

## Abstract

Across the disciplines of psychology, the research to practice gap is gaining recognition. This study used an integrated knowledge translation (iKT) framework to evaluate the acceptability, feasibility, and sustainability of delivering an anxiety intervention for children with autism spectrum disorders (i.e., FYF), in schools. Five participants (three educators and two parents) offered their perspectives on program strengths, barriers to implementation, and adaptations for the school setting. Qualitative data were collected through focus group discussions and analyzed using thematic analysis techniques. The participants provided valuable information about program structure and considerations for implementation in schools. Results indicated that participants found the proposed modified FYF to be acceptable and feasible and recommended pilot testing the intervention. Specific recommendations for adaptations are discussed. This study offers a model for researchers to collaborate with key stakeholders in adapting interventions for use in schools, thereby, bridging the gap between research and practice.

## 1 | INTRODUCTION

A prominent concern among school psychologists is the rise of prevalence rates in child and youth mental health and psychosocial impairments (Allen, 2011). Among children and youth with autism spectrum disorders (ASD), this influx of mental health concerns, specifically anxiety, appears even greater (Hebron & Humphrey, 2014). Whether this increase is due to improvements in professional's ability to recognize and reliably identify psychosocial impairments among individuals with ASD or if the rise is reflective of real escalation has spurred some debate (Mychailyszyn, 2015). Regardless of the root of this upward trend, the number of children with ASD struggling with anxiety is substantial (de Bruin, Ferdinand, Meester, de Nijs, & Verheij, 2007) and warrants attention. Over the past decade, the field of school psychology has advocated for greater access to mental health services for children and youth (Allen, 2011). Despite this pressure, the majority of students who present with mental health problems never receive services (Mychailyszyn, 2015). It is estimated that a quarter of school-age children present with significant mental health concerns yet <30% of them receive any mental health care (Paulus, Ohmann, &

Popow, 2016). This deficiency of services becomes especially troublesome for children and youth with ASD, as their diagnosis often overshadows the need for mental health services, resulting in poorly directed interventions (Hebron & Humphrey, 2014). With anxiety being the most commonly reported concurrent mental health concern (Leyfer et al., 2006) and schools being the primary mechanism for intervention for children and youth with ASD (Doehring & Winterling, 2011), implementing effective school-based interventions for the treatment of anxiety for this population is paramount. Cognitive behavior therapy (CBT) has become one of the primary interventions for the management of anxiety for children and youth with ASD (Fujii et al., 2013) with growing evidence supporting the effectiveness for this population (e.g., J. Reaven, Blakeley-Smith, Culhane-Shelburne, & Hepburn, 2012; Sofronoff, Attwood, & Hinton, 2005; Wood et al., 2015). In a recently completed review (Kester & Lucyshyn, 2018), the evidence base for CBT in treating anxiety for children with ASD was evaluated using the Council for Exceptional Children (CEC) standards for evidence-based practices in special education (Council for Exceptional Children, 2014). Results of the evaluation indicated that modified CBT interventions for children with ASD met CEC criteria for an empirically-supported treatment (EST).

#### 1.1 | Research to practice gap

Several researchers have argued in favor of additional research examining the transportability of CBT interventions to schools (Ludwig, Lyon, & Ryan, 2015; Mychailyszyn et al., 2011), as well as expanding to diverse populations including individuals with ASD. Rotheram-Fuller and Hodas (2015) argued that it is paramount that schools offer modified CBT interventions to address anxiety for children with ASD. They emphasized that many anxietyprovoking conditions for children with ASD are relevant to the school setting and may indeed be primarily schoolbased. Drmic, Aljunied, and Reaven (2017) echoed the importance of school-based anxiety interventions for students with ASD, highlighting that school-based fears (such as making mistakes, talking in front of a group, and

taking tests) can impede opportunities for students to fully participate in school activities.

A challenge shared by many (ESTs) is how to promote the adoption and utilization of interventions in school settings. Despite the formation of governmental organizations commissioned specifically to support the dissemination of educational research, such as the Institute of Education Sciences, few ESTs have been implemented and sustained by educators, indicating a poor translation of research to practice (Anderman, 2011).

This lack of ESTs in school settings may be even more pronounced for children with ASD (Kasari & Smith, 2013).

The provision of quality early intervention to children with ASD during the preschool years often is characterized by highly structured and tightly controlled clinical settings, making it challenging to transition children into neighborhood public schools which are more complex and not as highly structured throughout the school day.

Known as the research to practice gap, a movement has been ignited in the field of psychology to narrow this gap (Chorpita & Daleiden, 2014). Among the barriers to adoption is the preponderance in the research literature of

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efficacy studies, which involve rigorous investigation of an intervention under ideal conditions. This is in contrast to the relatively low presence in the literature of effectiveness studies, which involve the investigation of

interventions under real-world conditions. Researchers across disciplines have noted this imbalance and efforts are

being dedicated to effectiveness studies that investigate the implementation of an EST under real-world conditions

(Ghate, 2016). Within the field of educational psychology, there is a growing interest in examining the process of

translating research into clinical practice using implementation science (Forman et al., 2013). Defined as the study

of methods and strategies to promote the adoption and integration of ESTs into practice settings (Eccles &

Mittman, 2006), it has been argued that implementation science is essential to the successful integration of ESTs

into the unique context of schools (Forman et al., 2013). Central to this process is an investigation of how to modify an intervention to fit the characteristics of a setting, such as schools, while maintaining core components of the intervention. One promising strategy in optimizing adoption of interventions, by making research more relevant to practitioners, is integrated knowledge translation (iKT; Canadian Institutes of Health Research, 2012).

iKT is defined by the Canadian Institutes of Health Research as a collaborative approach to research that simultaneously engages researchers and knowledge users in the exchange, synthesis, and application of knowledge (Canadian Institutes of Health Research, 2012). A key process of an iKT framework is collaboration at each stage in the research process (i.e., development of research questions, selection of methodology, data collection, interpretation of findings, and approach to dissemination). Fundamentally, this framework involves a two-way interaction between researcher and knowledge user in developing, sharing, and applying knowledge.

Traditionally, sharing of knowledge from researcher to practitioner has involved two distinct phases. The first phase centers around the development of an intervention followed by extensive testing of efficacy in controlled conditions. Next, when “sufficient” evidence accrues, the intervention is transported to community settings where modifications are made to respond to contextual variables. This route to dissemination limits opportunities to integrate perspectives of front-line practitioners and may threaten the fidelity of the intervention when applied in community contexts, as knowledge users report that they spontaneously modify interventions to suit their ecological setting (Stahmer et al., 2015). In contrast, iKT requires a reciprocal dialogue between researcher and knowledge users from the onset of research design. As a result, important contextual variables are actively incorporated during the intervention development phase, leading to greater acceptability and implementation fidelity in community contexts.

Within an iKT framework, two pivotal mechanisms enhance the usefulness of research findings, which in turn, improves the uptake of an intervention in community settings (Gagliardi, Berta, Kothari, Boyko, & Urquhart, 2016).

First, the on-going relationship between researcher and knowledge user builds a partnership based on trust and a shared vision, as well as provides early identification of possible discrepancies between perceived needs and actual needs, maximizing the creation of relevant knowledge. Second, gaining an understanding of the perspectives of knowledge users allows researchers to more effectively develop interventions to match contextual circumstances (McGrath, Lingley-Pottie, Emberly, Thurston, & McLean, 2009). Together, these features serve to build the capacity of knowledge user and the sustainability of an intervention.

### 1.2 | Facing Your Fears (FYF)

FYF is an empirically supported CBT program designed specifically for children with ASD (Reaven, Blakeley-Smith, Nichols, & Hepburn, 2011). FYF is a family focused group intervention with 14 weekly sessions of 1.5-hr duration and includes large-group components as well as child-only and parent-only break out groups to target session-by-session goals. The 14 weeks are divided into two treatment blocks: the first seven sessions offer psychosocial education about anxiety symptoms and basic CBT strategies, while the last 7 weeks focus on the implementation of specific tools through graded exposure practice.

In the first evaluation of FYF, a pilot study, in which 33 children with ASD and anxiety and their parents participated, showed a significant decrease in the anxiety of children in the treatment group compared with a

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waitlist control group (Reaven et al., 2009). Similar results were obtained in a randomized control trial with 47 child and parent pairs (Reaven et al., 2012). Participants who completed FYF demonstrated a reduction in anxiety symptoms as well as endorsed fewer anxiety diagnoses compared with children in the treatment-as-usual group.

Although these results are promising, the studies were conducted in clinical research settings facilitated by

experienced psychologists. To address the issue of transportability, effectiveness trials have investigated the delivery of FYF in: a home setting using a telehealth version (Hepburn, Blakeley-Smith, Wolff, & Reaven, 2016); a community clinical setting delivered by clinicians previously inexperienced in implementing CBT with youth with ASD and anxiety (Reaven et al., 2015); and a school setting implemented by educators (Drmic et al., 2017). In each study, results showed positive treatment outcomes for participating children and youth, with a significant reduction in anxiety symptoms reported post-intervention. Also, participants across the studies reported high satisfaction ratings of acceptability and feasibility of the intervention delivered in each community setting. Together, these findings suggest the potential feasibility, acceptability, and effectiveness of implementing the FYF program in settings other than the clinical research setting, including schools.

### 1.3 | Study aims

The current study had two primary aims. First, we sought to understand key stakeholders perspectives on the acceptability, feasibility, and sustainability of FYF (Reaven et al., 2011) in the school setting. Using an iKT framework, we engaged in discussions with educators and parents of children with autism and anxiety to obtain their perspectives on implementing FYF in schools. A second aim was to apply the knowledge gained from educators and parents to facilitate adaptations for a school-based version of FYF. Building on the view that schools have the potential to be prominent and accessible settings in delivering CBT interventions to children with ASD, the study aimed to identify essential adaptations to FYF to support implementation in a school setting by educators. In collaboration with knowledge users, a proposed school-based FYF was developed with the intention of examining effectiveness in a subsequent study.

## 2 | METHOD

This qualitative study used a thematic analysis approach using focus groups to examine knowledge users' perspectives on the acceptability, feasibility, and sustainability of a school-based FYF. Focus groups are well suited

for iKT research given that they offer a platform to capture in-depth information through a back-and-forth dialogue among participants. A “hallmark of focus groups is their explicit use of group interaction to produce data” (Morgan, 1997, p. 2) that can be used to develop, refine, or evaluate existing interventions.

## 2.1 | Participants and settings

Participants in the current study were key stakeholders from one public school district in the Vancouver area of British Columbia, Canada. There were two participant groups; one comprised of educators and a second comprised of parents of children with ASD and anxiety. The educator group consisted of three educators, all in the position of learning support teacher (LST), from three different schools within the district. Two LSTs were in an elementary school (Kindergarten to Grade 7) and one was in a high school (Grade 7–Grade 12) at the time of the study. All were female. The number of years of work experience the educators had in the district ranged from 7 to 9 years. All educators had experience with and knowledge of ASD and some experience with the FYF program, with two of three educators implementing some aspect of the program. The educator focus group took place after school hours in the library of an elementary school within the school district.

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The parent group consisted of two parents (both mothers) of a child with ASD and co-occurring anxiety symptoms or a formal diagnosis of anxiety. The children ranged in age from 10 to 12 years old. Demographic information such as age, occupation, and education was not collected for the parents. One child was diagnosed with PDD-NOS and Generalized Anxiety Disorder, and the other was diagnosed with ASD and demonstrated anxiety symptoms. Both children were fully integrated in a mainstream classroom in a public elementary school in their community. Both parents had previously participated in the program with their child in a clinic setting. The parent focus group took place at a time convenient to participants, in an office in a private clinic in the city shared by the school district.

## 2.2 | Data collection and focus group procedures

Both groups participated in two group discussions; a primary session and a follow-up session, scheduled 6 weeks apart. The sessions ranged from 60 to 75 min in duration. Discussions in the first sessions centered around two major components to align with the manualized FYF program; a psychoeducation component and an applied graded exposure component. Three guiding questions related to program strengths, barriers, and adaptations were used to guide the format of the focus group discussions, with each question discussed until saturation. In the follow-up sessions, emerging themes from the first sessions and a proposed modified FYF program based on participants' perspectives was presented, followed by a facilitated discussion. Written consent was obtained before participation. Each participant was given the opportunity to ask questions about the process and the researcher reviewed the process of informed consent before beginning each focus group session. A minimum of 2 weeks before the initial focus group session, participants were given access to the Facilitators Guide to Facing Your Fears: Group Therapy for Managing Anxiety in Children with High-Functioning Autism Spectrum Disorders (Reaven et al., 2011) and a condensed overview of the program, highlighting key components of the original FYF program. Participants were asked to familiarize themselves with the material in preparation for the focus group discussion. Focus group discussions were facilitated by the primary researcher. Participants were informed that the information gathered would be used to modify the current FYF program, creating an independent variable in preparation for a quasi-experimental group study. Upon completion of the second focus group session, participants were thanked and given a gift card of \$50 from a place of their choice for participation.

### 2.3 | Qualitative coding

Discussions from each focus group session were audiotaped and transcribed verbatim, and transcriptions were checked for accuracy against the audiotape. Focus group data were then analyzed using thematic analysis. This approach provides a vivid and detailed account of data, yet allows flexibility for patterns and themes to form

without a fixed hypothesis (Braun & Clarke, 2006). Given these elements, this study tool is ideally suited to understanding participants' perceptions of the intervention in depth and allowed us to evaluate the fit of the intervention within the school context.

A coding scheme was developed through a combined deductive and inductive process. To begin, based on the guiding research questions, three broad categories were deductively identified; strengths, barriers, and adaptations. Next, transcripts were inductively coded by key statements to identify repeating patterns as categories. These were used to develop a tracking sheet of code titles and definitions. Transcripts were then reread and codes were applied. When passages contained more than one theme, all relevant codes were applied. During the next stage of analysis, data were sorted and organized, and separate charts for educators and parents were created. A chart consists of a list of codes and their frequency of occurrence. Subsequently, the relationship between codes was analyzed and collapsed into themes and subthemes. Consideration was given to breadth (i.e., number of individuals mentioning a theme and frequency of occurrence) and vigour (i.e., the strength of view as illustrated by amplifying words such as "super \_\_\_\_, "really," or "extremely") in interpreting the data. Categories

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across groups were compared to identify similarities and differences between the educator group and parent group. The information provided by educators and parents was used to inform proposed adaptations to FYF for use in the school setting.

Finally, in accordance with an integrated KT framework, findings were shared with participants in a follow-up focus group and themes were validated for content using member checking (Lincoln & Guba, 1985). Specifically, a summary of themes and illustrative quotes were presented to participants and they were asked to comment on whether the results reflected their perspectives; they were also provided with an opportunity for further comments.

A proposed modified intervention was then presented for knowledge users' feedback. Focus group discussions concluded with eliciting participants view on pilot testing the proposed modified intervention in schools.

### 3 | RESULTS

A thematic analysis approach (Braun & Clarke, 2006) was used to investigate perceptions of fit of the FYF program within a school context. Six main themes were initially identified across the educator and parent data: (a) strengths of FYF; (b) barriers to transportability to school context; (c) the importance of a team approach; (d) intervention agent; (e) effective communication; and (f) procedural structure of FYF. In the follow-up focus group sessions, two additional themes emerged: sequencing of cohort sessions and the selection process for eligibility. Themes were similar across the two groups, therefore, data were collapsed with differences highlighted where they exist. Representative quotes are provided throughout as descriptive examples of the data. Using a member check technique, participants across the two groups confirmed that the findings were congruent with their perspectives. This was supported by statements such as "yes, I would agree with that" and "this sounds really good." A summary of the main findings is displayed in Table 1, along with corresponding frequencies of responses to describe patterns of the data.

#### 3.1 | Strengths of FYF program

All the participants agreed that offering a school-based anxiety intervention for children with ASD was needed and addressing anxiety was essential to foster learning in all areas for these children.

Parents noted that much of the

TABLE 1 Themes, subthemes, and frequency of responses

Theme	Subtheme	Frequency of responses		
	Educator group	Parent group	Total	
Strengths	Format	7	5	12
	Content	8	9	17
Barriers to transportability	School capacity	12	10	22
	Scheduling	3	4	7
Commitment		6	0	6
Team approach	Parent involvement	6	7	13

Class involvement 4 3 7

Administrator support 4 2 6

Intervention agent 6 5 11

Communication 5 2 7

Procedural structure Exposure practice 4 2 6

Scheduling 3 1 4

Cohort sequencing 2 2 4

Selection process 3 0 3

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anxiety their child experiences stems from the school environment while educators agreed that targeting anxiety at school would be helpful in addressing school specific anxieties.

Strengths of the FYF program identified by participants were similar within groups (i.e., agreement among

educators) and between groups (i.e., agreement among the educator group and the parent group). The most

pronounced identified strength was the format of the intervention program. Both groups were drawn to the

systematic structure of lessons and the combination of separate, dyadic, and group-based activities. In describing

the presentation of information, one educator stated "I like that it takes you through lessons and that it structures

it for you so that you do not have to reinvent constantly." This statement was supported by a parent who

commented, "I really liked the structure because we are not a very systematic family but...having some sort of

planned practice was enough for us to keep the vocabulary and the awareness." In terms of group structure, one

parent commented positively on the organization of the group:

I just like the way the group is in that we meet as a group and then we separate, so we as parents get a little bit

of separate time, and then we come together. I just really like that. I think it's nice.

Similarly, educators discussed the value of the structure, "I think the flow of the sessions is really meaningful; I

can see how valuable that could be."

Both educators and parents believed that the format of the intervention offers several benefits, including

relationship development, a generalization of skills, and normalization of anxiety. First, participants shared how the

collaborative nature of the intervention contributes to rapport building and the development of a positive relationship between child and coach (parent or teacher), specifically during sessions that focus on exposure practice. As one educator described, "I think the relationship building piece around the coaches supporting the student, I think that has been our case, a very positive thing. There's so much trust that has been built and, just time to connect." Parents also expressed a growing positive connection, as in the comment by one parent that, "you're doing it with your child which I think is really powerful...it helps to build trust." Generalization of skills also was viewed by participants as a benefit emerging from the format of the program. The step-by-step process of activities, such as cognitive restructuring and graded exposure, coupled with inclusion of home practice were seen as promoting generalization. For example, referring to her child spontaneously using helpful thoughts, one parent excitedly shared "that a little bit of magic just happened. I did not encourage it or anything; it just happened and it benefited both of my children." A third benefit consistently appearing throughout the parent data, and to a lesser degree the educator data, is how the format of FYF provides an opportunity to normalize anxiety. Participants remarked that the nature of the group creates an opportunity for individuals to witness and connect with others who are experiencing similar struggles with anxiety; both at a child and parent level. As one parent noted, "The fact that it is a community, it's a group; it is a normalization of what's going on." Another strength identified by all group members was the content of the program, consisting of information and tools. Parents commented on the value of having the background information to explain the content, whereas educators focused on an understanding of the content despite not being clinically trained in cognitive behavioral therapy. Educators and parents shared common perspectives on the utility of tools incorporated in the FYF program. Most notable were externalizing anxiety through participation in the worry bug activity, adopting helpful thoughts through cognitive restructuring, rating, and tracking specific worries using a personalized stress-o-meter

and Fear Tracker, as well as calming oneself through the use of progressive muscle relaxation.

### 3.2 | Barriers

Several prominent themes emerged across educators and parents related to barriers in implementing the FYF

program in the school context. The most prominent barrier identified by all participants was school capacity. For

educators, this primarily centered around staffing issues while for parents, staff training and effective support

regarding anxiety were central. Underlining these concerns was a perceived lack of funding and resources, as well

as scheduling and space problems. Other perceived barriers were the possibility that staff and/or parents'

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commitment to the intervention might fade over time, and that members of the school's administrative team may

differ in regard to the value of the intervention, thus diminishing administrative support. In describing insufficient staffing as a barrier to implementing FYF in schools, one

educator summed up a

substantial discussion: "The barrier is the availability of staff...having the consistency in implementing the

program...the ratio of staff...we just keep coming back to there isn't enough time." In a similar view, parents

discussed and empathized with the workload of teachers: "There is a lot of demand made on these people's time

and now this is another demand." Parents alone expressed concern that school staff may fail to recognize that

anxiety is a root cause of the problematic behavior displayed by their children and advocated for a greater

understanding by all school staff: "That's where it really has to start with, I think, is for the adults to understand

what's really going on...I think that a lot of people still don't believe that it is anxiety."

Scheduling also was identified as a potential barrier by both educators and parents.

Both focus groups

unanimously voiced concern about the ability of school staff to consistently run the group sessions in light of many

competing demands within the school day: "A barrier is just time because there is so much already packed into the

school day." In addition, the time of day, the frequency of the intervention, the duration of sessions, as well as the

total number of sessions were highlighted as possible challenges for schools. Educators, but not parents, reported fear of waning commitment to the program: “The commitment sometimes isn’t always there. At the start [parents and staff] are “this is a really good idea”...my worry is that you get three sessions in and it kind of falls off.” This view was expressed by an educator who directly observed a reduction in commitment over time by colleagues implementing an intervention program focused on teaching social skills to students with ASD.

### 3.3 | Recommendations

Enthusiasm for the transportability of the FYF program to the school setting was shared by educators and parents.

Both groups believed a school-based FYF could be a feasible intervention for schools with some modifications.

Several themes emerged during focus group discussions regarding recommendations in developing a school-based

FYF, with considerable overlap between the two groups. These recommendations were organized into the following

four themes: (a) team approach; (b) intervention agent; (c) effective communication; and (d) procedural structure.

#### 3.3.1 | Team approach

Participants across focus groups concurred that a team approach was vital to the success of implementing schoolbased

FYF. Subthemes relevant to a team approach were inclusion of parents in the intervention, class involvement,

and having strong and committed support from administrators.

Both educators and parents discussed the benefit of having parents involved in the program and agreed that

maintaining this component is desirable. One educator noted “The hook that you got in this program is that you

bring parents in for every session from the get-go to do the activities and all of that; that’s where I feel the value

lies.” Parents also stated that it was important to be part of the intervention, expressing appreciation that “I also

get to hear what [my child’s] hearing...instead of just sort of hearing about it after.”

Interestingly, both groups advocated for incorporating the class into the intervention, including teachers and

classmates, by providing a class-wide component. An educator reflected, “I think it would actually be really cool to

have a segment of it that is for the whole class.” This view was strongly supported by parents, who highlighted that a class wide component would exposure all students to the information and thus ‘it becomes a part of the culture of the classroom.” As described by one parent, “A big piece of the puzzle is just educating the other kids too, so they understand what the behavior is and it normalizes it a bit.” Participants also noted the prospective outcome of enhanced generalization of skills with class involvement.

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In terms of administrator involvement, educators understandably were more cognizant of the importance of administrative support. They held that for FYF to be effective in the school environment, “it has to be a district approach” where support for the program (such as promotion of the program, training, and recruitment of staff and participants) originates at the district level and is filtered down to individual schools. Parents echoed the recommendation that offering FYF in schools may be best approached through a district program.

### 3.3.2 | Intervention agent

In discussions of who may serve as the most effective intervention agent in delivering a school-based anxiety intervention for children with ASD, educators and parents differed slightly in their views. Parents made a case for including educational assistants (EA's) as primary intervention agents. Their rationale rested on the view that it is important for EA's to get the information and support in coaching students through anxiety provoking situations “cause they're the ones with the kids all of the time.” In contrast, educators commented on the frequent absence of EAs, which can lead to limited consistency of implementation and gaps in the EA's understanding of the intervention. They also expressed hesitation in regard to the skill level of EAs in implementing the program without extensive training and support. Instead, educators focused on LST and school counselors as viable candidates to serve as main intervention agents. Both groups believed that classroom teachers should be included in the

intervention, but to a lesser extent as they may be too overwhelmed by other responsibilities.

Through the member check in the follow-up focus groups, educators and parents emphasized the importance of incorporating professionals with mental health training, such as counselors, into the program. Educators held that it was critical to have a counselor lead the parent group sessions. Parents also emphasized how helpful it can be to have guidance on mental health issues by a trained mental health professional. Drawing on her own experience, one parent highlighted that the parent group “in a way becomes a parent support group”; therefore, the training that counselors receive makes them best equipped to facilitate the parent group. Common to both groups was the recognition that regardless of who may fill the role of intervention agent, the need for training is essential before implementing the program. For the participants, training involved the particulars of this specific intervention, but also included additional information about understanding anxiety among the ASD population. The importance of increasing knowledge about anxiety was more pronounced among parents.

### 3.3.3 | Effective communication

Participants from both groups reported the importance of active and effective communication among all participating members. Consistently highlighted was regular communication between school and families: “That connection with home and making sure that home is on the same page; we all know how valuable and integral being on the same page as home is.” Although definitive solutions were not presented for effective avenues of communication between schools and families, one option was presented by the educator group. To support communication of intervention progress, the possibility of using an on-line platform, such as FreshGrade or Google classroom, was proposed. Other partnerships identified and discussed included communication between closely involved team members and peripherally involved team members, such as between the FYF facilitator and classroom teacher; and across

FYF team members. Based on a format used in a clinical setting, one parent talked about the value of planning sessions, in which FYF team members are given the opportunity to plan and practice before sessions and debrief after sessions: “So there would have to be time again for that, for a school team to do [planning and debriefing sessions], I think, for it to be really effective.”

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### 3.3.4 | Procedural structure

Educators shared more insights into logistical adaptations to suit the school setting than parents. Parents, besides advocating for frequent exposure sessions (i.e., “three...per week”), focused on ensuring accountability of program implementation rather than what the program might look like logistically. To ensure accountability, one parent suggested that “you need a psychologist on the school part, on the school team to kind of oversee it all.” This view was reiterated by educators, who added that a school psychologist would provide “a good addition to bridge the gap” between the district as a whole and individual participating schools. Also, like their parent counterparts, educators viewed the frequency of exposure sessions as central to the impact of the program:

We’re running this [exposure] once a week, I mean ideally, we [school] would be running it more than that to be, I think I would say, to actually gain some ground it would be great to be doing it more frequently.

The structure of graded exposures in a school-based intervention also was discussed by the educator group.

Factors considered were the type of exposure targets and how to structure exposure sessions to maintain

stakeholder involvement across the school and home environments. The educators proposed a step-wise format, in which a step in a student’s fear hierarchy is first practiced at school. After the student “tried their exposure at school, [and] you have worked through it, building that growth,” then the same step is shared with home and “the family is working on generalizing it and doing it at home.”

A final subtheme under procedural structure identified as requiring modification was scheduling. Specifically,

educators discussed finding an ideal time frame to offer the program that aligns with the school calendar, suggesting to “schedule for a time of year that you have the largest chunk of uninterrupted time.”

### 3.3.5 | Cohort sessions

A new theme emerging from follow-up focus group discussions was the sequencing of cohort sessions. Both groups voiced that cohort sessions should be sequenced deliberately. Educators suggested that parent sessions should occur before the student sessions: “I almost wonder if it would be helpful to have the parent lessons earlier in the week then [the] students’ [lesson]. The parents [then] are prepared to know what the students are coming home with.” Analogously, parents considered it important for the child sessions to precede the class sessions, providing students with ASD exposure to the information in a more structured and concrete manner before participating in the class lesson. One parent commented: I like how [the small group lesson] is a little bit of preloading, and then they [student with ASD] hear it again [in the class lesson] and everyone else hears it, including the teacher. Then [the next small group lesson] reinforces the information. It is beautifully set up.

Given these recommendations, the systematic organization of sessions would be as follows: (a) parent sessions, (b) students with ASD sessions, and (c) class-wide sessions.

### 3.3.6 | Selection process

Another new theme identified in the follow-up data, appearing in the educator group data only, was the selection process for eligibility, including the logistics of the referral process. Specifically, educators posed questions about the process for identifying and referring students to receive the intervention. Questions raised included: What is the criteria for eligibility to be considered for the program; who is responsible for determining eligibility; when would the referral process occur; what is the process of referral; and who is responsible and who needs to be

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involved in the referral? Such questions bring to light procedural challenges for school-based FYF. Group members

also offered potential answers to these questions. In regard to eligibility, educators viewed FYF as a tier 3 intervention, at least within their district, and therefore, suggested that the referral process could follow a process similar to existing tier 3 interventions. They also recommended that the referral process have inclusion and exclusion criteria. Lastly, they agreed that it would be essential to have a commitment from team members at the time of referral.

### 3.3.7 | Acceptability of the proposed modified intervention

At the end of the follow-up focus group, participants were presented with a multiple-choice question that asked if they would recommend pilot testing the proposed modified intervention in the school context (see Table 2 for an overview of the proposed modified FYF). Possible answers were “definitely yes”; “yes with reservations”; no opinion”; “no, but with revisions might be worth consideration”; and “definitely no.” All participants responded with “definitely yes.” Relevant to the acceptability of the proposed intervention, both groups noted that FYF complements self-regulation programs, such as Zones of Regulation® (Kuypers, 2011) and Mind UP® (The Hawk Foundation, 2011), currently being implemented in schools within this district. All participants expressed the view that the proposed FYF has the potential to extend this learning. As one educator described, “it breaks down that yellow zone, where you kind of get stuck.

## 4 | DISCUSSION

The study provides a qualitative understanding of educator and parent perspectives on how FYF may be implemented in a school setting to address anxiety in children with ASD. A key finding of the study was that members of both knowledge user groups expressed the view that providing intervention to manage anxiety for children with ASD is a worthy intervention target for schools. While it was expected that parents would view treatment of anxiety in schools as important, given their abiding interest in their own child’s needs, the strongest endorsement came from the educators. This finding is encouraging in light of claims that educators often prioritize

academic goals over social-emotional goals (Locke et al., 2015). Also encouraging is the support educators and parents expressed for pilot implementation of the proposed modified intervention in schools.

Several other findings may guide successful implementation of FYF in schools to address anxiety for students with ASD. Educator and parent perspectives on suitable intervention agents indicated the importance of a team approach. Educating and involving multiple agents at school, including individuals who may not be directly implementing the intervention, was viewed as crucial to the effectiveness and sustainability of the intervention. The inclusion of mental health professionals, such as school-based counselors and psychologists, was emphasized by both groups. This is in line with recommendations by the authors of the original FYF, who acknowledged that although professionals from a variety of fields may successfully implement the intervention, due to the psychiatric complexity of children with ASD, consultation with mental health providers is crucial (Reaven et al., 2011). Parents, and with some reservation educators, suggested that EAs could be an effective intervention agent and valuable addition to the team considering schools' reliance on paraprofessionals in supporting students with ASD. Educators, however, cautioned that this group of paraprofessionals would require substantial training to fulfill this role. This finding is not surprising in light of research that indicates the majority of paraprofessionals lack the training necessary to deliver effective support to children with ASD (Stahmer et al., 2015). Knowledge users noted that for EA's to acquire the skills necessary to assist in treating anxiety in students with ASD, in-depth training would need to be provided. This view is consistent with research that shows that Behavioral Skills Training, a training method that incorporates instruction, modeling, behavioral rehearsal, and direct feedback, is effective in teaching educators and parents to implement ESTs with fidelity (Gianoumis, Seiverling, & Sturmey, 2012).

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Qualitative findings also showed that educators and parents agreed that parent involvement in a school-based

anxiety intervention is essential. The importance of parental involvement in the treatment of childhood anxiety is well founded and consistently recommended for the ASD population (Moree & Davis, 2010). Active parental participation has been shown to affect both the magnitude of change in children's level of anxiety and their ability to generalize the use of strategies to self-regulate their anxiety. In a randomized control trial of CBT conducted by Sofronoff et al. (2005), 71 children (aged 10–12 years) diagnosed with Asperger syndrome and anxiety were assigned to one of three groups: Intervention 1 (child only group), Intervention 2 (child and parent group), or a

TABLE 2 Overview of proposed modified school-based Facing Your Fears Program structure

10-week program with 1-hr, weekly sessions

2–3 Students in a group

1 Facilitator (school-based Counselor); 2–3 coaches (Learning Support Teacher and/or Educational Assistant)

School-based psychologist in consultative role

District-based program with a “host” school for sessions

Session content

Week Small group Class Parent

1 Welcome to group Understanding worry Introduction

Getting to know you Understanding feelings Overview of program

Learning about emotions What makes me worry Parent role

What makes me worry False alarm/real danger Questions/answers

2 Understanding worry

Time spent worrying

False alarm/real danger

What worry does to my body

Relaxation training

3 The mind-body connection Calm body-calm mind Understanding Facing Your Fears

Stress-o-meters and measuring

anxiety

Externalizing worry Adaptive/excessive protection

Worried minds and helpful thoughts Thoughts-feelings-actions Worried minds

Identify priority worries Calm body strategies Plan to get to green

Calm mind strategies Creating exposure hierarchies

4 Calm body-calm mind

Learning facing fears

Plan to get to green  
5 Steps to success-introduction to exposure  
Steps to success  
Creating exposure hierarchies Fear hierarchies  
Learning facing fears  
6 Exposures and making movies Calm body-calm mind  
Practicing facing fears Plan to get to green  
Making movies Learning to set goals  
7 Exposures and making movies Exposure coaching  
Practicing facing fears Review child progress  
Making movies How to identify and target new worries  
8 Exposures and making movies  
Practicing facing fears  
Making movies  
9 Exposures and making movies Exposure coaching  
Practicing facing fears Review child progress  
Making movies Identify and target new worries  
10 Graduation

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waitlist control group. The two intervention groups participated in the same 6-week, clinic-based CBT program.

Parents in Intervention 1 were provided with information about their child's participation in group and home

practice assignments while parents in Intervention 2 received training and coaching in the use of strategies.

Quantitative and qualitative data demonstrated several significant differences between the two groups, with the

combined child and parent group reporting a greater reduction of anxiety symptoms and increased competence

among parents in supporting their child to use CBT strategies.

Educators and parents also provided important suggestions regarding the process of implementing FYF at

school to ensure success. Of highest priority was the inclusion of classmates by offering a class-wide component.

Integrating strategies into the regular classroom may be less stigmatizing for students with ASD. Furthermore,

educators noted that participation could provide the opportunity to develop empathy, compassion, and patience

among peers. It also was noted that many typically developing peers may experience some degree of anxiety and thus would benefit from the psychoeducation lessons in FYF. To date, no published studies have examined the effects of an anxiety intervention delivered simultaneously to both students with ASD and students without ASD. There is, however, a large body of research on universal prevention programs delivered in schools that have yielded improvements in emotional, behavioral, social, and academic functioning for students without ASD (Allen, 2011). Educators and parents also offered specific recommendations regarding how to structure the school-based FYF program. These included: (a) ensuring the FYF was a district-based program; (b) sequencing cohort sessions; (c) including parent coaching strategies to complement graded exposures conducted at school; and (d) emphasizing emotional self-regulation through active rehearsal. Practical considerations for planning and implementing FYF at school also were provided. For example, knowledge users suggested that session duration and program length be adjusted to suit school scheduling. Specifically, it was recommended that individual sessions be reduced from 90 min to 60 min and the original 14 weeks be converted into 10 weeks. Other revisions included changes to vocabulary and modifying graphics to be more reflective of the concepts that visual supports are designed to illustrate. Last, knowledge users supported maintaining the systematic approach of FYF presented in the manual yet suggested it be infused with a modular approach that allows flexibility and individualization to match students' needs and skills. The benefits of allowing individualization, whereas adhering to overall fidelity is commonly reported in studies examining interventions designed to support the social needs of children with ASD (Kasari & Smith, 2013).

#### 4.1 | Limitations and future directions

The study has three limitations. First, the study's small sample size may limit the generalizability of the findings and their implications for the adaptation of FYF to school settings. Although the effort was made at the onset to recruit

more participants in each focus group, time constraints related to the impending end of school year precluded doing so. Nevertheless, the small groups provided a greater opportunity for participants to voice their perspectives in detail and allowed pursuit of perspectives in a consistent manner. As Morgan (1997) has pointed out, larger groups involve a risk of loss of data due to simultaneous conversations that are difficult to track on voice recordings. Second, despite an effort to recruit educators with varying roles (i.e., School Counselors, Classroom Teachers, LST, and Educational Assistants), the educators who enrolled in the study shared a common role: LST. Limiting the educator focus group to one role precluded gaining insights into the perspectives of other relevant roles at school. At the same time, given that the participating knowledge users represented three different schools, and given their role in consulting with teachers and parents on instructional adaptations as well as providing direct support to students with ASD, the participants were uniquely positioned to provide insights into the needs of children with ASD within an FYF program modified for schools. Third, participants were drawn from a single school district. Some features of this district may have affected the perceptions of knowledge users, such as district endorsed policies and programs that support self-regulation skills, the school district's small size in comparison to surrounding districts, and the relative affluence and high level of education of parents. In line with qualitative research, the study makes no claims about generalization. Instead, the findings are offered as a starting point in considering how to modify FYF for implementation in a school setting. It provides one example of how integrating knowledge users' perspectives into the research process can enhance the feasibility and acceptability of an intervention, which in turn may increase the sustainability of the intervention in educational settings. The results of the present study suggest three directions for future research. First, the iKT approach used in this

study may serve as a model for future research on adapting effective interventions for widespread dissemination.

Additional studies using an iKT approach could further bridge the gap between research and practice, empowering

knowledge users to apply the findings from research in their practice. Second, given that counselors and

psychologists typically are relied on within the school setting to provide mental health services, it would be

advantageous to include their perspectives in the further development of a

school-based FYF. Finally, the next step

in this line of research will be to conduct an effectiveness study of the modified FYF program in school settings. An

effectiveness study will further advance our understanding of the feasibility of a

school-based FYF, contributing to

the overall implementation of empirically supported interventions in schools.

## 5 | CONCLUSION

The study represents a small yet valuable contribution towards bridging the

research-to-practice gap. Specifically, it

addresses issues of transportability of an anxiety program for children with ASD to the school setting. Focus groups

were conducted to understand knowledge users' perspectives on the strengths and barriers of FYF as well as

practical considerations for implementation in the school setting. Taken together, the

insights provided by

knowledge users informed the design of a proposed modified FYF intervention.

Consistent with an integrated KT

framework, a community–research partnership was established between knowledge users and researcher within a

guided dialogue focused on FYF delivery in a school setting. The dialogue yielded

detailed input from knowledge

users aimed at enhancing the acceptability, feasibility, and sustainability of a

school-based FYF. As a result, the

proposed modified FYF intervention, based on this input, may more readily be adopted by educators in schools.

Given the number of school factors that potentially contribute to or maintain anxiety symptoms (such as peer

interactions, academic demands, disruptions in routines, and overwhelming sensory stimuli), implementing the

proposed modified FYF intervention in schools may provide an essential support for students with ASD.

