This is the author’s final draft post-refereeing article published in:


For publisher’s version: doi: http://dx.doi.org/10.1016/j.cbpra.2014.06.005

The original publication is available at

Prevention of anxiety and depression in children:
Acceptability and feasibility of the transdiagnostic EMOTION program

The prevention of mental health disorders in youth merits increased interest and attention. Indeed, some disorders are not only common in youth but also reduce the life quality of the young person and his or her family. It is the promise of prevention that early identification and intervention can change the trajectory and forestall full blown disorders.

EMOTION is a program aimed at reducing the incidence of anxiety and depression in youth exhibiting initial symptoms of such disorders. Transdiagnostic approaches (Ehrenreich-May & Chu, 2014) offer promise for co-occurring difficulties, and cognitive-behavioral therapy in particular is an approach that addresses common underlying processes in anxiety and depression (Kendall et al., 2014).

An indicated prevention approach was chosen because findings to date suggest that universal prevention programs for depression have inconclusive support (Spence & Shortt, 2007) whereas targeted (indicated) approaches have been endorsed (Horowitz & Garber, 2006). In addition, prevention programs may facilitate the identification of children at risk for disorder (Fisak, Richard, & Mann, 2011). Identifying children suitable for prevention is an important step, and ensuring user satisfaction and acceptable attendance rates are also critical for the success of an indicated intervention. We will introduce the program and then focus on its feasibility and acceptability as the program was piloted in a rural school in Norway.

Anxiety and depression in youth

Anxiety disorders are among the most common psychological difficulties in youth (Dierker et al., 2001; Fisak et al., 2011; McLoone, Hudson, & Rapee, 2006): between 5.6% and 18.1% of children experience such disorders (Baumeister & Harter, 2007; Costello, Mustillo, Erkanli, Keeler, & Angold, 2003). Depression is similarly a common disorder in
youth (Horowitz & Garber, 2006): point prevalence estimates range between 1 to 2% for children and 3 to 8% for adolescents (Costello et al., 1996). The lifetime prevalence rate is higher, with 28.8% for any anxiety disorder and 20.8% for any mood disorder (Kessler et al., 2005). In addition, children with problems that do not reach diagnostic criteria would add to these estimates: many children with mental health needs do not receive evaluation or mental health services (Jensen et al., 2011). Both anxiety and depression can have a chronic course if left untreated and the problems impact youth negatively in many life domains (e.g., lower academic performance, more peer and family problems) (Birmaher, Ryan, Williamson, & Brent, 1996; Costello et al., 2003; Le, Muñoz, Ippen, & Stoddard, 2003).

Anxiety and depression co-occur at very high rates (Angold, Costello, & Erkanli, 1999; Costello, Egger, & Angold, 2005; Cummings, Caporino, & Kendall, in press), may be precursors for other difficulties such as substance abuse and low self-esteem (Last, Perrin, Hersen, & Kazdin, 1996; Le et al., 2003), are often recurrent (Cartwright-Hatton, 2006; Costello et al., 2003; Emslie et al., 1997) and associated with increased risk of suicide (Birmaher et al., 1996; Le et al., 2003; O'Neil & Kendall, 2012). Research indicates that youth with these internalizing problems are less likely to receive services (Fergusson, Horwood, & Lynskey, 1993; Heiervang et al., 2007; Stallard, Simpson, Anderson, & Goddard, 2008), perhaps because the difficulties might be overlooked by parents and/or teachers (i.e., not as obvious as externalizing problems).

Evidence-based approaches to treating mental health needs in youth have typically been disorder specific (e.g. the Coping cat program for anxious youth, (Kendall & Hedtke, 2006) and the Taking ACTION program for depressed youth, (Stark et al., 2007)). Recent developments suggest that multiple problems can be targeted within a single protocol; transdiagnostic interventions (e.g. Chu, Colognori, Weissman, & Bannon, 2009; Ehrenreich-May & Bilek, 2011; Ehrenreich, Goldstein, Wright, & Barlow, 2009; Weersing, Gonzalez,
For disorders with high comorbidity and where there may be common underlying contributing processes, it would be efficient to combine common and similar treatment strategies into one protocol. A transdiagnostic prevention program targets symptoms of multiple disorders and is potentially valuable as a step to prevent the development of subsequent disabling mental health problems. From a public health perspective, using indicated prevention to reduce the incidence of common disorders may result in considerable cost savings by reducing the need for clinical treatment. The Norwegian Government initiated the “Interaction reform” in 2012, with an aim to reduce the pressure on outpatient clinics by providing accessible and quality interventions in primary settings. The EMOTION program is consistent with the Interaction reform.

Before describing the structure and content of the EMOTION program, consider the reasoning behind this transdiagnostic approach. Anxiety and depression share common features such as disturbances in cognition, affect regulation, avoidance or withdrawal from activities, and deficiencies in both problem-solving and coping skills. Disorder-specific interventions use similar strategies for treating these two closely related disorders. The similar structure of single disorder treatments, their shared etiology and comorbidity suggest that anxiety and depression are prime candidates for a transdiagnostic approach, where the common underlying diathesis is targeted (Kendall et al., 2014). The common diathesis, in the presence of stress, may lead to the experience of anxiety, depression, or both (Axelson & Birmaher, 2001; Weersing et al., 2008). The evidence in support of a generalized treatment response (Weisz, McCarty, & Valeri, 2006; Wilamowska et al., 2010) is consistent with targeting common underlying processes. An examination of the disorder-specific protocols for youth anxiety and depression (cited earlier) indicated that they have comparable structures and share several intervention strategies (e.g., psychoeducation, coping skills training, problem solving, cognitive change, behavioral strategies). EMOTION integrates the core
components of empirically supported CBT treatments for anxiety and depression in youth (i.e., the *Coping cat program* and the *Taking ACTION program*) and targets the shared underlying mechanisms and risk factors for these disorders. EMOTION places an emphasis on interventions that are common to the treatment of anxiety and depression, such as psychoeducation about symptoms, problem-solving and cognitive restructuring. EMOTION, like the interventions on which it is based, is to be implemented flexibly to accommodate the differences in problems faced by sad children (e.g. conflicts, interpersonal problems) compared to more anxious children (e.g. presenting before class, going to a sleepover). In the same way, thoughts targeted in cognitive restructuring differ for the depressed (rumination about past events) and anxious children (having catastrophic thoughts about a future event). Withdrawal and/or avoidance are maintaining factors in both depression and anxiety, so interventions (activation; exposure tasks) target these symptoms. EMOTION focuses on reducing withdrawal and encouraging engagement in fun activities for the sad children, while also having the anxious children face increasingly challenging tasks.

**The EMOTION program**

*EMOTION*: “*Coping kids - managing anxiety and depression*” (Kendall, Stark, Martinsen, O'Neil, & Arora, 2013) is a 20 session group intervention for children aged 8 to 13 years who experience difficulties with symptoms of anxiety, depression or both. Preventive interventions that are relatively brief (low dosage) may not be sufficient to produce lasting change (Spence & Shortt, 2007). With 20 sessions, the EMOTION program is intensive: targeting both anxiety and depression requires ample time for learning, applying, and integrating the new skills. To provide sufficient intensity and to promote the child’s application of the coping strategies both in and between sessions, the children meet twice a week. This intensity is consistent with that of other relevant work. For example, Stark and colleagues’ implementation of their ACTION program (personal communication, 2012)
indicated that for each additional session beyond session16, there was a significant increase in the likelihood that the improvements would be maintained. Stark also argued that the children were more likely to complete their homework and remember what was talked about from session to session when they met twice a week. The number of sessions in the program also guarantees that even children who cannot attend all sessions will still participate in many sessions and receive a session dosage at least similar to other comparable programs (e.g., 10 sessions in Friends for Life (Barrett, 2004)). Experiential and play-based strategies are incorporated throughout, because these activities create greater engagement and potentially stronger effects (Shelby & Berk, 2009). The youth-focused sessions are designed for implementation in schools, and the program includes meetings with parent groups. Both child and parent groups have associated workbooks that are completed by participants.

The children are enrolled in the EMOTION program based on their exhibiting symptoms of anxiety and depression. The youths meet in groups for two sessions per week, each session lasting 45-60 minutes. In addition, each child meets the group leader for two individual sessions. The program can be completed in 10 weeks. Each group has two leaders and no more than 6 children. As detailed in the manual, all sessions follow an agenda: start with chat time and focus on positive events since the last session, review content of the previous session, focus on a main activity for present session, and the assignment of homework. Below, a few of the novel as well as central strategies are illustrated based on our experiences in the pilot study.

The first half (10 sessions) of EMOTION focuses on building skills that are helpful for addressing both anxiety and depression. The first session is dedicated to building group cohesion and establishing rules for the group. For example, in the “Web” activity children throw a ball of yarn to each other while stating their name and a favorite activity. The ball of yarn unwinds and, in the end, the yarn stretches between the children, symbolizing that they are
connected. The aim of the program and the homework assignments or Show That I Can (STIC) tasks is also explained. The STIC acronym, from the Coping cat program, emphasizes how completing homework assignments helps to practice and master new skills. A STIC task for each meeting is outlined in the workbook and the children earn rewards for completing them.

The Sunglass activity illustrates how feelings of depression or anxiety can alter the way people interpret situations, and that the distortion can make people see things in a negative or scary way. In this activity the children are taken into a bright room. They then close their eyes and put on the dark sunglasses. When they open their eyes, the group leaders discuss with the children what things look like through the dark lenses, how it feels to look through the dark lenses and how things might look if they had to wear them all the time. The experience is then related to how some children may view situations as more gloomy or scary than they really are, and that the group is designed to help the children see things more clearly. The children are also told to register brave and fun activities in their Coping Bank.

In session two the group leaders explain the connection between thoughts, emotions and actions using the metaphor “The 3 B’s” (Brain, Body, Behavior), and introduce the feelings (EMOTION) thermometer. Arrangements are made for the children to do something fun (experience a different mood). The Beach Ball activity (a) illustrates how “doing fun things” can improve mood, and (b) demonstrates how the triangle works. The children recall a time they were teased or a time when they worried that a friend was upset with them. “Close your eyes and think back where you were, who you were with, what was happening, what was said, how you felt, and what you were thinking.” Time is allowed for them to reflect. The children then rate their mood using the EMOTION Thermometer. Thoughts, bodily reactions and what they did in the situation are connected using the 3 B’s. Then the group leaders start tossing the beach ball around the room (trying to keep it from touching the floor) and allowing the children to have fun. Afterward, the children are again asked about
“The 3 B’s” and they again rate their feelings on the EMOTION Thermometer. The ratings before and after the Beach Ball activity are data to be compared, and related to the 3 B’s. The data indicate typically that doing fun activities is linked to improved mood.

Introduced in session 3, the “EMOTION detective” is a character the children follow throughout the program to inspect their bodily reactions, thoughts, and actions. Also introduced in this session are coping skills (i.e., Doing something fun or try something new, Doing something soothing and relaxing, Do something that uses energy, Talk to someone and Think less negative). Of note, as part of the process of matching the skills to anxiety and to depression, there are sessions with individual youth. The first individual session is held after session 3 with the aim of developing specific goals for each child.

Problem solving is taught as a strategy to address stressful situations--sessions 5, 7, 8 and 9 emphasize both the general problem-solving steps, and applying problem solving to teasing, interpersonal matters, and anxiety-provoking situations. When identifying problems, children specify whether problems are outside one’s control (and where active coping skills are used) or whether the problem is within one’s control (and problem-solving is applicable). Playful and experiential activities (e.g., the Solution Round Robin activity) are used to generate multiple ideas for handling certain situations. In this activity the group agrees on a problem to address: one example being anxious about participating in the school play. Starting with the group leader all children write down a possible solution on a worksheet and then pass the sheet on to the next person in the group until all children have had an opportunity to come up with an idea. Sample ideas include: (1) have a minor role in the play, (2) bring a note to help remember the lines, (3) be sick at the day of the play, (4) practice acting at home, and (5) practice acting with friends. Multiple ideas are generated, multiple people participate, and the result is a longer list of possible solutions to the problem.

Cognitive restructuring is introduced in session 6: connecting thoughts and feelings using
thought bubbles (e.g., negative and positive thoughts are written in thought bubbles and the children suggest a possible feeling to go with the thought).

The second individual session is held prior to starting the second half of the program: it prepares the children for the upcoming change of focus in the program and, importantly, it allows tailoring the program to the individual child, making sure the child connects the skills to their specific goals. The next 10 sessions of EMOTION focus more on the youth’s specific problems, and the activities are related to cognitive restructuring and exposure tasks.

In the second half of the program there are activities that focus on depression and others focus on anxiety. For depressive symptoms, EMOTION emphasizes (a) building a positive self-schema and (b) behavioral activation. The Brave Practice plan is part in every session of the second half of the program: helping children experience more fun. For one of the sad children in the group an important goal was to “have more friends,” so the Brave Practice Plan for this child included inviting one of her old friends over to her house as a first step. The next step of the plan was to invite this friend and another classmate over and then lastly to engage in a new activity. The self-mapping activity starts in session 12 and is repeated for the rest of the program. The objective is to develop a more positive self-schema by exploring personal strengths and reducing global self-judgments. Using a form in their workbook designed as a flower with petals, the children complete the flower session by session by filling in personal strengths in one petal at the time. For example, different petals could be “Me as a friend,” Me as a member of the EMOTION group,” or “Me as a student.” and then filling in personal strengths in these domains. The parents and teachers are also to give input to the content of the petals. For many children in the group the input from the parent or teacher was very important. At the end, the petals make a full flower which reflects the complete and diverse picture of the child.
For anxiety problems, *EMOTION* emphasizes graduated exposure to feared situations, also using the *Brave Practice plan*. In exposure tasks, the child experiences some anxious distress but is not allowed to avoid: the child confronts and faces increasingly challenging situations. Based on the individual goals of the children, different fear-hierarchies are developed. One of the children in the group feared “making a fool of herself,” and some of the activities on her Brave Practice plan included asking an unknown teacher for help and embarrassing herself by going into the wrong classroom. There is also an emphasis on changing negative self-talk in this part of the program. For example, in the *Story Telling* activity children are presented with pictures and asked to write down what might happen next. The difference in what is said to happen next is used to illustrate that we have different ways of interpreting at situations.

The “Muck Monster” is introduced in session 12: a metaphor for negative self talk. The Muck Monster is both a cognitive distancing tool where the children externalize their negative thoughts to the Muck Monster, and a cognitive restructuring tool as they ask questions to their negative thoughts. In this activity the room is set up by placing two chairs facing each other. Focusing on one child and on his/hers negative thoughts The Muck Monster is to express the negative thoughts and the child is to talk back to the Muck Monster (i.e., the negative thought). One of the children in the EMOTION group worried that the other children would laugh at the things she said and that they would walk away from her. In the exercise the Muck Monster said her negative thoughts, while she (with the aid of the other children) talked back to the Muck Monster. Here is an example:

Muck Monster (group leader): The other kids don’t like you.

Child: They like me, we play together a lot.

Muck Monster: Sometimes I see that they laugh.
Child: Sometimes they laugh, but that can be because I did something funny. It doesn’t have to be negative.

Muck Monster: They might go away from you, leaving you all by yourself.

Child: That’s not true. You’re just the Muck Monster talking!

In a more expansive example, the children would also practice questioning their negative self-talk (i.e., “Is there another way of looking at it?” “What’s the evidence?”)

The EMOTION program includes eight parent sessions that are scheduled concurrent with the child group meetings. Maintaining the gains made by children can be facilitated by focusing on the child’s home environment: a point made with regard to both depression (Spence & Shortt, 2007) and anxiety (Fisak et al., 2011). In EMOTION, the parents meet in small groups: every other parent meeting includes the children. The children have these sessions with the parents in addition to the children’s group sessions. Due to scheduling issues, the parent sessions were held after work-hours in our pilot. One of the goals of the parent sessions is for the child and parent to interact and for each to practice the skills they are learning separately—and thereby increasing the likelihood of using the skills in everyday life. Here are a few illustrative examples of activities in the parent groups. In parent session 1 the parents conduct an ice-breaker activity: they present themselves to the rest of the group and share a childhood memory from when they were at their child’s age. The intention is to make it easier for the parents to be ready to take their child’s point of view. Information about anxiety and depression and an introduction to reinforcement and coping skills are also on the agenda. Another parent activity, “What is beautiful about my child,” calls to the parent’s awareness the positive sides of their child. These topics are applied in parent session 2 when the children are present. Parents come alone to parent session 3 when reinforcement and punishment are discussed, along with problem-solving. In parent session 4 parents and children apply problem-solving together to typical problems in their family before exposure
tasks and behavioral activation are introduced. Exposure and behavioral activation is also the focus in parent session 6 extending the practice list for the children and providing support. In parent session 6 parents practice giving emotional support to their children, and children give the parents information about how the parents may support them. The last parent session (parent session 8) is a review and celebration of a job well done.

**EMOTION: Data on initial implementation**

The initial implementation was carried out with children in the 5th grade (9–10 year olds) in a rural school in Norway. The children were enrolled based on symptoms of either anxiety or depression: child groups were held during school hours. The current report considers aspects of importance to the dissemination of an indicated program into schools: recruitment strategies, monitoring attendance rates, and ensuring favorable user satisfaction. We also examined possible stigma associated with participating in an indicated intervention in a school setting. Some initial program effects are noted, but outcomes are not the focus of this report. EMOTION was implemented in a school because the school setting provides a valuable access point for reaching children who might otherwise not receive services (Mifsud & Rapee, 2005). In Norway there is also increased emphasis on early intervention, and such identification can take place in schools. Implementation in schools will facilitate collaboration between mental health clinicians and schools, and potentially improve program attendance by reducing the stigma associated with receiving treatment in a clinic (Stallard, Simpson, Anderson, Hibbert, & Osborn, 2007).

**Recruitment**

Effective selection strategies are crucial for the success and implementation of prevention programs. Identification of children at risk for development of a disorder requires a screening procedure that must be acceptable to the school administration, parents, and
children. The procedure must also be feasible. Although a diagnostic interview may be considered optimal for children in a clinical sample, such an approach would not be feasible in a school setting. One possible screening procedure to identify children at risk is using elevated scores on measures of the targeted problem. The extent to which screening can be conducted with all children will depend on school rules, IRB requirements, and the school culture. In Norway, screening entire age groups of children for symptoms is neither usual nor seen as acceptable: screening entire age groups was therefore not an option.

We announced the program, and then invited the children and parents for screening after they had expressed interest and parents had signed informed consent. The program was described and presented to all children in fifth grade (9 and 10 year-olds) in a rural public school in Norway, and the children were informed that only those who were considered to be experiencing more sadness or anxiety as reported by self-report measures compared to their peers would receive an invitation to participate in the program. If effective, this recruitment procedure would be sustainable. Children and parents were invited separately: the literature shows some disagreement between children’s self-ratings and parents judgments. A significant number of parent’s may not be aware of their children’s worries and concerns (Martin, Ford, Dyer-Friedman, Tang, & Huffman, 2004). By inviting the children we wanted to assure that we reached as many children in need as possible.

Measures

Children reported anxiety symptoms using the Multidimensional Anxiety Scale for Children (MASC) (March, Parker, Sullivan, Stallings, & Conners, 1997). The 39 items assess physical symptoms, avoidance of harm, social anxiety, and separation anxiety/panic. The MASC has strong psychometric properties and has been evaluated in a Norwegian sample (Villabø, Gere, Torgersen, March, & Kendall, 2012).
The Children’s Depression Inventory (CDI; Kovacs, 1992) assessed self-reported depressive symptoms. The CDI consists of 27 questions encompassing affective, cognitive and behavioral symptoms of depression. The measure has solid psychometric properties and discriminates depressed from non-depressed children (Timbremont, Braet, & Dreessen, 2004).

Parent report of child anxiety and depression was assessed using the Child Behavior Checklist for ages 8 to 18 (CBCL; Achenbach & Rescorla, 2001). The measure consists of 118 items assessing a broad range of symptoms of emotional and behavioral problems. Its psychometric properties are solid and multicultural norms are available (Nøvik, 1999). Although the parents reported on the full CBCL measure, the present focus was on the internalizing subscale.

User satisfaction was assessed with questions that were answered after every session: Did you like the session? Did you actively participate in the session? Did you learn anything new in the session? Overall user satisfaction and whether the participants experienced any stigmatization were measured following completion of the intervention using the Norwegian translation of the ACE Stigma and evaluation sheet developed by Rapee et al. (2006). This measure has 10 questions; three questions focus on the extent to which the participants were embarrassed about doing the program, were teased by others because they attended the program, and were criticized at home for participating in the program. The remaining seven questions related to the children’s satisfaction with the program.

Participants

Of the 57 children given information, 22 (38%) signed up (with parental consent) and underwent baseline assessment. Self-report questionnaires were completed individually with the school-nurse present and available to explain items if needed. Parents completed the questionnaires at home. Children were included in the study if they exhibited elevated symptoms of anxiety and/or depression within 0.5 to 2.0 standard deviations above the mean
on the self-report measures for anxiety and depression or the parent report on the CBCL (internalizing subscale). For the MASC, the cut off for participation for girls was a raw score of 54, based on a mean of 45.7 (SD 16) and for boys a raw score of 47 based on a mean of 38.9 (SD 16) (Olason, Sighvatsson, & Smami, 2004). For the CDI, the cut off was 12, based on a mean of 9 and SD of 7 (Kamphaus & Frick, 2005). The cut off for participation on the CBCL was a T score higher than 57 and below clinical range (T score 65). The included children were symptomatic, but did not exhibit severe symptoms in need of immediate care. Children who reported suicidal intent were excluded and referred to an outpatient clinic.

Twelve children (55%) were invited to participate. The parents of one child withdrew consent prior to starting the program, 11 children completed the program. Baseline symptoms are presented in Table 1. Most children were included based on their own self-reported scores on MASC or the CDI, and only one child was included based on parent report alone. The children were Caucasian and from middle-class families. The children (50%) deemed not eligible were for the following reasons; 8 children (36%) had low symptom levels, 2 children were offered referrals to the outpatient clinic because they scored above the clinical cutoff. The 11 participants were randomly assigned to one of the two groups: group 1 had six girls and group 2 had two boys and three girls.

*Table 1 here*

**Group leaders, training, and supervision**

Group leaders were school psychologists. In Norway, these psychologists often do not have their base at a specific school, but visit selected schools in their area to supervise and consult regarding the needs of specific children. The groups were run during school hours, but at different times during the week to minimize loss of time on any one academic topic. The parents formed one group that was led by a school-psychologist and a school nurse, with assistance from a graduate student. This group was held in the afternoon.
The group leaders were not previously trained in CBT and had not used manual-based protocols prior to this project. They were introduced to CBT for anxiety and depression and went through the EMOTION manual session by session, altogether 36 hours of training. Prior to this training they were asked to read and familiarize themselves with the materials. Supervision was provided weekly during the intervention by one of the authors (KM). The sessions were not audio- or video-taped (not common practice in Norway; permission was not sought).

Acceptability and feasibility

Attendance

Child groups. There were no dropouts from the child EMOTION groups after the groups started and the children attended 94% of the meetings. Given that the EMOTION groups were competing with extracurricular activities (e.g. swimming, cultural programs), attendance was a highly favorable indicator for the program.

Parent groups. Parents, either mother or father, attended, on average, 6 out of 8 meetings (75% attendance). Some parents informed the investigators in advance that they would not be able to attend all/some meetings due to scheduling conflicts, while others (e.g., single parent) had multiple children. Looking at fathers’ and mothers’ attendance rates separately, the attendance rate was 43.21% for fathers and 59.1% for mothers. The sum of mothers and fathers attendance rate exceeds the average attendance rate (75 % ) as both parents attended 27.3 % of the sessions together. The parent attendance rate was acceptable given the number of meetings they were asked to complete and the absence of incentives. The children were expected to participate in four out of eight parent meetings and the attendance rate for children in the joint meetings was 82%. Some children missed one meeting and two children were only present when the caregiver attended the last meeting.

User satisfaction
User satisfaction was measured by asking the children, parents, and group leaders’ three questions related to how satisfied they were with each session. The responses were rated on a seven-point Likert scale from 1 to 7 where 1 indicated they did not like, participate or learn anything in the session, and 7 indicated that they liked, participated or learned a lot in the session. These questions were asked after each group meeting. The user satisfaction data are presented in Table 2.

Table 2 here

According to the user satisfaction scores, the participating children and their group leaders were very satisfied (scores in the range between 5.4 and 6.6). An open-ended question about what the children had learned revealed the following: “It is better to talk about what makes me sad rather than keeping it inside”, “To be brave”, “That I can solve my problems”, “To think less negatively”. Parents’ and their group leaders’ satisfaction was also very positive. Regarding the parents’ sense of the usefulness of the program, parents reported a mean of 4 regarding personal usefulness (moderate endorsement) and a mean of 6 regarding usefulness for their children (strong endorsement). A majority of the parents also indicated that the number of parent sessions could be reduced. Examples of responses to an open-ended question about what parents had learned included the following: “To give praise”, “About automatic thoughts”, “To focus on my child’s goals”, “What other parents think and do”.

The Norwegian translation of the ACE Stigma and evaluation sheet (Schniering & Rapee, 2002) was administered to the children after completing all the group meetings. Usefulness was measured with seven of the 10 questions (rated 1-“not at all” to 10-“very much”). Children’s responses (mean scores between 8.3 and 9.5, see Table 3) indicated that the children were very pleased with the program (i.e., found it to be useful).
All group leaders stated that they would like to run more EMOTION groups and would recommend the program to others. The school nurse reported that it was beneficial to get to know the parents better in the parent group.

**Stigma**

Three questions (5, 6 and 7) in the Norwegian translation of the ACE Stigma and evaluation sheet (Schniering & Rapee, 2002) asked about possible stigma associated with participating in this indicated intervention. Stigma may be a problem when implementing indicated interventions in the school setting (stigma associated with being selected), but the topic has rarely been investigated (Mifsud & Rapee, 2005). Items about possible stigma received very low scores (i.e., means of 1.1 - 1.7 on a scale from 0-“not at all” to 10-“extremely”) indicating little concern. This finding is similar to that found in one other study (Rapee et al., 2006): low concerns about stigma and high user satisfaction for an indicated intervention with youth.

The children’s ability to cope with their emotions (measured with 2 items from the ACE, questions 8 and 9) increased during the program from 4.4 to 9.7. In addition, the children who participated in EMOTION highly recommended the program to other children (M = 9.3) (see Table 3).

*Table 3 here*

**Group issues: Cohesion, composition, attendance, and organization**

Time was set aside at the beginning of the meetings to help the children feel safe within the group. It became evident that the girls had some interpersonal conflicts, and these conflicts became the focus in sessions that were set aside for problem solving interpersonal concerns. The group leaders considered where the children were seated (those who were close would share stories, others would feel left out) and were alert to subgroups forming within the larger group. Nametags were used, and seating arrangements were determined ahead of time.
Some of the children were concerned about confidentiality and how it would be implemented. Additional time was therefore spent to clarify what could/could not be shared from the group meetings and what issues were relevant for the group meetings. Increased focus on group rules had the intended aim of increasing group cohesion (e.g. one person talks at a time, we support each other). Group activities designed to build group cohesion (e.g., the Web activity) were fun and helped overcome shyness and promoted openness.

Not all parents came to all of the parent meetings. Although it was expected that some could not participate at times, it raised an issue for the joint parent/child meetings. Because it was impossible for the child to participate without a parent present, some children missed some joint meetings. The group leaders reported that these children felt left out when the rest of the group later talked in the child group about the fun they had had in the joint meetings.

Organizationally, having group leaders come from the school itself may facilitate logistics. For example, sometimes it was difficult to access rooms, and at times extracurricular activities were scheduled when the groups were to meet. Practical and logistical matters would be easier if at least one of the group leaders was affiliated with the school.

**Group content: Challenging and effective features**

**Child groups.** Identifying individual goals for each child was a challenge, especially for the sad children. Better communication of screening results to the group leaders and more focus on goal setting in the training of therapists would be an improvement. Time constraints made it difficult to complete some of the individual sessions: additional time for individual sessions could facilitate setting and meeting individual goals. Having a joint meeting with group leaders, parents, and children prior to starting the program could also help: group leaders could discuss relevant goals with each family unit. Such a large-group session could motivate parents to participate in the program and motivating parents may be necessary in
indicated interventions because some parents may not be aware of their child’s sadness or anxiety.

The children found many of the program’s concepts (e.g., The EMOTION Thermometer; the 3 B’s) easy to understand. They reported enjoying the activities and learning new skills; for example, the Candy and Rock game required children to put beads in one of their shoes and at the same time eat candy. The task illustrates the importance of perceptions based on focused attention (focusing attention on the rocks or the candy will result in either awareness of the pain in the shoe or the pleasant taste of the candy). The Solution Round Robin, for generating solutions to problems, was reported as being fun and engaging. Role-plays were reported to be especially enjoyable, and when one of the children learned a new concept the rest of the group followed. The Muck Monster (i.e., negative thoughts) was another concept the children enjoyed and understood easily. In contrast, some of the skill cards describing the different strategies were not used as often as planned. Some group leaders reported that having youth register brave and new activities in the Coping Bank was a challenge because several youth already participated in many activities.

The group leaders experienced time constraints, suggesting that it may not always be possible to carry out all activities. Improved specifications on main goals and activities for each session will make it easier for the group leaders to prioritize when needed. As emphasized earlier, the EMOTION program is to be applied with flexibility. With experience, and armed with a case conceptualization for each child, it will be easier for the group leaders to choose certain activities over others. Some group leaders found it difficult to check each child’s STIC-tasks (homework). Dividing the group in order to review each child’s homework was one effective strategy used to improve focus on homework assignments, as was using one of the child’s homework as an example for the rest of the group.
An activity that was pivotal in all sessions, “Complimenting each other’s behavior,” seemed to be enjoyed by all children. In the beginning of the program the group leaders complimented the children’s positive group behavior (e.g. having completed their homework, waiting for their turn to speak etc.) focusing one or two children each time, but making sure all children were complimented in each session. Later in the program this activity changed, and the children were to observe and compliment each others positive behavior, both in and outside of the group. This was an important activity for the children. The input from teachers and parents to the children’s self-mapping regarding the child’s personal strengths was also important and the group leaders highlighted discussions of whether the positive feedback from others was credible. This feedback was material for promoting more balanced thinking for the children who were often overly self-critical.

Exposure tasks, both to feared situations for anxious children and increased participation in pleasurable activities for sad children, were key activities in the second half of the program. Although the activities often went well, there were times when it was difficult to conduct exposure tasks as planned (not always enough time for preparations, role-play or in-vivo exposure and discussing the experience afterwards). An occasional solution, one or two children were selected for the exposure task, and the rest of the group served as a support team. Dividing the group so that the anxious children can focus on feared objects or situations and the sad children can experience how they can regulate their moods by participating in fun activities is suggested in the manual, and following this suggestion to a greater extent would ease conducting the exposure tasks as planned.

**Parent group.** The parent group was held in the afternoon once a week. To accommodate schedules and competing demands, the parents helped arrange the schedule. Cookies and coffee were provided and both mother and father of some children participated in several meetings. However, the realistic aim was that one parent would attend the meetings
(given the afternoon time and that families had several children). The parent(s) of 2 children attended only once (session 8); one was a single parent and one worked afternoons.

Focusing on helping parents feel safe in the group was important. One way of doing this was by dividing the full group into smaller units so they could share their experiences before talking in the larger group. Agreeing on goals for their child was an issue that needed focus. Quite a few of the parents had not recognized the sadness or anxiety in their child prior to the screening. They were surprised that their child had reported elevated anxiety or depression, and were unsure what would be appropriate goals for their child. This lack of awareness of their child’s internalizing problems suggests that it might have been beneficial to communicate the screening results to the parents prior to the parent meeting. Some parents were skeptical about positive parenting: One father questioned the extensive use of positive reinforcement (rewards) and, as he expressed “it could be negative to be too positive towards your child!” This attitude was addressed by having the father try it out as an experiment at home (parents giving compliments with a smiley-card to their children). This specific father later reported – a bit surprised - that somehow it actually worked and the child had even started to give compliments back. In general, parents were eager to learn new concepts and rated the sessions held without their children (learning new skills) higher than they rated the sessions that included their children (applying the skills). The parents reported that they wanted more psycho-education about various concepts, such as negative cognition, and indicated that identifying their own negative cognitions was interesting.

A vignette1: Ann

Ann was enrolled on the basis of her symptoms on the CDI and MASC (both anxiety and depression). She self-reported that she was sad, that most of what she did turned out

1 For better illustration and keeping confidentiality the vignette is based on a combination of characteristics from several children in the groups
wrong, she worried that bad things would happen, cried several days a week, she did not like her appearance, she had problems sleeping, and felt lonely. She was afraid of other children laughing at her, would check things in advance, and would try to please her parents by doing everything just right. Her goals were to have more friends and have fewer conflicts.

During the program it became apparent that she was already involved in conflicts with several of the other girls and that she often contributed to these conflicts. In several meetings the group started on a tense note due to conflicts between the girls. This was, however, as intended, good material for the group leaders to use in teaching problem solving as applied to interpersonal conflict. Ann easily grasped the active coping skills to help regulate her sad emotions. She actively used deep breathing when conflicts emerged between her and other girls in class and this gave her the time to distract herself with her phone which prevented some conflicts from escalating. She also reported being more selective about which friends to spend time with and that she felt safer with these friends. Ann drew her Muck Monster as an ugly witch, which she reported made it easier for her to observe her own internal dialogue and to talk back to the witch. This internal dialogue was both related to characteristics about herself: *I always make a fool of myself, I am not good enough,* and also what would happen in relation to her friends; *they don’t like me, they think I am stupid.* Ann actively participated in the self-mapping activity. She reported strengths in the domains; “me as a friend”, “sister”, “and EMOTION group member”, and what she liked about her appearance. Her teacher reported her impressions of Ann as a pupil in the class (positive, taking responsibility, interested) and her mother reported her positive qualities as a daughter (fun to be with, helpful, kind, responsible, empathic). Ann was amazed by the positive feedback from her mother and teacher and it meant a great deal to her. After the program, Ann’s score on the CDI had decreased substantially. She reported sleeping better and having more friends at school, but still felt a little lonely. She remained conscientious about obeying her parents and
trying to do everything right, but reported that she was less afraid of others’ judgments. She was extremely satisfied with the program and only regretted that it hadn’t lasted longer.

**Discussion**

Important features of the evaluation of a prevention and early intervention program relate to the program’s acceptability and feasibility in real life conditions: How well was a transdiagnostic indicated prevention program received in a school setting, could self-recruitment work, did the children and parents find the program useful?

The identification of children who may benefit from an early intervention is a first step. In the present project, the children nominated themselves to the program and were then (after informed consent) screened using established measures. The process worked well, included empirically-supported assessments, and was not viewed as a burden. That said, the process included children who scored above a clinical threshold being referred to an outpatient clinic. Given that the children who were referred did not pursue services, an alternative would be to include high scoring children. Participating in a school-based intervention could provide easier access to services and be more acceptable for parents. If needed, participating youth could be offered additional services after completing the program.

The intervention was offered to children reporting symptoms of anxiety or depression—and there was an initial concern regarding whether or not there would be stigma associated with being selected to participate in an intervention program in a school setting. Few studies have examined this issue, and Mifsud and Rapee (2005) argue that possible stigma must be viewed in relation to the user-satisfaction of the intervention. In the present study the participating children reported experiencing minimal stigma: the scores on the satisfaction items were high and the scores on the stigma items were low. Nevertheless, it remains worthwhile to take steps to minimize stigma. How the program is presented in schools (e.g., “learning coping skills” versus “services for anxiety and depression”) is one
such strategy. The interpretation of the experience of EMOTION as not being stigmatizing applies to those who participated: it is possible that children who judged the program as stigmatizing were those who did not nominate themselves for inclusion. In addition, although gender comparisons suggest comparable anxiety disorders in boys and girls (Kendall et al., 2010) the number of boys participating in the program was low, suggesting that self-nomination for a prevention program may be viewed less favorably by boys than girls. When there is a concern about a selection bias, it may be preferable to screen all children, asking them about the stigmatization associated with an indicated program before they are invited to participate.

The present recruitment strategy appears to have been effective with 38% of the invited children wanting to participate and all 11 participating children completing the program. A possible disadvantage of the recruitment strategy may be that children with social anxiety, given the nature of this problem, may end up being underrepresented. To reach more socially anxious, withdrawn children, one could (when permitted) have school counselors and/or school nurses nominate eligible children.

Although the EMOTION program is suitable for children aged 8–12 years, children in the present project were 5th graders. There are advantages to having homogenous age groups: the participating youth interact with each other outside of the group, and the interests and topics discussed in the group can be linked to the ages of the youth and help maintain interest and motivation. In mixed age groups, there is the risk of the younger children not grasping the concepts at the same speed as the older children, and perhaps being intimidated (afraid to speak) by the older children. Though applicable for a wider age range, implementation of the program requires consideration the ages of the participants.

Specialist staff delivered the EMOTION program, which is common for targeted interventions (Shucksmith, Summerbell, Jones, & Whittaker, 2007). One could ask if teachers
might be preferred for program delivery. There is contradictory evidence with regard to the effectiveness of teachers compared to specialist staff when implementing a program in a school setting (Weare & Nind, 2011). According to Shucksmith et al. (2007), using school staff to implement the program may make it more sustainable whereas the results of a meta-analysis by Mychailyszyn, Brodman, Read, and Kendall (2012) found that a direct comparison of prevention interventions implemented by teachers and those led by research staff revealed no significant differences. Although not necessarily in the delivery of the program (time constraints on teachers may make it unrealistic), there are benefits for the children from actively involving teachers (e.g., teachers were valuable sources of positive comments about the children). In addition, active collaboration between teachers and mental health service providers improves communication (Mifsud & Rapee, 2005) and is consistent with the guidelines for treating depression and anxiety in primary care (Cheung et al., 2007). The amount of time used for training service providers (36 hours in the present project) may be unrealistic for teachers. However other interventions run in a school setting (e.g. Stein et al. (2003)) have completed training in less time and reducing training time could make it more acceptable for other professions to run such programs.

Both children and group leaders in the child groups and parent group evaluated the program very favorably. The children reported increased coping skills and would recommend the program to other children. According to the meta-analysis reported by Weare and Nind (2011), learning skills and developing competence is a central part of any effective intervention associated with a range of mental health outcomes. The same study found that interventions using active rather than deductive teaching methods were more effective, which is consistent with, and supportive of, the EMOTION program.

The parents in our study provided a positive evaluation of the program; although they did suggest fewer parent meetings and that the child groups meet after school hours. Group
leaders were also positive: they would recommend the program to other professionals and they were eager to run additional groups. The group leaders also stated that they experienced improved competence after having run the EMOTION groups and that this competence was helpful when conducting other tasks at work. This generalized benefit of training in a specific program is important in times of limited resources.

The current published version of the EMOTION program (Kendall et al., 2013; Martinsen, Stark, Rodriguez, & Kendall, 2013; Rodriguez, Kendall, Stark, & Martinsen, 2013; Stark, Martinsen, Rodriguez, Kendall, & Arora, 2013) benefited from the feedback and evaluation in the present study (i.e., the EMOTION program was revised based on findings and the feedback). For example, more psychoeducation and fewer meetings (six rather than eight) are now part of the parent materials. A joint session is recommended prior to starting child- and parent- groups to improve goal setting and parent motivation for participation. This first joint meeting replaced the two individual sessions that were difficult to implement. The program is not brief, but the intensity of the program (two sessions per week for ten weeks) is considered appropriate given that the program targets anxious and depressive symptoms, involves experiential learning, and integrates skills to regulate emotions. In Weare and Nind (2011) meta-analysis examining mental health promotion and problem prevention in schools, more intensive interventions appeared to be effective, especially those focusing on broad subject areas and/or those targeting more severe problems. The joint parent/child meetings are an important feature to increase the transfer and application of skills to the child’s home environment. Children with internalizing problems need intensive training to integrate and internalize the skills necessary to produce lasting change. Meta-analyses support this view and the highest effect sizes are for treatment of 9 to 16 sessions for anxiety disorders (Reynolds, Wilson, Austin, & Hooper, 2012) and more than 8 sessions for preventive programs for depression (Jane-Llopis, Hosman, Jenkins, & Anderson, 2003).
Concluding remarks

We learned that self-recruitment is a feasible and acceptable strategy, but that it may be improved by having school counselors or other personnel nominate children who may benefit from the intervention. We learned that an indicated intervention is feasible in a school setting with impressive attendance to the group meetings. For methodological reasons, though logistically challenging, screening all children with a diagnostic interview might be preferable. It is, however, questionable whether this would be a sustainable both in primary care in Norway and elsewhere.

Although conducting EMOTION meetings during school hours was acceptable, running the program after school may add to its acceptability for parents and school leaders. However, this must be judged against the children’s high attendance to the group meetings when conducted during school hours. On the other hand use of trained personnel resources could be maximized when the program is offered centrally and after school hours to children from multiple schools.

The user-friendliness of the program was found to be high and both the group leaders and the children recommend the program to others. Both the focus on teaching and applying skills and the active teaching methodologies are strengths of this intervention. A future study with a larger sample, comparison condition, and follow-up should evaluate the EMOTION program in a randomized design, with examination of intervention effects on anxiety and depression problems.


