Facilitators and barriers to the implementation of EMOTION: An indicated intervention for young schoolchildren

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Abstract

Research on implementation of school-based transdiagnostic interventions, conducted by personnel from the municipal services is limited. We investigated facilitators and barriers regarding implementation of EMOTION, an intervention targeting symptoms of anxiety and depression in children 8-12 years. Trained health- and childcare professionals completed one questionnaire before \( N = 63 \) and a separate questionnaire after running an EMOTION group \( N = 66 \). Twelve of the group leaders were interviewed to provide additional information regarding implementation. Results indicated that factors such as a perceived need for the intervention and positive attitudes from the group leaders facilitated implementation. Hindering factors were related to time constraints, workload, unsupportive leaders, and lack of cooperation from the schools. Allocating resources to implementation specifically could promote future use of the program.

*Keywords:* school-based intervention, implementation, emotional problems, municipal services
Preventive interventions for children and adolescents are becoming an important part of children’s mental health and municipal services (Greenberg, Domitrovich, & Bumbarger, 2001; Skogen, Smith, Aarø, Siqveland, & Øverland, 2018; Weisz, Sandler, Durlak, & Anton, 2005). Yet, children with internalizing problems are often overlooked and fail to receive adequate help from the municipal services (Chavira, Stein, Bailey, & Stein, 2004; Heiervang et al., 2007). Identifying and reaching these children is important, because of the disturbing consequences if left untreated (Kendall, Safford, Flannery-Schroeder, & Webb, 2004; Woodward & Fergusson, 2001). Using schools as a setting for delivering interventions has many advantages, such as easier identification and greater access to children with psychosocial difficulties (Ginsburg, Becker, Newman, & Nichols, 2008; Levitt, Saka, Hunter Romanelli, & Hoagwood, 2007). It also reduces barriers regarding locations and time scheduling, which could be a barrier for some to seek help (Masia-Warner, Nangle, & Hansen, 2006).

It is a challenge though, to recruit qualified personnel from the municipal services to deliver the interventions in school settings. Collaboration between the services running the intervention and the schools is required, and increases the complexity regarding implementation in an already intricate intra- and inter-organizational context (Novins, Green, Legha, & Aarons, 2013). Resources and support to participate and implement the intervention from the services, as well as fitting the intervention into the school context (e.g., scheduling conflicts, staffing, etc.) may be challenging for both the schools and the services (Lyon, Charlesworth-Attie, Vander Stoep, & McCauley, 2011).

The many barriers of implementing interventions in complex environments is constantly in conflict with the need for these interventions, and it is incumbent upon researchers to identify implementation factors within these contexts. For example, employees who work in municipal health services, but who deliver interventions in schools, create a circumstance
where it is important to focus on the individual providers. They are in the front line conducting the intervention, hence, the individual- and organizational factors of the providers contribute directly to implementation outcomes. Aarons and colleagues (2011), proposed a model of implementation, the Exploration, Preparation/Adoption, Implementation and Sustainment (EPIS), which targets several important factors to consider during implementation in services for children and families. The implementation process can be explained through the model’s four separate phases; exploration, preparation, active implementation and sustainment, together with relevant contextual factors (i.e. intervention characteristics, inner context and outer context) which acts differently within each phase (Aarons, Hurlburt, & Horwitz, 2011). Although the model comprises different phases with a multitude of variables, the active implementation phase which refers to the specific factors pertinent during actual implementation is most applicable to this study as we are focusing on relevant issues during ongoing implementation of a new intervention. Especially the inner context issues within this phase, directed at the organizational characteristics (i.e. structure, priorities and goals), and how different organizational factors, such as culture (shared beliefs and expectations) and climate (shared perceptions) affect implementation is of interest.

Organizational culture and climate have large impact on the organizations (Glisson & Green, 2006), and constitutes together with readiness for change (Armenakis, Harris, & Mossholder, 1993; Glisson & James, 2002), some of the main factors within this phase.

The EPIS model also highlights the innovation-values fit and individual adopter characteristics (Aarons, Hurlburt, et al., 2011), which are relevant factor within implementation research (Durlak & DuPre, 2008; Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004). Innovation fit is defined as the organizations’ and the individual’s understanding of how the intervention incorporates the values, purpose, and service providers’ tasks and responsibilities (Aarons, Hurlburt, et al., 2011; Durlak & DuPre, 2008). If the
intervention itself is not well received among the providers, the willingness to implement is reduced. Hence, individual characteristics of the providers and their personal suitability are also necessary factors to consider in the implementation process, particularly in the active phase of implementation. Demographic variables, adaptability, beliefs, and attitudes toward interventions are all characteristics that could affect future utilization (Damschroder et al., 2009; Greenhalgh et al., 2004).

Another essential organizational factor in implementation is leadership (Harvey et al., 2011; Weiner, 2009), which Aarons and colleagues (2011) also identify. Leaders greatly influence the organizational climate and culture needed for adoption of new interventions, as well as managing the actual process (Aarons, Hurlburt, et al., 2011). Implementation of a new intervention might lead to changes in the organization where leadership becomes particularly important, as it may hinder a negative organizational climate and staff turnover (Aarons, Sommerfeld, & Willging, 2011). More research on leadership and other organizational factors related to implementation is however needed (Ogden & Fixsen, 2014).

Previous studies have sought to identify facilitators and barriers for implementation of evidence-based treatments within community settings (Ringle et al., 2015; Stein, Celedonia, Kogan, Swartz, & Frank, 2013). Within the school context, Forman and colleagues (2009), identified many factors regarding implementation of interventions (e.g., support, financial resources, training and consultation, association between intervention and school philosophy, visible outcomes and ways to address turnover), but these were merely aligned to school staff. For mental health providers working closely with schools, Lyon et al., (2011) observed that from one of the organizations, none of the employees continued using psychotherapy after initial training, indicating that the organizational climate influenced further implementation and continuation. Beidas and colleagues (2012) also investigated provider- and organizational factors relevant for training and implementation with school mental health providers
conducting CBT for anxious children. They did not find a relationship between organizational variables and implementation outcomes, indicating that more research is needed within the school setting on these issues (Beidas et al., 2012).

According to the literature, there are few interventions targeting symptoms of anxiety and depression at the same time in high-risk children (Werner-Seidler, Perry, Calear, Newby, & Christensen, 2017). Even fewer studies are investigating the implementation of such an intervention simultaneously, focusing particularly on the impact of the interventional and organizational factors. Hence, it is important to identify factors that may hinder or promote implementation within this specific context, which requires comprehensive personal resources, as well as cooperation between services, the different service providers and the schools involved.

The Current Study

The present study was part of a multi-site randomized controlled trial (RCT) investigating the effectiveness of the prevention program EMOTION: Kids Coping with Anxiety and Depression (Martinsen, Stark, Rodriguez, & Kendall, 2014). The study took place within the active implementation phase of EMOTION, in a Norwegian school setting (Patras et al., 2016). The program is a newly developed, group-based intervention, which aims to reduce symptoms of anxiety and depression in children aged 8-12 years. Throughout the 10-week intervention period, the children attended 20, one-hour sessions, twice a week during or immediately after school hours. In the sessions, the children focused on learning different coping skills, and strategies to handle sadness and/or anxiousness. The first ten sessions focused on psychoeducation, coping strategies and problem solving, while the last ten sessions focused merely on cognitive restructuring, exposure/behavioral activation and self-image. In addition, the parents were offered seven sessions, four of which were attended by the children. During the intervention, children (and parents) actively participated through
games, role-play, exposure training/behavioral activation and different tasks which were meticulously chosen to enhance the knowledge and coping of anxiousness and sadness.

The primary aim of this study was to identify factors described in the active phase of the EPIS model that promote or inhibit the implementation of the EMOTION program within the group leaders’ organizational context. Secondary aims were to explore predictors of group leader satisfaction with the EMOTION program, and group leader intention to continue using the EMOTION program in their practice. Qualitative data were gathered to explore the group leaders’ experiences with implementing the intervention within the municipal services more deeply and elaborate on questions not captured with the questionnaires.

Method

Participants

Of the 68 group leaders trained in the intervention, 63 completed the group leader questionnaire prior to running groups (93% participation rate), and 97 % (N = 66) completed the post-intervention questionnaire after the groups were finished. The group leaders were qualified health care and childcare professionals from different municipal services (e.g., health care services, educational and psychological services [EPS], and one regional Child and Adolescent Psychiatric Clinic. In Norway, EPS counsellors are employed in municipal services, but work closely with schools to help children and families with various difficulties (e.g., learning disabilities, psychosocial problems etc.). The group leaders were recruited from seven municipalities within the three participating regions (North, Mid, and South East) in Norway. The total sample consisted of 94% women, with a mean age of 39.6 years (SD = 9.7).

A subsample of the participants (n = 12) were selected for in-person, qualitative interviews. Selection for the interview was conducted with a purposeful sampling (Creswell & Plano Clark, 2011) of the total participants. The selection was stratified upon geographic
location providing at least one representative from each of the seven locations. We also chose participants with different professions, educations, age, and experiences with the program. Previous experience working with children and/or manual-based interventions was also included, with the intention of gathering as rich information as possible. The informants were all women; four health care nurses, four psychologists and four educators. Eleven worked in the local municipal health services (e.g., EPC, school health services) and one was working in a child mental health outpatient clinic. All informants had conducted both children and parent groups, however experience with the program varied as some were conducting their first EMOTION groups, while others had run several groups (ranging from 1 to 4 groups, with a mean of 2.6).

Measures
The group leaders completed two different self-report questionnaires, chosen on the basis of available measures at the time guided by the implementation theory relevant for this study. In the startup-phase of a new EMOTION group, the participants completed the group leader questionnaire, assessing organizational and personal characteristics. This questionnaire included demographic variables, work environment, perceived need of the intervention and organizational factors relevant to implementation related to the group leaders` organization (e.g., leadership, organizational culture, autonomy, etc.). Within three weeks after the groups were finished, the group leaders completed a second survey (post-intervention questionnaire) with a different set of questions regarding their experience of being a group leader.

Group leader questionnaire.

Demographics. The demographic questions consisted of 14 variables regarding gender, age, work place, municipality, profession, percentage of full-time employment (e.g., 50%, 100 % etc.), clinical or other specialties, and work experience. Experience was reported both in terms of number of years, and former experience working with anxiety and
depression, treatment methods (e.g., cognitive behavioral therapy), and use of manuals (e.g., Coping Cat; Kendall & Hedtke, 2006) as part of a treatment method.

**Work environment and intervention fit.** Ten questions regarding the work environment of the group leaders’ and intervention fit, were developed for this study to address issues within this specific context. The items were rated on a 7-point Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree). Based on the results of an exploratory factor analysis (EFA), the items indicated three subscales, which were labelled “Innovation fit” (α = .95), “Organizational Support” (α = .71), and “Attitudes towards Evidence Based Programs” (α = .82). None of the items were dropped, but one item (“I have such large workload that it will be difficult to find time to run the EMOTION program”), did not fit into any of the scales, and was reported separately.

**Organizational Readiness for Change.** Inspired by the Organizational Readiness for Change (ORC; Lehman, Greener, & Simpson, 2002), a subset of items from this scale was used (the Employee Problem Scale), but re-phrased to be more relevant to the present study. For instance, the subject of the questions was changed from second person (you) to first person (I) to match the wording of the other questions in the study. Further, some of the subscales were modified. Four items were added to the efficacy scale to focus more on work-related abilities (e.g., “I manage to do positive changes through my work”), and two items that did not fit in this context were removed (e.g., “You have the skills needed to conduct individual counseling”). One question was added to the adaptability scale to assess overall flexibility of the workplace, and one question was added to the autonomy scale to address the freedom to organize work priorities. Lastly, two items from the program goals scale were removed because they did not fit the present context (e.g., “Management here has a clear plan for this program”). This yielded us with a measure of 32 questions with six subscales; Adaptability (five items, α = .62), Program goals (three items, α = .59), Cohesion (six items, α
Efficacy (seven items, $\alpha = .80$), Autonomy (six items, $\alpha = .66$) and Communication (five items, $\alpha = .80$). Reliability analyses showed that the items added for this study maintained or increased reliability in terms of Cronbach’s alpha. Inter-item correlations were sufficiently large (Piedmont, 2014), indicating a fair degree of correspondence between the items. All items were rated on a 7-point Likert scale from 1 (Strongly disagree) to 7 (Strongly agree).

**Readiness for Organizational Learning and Evaluation Instrument.** Also, based on the Readiness for Organizational Learning and Evaluation Instrument (ROLE; Preskill & Torres, 1999) subsets of the questionnaire regarding work culture (e.g. Employees respect each other’s perspectives and opinions), and leadership (e.g. Managers and supervisors set realistic obligations for employees (e.g. time, resources, workload)) were included in the overall survey. Seventeen questions were included in the scale called Work culture ($\alpha = .91$) all rated on a Likert-scale from 1 (Strongly disagree) to 5 (Strongly agree). The Leadership scale ($\alpha = .89$) was also rated from 1-5 and included nine questions.

**Post-intervention questionnaire.** After the groups were completed, the group leaders reported how many groups and sessions (out of 27) they had led. The group leaders also completed questions regarding the satisfaction with being a group leader in EMOTION and the supervision they received. This was rated on a scale from 1 (Very dissatisfied) to 5 (Very satisfied). The last question regarding the intention to continue with the program was rated from 1 (Very unlikely) to 5 (Very likely).

**Qualitative interview**
The semi-structured interview guide was primarily based on Aarons and colleagues’ (2011) conceptual model of implementation, which lead to the major topics (i.e., the intervention itself, organizational setting in relation to implementation of EMOTION, and demographic variables such as experience) with accompanied questions relevant for this
study. The interviews focused on the group leaders’ organizational settings, particularly aimed towards the strengths and weaknesses regarding the implementation of EMOTION. It also focused on strengths and weaknesses concerning the program, as well as specific questions around feasibility and potential threats to a further use of the program. The semi-structured form however, allowed for flexibility to elaborate on relevant issues which emerged during the interviews.

**Procedure**

The intervention was mostly run as part of the group leaders’ regular practice, and delivered at schools. Schools were recruited via key-personnel (i.e., principals at schools) through general information assemblies where those interested signed a contract to participate in the study. Beyond being the context of delivery, the schools had limited liability to the completion of groups. The active phase of the project period lasted from spring 2014 until spring 2016, with a new group running at the participating schools each semester (i.e., up to two groups per school per year). Data were collected electronically by using the Confirmit software system. The Regional Committee for Health and Medical Research Ethics (2013/1909/REK South-East) approved the study.

Interviews were conducted in person (by the first author) and took place at the group leaders’ workplace or other suitable settings (e.g., a nearby café). The interviews were audio taped and lasted approximately 1-1.5 hours. Data collection lasted from August 2015 to February 2016. Due to practical reasons, two informants were present at the same time in one of the interviews. A total number of eleven interviews were carried out, and a verbatim transcription then followed.

**Implementation of EMOTION**

Implementation of the EMOTION program being developed and investigated by the research staff could be seen as an active top-down implementation strategy (Ogden & Fixsen, 2014),
supported by the following activities;

**Recruitment.** Professionals from different municipal and regional health services were recruited as group leaders mainly through meetings with leaders of the respective services and/or leaders of the local municipalities.

**Training and supervision.** The group leaders received a three-day training in the intervention; one day with general introduction in cognitive behavioral therapy (CBT), and a two-day workshop going through the program session by session. Training was conducted by two of the research staff members (program developer and project manager). To avoid bias, all sites received training from both trainers. The group leaders were also offered a one-day booster session after most semesters, to discuss some of the challenges met during the execution of the intervention.

Supervision of EMOTION groups was conducted by certified CBT supervisors. The supervisors met with the group leaders one session prior to startup, and then every week during the ten-week program period (two on-site meetings, the remainder via Skype/telephone or face-to-face meetings). Additionally, the supervisors had regular Skype-meetings with the trainers to discuss important issues during the intervention period, and to secure a similar execution of the intervention across sites.

**Quality assurance.** During the study, video tapes of 17% of the total number of sessions was obtained to ensure fidelity to the program. By using the Competence and Adherence Scale for Cognitive Behavioral Therapy (Bjaastad et al., 2016) the total adherence to the program (rated from 0 = None to 6 = Thorough) was $M = 3.53$ ($SD = 1.25$), and the mean competence score (rated from 0 = Poor skills to 6 = Excellent skills) was $M = 3.59$ ($SD = 1.26$). This indicated that the group leaders followed the manual to a large extent, and carried out the program with good skills.
Data Analyses

Quantitative surveys. Data were analyzed using IBM Statistical Package for the Social Sciences (SPSS 24.0). Descriptive data was mainly the focus of the quantitative analyses. We also investigated the association between background variables and organizational factors to examine whether they were related to the group leaders’ intention to continue with the program and satisfaction with being a group leader using Pearson’s $r$ (two-tailed). To simplify interpretation and give a meaningful impression of the group leaders’ ratings of organizational characteristics (since there are no other studies to compare the results with), the three highest categories for the seven-point scales (5 [slightly agree], 6 [agree], and 7 [strongly agree]), and the two highest categories in the five-point scales (4 [agree] and 5 [strongly agree]) were grouped together and reported as percentages of the mean scale scores.

Qualitative interview. The analysis for this study is mainly a descriptive presentation of the informants viewpoints, and was conducted as follows; The transcriptions were entered into the NVivo data management software program (QSR International, Cambridge, MA, USA), and analyzed using the analytic framework as described by Lacey and Luff (2001). This thematic analysis is inductive and tends to be theoretical driven, which is often applied in health research to gain specific information on a topic. The analysis consists of five key stages; the first stage, familiarization, took place during transcriptions and initial reading of the interviews, which generated ideas and preliminary codes linked to the data. The second stage was to identify a thematic framework. The theoretical frame in this study was based mostly upon the active phase within Aarons and colleagues (2011) conceptual model of implementation. In this stage, Nvivo was used to systematically work through the entire data set and generate codes and first-impression themes. Coding helped to develop a systematic overview of both pre-existing questions (i.e. strengths and weaknesses with the intervention), and newly emerging issues from the previous stage (i.e. collaboration, group process). Then, in stage three, indexing the data to the theoretical framework was initiated, searching for
themes. Examples of themes generated from the data was work related issues, benefits with the intervention and school participation. The fourth stage involved charting the material to create an overview and organizing the coded data into the different themes. This provided the opportunity to recode some of the information and grouping the data systematically into themes such as organizational factors, interventional aspects and school investment. Lastly, interpretation of the material took place, searching for patterns and associations relevant to the theoretical framework and the main aims of this study. During this phase, the first author finalized the thematic structure. The results were validated by a coauthor with qualitative experience, who read and discussed the data until agreement was reached. The remaining co-authors participated in the analytic process through reading and commenting on the qualitative material, by evaluating the clarity and relevance of the coded categories.

Results

Quantitative Surveys

The group leaders’ professional background were mainly psychologists/specialists (35 %), educational-psychological counsellors (18 %) and health nurses (14%) primarily working in the municipal mental health services closely connected to the schools. The group leaders had an average of eight years’ experience in the field (SD = 6.5), and almost 70 % had experience working with anxious and/or depressed children. See Table 1 for an overview of the different background variables.

[Insert Table 1 near here]

The results for the mean subscale percentage agreement were 70% or more for all the organizational subscales, except communication, leadership and work culture. The highest endorsed subscale was the efficacy scale reflecting the group leaders’ self-efficacy regarding work, where 95% of the participants slightly agreed, agreed or strongly agreed with the statements. Similar results were obtained for the innovation fit scale (90%), which explored
the group leaders’ opinions of whether such an intervention was needed in their organizational setting. The leadership scale reflects how the group leaders perceived the general leadership and leadership support within their organization. This scale, together with the work culture scale indicating how the participants perceive the overall culture in the organization, received the lowest endorsements. Less than 30% of the group leaders agreed or strongly agreed with the statements. An overview of the percentages endorsing the highest response categories on the different mean subscales, are presented in Table 2.

[Insert Table 2 near here]

According to the post-group survey, the group leaders (N = 66) received an average of 7.08 (SD = 2.53) hours of supervision, which 62% reported to be satisfied or very satisfied with (M = 3.92, SD = 0.92). On the question of whether they would continue with the program in the future, approximately 53% indicated that they would likely or most likely continue (M = 3.44, SD = 0.96). The correlation between satisfaction with the program and intention to continue was moderate, r = .42, p < .01. There were small, but significant associations between intention to continue and the organizational factor innovation fit r = .26, p < .05, as well as efficacy r = .26, p < .05. Autonomy showed a weak, negative correlation with satisfaction with being a group leader r = -.28, p < .05. Heavy workload was negatively associated with both satisfaction (r = -.36, p < .01) and intention to continue (r = -.29, p < .05). Further analyses showed no significant associations between the demographic variables and satisfaction with being a group leader nor intention to continue. A list of the correlations is presented in Table 3.

[Insert Table 3 near here]
Qualitative Interview

Results from the qualitative analysis show that all three main findings, organizational factors, interventional aspects and school investment include both facilitators and barriers for implementing the EMOTION program. There was a high concordance between the group leaders’ responses, and quotations from different individuals have been chosen to illustrate the results.

Organizational factors. Our first main finding showed that organizational factors promoting and inhibiting implementation was closely related to where the informants worked. Generally, they considered their workplace as a suitable setting for implementing EMOTION, particularly group leaders in the educational and psychological counsellor services (EPC). Reasons expressed were the thematic relevance of their work with the schools, the significance of the work tasks they were assigned by the Directorate for Education, and the need for helpful tools to respond to these demands. They also highlighted the opportunity to reach the children at an early stage because of the closeness to the schools, and potentially preventing larger difficulties to evolve.

“The advantage with working, or to implement EMOTION in EPC is that we work closely with the schools and we know the schools pretty well, including the people working there...and we know their challenges.”

The informants had different types of employment in the organizations. Some were counsellors and health nurses, and others worked as mental health professionals in municipal services where children were referred to care (e.g. family centers, municipal psychology teams etc.). The mental health professionals reported being able to adjust the time schedule instead of adding the EMOTION groups on top of the everyday work tasks, and hence had a larger capacity to run groups.
It will probably be room for it, if I say I want to work with this, I would be allowed – definitely. And my leader is very supportive to the whole project, and yes… it was kind of her who brought it up, and gave us the opportunity to work with it if we wanted to…

However, the informants also expressed some barriers regarding implementation of EMOTION in the municipal context. The main issues were the amount of mandatory work in the normal course of their jobs, lack of support from the leadership regarding the intervention, limited time and resources, and issues reflecting the structure of the services and practitioners’ main tasks (e.g., focusing on educational vs. mental health job tasks).

Recurring issues such as lack of leadership support and time and resources were particularly relevant. The informants who experienced a negative leader emphasized the lack of support as a major threat for the implementation of the program.

I feel that it stops when it comes to resources! (...) Our leader closes his eyes and ears to what I’m doing (...) and then I feel that it was my choice to participate, and I can’t complain (...) but if he had been more positive, then I might get some help…

Further, most of the informants did express issues regarding how this affected their everyday work situation. The greatest concern revolved around how to fit EMOTION into their work schedule. Everyone stated it was time consuming and for many of the group leaders it was challenging running groups in addition to regular mandatory work tasks.

We are doing this on top of everything else; no one is taking away the other work tasks, rather the opposite that we are getting more. It becomes very work demanding and intense periods (...) 

Interventional aspects. The second main finding was related to the intervention and aspects involving the EMOTION program. Every informant agreed that there was a need for
an intervention targeting children with these difficulties, and accentuated elements with the program that was important and helpful for the children.

*Yes, these children are everywhere... (…) So, I think it is a need, and I think it is very important that we set in motion these kinds of preventive interventions for these children... (…) In the end [if left untreated], they are not in on anything, not school, not work, nothing.*

Additionally, the group leaders highlighted the usefulness and the learning outcomes of the intervention, which they could use in other areas at work. Overall, they likewise emphasized the group process as a major benefit of the program and how much fun it was to conduct the groups. However, regarding the less positive aspects, group leaders’ also stated that the extent of the program was a challenge and that the manuals need some adjustments and minor revisions. The majority expressed a necessity to reduce the number of sessions, moderate some of the text and introduce more colors and age appropriate tasks.

*The manual in relation to all the material you were supposed to cover in one session – it was a lot of text in the manual. A little bit like... are you sure...is it expected that you should say all of this? (…) You read it, and you try to communicate in a way the most important topics, but it is... it was impossible to us at least.*

**School investment.** Our last main finding was particularly derived from this study context. For many of the informants, the completion of the groups was highly dependent on the schools’ involvement and participation. The groups were conducted during regular school hours, but many of the informants worked in other offices outside the school premises. If the principal and the teachers were positive, practical issues, such as scheduling groups, became much easier for the group leaders. Also, the group leaders stated that involvement from the
schools made a difference in how the parents and children understood and interpreted the information forwarded to them.

Now I am at a school I know pretty well, so the teachers I work together with this year I know, and they are positive and then it works very well! The first round it was not okay, they were...some of the teachers didn’t think much about [EMOTION] (...) and then it becomes hard!

Discussion

The main goal of this study was to identify facilitators and barriers regarding the implementation of an indicated transdiagnostic intervention, the EMOTION program, being delivered in schools by group leaders’ from mental health and municipal services. Results showed that multiple factors within the active phase of implementation could influence the providers’ likelihood to continue with the program. Especially factors related to the intervention and the implementing organization, as well as factors linked to the context of delivery (i.e., schools) were important issues derived from this study. There was an overall positive attitude towards the program and an obvious need for a program targeting anxiety and depressive symptoms in schoolchildren. However, time pressure and heavy workload seem to greatly affect further implementation. As the results from this study indicate, without a supportive leadership implementation becomes very difficult. Also, collaboration between the services and the context of delivery – in this case the schools – are highly important.

In this study, the perceived fit of the innovation within the organization were associated with the desire to continue with the program. This is an important component to promote implementation. Similar results have been reported previously, indicating that satisfaction with an intervention were one of the most important predictors among school psychologists’ intention to continue the implementation (Forman, Fagley, Chu, & Walkup,
Efficacy was also rated high, indicating that the group leaders considered themselves proficient within their work and having the skills needed to conduct EMOTION groups. Self-efficacy is an important characteristic when implementing new interventions as it also reflects the group leaders’ perceived ability to adapt to change (Jimmieson, Terry, & Callan, 2004). Results from the interviews supported this notion, as the group leaders stated that their service was suitable for running EMOTION groups and that they found themselves in a good position to work with issues related to anxiety and depression. The perceived need for an intervention targeting emotional problems was also evident, and the group leaders found the skills learned to be useful in other areas of their work. The group leaders indicated, however, that to strengthen an overall implementation of the program, some adjustments of the manual would be beneficial.

Previous research highlights the importance of the organizational factors during program adoption and sustainability (e.g., Aarons, Hurlburt, et al., 2011; Durlak & DuPre, 2008; Glisson et al., 2012). Although small, we did find a negative correlation between work load and satisfaction, as well as intention to continue. This suggests that time pressure may threaten the continued use of the program, especially when we consider the intensity of the program compared to similar interventions (Reynolds, Wilson, Austin, & Hooper, 2012). Hence, one of the main characteristics of the program, its intensity, could be a barrier for the implementation in municipal and school health services. This is a typical dilemma in these services, where you want to enhance the intensity of the treatment, but still keep the intervention within manageable limits (i.e., not conducting therapeutic counselling). Future implementation studies should address this effort by investigating how to increase the efficiency without exceeding time constraints or limits at work. Use of combined internet interventions or as part of the regular school curriculum could be adaptations to be explored.
Reinforcing concerns related to time and workload, nearly half of the participants in this study were uncertain if they would continue as group leaders after the project period had ended. Further, a majority (73%) of the group leaders indicated that they had such a heavy workload that it would be difficult to find time to run EMOTION. This is a substantial threat to further implementation of the EMOTION program. An explanation of this result could be limited time and resources allocated to run the intervention, which were recurring themes among the group leaders during the interviews. Unfortunately, this is not an issue uniquely derived from this study, as this has been addressed in several studies recently (Beidas et al., 2016; Bond et al., 2014). To diminish this barrier, reducing other work tasks or hiring enough people to carry out the intervention is required. Furthermore, as previous research has shown, resources and funding to the schools are also important aspects to promote successful implementation and long-term sustainability of interventions within the school context (Eriksen, Hegna, Bakken, & Lyng, 2014).

Similar issues were reflected upon regarding autonomy at work. In fact, the quantitative results indicated that the participants with more autonomy were less satisfied with the program. Findings from the interviews, however, indicated that the group leaders who experienced a possibility to set aside time to do the intervention also spoke more positively of continuing with the program. The group leaders who had to conduct EMOTION groups on top of their normal workload were also more reluctant to continue. Previous findings support the results from the interviews, suggesting that individuals who have the autonomy to create their own schedule and regulate work tasks also feel less overwhelmed and fatigued by the work they do (Hornung & Rousseau, 2007; Ringle et al., 2015). This inconsistency could be the result of unsupportive and disengaged leaders, who apply too much pressure on the group leaders to accomplish a rather comprehensive program in addition to their other work tasks. Hence, a high degree of autonomy is positive for arranging the work tasks and working
schedule, however, it may also lead to negative feelings overload related to their role at work, thereby decreasing the satisfaction with the program. Generally, this implies that for further implementation of EMOTION, autonomy should be given attention, as it seems to affect the practitioners’ attitudes towards the program, and impact future use.

In addition, the level of support the practitioners received from the leaders was important for implementing the EMOTION program. In general, the group leaders rated leadership support moderately and much lower than other constructs in the survey. In the interviews, the importance of leadership support became clearer in the sense that the program would not continue without managers’ intention nor acceptance to proceed. There should be a particular focus on training or informing leaders in relevant issues within the implementation process (e.g., how to lead through change, be aware of potential threats), so that EMOTION, and similar interventions, receives adequate support. Future research could also focus on the higher management levels and investigate whether making more structural changes within the organizational systems (e.g., dedicating employees’ time to do this intervention as part of their regular job) would enhance implementation.

The group leaders emphasized the schools level of involvement as an important facilitator for implementation of the EMOTION program into school settings. Children spend many hours at school, and some of the issues anxious/depressed youth come across are present during school hours (e.g., reading or talking aloud in the classroom). Also, the practical matters would be more easily organized if the collaboration between municipal health care services and the schools were enhanced. Domitrovich et al. (2008) have highlighted the importance of understanding the school’s role and influence when implementing interventions. The lack of a natural meeting point in the Norwegian context between the mental health providers and school officials, except for when individual cases are referred to further assessment, serves as a potential barrier for implementation of EMOTION
and other school interventions. Thus, increased emphasis on how to bridge the gap between the municipal services and schools could possibly result in a better collaboration. Further, a better collaboration could again promote implementation of effective interventions.

Furthermore, in this study, group leaders’ reported that it was easier to run the groups at schools where the teachers and other school staff were better informed about the program. The schools volunteered to participate, but did not have an active role besides providing locations and conducting the surveys with the children. One way to deal with this in the future could be to have the group leaders present the program to school staff thoroughly and discuss with the teachers how to conduct the intervention most adequately within in the school context. This could have the effect of supporting the program in the classroom and raise awareness within the school, as well as reinforcing the collaboration between schools and the municipal services. In the future, gathering information from the schools (e.g., school leadership, teachers) on how to implement EMOTION as best as possible, should be undertaken as this could strengthen future use of the program. Also, testing different implementation strategies (e.g., applying additional training, supervision, feedback systems; Proctor, Powell, & McMillen, 2013), and investigating specific implementation outcomes to overcome some of the barriers extracted from this study should be executed.

**Study Limitations**

Despite the number of practical implications from this study which are applicable for the further development of the intervention in the next phase, there are some limitations. First, the number of respondents are relatively small. Although including implementation research within the context of effectiveness studies is valuable (Proctor, 2009), this presented us with a challenge regarding sample size of group leaders. Future efforts should be made, to design and conduct implementation research to comply with these issues.
There was little variation within the response categories for some of the questions as indicated by the high mean scores and small standard deviations. One possible explanation could be that the group leaders mainly volunteered to participate, which indicate that they were interested in sad and anxious children and at least open to working with manual-based interventions. Some of the measurement scales also had marginal reliability. However, the lack of variation may be normal for these scales, which introduces other issues: lack of normative data and psychometric analyses of the measures used in particular and implementation measures in general (Lewis et al., 2015). Having reliable and valid measures should potentially reduce the need to develop self-constructed questions and questionnaires, like the adaptations to the ORC, which is an additional limitation in this study. This could further advance the statistical analyses, addressing issues such as mass significance, which could imply that the correlations derived from this study must be treated with some caution. Also, due to a technical error, the Culture subscale was omitted from the survey during data collection for two semesters. This caused the number of respondents on that scale to decrease. Finally, during one of the interviews, two of the participants were present at the same time, which could have influenced their responses. Only having one person code the qualitative material is an additional shortcoming of the study.

Conclusions

The current study provides important aspects regarding facilitators and barriers of implementing new interventions targeting anxiety and depression in the municipal services and bringing it into school settings. This challenging maneuver requires organizational leaders, group leaders, supervisors, and school personnel working together to adapt and implement a program.

The group leaders’ clearly indicated a need for a program such as EMOTION targeting children at risk for developing anxiety and/or depression. They also found the municipal
services as a suitable setting for implementing the intervention, and schools an appropriate
arena to reach the children. However, the main barriers were associated with time constraints,
lack of resources and capacity to run groups. Supportive leaders are also important for further
use of the program, as well as a close cooperation with the schools involved. For EMOTION,
revising the manual to fit it more adequately within the municipal service context, setting
aside time and allocating resources in the services or reduce other work tasks, as well as
establishing a cooperation with the schools involved will be important. To promote
implementation of interventions delivered in schools in the future, the mentioned issues needs
to be addressed and incorporated into a strategic implementation plan guided by the results
from this study.
Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent: Informed consent was obtained from all individual participants included in the study. Parents consented on behalf of their children.
References


Glisson, C., & Green, P. (2006). The effects of organizational culture and climate on the access to mental health care in child welfare and juvenile justice systems. *Administration and Policy in*


### Table 1

*Background Variables.*

<table>
<thead>
<tr>
<th></th>
<th>M (SD)</th>
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<tr>
<td>Women</td>
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<td><strong>Age</strong></td>
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<td>Other (e.g. counsellors, family therapists, lecturer)</td>
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<td>Manual-based treatments</td>
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*Note: N = 63.*
Table 2

Descriptive Statistics for the Different Subscales in the Group Leader Questionnaire.

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<tr>
<th>Instrument</th>
<th>Subscale/item</th>
<th>No. of items</th>
<th>M</th>
<th>SD</th>
<th>% positive endorsements</th>
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<td></td>
<td>Org. support</td>
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<td>73</td>
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<td></td>
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<td></td>
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<td>5.69a</td>
<td>0.47</td>
<td>95</td>
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<tr>
<td></td>
<td>Autonomy</td>
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<td>70</td>
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<td></td>
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<td>0.83</td>
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<td>3.48b</td>
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<td></td>
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<td>17</td>
<td>3.73b</td>
<td>0.51</td>
<td>30</td>
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Note: N = 63. \( ^i N = 51 \) for the Culture scale. \( ^a \) Rated on a scale from 1 (Strongly disagree) to 7 (Strongly agree). \( ^b \) Rated on a scale from 1 (Strongly disagree) to 5 (Strongly agree). \( ^c \) Mean scale scores percentages for the highest categories in the subscales. Org. support = organizational support. EBP = Evidence Based Programs. ORC = Organizational Readiness for Change (Lehman et al., 2002). ROLE = Readiness for Organizational Learning and Evaluation Instrument (Preskill & Torres, 1999).
Table 3

Correlations Between Satisfaction and Intention to Continue with Demographic and Organizational Variables.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Satisfaction</th>
<th>Intention to continue</th>
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<td><strong>Demographic variables</strong></td>
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<td>-.08</td>
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<td>Exp. within the field/area</td>
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<td>Exp. With depression and anxiety</td>
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<td>Exp. with CBT</td>
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<td>-.03</td>
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<tr>
<td>Exp. Coping Cat</td>
<td>42</td>
<td>.26*</td>
<td>.11</td>
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<tr>
<td>Exp. Other treatment methods</td>
<td>42</td>
<td>.17</td>
<td>.11</td>
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<td>Exp. Manuals</td>
<td>62</td>
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<td><strong>Organizational variables</strong></td>
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<td>Attitudes towards EBP</td>
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<td>Workload</td>
<td>62</td>
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<td>Adaptability</td>
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<td>Leadership</td>
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<tr>
<td>Work culture</td>
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<td>.01</td>
<td>-.03</td>
</tr>
</tbody>
</table>

*Note: *p < .05, **p < .01, (one-tailed). Exp. = Experience. CBT = Cognitive Behavioral Therapy, EBP = Evidence Based Programs.