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# Understanding parent perspectives on engagement with online youth-focused mental health programs

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## ABSTRACT

### Objective

Online youth-focused health programs often include parent modules—that equip parents with skills to assist their child in improving their health—alongside youth-specific content. BRAVE Self-Help, an evidence-based program designed for children and teenagers with early signs of anxiety, is a popular Australian program that includes six parent modules. Despite its popularity and proven efficacy,

BRAVE Self-Help shares the same challenge as many online self-help programs—that of low participant engagement. Using parents registered in BRAVE Self-Help as ‘information rich’ participants, we explored (a) factors that influenced parent engagement in online health programs, and (b) their recommendations for enhancing parent engagement.

### **Design and Outcome Measure**

We conducted semi-structured interviews with 14 parents registered in BRAVE Self-Help. Data were analysed through reflexive thematic analysis.

### **Results**

Social-, family- and program-related factors drove parents’ program engagement and recommendations. Social sub-themes related to the benefits of professional and community support in promoting more engagement. Family sub-themes included difficulties with program engagement due to competing priorities, perceptions that condition severity influenced engagement, and feelings that previously-acquired health knowledge reduced motivation to engage. Program sub-themes included perceived usefulness and ease-of-use.

### **Conclusion**

Program designers could target support systems, include flexible delivery options, and use iterative design processes to enhance parent engagement.

### **KEYWORDS**

Anxiety; eHealth; ICBT; self-help



**Note:** Any change made here needs to be made in the corresponding section at the end of the article.

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Mental health problems in children and adolescents are recognised as an ongoing worldwide health concern. Poor mental health during childhood and adolescence is predictive of various negative health outcomes in both the short- and longer-term (Ravens-Sieberer et al., 2015), and account for 30% of the disability-adjusted life-years lost in the first 50 years of life (Australian Institute of Health & Welfare, 2021). About 50% of mental health conditions develop by the age of 14; in Australia, close to 600,000 children and adolescents (aged 4–17) experience a mental health disorder at some stage in this developmental period (Lawrence et al., 2016). Despite the prevalence of mental health problems

among children and adolescents, many do not seek face-to-face treatment due to a range of factors including accessibility, cost, and stigma (Koerting et al., 2013; Radez et al., 2021). An increasingly popular solution to address these issues is to provide early intervention via the use of online mental health promotion (or mental illness prevention) programs (March et al., 2018).

Online mental health programs are often convenient, user-friendly, low cost, and effective in treating a variety of emotional and behavioural problems (Clarke et al., 2015; Mohr et al., 2010; Titov et al., 2009). For example, for children with social anxiety, online programs may help alleviate resistance towards (physically) seeing a psychologist or feeling uncomfortable in unfamiliar environments (Nordh et al., 2017). In treating children with anxiety, internet-based cognitive behavioural therapy (iCBT)—with various levels of therapist support—is the most common treatment method, and iCBT is an effective means of delivering quality evidence-based care to families (Christensen et al., 2014). When delivered with therapist support, iCBT has consistently displayed comparable outcomes to face-to-face treatment outcomes in reducing anxiety-related symptoms in children (Rooksby et al., 2015). Moreover, researchers have shown that these programs may be particularly effective when a child's parents or guardians are also actively engaged in the program (Spence et al., 2019).

Parents play a critical role in shaping their children's behavioural, emotional, and social development, and are important agents of change in early intervention programs (Cairns et al., 2019). Research on face-to-face interventions indicates that, when compared to interventions targeted at individuals, these family-focused health interventions (i.e. those characterised by educational material and resources for parents as well as children) display superior health outcomes in the long-term for parents and children (Couturier et al., 2013; Sung-Chan et al., 2013). These findings reflect parents' ability to improve program outcomes by providing additional social support to their child, enhancing learning and understanding, and promoting the program's long-term benefits (McCurdy & Daro, 2001; Spence et al., 2019). Additionally, these programs improve parent self-efficacy and self-confidence, which can increase ongoing reinforcement of program engagement and desired behaviour (Dittman et al., 2014; Sanders et al., 2014). Despite these benefits, however, the effectiveness of online family-based programs is often undermined by low engagement among children and their parents (Dadds et al., 2019). The terms 'involvement', 'engagement', 'adherence', 'attrition' and 'compliance' are often used interchangeably, making it difficult to compare research meaningfully (Sieverink et al., 2017). Nevertheless, previous researchers have defined adherence as 'the extent to which individuals should experience the content or provider recommendations to derive maximum benefit from the intervention, as defined or implied by its creators' (Sieverink et al., 2017, p. 2). For the purpose of the present study, we consider engagement as an umbrella term that includes adherence, with engagement reflecting not just modules undertaken, but also interest in, and application of, principles from the program (see Perski et al., 2017).

Promoting user engagement is a key element of program efficacy (Donkin et al., 2011). Several

factors influence engagement in online mental health programs, including, but not limited to, family support, but more research is needed to understand how best to optimise program engagement for parents to support children in managing their health issues (Beatty & Binnion, 2016). As such, further inquiry is needed to better inform content and design of online health programs designed to target child and adolescent anxiety. While it is important to understand family-based program engagement from both parent and child perspectives, a growing body of research already exists in how to specifically improve child program engagement, particularly in emulating play through program gamification (Brown et al., 2016; Pakarinen et al., 2017). Therefore, we sought to focus on understanding parent perspectives, as they will likely provide valuable insight into how best these programs might be structured for their, and their child's and adolescent's, use. Breinholst et al. (2012) suggested the use of qualitative methodologies to derive insight into how online mental health programs can best support parental engagement in such programs.

To obtain insight from knowledgeable and experienced parents, we recruited participants in BRAVE Self-Help—a prominent and popular family-based iCBT program in Australia. BRAVE Self-Help is a free early intervention program tailored toward children and adolescents (3-17 years old) with anxiety, and includes separate child, adolescent, and parent programs that are self-paced and self-directed. The child and teen programs include 10 modules each, the child-parent programs include 6 modules, and the teen-parent program includes 5 modules. BRAVE Self-Help is open access (i.e. there are no inclusion criteria for program registration), with users being directed to programs through various means (e.g. self-referral and internet searching) (for more information about BRAVE Self-Help see March et al., 2018). The program has contributed to substantial and significant reductions in anxiety for participants (March et al., 2018; March et al., 2021). Despite BRAVE Self-Help's effectiveness and popularity, program module engagement among parents is often low (see Spence et al., 2019), a problem that is common in other online family-based programs (e.g. Dadds et al., 2019). As such, parents engaged with this program were deemed as 'information rich' sources on issues associated with low engagement in online youth-focused programs. Using BRAVE Self-Help as an exemplar of an online health program for child anxiety, our aim was to derive parental insight on reasons for low engagement among parents in youth-focused online health programs. A second aim was to explore parents' recommendations for increasing their engagement in these programs. The perspectives of parents were chosen in hope that the insights drawn could be used to assist health programmers in designing and delivering platforms that maximise user engagement.

## Method

### Philosophical perspective

To gain insight into parents' engagement in BRAVE Self-Help, we adopted an interpretivist perspective. This perspective was guided by concepts of constructive epistemology and ontological

realism, reflecting the notion that the world exists independently of researchers' knowledge of it and acknowledging that knowledge of the social world is co-constructed by the researcher and researched (Sayer, 1992). A qualitative design was used in accordance with our research aims and underlying epistemological stance. A reflexive analysis approach was adopted—one that was systematic and grounded in considerations about replicability (Sparkes & Smith, 2014). We aimed to be reflexive about the co-construction inherent in the research, namely through interactions shared between the lead author, who conducted the interviews, and participants. The lead author is: younger (i.e. aged 23 at the time of data collection) than all participants, female, not a parent, and at the time of data collection, was an Honours student in psychology. Not being a parent meant that questions about parenthood could be approached from 'outside' parenthood and what may be taken for granted (by parents) might be of interest for us to study. At times, participant comments required elaboration to facilitate the lead author's understanding; however, participant-researcher relatability did not appear to present a significant issue given that interview conversations flowed freely. General misunderstanding and interpretation issues were considered in 'critical friends' (i.e. a panel who probe for deeper meaning and offer constructive feedback) meetings with the research team. Data collection was conducted over three months during a pandemic (COVID-19)—a period in which there may have been increased likelihood of heightened uncertainty and anxiety for parents and children engaged in BRAVE Self-Help.

### **Procedures and participants**

The Human Research Ethics Committee at University of Western Australia granted ethical approval for the present study. The first author interviewed 14 parents (13 female, 1 male;  $M$  age = 44,  $SD$  = 4) who had registered for BRAVE Self-Help within six months of study commencement. The mean number of modules completed by parents registered in the child (8-12 years old) parent program was 3.62 out of six modules ( $SD$  = 1.98). Only one parent was registered in the teen (13-17 years old) parent program and completed five out of five modules. Participants were located throughout Australia—6 from Queensland, 3 from New South Wales, 3 from Victoria, and 2 from South Australia. When participants registered with BRAVE Self-Help, they had 'opted in' to being contacted about research opportunities. Thus, participants were recruited via BRAVE Self-Help's registration database. Parents were invited to participate in the study via email invitation from the coordinator of the BRAVE Self-Help program. A total of 818 parents who had registered for the program between the 16<sup>th</sup> March and 7<sup>th</sup> June, 2020 were invited to participate in this study. Invitations were sent in a staggered manner during this period as participants were required to have registered at least 6 weeks before being invited, which would have provided enough time to complete the program. Given that we were interested in examining factors associated with engagement, participants were not excluded from this study if they had not completed all program sessions.

The email contained a brief description of the research and how it might be useful for improving their

own and others' engagement with BRAVE Self-Help and similar programs. Further, participation was compensated with a \$40 gift card. Prior to scheduling an interview time, participants were provided with information about their rights and the purpose of the study, and all participants provided informed written consent before their interview. Prior to interviews, participants were asked to complete a short survey to provide descriptive data including their age, gender, occupation, location, and number of BRAVE Self-Help modules completed. Participants were also provided with the semi-structured interview guide and were encouraged to review the questions prior to the interview. Audio recordings were reviewed and transcribed verbatim following completion of each interview. When first sent the invitation to participate in the study, and again at the start of interviews, participants were informed that the interviewer had no affiliation with Brave Self-Help. Given the potential for participants to feel uncomfortable in talking about their children and/or mental health, the interviewer was sensitive to building rapport and reiterating participants' rights at the commencement of interviews.

### **Data collection**

Data were collected through semi-structured interviews in which a broad interview guide was utilised alongside an orientation toward free-flowing conversation. The interview guide focused on the two aims of the research (i.e. reasons for low/high parent engagement to modules in youth-focused online health programs, and parents' recommendations for increasing their engagement in these programs). Open-ended questions included within the guide focused on participants' reflections on previous experiences (e.g. 'Can you please describe how you found out about BRAVE Self-Help?') and the two aims of the study (e.g. 'Can you recall why you discontinued your involvement in modules?'; 'What recommendations might you have for increasing engagement in online health programs?'). The data collection period was conducted during the first wave of the COVID-19 pandemic (June–August 2020). All interviews were held over Zoom (n = 14)—a method that enabled us to recruit participants from around Australia as well as abide by government mandates on social distancing. Zoom, and videoconferencing more broadly, is considered as a convenient, easy-to-use method of obtaining qualitative data for health research (see e.g. Archibald et al., 2019; Irani, 2019).

Our approach to data collection was guided by the notion of data saturation—the point at which no new information emerges from the data (Braun & Clarke, 2019). Interviewing beyond this point would not likely yield novel information relevant to the research questions (Sparkes & Smith, 2014). However, it is acknowledged that the consistency between data saturation and a reflexive thematic analysis approach has been questioned (Braun & Clarke, 2019). The researchers recognise that meaning is generated through subjective data interpretation and that there is no claim to 'finalising' the range of parent experiences in the BRAVE Self-Help program, or online programs in general. It is entirely possible that conducting further interviews would yield potentially novel results; but, as data collection progressed, the point of saturation became pragmatically shaped by various resource and time constraints. However, it became evident that interviews began to repeat themselves and brought



about sufficient data to construct a practical narrative of the results (Saunders et al., 2018). Interviews lasted between 26 and 58 minutes, and collectively produced 123 pages of 12-point single spaced text.

## Data analysis

Guided by the study's interpretivist nature and using the thematic analysis guidelines of Braun and Clarke (2019), we did not focus on examining participants' responses in relation to any specific theoretical background. Initially, the first author became familiar with interview recordings and transcripts. Semantically similar participant interview responses were identified within the entire dataset, and initial codes were generated to capture the data. Then, a tentative framework of broader themes was formulated in relation to the research questions by clustering related codes. Although semantic similarities primarily guided this thematic framework, the latent meanings (i.e. coding of implicit concepts) of responses were explored and included where relevant. To better represent the data, themes and sub-themes were developed. Refinement of the themes was undertaken during a series of 'critical friends' meetings—a process of critical dialogue between the first author and co-authors to provide critical feedback on the data interpretation and analysis (Sparkes & Smith, 2014; Smith & McGannon, 2018). These meetings were reflexive in nature and provided an opportunity for the themes to be re-named, re-ordered, and in some cases abandoned to best capture the data content. Researchers could, therefore, more accurately address the research questions in understanding parent engagement and lived experiences in, and recommendations for, online health programs for their children.

## Results

Identified themes were grouped together in three distinct themes that reflected (1) social support factors, referring to the program's support components that participants considered to influence parent engagement in the program, (2) family characteristics and lifestyle, relating to elements and experiences within the family network and how these influence parent engagement in the program, and (3) program design factors—perceptions on functional features of the program, and online programs in general, that contribute to engagement. All themes produced distinct sub-themes—definitions and exemplar meaning units representing these sub-themes are displayed in Table 1. In line with the philosophical assumptions that underpin this research, meaning unit frequencies have not been reported (Sparkes & Smith, 2014). Rather, the weight of meaning units was attributed to their relevance in addressing the primary research questions and their practical relationship to more generalisable concepts within the existing literature.

**Note:** The table layout displayed in 'Edit' view is not how it will appear in the printed/pdf version. This html display is to enable content corrections to the table. To preview the printed/pdf presentation of the table, please view the 'PDF' tab.



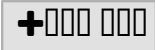
**Table 1. Themes, definitions, and example meaning units for factors and recommendations associated with engagement and adherence to online health programs.**



Theme	Sub-theme	Definition	Exemplar meaning unit
Social support	Professional Support	How professional guidance (or lack of) may influence engagement/adherence.	'I'd be very happy to be in direct contact with a guidance counsellor that was helping my son through the program... there's a built relationship where we're both working together for my son's benefit, rather than troubleshooting just through BRAVE itself alone.'
	Community Support	How community support and shared experiences (or lack of) may influence engagement/adherence.	'We need some kind of group for us to know that we're not alone.'
Family characteristics and lifestyle	Competing Priorities	Competing priorities in the family network may influence engagement/adherence.	'I haven't followed up with going through the modules, which is naughty of me, but it's just the time constraint being a mother of four children.'
	Condition Severity	Condition severity and having multiple conditions may influence adherence/engagement.	'Because of my son's specific learning disorder, he refused to do the (writing) activity which was the first hurdle and that was as far as we even got with the program.'
	Prior Experience	Prior education and personal experience of condition and its treatment may influence engagement/adherence.	'I'm a social worker... So, I felt like I didn't really need to go into the parent section as much as I would have done if I didn't have that background.'

No table footnotes are available



Theme	Sub-theme	Definition	Exemplar meaning unit
Program Design	Perceived usefulness	The program satisfies the users' need and is perceived—as beneficial for their immediate problem, encouraging engagement/adherence.	'If I came to a section that I thought was really applicable for where I am in my learning and where my daughter is, I would spend more time on it. But I had to go through those basic introductory lessons... it put me off from continuing through the rest of the program.'
	Ease-of-use	Ease of program use and navigation may influence engagement/adherence	'If it's easy to get into and it's quick and easy to find relevant info, I'm more likely to engage.'
No table footnotes are available			
			

## Social support factors

### Professional support

Participants were aware at the time of registering for BRAVE Self-Help that the program did not include personalised professional support. Nevertheless, the opportunity to interact with a treatment system *designed by* trained professionals (that could act like a support system) was an integral reason for their initial engagement with an online health program.' For example, one parent mentioned, 'I needed some support to try and separate the (child's) behaviour from the child's needs... So I was reaching out for expert support for myself to make sure I was saying all the right things.' Parents also said that reputation of the program facilitated their initial engagement. Recommendations from friends, allied health professionals, hospitals and educational facilities were primary drivers in facilitating parent trust in the program and their initial engagement. As one parent mentioned, trust was established because, 'it was backed by evidence... it was clear what the program was offering and it seemed reputable coming out of a university, so I trusted the source right away and I figured I'd like to learn more from them.'

For some participants, however, engagement in the program waned because they were concerned about whether they were completing the program 'correctly' and there wasn't enough *individual* support embedded within the program to assist with this. To illustrate, one parent highlighted 'I don't have enough to work off to be sure of whether I'm on the right track or not... You start to lose your confidence a bit, doubt your ability and start falling behind (in modules).' Thus, as some parents undertook self-directed modules, they experienced doubts and uncertainties that influenced their motivation to continue.

To address this issue in BRAVE Self-Help, participants recommended the introduction of a new 'helpful tools' section to provide 'more feedback on what to do at each stage and what to do if things aren't working.' These recommendations were suggested to be important in reducing uncertainty and improving self-efficacy, particularly in the initial stages of the program when attrition is highest. One parent said, 'It's really hard to ignore a behaviour if you've been living and reacting to it for 10 years. So, when you're first starting the program, having that extra reassurance during that initial change process could be particularly helpful.' Parents also expressed that engagement would be promoted if they knew there was some additional support attached to the self-help program (i.e. that a professional would reach out after the program); for example, one parent explained, 'professionals following up after completion of the program, because they care, and as a reminder or opportunity to re-engage if they need to, would be helpful.'

### **Community support**

Parents identified that being able to feel like they were part of a community would also be important for increasing perceived self-efficacy and program engagement. Parenting is dynamic and 'hard work, so you need a team and you need people to say – yeah, I get that... using some kind of parent group, so we know we're not alone with our struggles. Just as a way of parents connecting to help support and reassure each other that they've been through the same thing.' Thus, using online child health programs as a way of connecting and comforting parents through shared experiences within a supportive and like-minded community of parents was considered helpful for parents of children and adolescents with anxiety. In increasing parental engagement and assisting parents to better understand and support their children, one parent recommended 'a chat group... that you can opt to join or some Zoom chats with expert presenters targeting topics at various points in time where parents can jump on and connect that way' by initiating further discussions. Therefore, community and professional support combined were suggested as additional features to encourage ongoing program engagement and parent empowerment.

### **Family characteristics and lifestyle factors**

#### **Competing priorities**

Parents indicated that competing priorities prevented engagement with self-help online health programs. Ongoing engagement with the BRAVE Self-Help program was undermined by the modern-day complexities of parenting, including (but not limited to) managing family commitments, family size, and work demands. For example, one parent reflected, 'doing (BRAVE Self-Help) can really depend on what else is going on. I've got multiple children and they've all got their own things going on. Managing all the house stuff, working full-time and having a kid who's anxious.' Another parent mentioned that, while her initial motivation to engage with BRAVE Self-Help was triggered by

‘needing immediate support’ for acute experiences of ‘meltdowns and altercations with her child,’ she hadn’t ‘followed up with going through the modules...it’s just the time constraint being a mother of four children... a lot of other things going on at the moment.’ Therefore, it was evident that some poor parent engagement originated from feeling overwhelmed and time-poor.

Some parents recommended integrating the program into family routines to improve engagement. For instance, routines such as putting the kids to bed, driving to and from school, or household chores were mentioned as regular behaviours for program designers to consider, as one parent explained; ‘One of the challenges is trying to log onto your computer to do the program in the afternoon homework slot. So, if you could somehow fit the program material within your regular routine that could help.’ Another parent added; ‘Maybe you could add something that is augmenting in the background while you’re cooking dinner or you’re looking after your other two kids.’ To integrate the program into regular family routines, parents suggested, ‘having audio you could listen to... in the car on the drive to school for example,’ in a ‘format... like a podcast.’ Some parents also expressed their appreciation for the (BRAVE Self-Help) program’s printable handouts and suggested that placing these handouts in regularly visited areas of the house helped to prompt their engagement with the program.

### Condition severity

Condition types and severity varied among children, which parents described as a key factor in either promoting or inhibiting parent engagement. Parents whose children only displayed milder cases of anxiety appeared more likely to engage with the BRAVE Self-Help program over in-person therapies; one parent said; ‘We felt like seeing a psychologist was a little too much at the time. We didn’t want to do anything too serious, and he liked the idea of doing the program at home together which was easier.’ Additionally, if the child’s anxiety (e.g. social anxiety) was evoked through interaction with a psychologist or by an unfamiliar physical environment, online interventions were preferred by parents. For instance, one parent reflected; ‘with my daughter, sometimes it takes weeks just to get over the barrier of the anxiety of seeing someone in person and you lose so much (parental control and progress) just in that. But, with (the online program) she didn’t feel threatened by it... the pressure is off (for both parent and child).’

When children had more severe anxiety or other conditions, they, and as a result, their parents, were less likely to adhere to BRAVE Self-Help due to difficulties interacting with material that was designed specifically for anxiety and for children with a reading age level of eight years or above. For example, one parent stated; ‘Because of my son’s specific learning disorder (dyslexia), he refused to do the (writing) activity which was the first hurdle and that was as far as we even got with the program.’ An issue related to these comments was that for many parents, motivation to engage with parent modules of BRAVE Self-Help was conditional on their child’s engagement with the child modules. One parent added; ‘If he had started to like the program eventually, and got something out of it, we probably

would have persisted further with it.’ However, some parents also described using BRAVE Self-Help as more of an immediate ‘lifeline’ irrespective of their child’s involvement, and engaged with the program when their child was ‘having a bad day or had particularly high levels of anxiety.’ One parent that used BRAVE Self-Help as a ‘lifeline’ referred to the program as ‘beneficial and essential,’ as it ‘was one of the very few options left for them to take up.’

### **Prior experience**

Parents often attributed their level of engagement with BRAVE Self-Help to their prior education and experience with mental health problems or other programs. The general education information provided in the first session of BRAVE Self-Help was identified as a barrier to those parents who had previous experience, and a preference was noted for being able to choose or personally tailor information. One parent reflected ‘It started off with ‘what is anxiety?’, which is great information, but I know what anxiety is because I’ve been a parent of an anxious child for years. I’ve done my research already and I’ve had past experience.’ Another parent noted; ‘for some parents I feel they’ve got quite a good understanding of where anxiety comes from and the different ways it can present itself, whilst for others it could be a completely different way of thinking.’ From this perspective, most parents preferred an open-access format to program material, where they had the option to ‘skip to more personally relevant content.’

### **Program design factors**

#### **Perceived usefulness**

Parents described that the program’s perceived benefits and its ability to meet their, and their child’s needs impacted their engagement with programs such as BRAVE Self-Help. For example, one parent explained, ‘Our main goal was to up-skill ourselves as parents. We knew it was about how we were managing our child’s needs. For our purpose, the parenting program was perfect because we wanted some additional strategies to try as parents.’ Parents reported spending more time on the program when they felt the program was ‘useful to their own and their child’s needs’ and that they were ‘getting value for their time spent.’ As previously mentioned in the section on ‘Professional Support’, many parents were initially drawn to BRAVE Self-Help because it was designed by experienced researchers and had a strong evidence-base. This, in combination with parents’ perspectives that ‘parenting doesn’t come with a manual,’ seemed to stimulate initial interest and engagement with BRAVE Self-Help. To further facilitate perceptions of utility, it was suggested that ‘information could be backed up with more relatable examples and scenarios.’ For example, participants reported that engagement would be encouraged when programs could ‘match exercises to the relevant problems they were currently experiencing’ so that parents could ‘feel empowered to guide their children through the program and their anxiety more effectively.’ Therefore, the provision of personalised or

tailored material, a characteristic that is perhaps more typical of therapist-assisted or smart-automated assisted programs, was desired to aid in perceptions of utility.

### **Ease-of-use**

Parents perceived that the ease of use, navigation, and accessibility of programs had a considerable impact on their, and their child's, engagement with program modules. Suggestions were made for an easy to access 'table of contents so you know where you're up to' that would be helpful to understand each session's content and strategies within the broader structure of the entire program. Being able to 'go back and forth through the program to repeat and access relevant sections,' was considered as desirable. While this function is available within the BRAVE Self-Help program, many parents appeared unaware of this. Also, parents appreciated that the program was compatible across various devices (e.g. computer, tablets, mobile phone), and incorporated various delivery styles (e.g. written, audio).

Additionally, reminders that positive parenting required practice and was not a 'quick fix' to problems were also recommended to improve parent engagement. Parents suggested that emphasis on skill development and parenting style, rather than on potential downstream child outcomes, was important. One parent commented that 'it's more of a cyclical thing and a practice or a skill you're developing. So, having it more emphasised on practice might be helpful, you just have to be reminded to practice.' Prompts and reminders (e.g. email, text-message, scheduled app-reminders) that were 'autonomy-supportive' were important, as parents described; 'reminders would be good but not in a pressuring kind of way. Just some quick tips or snippets about what's in the program that might be personally relevant and that could prompt parents to engage further.' However, another parent mentioned 'I'm in another program and they have a weekly roll-out kind of structure, but it doesn't encourage me to do it. It gives me a 'I haven't done my homework' kind of feeling.' As such, autonomy-supportive opt-in reminders were preferred by parents.

### **Discussion**

The purpose of the present study was to understand parents' lived experiences with online mental health programs for their children, and to explore parents' recommendations on how to improve their own engagement with these programs. Our results provide insight into parents' perspectives on factors that potentially influence parental engagement (or lack thereof) in online child health programs in general. More specifically, our results shed light on how salient issues, such as social support systems, environmental considerations (i.e. competing family priorities) and diversification of online health programs, can facilitate better program engagement, and in turn potentially improve users' health outcomes.

### **Provision of professional and social support systems**

Previous research has shown that the therapist-assisted version of BRAVE, where therapist support, albeit minimal, is provided via email, produces high engagement and excellent treatment outcomes (March et al., 2009; Spence et al., 2011). An interesting finding from the present study was the importance placed by parents on other potential support systems during online self-help programs. Our findings align with previous research, in which it has been shown that the integration of stronger support systems in online self-help programs are perceived as important for improving program engagement as well as developing stronger connections between families and parents across Australia (Sung-Chan et al., 2013). Receiving support from these external factors is typically positively correlated with better health outcomes and increased self-efficacy (i.e. the more support one receives, the higher one's self-efficacy) (Piotrowska et al., 2017). When parents are connected with other like-minded parents, they may feel empowered through shared experiences and reduced feelings of isolation and stress (Yang, 2017). Ultimately, this connection promotes social cohesion and better equips parents in supporting their children. Results from the present study supported the use of existing platforms where parents are already likely to gather or engage frequently (e.g. Facebook community groups) as participants mentioned using familiar platforms would be preferable.

Participants in the present study indicated that part of the appeal of BRAVE Self-Help was that it was easy to access and developed by experts, and for some parents, self-directed self-help programs were appealing because they did not require the time and cost often associated with other forms of support. As some participants progressed through the modules, however, they experienced uncertainties and doubts about their 'correct' implementation of principles. To this end, while many online self-help programs such as BRAVE Self-Help have proven efficacy (see e.g. Bennett et al., 2019), there is a need to consider multiple modes of delivery and care. Given adequate resourcing, program designers may wish to appoint trained professionals to offer phone or email support in much the same way as the original formulation (and more resource-intensive version) of BRAVE, or offer Stepped-Care models, which have shown promise (March et al., 2019). Stepped care involves a matching of individuals' needs with characteristics of mental health services. Access to immediate help has been shown to further increase self-efficacy, especially in our modern world (Leahy-Warren et al., 2011); as such, social support that aids the ecological system of an individual could be considered when designing for increased program engagement. Interestingly, there is some research to suggest that such support may only need to be available or visible, but may not necessarily be utilised. In their trial of an online parent iCBT intervention for anxiety in young children, Morgan et al. (2017) found that despite making support calls to clinicians available to participants, only 5.1% of parent participants requested support.

### **Environmental considerations for program design**



In aiming to improve parents' level of exposure, awareness, and willingness to engage themselves in online health programs, their physical and digital environment must be considered. In support of Lillevoll et al. Lillevoll et al., Lillevoll et al., (2014) findings, parents described their lives to be in a constant state of flux, with numerous resource and time constraints affecting their ability to engage with programs on a consistent basis. Therefore, programmers might consider how they could prompt parents' engagement effectively and provide more convenient ways to engage with program material. As recommended by parents, programs may be promoted via a range of trusted health organisations, professions, and influential figures in order to facilitate trust in the program. Additionally, in line with previous research exploring choice architecture taxonomies, placing external prompts, such as posters, in areas parents are most likely to congregate (e.g. schools, parent-focused community groups, etc.) may result in increased awareness and exposure to, and ultimately, engagement with, interventions within their environment (Hollands et al., 2013; Münscher et al., 2016). Despite parents' suggestions for more flexible program delivery, it should be noted that programs such as BRAVE Self-Help and Cool Little Kids often involve scaffolded sequences of modules and CBT content, and thus personal selection of content (e.g. module 'skipping') may reduce program efficacy.

Programs that are capable of withstanding the challenges of family life are important, and data from the present study highlighted the importance of diversifying programs not only via their content delivery methods, but also across devices. For example, programs could be delivered through an offline application accessible across various and portable mediums, such as computers, tablets, and mobile phones. Further, programs that provide activities or modules that can be integrated into daily routines might be more readily taken up. For example, video or podcast sessions that can be watched or listened to whilst preparing dinner or driving could assist parents to fit some modules (or module components) into busy daily routines. The implementation of technological prompts, including frequent email and mobile app prompts that include autonomy-supported reminders and program tips (i.e. reminders that are not delivered in a 'pressuring kind of way' and 'quick tips or snippets about what's in the program'), could remind parents to engage more frequently. Previous systematic reviews and meta-analyses have reported similar findings that emphasise persuasive technology design systems as major influencers of increased user engagement (Kelders et al., 2012).

### **Parent considerations**

Elements of the health beliefs model, including relevant 'cues to action' that might trigger program engagement, may also be useful for program designers to consider (Orji et al., 2012). Cues to action could include 'external cues' (e.g. social media campaigns and social influences) or 'internal cues' (e.g. negative perceptions or symptoms) that could relate to parent and/or child experiences (Orji et al., 2012). Parents often described being triggered to engage with BRAVE Self-Help following either acute or chronic adverse experiences. Parents were often prompted 'internally' to engage with programs to reduce the acute anxiety experienced by their children, lessen negative perceptions, and to receive

positive feedback and/or practical solutions to their acute problems (e.g. 'feeling like they had run out of options', 'needing extra support or guidance' and 'wanting more reassurance'). Parents also described that when they felt overloaded by programs in the beginning stages it created further internal conflict (e.g. 'I can't keep up with the program', 'I feel like I'm hopeless at this', 'I feel like I'm failing my child'), negatively impacting their continued engagement. As attrition is often highest in preliminary stages of self-help programs, this suggests that greater social support and feedback systems could be prioritised around parents' initial engagement to encourage positive and habitual use in the future. As such, programs that frontload high value content, provide open access to course material, and utilise multiple support strategies may be useful to cater for parent narratives.

### **Limitations**

In the present study, there were specific influences that we were not able to account for, including potential cultural or socio-economic effects on parent engagement. Future investigation into the impact of such effects (e.g. social class and ethnicity) on parent engagement in online youth-focused mental health programs could provide valuable insight. An additional consideration in unpacking data from the present work relates to the complexity of engagement, which may reflect not just modules undertaken, but also interest in, and application of, program elements. In many conversations, it was clear as to the type of engagement to which participants were referring, but in others, the nature of engagement was less clear. Finally, data collection was conducted during a pandemic, COVID-19, where the dynamics of everyday life changed significantly for most families. Thus, as BRAVE Self-Help is specific to children with anxiety, anxiety experiences may have been heightened during this time and could potentially have had an effect on parents' lived experiences, and ultimately the findings of the present study. Despite these limitations, the obtained findings provide a basis for future investigation.

### **Conclusion**

The present study involved parent insights relating to their engagement in online youth-focused mental health programs. Three broad themes were identified that could be used to shape considerations for program designers. First, online youth-focused mental health programs that provide strong social support, particularly from trained professionals, may be more successful in facilitating ongoing parent engagement with online programs. Second, tailoring program content and delivery to meet needs pertaining to various family dynamics and schedules were considered by parents as important for reinforcement of engagement behaviour. Finally, key to parents' reported engagement in these programs were their perceptions around program efficacy and ease-of-use. It is hoped that the results from the present study will be useful for online program designers and used as a stimulus for future research in the area.

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The authors declare that although the intellectual property for BRAVE is owned by UniQuest/The University of Queensland, they may potentially benefit from future royalties related to the program. The authors declare that they have no other competing or potential conflicts of interest.

## Data availability statement

Research data are not shared due to privacy and ethical restrictions, as participants did not consent for their data to be made publicly available.

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