

**SELECTION PROCEDURE**

Another matter related to the implementation in daily school practice was the selection procedure. This procedure consisted of self-reported anxiety and depression symptoms (RCADS scores) and teacher nominations. Children who had the highest RCADS scores or who were nominated by their teacher were eligible to participate in FRIENDS for Life. Exclusion criteria were: already receiving help for an anxiety or depressive disorder; having too severe anxiety and depression symptoms; showing externalizing behavior problems to the extent that it might interfere with group participation; substantial learning disabilities or developmental delay as indicated by school teachers. Care coordinators in the participating schools and prevention workers selected 10 children and invited them and their parents for an interview in which children’s internalizing symptoms and motivation to participate were discussed. Finally, children, parents
and prevention workers collaborated in deciding which children and parents would participate in the program.

Highest RCADS scores were relative, i.e., the highest scores in one school were not necessarily the same as in another school. As there were no Dutch clinical cut-off scores for the RCADS, prevention workers had to decide per child if his/her symptom level was too high to participate in the program. Also, no minimal cut-off scores for enrollment in the program were used. Our finding that teachers could not adequately identify highly anxious or depressed children suggests that some participating children may not have been part of the intended target group. On the other hand, these children should have been identified during the interview with the prevention workers in the last phase of the selection procedure.

Although the criteria of the selection procedure were not very strict, by following largely the same selection procedure as the prevention workers, i.e. with the RCADS scores and the standardized teacher nomination form, we were able to select a control group that had similar RCADS, PBSI and peer-nomination scores as the intervention group, suggesting that the procedure did not differentially affect inclusion in both groups. Further, children selected for the intervention and control groups had significantly higher scores ($M=38.7, SD=20.8$ for anxiety and $M=9.0, SD=4.8$ for depression) than children in intervention and control schools who were not selected ($M=20.2, SD=15.2$ for anxiety and $M=5.0, SD=3.8$ for depression).

We analyzed initial anxiety and depressive symptoms, which may have differed per child as there were no cut-off scores, as moderator variables to investigate whether the pre-intervention symptom levels influenced program effectiveness. The decrease in anxiety symptoms was not related to the initial level of symptoms. Children with the highest initial depression symptoms showed a stronger decrease in depression symptoms immediately post-intervention, but this effect disappeared over time. FRIENDS for Life therefore seemed equally effective for children with lower and higher initial anxiety and depression levels.

**MEASUREMENT PROCEDURE**

The four measurements (one pre-test/screening, one post-test, and two follow-ups) were conducted by various trained research assistants according to a standardized protocol. Every measurement started with the same explanation to the participating children, questions were handled in the same way, and procedures were set up to guarantee privacy. This ensured that the data were similarly collected by different people all the time.

**WITHDRAWAL AND ATTRITION**

In the control schools, more parents and children declined to participate in the screening, and after the screening four control schools withdrew from the study compared to two intervention schools. This was most often related to unfamiliarity
with the program or procedures. Parents and children in intervention schools, several of which had implemented the program for some years already, knew the program via other parents or older siblings. In some control schools, the reference to prevention of anxiety and depression led to strong reactions of some parents or teachers. Over the years, we also sensed this during the first period of implementation in a few intervention schools. However, this decreased when schools, parents and children became more familiar with the program.

We conducted intention-to-treat analyses, meaning that also data from children who were selected for the intervention but did not start the intervention, or quit prematurely were included in the analyses. However, in practice, it turned out to be difficult to collect data from these children. Luckily, only a small percentage of children who were selected for the intervention did not start (1.8%) or quit the intervention (1.5%). These children did not significantly differ from the other participants, except for gender: children who quit were more often boys (9 out of 11). All analyses were adjusted for gender, and this should therefore not have influenced the results.

Lastly, where we had virtually no missing RCADS and peer-nomination data at T1 and T2, at T3 and T4 we faced increasing attrition, up to 28 and 31 percent at T3 and T4, respectively. We had expected this, because part of the sample would leave elementary school after T2 or T3, dependent on the season in which the school started participation in the study. We developed an online questionnaire to reach children who left elementary school. Unfortunately, these digital questionnaires were less well completed than we had hoped. For the intervention group, we also had home addresses and telephone numbers. Therefore, we were able to follow up on the questionnaires more intensively in the intervention group. Indeed, more RCADS, PBSI, and peer-nomination data from older children and control group children were missing at T3 and T4. At T4, RCADS data were more often missing for older children in the control group. Importantly, we did not find differences in missing data related to intervention success in the intervention group or improving or deteriorating anxiety and depression symptoms in the control group. Logistic reasons explained the largest part of the missing data. As a consequence of missing more data of older children, the results investigating the potential moderating effect of age should be interpreted with caution, as the older group became smaller over time.

**Generalizability**

Although the lack of randomization is usually considered a limitation, the present study showed a unique insight into the effectiveness of a prevention program when implemented beyond the constraints of the RCT design: this is what happens when a program which has proven to be effective in several randomized controlled trials (RCT) under strict supervision of researchers is disseminated on a larger scale. This study showed that it is possible to implement FRIENDS for Life effectively in daily school practice.

Due to our large sample, we were able to explore whether FRIENDS for Life was
more effective for specific groups of children. The only characteristic that was related to a stronger decrease in anxiety symptoms over time as a consequence of the intervention was female gender. This may be related to the fact that girls were more compliant to the program, as demonstrated by the process evaluation. Nevertheless, the program is also suitable for boys since boys reported a significant decrease in symptoms as well.

The program is recommended for children in grades 6, 7, and 8 of elementary school (comparable to the US grades 4, 5, and 6) (Utens & Ferdinand, 2006). We found no significant moderating effects of age. However, as mentioned above, at T3 and T4 there was significantly more data missing of older children. Consequently, possible differences between these age categories may not have been detected.

We investigated FRIENDS for Life in the Amsterdam area, an urban region. In the Netherlands, urban areas are generally more ethnically diverse. We found no differences in effectiveness between children from Dutch and non-Dutch background. This confirms findings from previous FRIENDS for Life studies suggesting that the program is suitable for children from various cultural backgrounds (Barrett, Sonderegger, & Sonderegger, 2001; Barrett, Sonderegger, & Xenos, 2003).

As mentioned earlier, the present study investigated the effectiveness and implementation of FRIENDS for Life in a context in which it had been implemented for several years. We showed that the program was not implemented exactly according to the protocol. However, we found that the program was highly effective. Interestingly, participating children appraised the program more highly when the adherence to protocol was lower. We assume that the experienced mental health prevention workers adapted the program to the needs of the children, while still delivering an effective program, which led to a high appreciation of the program by the children. We do not know whether this would have been the case if the program had been implemented by people with less experience in mental health prevention services, for example teachers. A review of FRIENDS for Life studies showed that the effect sizes in studies in which the program was delivered by mental health professionals were larger than in studies investigating the program led by school personnel (Briesch, Hagermoser Sanetti, & Briesch, 2010). It is interesting to note that these were studies under research-controlled circumstances, while prevention workers in the present study received no training or supervision. Prevention workers with no previous FRIENDS for Life experience were trained on the job.

**Implications for the Prevention of Anxiety and Depression in Children**

The results of the present study show that symptom levels of children with elevated anxiety and depression symptoms who participated in FRIENDS for Life return to a level comparable to the general population after 12 months. This implies that a short, indicated CBT-based intervention can be very effective in decreasing anxiety and depression symptoms in children who are at risk for a clinical anxiety or depressive
disorder. The continued decrease of symptoms over the follow-up period indicate long-lasting effects. These results emphasize the importance and feasibility of prevention activities for children who already have elevated levels of anxiety and depression symptoms.

By performing this study we also showed that the effects of FRIENDS for Life as established in RCTs in research-controlled settings are transferable to practice. Although RCTs are essential to establish the efficacy of an intervention before implementing it on a larger scale, an intervention proven effective in a controlled setting may not necessarily be effective in practice. Not all interventions pass successfully from research into practice (Higa & Chorpita, 2008). Hopefully, more FRIENDS for Life studies will be undertaken to investigate its effectiveness when implemented in daily (school) practice, to find out whether our results can be replicated in other countries, in other settings, or by other providers.

During the study, 5 out of 330 children who started in the program quit halfway. Most of these children quit at the request of prevention workers because they were displaying high levels of externalizing behavior. Although externalizing behavior was an exclusion criterion, some teachers did not report this behavior correctly. Therefore, some children with externalizing problems were accidentally included in the program, especially if these children also self-reported emotional problems. The fact that children with internalizing problems may also exhibit externalizing problems is well known (e.g., Caron & Rutter, 1991; Costello, Mustillo, Erkanli, Keeler, & Angold, 2003). Unfortunately, some of these children had to quit the program as they disturbed the intervention sessions too much. Despite the fact that this combination of symptoms affects a considerable number of children, no (effective) prevention program is, to our knowledge, available for this group with comorbid problems. As there is an increasing number of studies available on effective interventions for both sorts of behavior problems separately, now would be the time to design an intervention for this neglected group.

Findings of our study confirm results from previous studies indicating that children from non-native and particularly from non-Western backgrounds are at a higher risk for internalizing problems (Belhadj Kouider et al., 2014). In our study, children from non-Western descent reported more anxiety symptoms than children from Western descent. This suggests that special attention should be paid to the inclusion of this group of children when implementing prevention programs targeting internalizing problems. Fortunately, FRIENDS for Life appeared to be equally effective for children of both Dutch and non-Dutch descent, and is therefore suitable regardless of children’s ethnic background.

We showed that intervention effects of FRIENDS for Life became stronger over time. Children most likely needed time to practice the CBT skills they had learned during participation in the program. This suggests that it is important that intervention studies include long-term measurements to prevent interventions that may take time to yield results from being dismissed. Further, the present study underlined – again – that children’s self-report is essential when it comes to identifying who is at risk of anxiety or depression (Loeber, Green, & Lahey, 1990; Mesman & Koot, 2000). Although teachers’
or parents’ reports are valuable resources that may yield valid information in their own right, children’s reports may reveal symptoms that parents nor teachers are aware of.

**Policy and Practice**

The implementation of evidence-based programs is not easy, despite the benefits. First of all, there will always be the question ‘Who is going to pay for it?’. From the start in 2007, FRIENDS for Life had been funded by the health insurance company that was responsible for indicated prevention in the Amsterdam area. In January 2015, a new Youth Act came into effect, which encompasses the decentralization of the Dutch child care system from national to municipal government (Netherlands Youth Institute, 2014). The overall goal is that the youth care system becomes more effective, coherent, and cost-effective. To achieve this, municipalities should offer cost-effective and effective prevention, early detection and early support.

Once it became clear that the responsibility for programs like FRIENDS for Life would shift to the municipalities, the insurance company and the City of Amsterdam discussed who should fund FRIENDS for Life in 2014. Regrettably, they did not come to an agreement, and this resulted in the termination of FRIENDS for Life. Since January 2015, the City of Amsterdam, now officially responsible for all youth care services, has started to fund FRIENDS for Life again. Luckily, several experienced prevention workers, who had lost their jobs in 2014, were available again. And schools previously participating in FRIENDS for Life welcomed the return of the program.

The new Youth Act, and especially its goals on effective prevention and early intervention, yields high hopes for the future of effective (prevention) programs. However, the course of events endangering the continuation of FRIENDS for Life described above show how vulnerable these programs are, even effective ones. Every now and then there are changes in organization, funding, ideas, etc. With every change, specific groups of children are at risk for being excluded from effective help. Before changing a policy or a system, continuation of effective (preventive) health care should be guaranteed. Information from a study as reported in this thesis may be helpful when careful decisions in this respect need to be made.

**Indicated Prevention**

Another issue raised now and then is the rationale for implementing FRIENDS for Life as ‘indicated’ (for children who already show symptoms) rather than ‘universal’ (for all children) preventive intervention. FRIENDS for Life has been demonstrated to be effective as a universal school-based intervention (e.g., Barrett & Turner, 2001; Essau, Conradt, Sasagawa, & Ollendick, 2012; Lowry-Webster, Barrett, & Lock, 2003). Children, of whom the majority probably have no anxiety or depression symptoms, who participate in a universal application appraise FRIENDS for Life positively (e.g., Lowry-Webster et al., 2003; Stallard et al., 2005). The drawback of implementing FRIENDS for Life as a universal intervention applied during school hours is that there
is less time available for other lessons. Especially in a multi-ethnic city like Amsterdam, where children do not always learn Dutch at home, extra time is needed for language education. This valuable time would be decreased through a universal implementation of FRIENDS for Life. If the program were to be implemented by teachers, it would also place an extra burden on teachers, who have to be trained and need to prepare the sessions. In addition, FRIENDS for Life as an indicated prevention program and executed by mental health professionals yields the highest effect sizes (Briesch et al., 2010). In this way, money and time – both scarce in elementary education – are optimally utilized.

Therefore, in Amsterdam, a different strategy was chosen. Schools were offered a universal program (the Good Behavior Game; Dolan, Jaylan, Werthamer, & Kellam, 1989; van der Sar & Goudswaard, 2001), which focused on creating a positive and efficient learning environment and on reducing behavior problems. This program can be implemented within the normal school curriculum, requiring no or little extra time from teachers. Although universal programs can be very effective in preventing internalizing and externalizing problems, these programs may not be sufficient for children who already show symptoms. For those children, indicated programs like FRIENDS for Life are available.

Indicated programs fill an important gap between universal programs and treatment, the latter being more intensive and expensive. An additional advantage is that indicated prevention is more easily accessible than treatment. Although indicated prevention should be available for children who meet specific inclusion criteria only, no additional requirements (e.g., referrals from general practitioners or consent from health insurance companies) are needed to participate in the program. In that way, as many children in need as possible are being served and help is offered as timely as possible.

**IMPLICATIONS FOR PRACTICE AND FUTURE RESEARCH**

We found that FRIENDS for Life was highly effective in the way it was implemented in Amsterdam. Results suggest that the FRIENDS for Life protocol provided prevention workers a solid base to work from, while at the same time allowing for a certain degree of adaptation. Prevention workers seem to be able to find a balance between adhering to the protocol and adapting the program to children’s needs. Further research into the optimal balance between adherence to protocol and adaptation may provide recommendations for practice.

Regarding the program schedule, it should be noted that fewer sessions were executed than prescribed in the original protocol. We investigated the program with one parent session instead of two, and one booster session instead of two. In some schools, no parent sessions were implemented at all, based on previous no-shows of parents. Indeed, in schools in which these sessions were organized, the attendance was generally low. The second booster session was not implemented because of practical
reasons (e.g., according to the program schedule the session would be given during summer holidays) or because of schools’ time constraints. Even the first booster session was sometimes skipped because of time constraints of schools. Unfortunately, the attendance during parent or booster sessions – if any were held – was not thoroughly registered. Therefore, we could not examine whether these sessions yielded extra effects.

Up till now, there is little evidence for additional gains of parent and booster sessions. For parent sessions, one study into FRIENDS for Life as an indicated prevention found some additional effects (Bernstein et al., 2008; Bernstein et al., 2005). However, the parent sessions in that study comprised nine 60-minute sessions, which is much more intensive than the regular protocol. Further, there is no evidence for additional effects of parent sessions in anxiety prevention in general (Sandler et al., 2014). The effects of booster sessions for anxiety prevention are unclear too (Neil & Christensen, 2009). Based on the scientific results thus far, and given the high degree of effectiveness of the current study, we cannot say that the second parent and booster sessions are essential. The additional gains of booster sessions in the longer term have, to our knowledge, not been thoroughly investigated and this area therefore requires further attention.

Another area that needs attention is the selection procedure. Research should be conducted into the optimal RCADS cut-off scores, which in turn facilitates the implementation of the program for schools and prevention workers. Also the value of the teacher selection procedure should be investigated, with regard to correct identification of children with emotional problems as well as the correct exclusion of children with behavior problems.

We only investigated the intervention group compared to a wait-list control group that did not receive any other intended attention. No long-term attention control studies have been conducted for FRIENDS for Life. As a short-term attention control study found that FRIENDS for Life in the short term was no more effective than the attention control condition (Miller et al., 2011), it would be interesting to investigate whether this was caused by delayed intervention effects that were not yet visible in the intervention group or a placebo effect in the attention control group.

Finally, childhood anxiety and depression not only have a large impact on the quality of current and future life but are also accompanied by a financial burden. A Dutch cost-of-illness study found that the societal costs of clinically anxious children and adolescents amounted to more than €20 million per year (Bodden, Dirksen, & Bogels, 2008). For the whole Dutch population, in 2011 the total of costs for anxiety amounted to €626 million and for depressive disorders €1.6 billion (0.7% and 1.8%, respectively, of the total costs of health care), which makes depression one of the most expensive disorders in the Netherlands (National Institute for Public Health and the Environment (RIVM), 2013; National Institute for Public Health and the Environment (RIVM), 2015).

Investing in interventions may contribute to saving health care costs. For example, every £1 invested in group-CBT for clinical childhood anxiety and depression yields
benefits of £31 and £32, respectively (Social Research Unit, 2013). Therefore, it would be very interesting to investigate the economic benefits of the preventive group-CBT intervention FRIENDS for Life, which costs about €1,000 per child in the Amsterdam setting.

GENERAL CONCLUSIONS

Anxiety and depression are common mental health problems in children and adults. These problems not only influence health, well-being, and future perspectives, but also take up a huge part of the health budget. Therefore, interventions targeting these disorders deserve a prominent place in preventive health care.

The present study showed that FRIENDS for Life as an indicated school-based prevention program is highly effective in decreasing symptoms of anxiety and depression in children aged 8-13. We showed that children at high risk for a clinical anxiety or depressive disorder reported symptom levels comparable to the general population one year after participating in a brief intervention. Although the program was not implemented exactly according to the program protocol, mental health prevention workers delivered the program in an effective way. Another important factor is that children and parents appraised the program positively and most of them would recommend it to other children and parents. Further, we found that the program was effective for children of both Dutch and non-Dutch descent. Since children of non-Western descent reported more anxiety symptoms than children of Western descent in our baseline general population sample, these results indicate the potential additional value of the program for the non-Western group.

An important feature of our study was that we examined FRIENDS for Life in a setting in which it had been implemented for several years and for which prevention workers had not received intensive training or supervision. We showed that FRIENDS for Life as part of an existing prevention strategy can be as effective as when implemented under researcher-controlled conditions. These positive findings warrant
a wider dissemination of FRIENDS for Life throughout the Netherlands.

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