



Parent Engagement with an Online, School-Based, Character Strengths Promotion Program

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Abstract

Schools are increasingly bolstering student character strengths to promote academic success and well-being. Schools’ character-promotion efforts would benefit from involving students’ caregivers. Online resources may be an accessible way to engage students’ families, but further research is needed to maximize accessibility and engagement. A brief character strengths program was developed and integrated within online accounts accessed by parents of kindergarten students. Content analysis of parent focus groups ($N=14$, 86% women) indicated that access to and engagement with the program was improved by several factors, including visuals, intuitive navigation, strength-based content, and school-based recruitment. Content analysis of caregivers’ ($N=54$, 91% women, $M_{\text{age}} = 36.52$, $SD_{\text{age}} = 4.40$) responses to the program’s reflection questions indicated that parents prefer highly applicable content, particularly information about noticing and developing character strengths in their child. Finally, exploratory descriptive statistics indicated that single parents, fathers, and parents of racial minority children were less likely to engage with the program which alludes to the additional barriers faced by these socio-demographic groups. The results provide specific suggestions for involving parents in school-based character promotion efforts, as well as highlight the importance of additional research to better understand the needs of diverse families.

Keywords Character strengths · School-based · Parent involvement · Accessibility · Online

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1 Introduction

Virtues are positive qualities which are widely regarded as morally valuable (e.g., wisdom, courage, justice), and character strengths are ways of expressing virtues (e.g., creativity, kindness; Peterson & Seligman 2004). Identifying, developing, and using character strengths is associated with well-being across the life span (Ivtzan et al., 2016; Jach et al., 2018; Mongrain & Anselmo-Matthews, 2012; Park et al., 2004; Proctor et al., 2011), as well as greater achievement in academic contexts (Niemic, 2013; Park & Peterson, 2009; Shoshani & Shwartz, 2018; Weber & Ruch, 2012). As a result, schools are increasingly implementing programs which help youth to identify and employ character strengths (Lavy, 2019; Waters, 2011). These programs typically involve common elements including, defining and describing character strengths, guiding students to identify character strengths in themselves, providing opportunities to practice using character strengths, and teaching students to reflect on their character strengths use (e.g., writing about a time they used their strengths; Lavy 2019). School-based character education programs typically target students, teachers, and school staff, but ideally for maximal impact, students' caregivers would also be involved in school-based character promotion efforts (Berkowitz & Bier, 2004; Lavy, 2019).

There are several benefits to involving parents in school-based character education. First, helping parents to adopt a strength-based perspective holds promise for benefiting their child(ren). For instance, children who experience strength-based parenting are more likely to employ their strengths in response to challenges, reducing their overall levels of stress (Waters, 2015). Adolescents who experience strength-based caregiving demonstrate greater perseverance at school, which is associated with better academic outcomes (Sağkal, 2019; Waters et al., 2018). Second, emerging research suggests that helping parents to employ a strength-based approach not only benefits the youth, but also has positive impacts on caregiver well-being. For instance, parents who employ a strength-based approach report greater parenting self-efficacy and increased positive emotions towards their child(ren) (Waters & Sun, 2016). General family happiness can also be improved by strength-based practices (Waters, 2020). Thus, involving parents allows the benefits of a school's character promotion efforts to extend to the students' families as well. Finally, an ecological framework suggests that initiatives which target several developmental influences are more likely to have a lasting positive impact on youth than programs which target a single environment (Bronfenbrenner, 1978; Unger & Rich, 2014). Thus, coordinating initiatives between school and home increases the potential positive impact of character education programs.

2 Access to Parenting Programs

Although there are several reasons to involve parents in schools' character education efforts, providing accessible programs to parents is often a challenge for schools. Parents typically face significant time constraints which make it difficult to access school programming (Baker et al., 2016; Murray et al., 2014; Povey et al., 2016).

Even if programming is offered for free, attending school events can involve hidden financial costs, such as, the cost of childcare or transportation (Baker et al., 2016; Garcia-Dominic et al., 2010). Caregivers can also struggle to become involved when they receive inconsistent, confusing, or delayed information from the school (Baker et al., 2016; Murray et al., 2014; Walker et al., 2005). Furthermore, research indicates that these barriers are not evenly experienced. Parents of lower socioeconomic status (SES) (Hornby & Lafaele, 2011), racial or ethnic minority parents (Sheely-Moore & Bratton, 2010; Sheely-Moore & Ceballos, 2011; Williams & Sánchez, 2013), fathers (Panter-Brick et al., 2014), and single parents (Whisenhunt et al., 2019) are more likely to face these barriers and, as a result, frequently find school-based parenting programs inaccessible.

One response to these barriers is to involve parents using internet-based programming and information (McGoron & Ondersma, 2015). Online resources can be delivered asynchronously, allowing parents to access the information at flexible times. Furthermore, parents generally report being able to easily access and use the internet (Baker et al., 2017; Breitenstein et al., 2014), including families of lower SES (McGoron et al., 2018). Thus, many families may be able to access online resources from home or in some other familiar environment, reducing childcare and transportation expenses. Finally, online programs can be delivered in digital environments and modalities that are familiar to the users. This could reduce the number of parent-school communications necessary to connect parents with school-based initiatives which may lower the risk of communication barriers. Thus, for many parents, online information may be more accessible than in-person school events.

The coronavirus disease 2019 (COVID-19) pandemic has further emphasized the tremendous potential of online resources to access parents who cannot utilize face-to-face services. COVID-19 has spurred innovative mental health delivery services, such as, widespread delivery of online mental health screeners, mental health education using familiar social media platforms (e.g., YouTube, TikTok), and the development of smartphone applications with mental health support features (Ifdil et al., 2020; Liu et al., 2020). Self-guided online programs have also been developed to provide psychoeducation and support for a variety of mental health challenges, including depression, anxiety, and insomnia (Liu et al., 2020). However, these efforts to support wellness through technology have also revealed barriers specific to online resources. For example, there has been growing acknowledgement of a “digital divide” in which the shift to online health care delivery has increased health disparities because of inequitable access to technology (Ramsetty & Adams, 2020; Yao et al., 2020). Additionally, due to the sudden nature of the pandemic, many of these programs were developed by individual practitioners without time for careful evaluation (Ifdil et al., 2020). Thus, the present context reinforces the value of understanding factors which influence the accessibility of online parenting resources.

3 Engagement with Parenting Programs

After accessing (i.e., starting) an online program, various factors influence whether parents engage with the program (i.e., attend to and complete the program compo-

nents). Research has also begun to examine the factors which make online programs engaging. Parents cite interesting material as a facilitator of engagement, noting that videos and parent testimonials are particularly effective (Speth et al., 2015). However, subject matter can also act as a barrier. Parents disliked content that did not apply to the family's situation or seemed so basic that they already knew the information (Sim et al., 2017). Another barrier was the time associated with the program (Sanders et al., 2012). For example, the length of embedded videos was cited as a barrier to completion (Speth et al., 2015). Another category of barriers included technical issues, such as, difficulties downloading materials (Speth et al., 2015). A fourth barrier was the self-directed nature of online resources which was a poor fit for some parents (Speth et al., 2015), especially parents who lacked experience with online environments (Willis & Exley, 2018). Thus, extant barriers to engagement with online programs include (a) uninteresting or confusing content, (b) the length of the intervention, (c) technical issues, and (d) the self-directed nature of online materials.

Once again, it is unlikely that these barriers are evenly experienced. Research with in-person parenting programs suggests that low SES is one of the strongest correlates of premature discontinuation in parenting programs (Eisner & Meidert, 2011; Fernandez & Eyberg, 2009; Heinrichs et al., 2005; Lavigne et al., 2010). Other risk factors for attrition include: belonging to racial or ethnic minorities (Lavigne et al., 2010) and single-parent status (Eisner & Meidert, 2011; Heinrichs et al., 2005). These risk factors can compound, making it extremely difficult for parents who experience multiple marginalized identities to complete parenting programs (Bagner & Graziano, 2013). Promisingly, there is emerging evidence that online (vs. in-person) programs may be more engaging for parents who face additional barriers. Calam et al., (2008) delivered strength-based parenting principles through an innovative 6-episode television series and a companion website and found that SES was not a predictor of parental engagement. There is also evidence that online interventions are more engaging than their face-to-face counterparts for single parents, fathers (Dadds et al., 2018), and ethnic minorities (Perrino et al., 2018). Thus, online delivery may reduce barriers to engagement for difficult-to-access families.

4 Engagement with Online, Strengths-based Parenting Programs

Although there is evidence to support delivering parenting programs in an online format, the design features of online programs can also influence access and engagement. Thus, research is also needed to understand how to create maximally engaging online programs. Research on program design features that influence access and engagement has focused on traditional parenting resources. These findings may not extend to strength-based programs because these resources are likely associated with unique engagement challenges. Research consistently shows that parents pursue and engage with supports when their child exhibits highly disruptive behavioural concerns (e.g., truancy, aggression, suicidality; Calam et al., 2008; Dumas et al., 2007; Perrino et al., 2018; Wichstrøm et al., 2014). By contrast, strength-based resources are primarily focused on health promotion rather than the remediation of problem behaviours (Waters, 2020). Thus, strength-based resources aim to engage caregiv-

ers who may not be motivated towards support by a child's challenging behaviours. Research is needed to understand how to design strengths-based programs that access and engage parents.

The evaluation of strength-based resources for parents is still in its early stages (Waters & Sun, 2016) and these evaluations have largely focused on in-person programs (Roth, 2016). More recently, research has begun expanding to online programs. Roth et al., (2017) emailed parents weekly summaries of their child's progress in a school-based positive psychology intervention, and ideas of how parents could support their child in practicing new strategies at home. Relative to a control group, students who participated in the program with a parent component reported increased life satisfaction, positive affect, and reduced negative affect at program completion. Two months after program completion, students who completed the program continued to demonstrate gains in positive affect relative to the control group. Comparison to another study of a similar intervention without the parenting component (Suldo et al., 2014) suggested that involving parents may have enhanced the effects as the program without a parenting component found improvements in life satisfaction but not positive or negative affect. Waters (2020) emailed parents a worksheet that guided parents through starting a family conversation about the family's strengths and how they could be utilized to support family well-being. Relative to a waitlist control group, parents who completed the online program reported increased family happiness. Both of these evaluations focused on establishing program effectiveness and examined programs that lacked interactive components. As a result, the factors that influence *engagement* with online, strength-based parenting resources remain unclear. This is troubling as engagement is a necessary pre-cursor to the effectiveness of parent programming (McGoron & Ondersma, 2015).

5 Objectives and Research Questions

The present study responds to this need by collecting information from parents about how schools can better leverage technology to include parents in strengths-based programming. In line with this goal, the present study aims to explore the following research questions: (1) what do parents perceive as facilitators and barriers to access and engagement with an online character strengths program? and (2) what strength-based parenting content do caregivers deem memorable and impactful? Certain socio-demographic groups face additional barriers to accessing and engaging with parenting resources, but it is unclear the extent to which these barriers are mitigated by online delivery and integration with the school. Thus, the present study also explores the socio-demographic characteristics of parents who accessed and engaged with an online character strengths program to direct future research towards better understanding the needs of socio-demographic groups who are less likely to utilize the program. Thus, a final research question is: (3) what are the socio-demographic characteristics of parents who access and engage with an online character strengths program?

6 The Present Study

The extant research literature was consulted to develop a program on character strengths. The program was delivered electronically and divided into eight pages within a website application. On the first page, parents were introduced to the concept that each child has a unique combination of strengths through text, quotes, and a cartoon. On the second page, parents watched an eight-minute video which introduced caregivers to the main scientific findings about character strengths (i.e., character strengths are widely valued, associated with well-being, and can be developed with practice). Parents then wrote a short description of what they learned from the video. On the third page, the various benefits associated with character strengths development were described to parents (e.g., academic success) using text, quotes, and images. On the fourth page, parents learned that character strengths can be organized into six overarching virtues through an infographic that showed the 24 strengths organized under their respective virtue with brief written descriptions of each strength. On the fifth page, parents were invited to click on the character strengths in the infographic. This led parents to a written description of how the strength manifests in young children. On the sixth page, parents used the “click and drag” function to select and organize their child’s top five strengths from a list of 24 character strengths. On the seventh page, parents watched a video in which caregivers described what strengths looked like in their child. On the final page, parents watched a video in which school staff described how character strengths education was being implemented within the school.

Research on traditional, online parenting programs was used to develop the first draft of the program. Consistent with research suggesting that shorter programs are more engaging (Speth et al., 2015), the program was brief, taking approximately 30 min to complete. The program was also delivered in a familiar online environment (i.e., the parents’ personal online school accounts) to reduce complexity barriers and technical problems (Baker et al., 2016; Murray et al., 2014; Speth et al., 2015) and to complement school-based character strengths initiatives in an ideal wrap-around model (Bronfenbrenner, 1978; Unger & Rich, 2014). The program was also delivered asynchronously to reduce scheduling barriers (Baker et al., 2016; McGoron & Ondersma, 2015; Murray et al., 2014; Povey et al., 2016). Finally, the program was designed for parents of kindergarten children, as research partners within the school system selected these youngest learners as the initial target of further board-wide character strengths programming, and greater levels of school engagement among parents of young children could be capitalized on (Hornby & Lafaele, 2011).

As the program was in the early stages of development, the effectiveness of this specific program had yet to be examined. Thus, the present study’s focus on access and engagement forms a foundation that will need to be built upon with future effectiveness studies. The current study’s information on access and engagement may also be useful in refining the existing evidence-based online character strengths programs (Roth et al., 2017; Waters, 2020) as well as in developing an interactive, online version that is ready for larger-scale evaluation studies.

Because research on traditional parenting programs may not generalize to strength-based parenting resources, parent focus groups were conducted to identify factors

that influenced access and engagement with the online, strength-based program (Study 1). Parent council members were recruited for these focus groups to capitalize on their expertise in delivering school-based programming to parents. Following the focus groups, the program was distributed electronically to kindergarten parents (Study 2). We examined caregivers' responses to reflection questions within the program to better understand the specific content that resonated with parents (Study 2.1). Thus, both Study 1 and Study 2.1 contributed towards our primary goal: identifying factors (e.g., program design features) that influence access and engagement with online, strength-based parenting resources. We then explored the socio-demographic characteristics of caregivers who engaged with the program to gather preliminary, descriptive information about the accessibility of a school-based character strengths program for difficult-to-access parents (e.g., single parents) (Study 2.2). This exploratory analysis contributed to our secondary goal: identifying the socio-demographic groups who were not well-served by our online, strength-based parenting resource.

7 Study 1: Focus Groups

7.1 Method

Participants. Participants were parent council members of a publicly funded school board in a mid-sized city in Southwestern Ontario, Canada. Nine participants attended the first focus group and five attended the second for a total of 14 participants (12 women, 2 men).

Procedures. Parent council members were sent email invitations to participate in one of two 90-minute focus groups. Two focus group dates were offered in an effort to increase participation. At the focus group, attendees watched the three videos embedded in the program (20 min). Then, participants interacted with the online program on individual laptops (40 min). This was followed by a semi-structured group discussion (30 min). The discussion was opened by inviting participants to provide their initial reactions to the program. The facilitator explained that the feedback would be used to determine how to deliver the program to parents of the school board in an accessible and engaging way. Participants were informed that any feedback (large or small, positive or negative) would be useful to the research team. Participants were then led through a series of more specific questions which are listed below. The full discussion was audio recorded and subsequently transcribed.

Measures. The following questions were used to guide the focus group discussion:

1. What did you learn/take away from the web-based material?
2. What information stood out the most?
3. What information applied to your child the most?
4. What information was most unexpected/surprising?
5. What strengths did you most connect with as a caregiver?
6. Which elements of the content worked well for you and why?
7. Which elements of the content did not work for you and why?

8. What were any barriers that may have prevented you from engaging with the content?
9. What were any aspects that helped you engage with the content?

Due to the semi-structured nature of the focus group, questions were re-ordered to match the flow of the discussion. Furthermore, as a consequence of the semi-structured approach and time constraints, the first focus group responded to questions 1, 2, 3, 6, and 7, and the second focus group responded to questions 1, 4, 5, 6, 7, 8, and 9. Between both groups all questions were covered.

Analysis. Given the semi-structured nature of the focus group, statements related to access and engagement with parenting programs appeared throughout the discussion and not only in response to the specific questions related to engagement. Thus, the entire focus group discussions were analyzed. Given that research on access and engagement with online programs is relatively nascent, conventional content analysis was conducted according to Hsieh and Shannon's (2005) recommendations to permit the discovery of barriers and facilitators that remained unidentified by the current research literature.

The first phase involved repeated reading of the data to develop a preliminary sense of the data's content. One researcher (RO) developed tentative labels or "codes" that summarized similar units in the data. Each code was defined so that another researcher could reliably identify the units which fit under each code (see Online Resource 1 for the final coding scheme). The coding scheme was then tested on 10% of the data. For the test, two researchers (RO, RT) coded the data independently. More specifically, for each parent comment (defined as one speaking turn), the researchers independently recorded whether each code as defined in the coding scheme was present or absent. The researchers then assessed the reliability of their ratings using Krippendorff's alpha. The researchers continued to refine the coding scheme and test it on one-tenth segments of the data until sufficient reliability was achieved (mean Krippendorff's alpha > 0.79; Sun 2017).

Once adequate reliability was attained, the two researchers re-coded the entire dataset independently using the final coding scheme. After independent coding, final reliability was calculated, and any discrepancies were resolved through discussion. The researchers leading the analysis (RO, RT) were not involved in the development of the program and used discussion and consensus-building to reduce the impact of researcher bias. Finally, codes were rank ordered by frequency of occurrence to identify the barriers and facilitators which were most commonly identified by parents.

8 Results

Twenty-six of the focus group participants' comments described barriers, that is, factors which decrease the likelihood that parents will access and engage with the program (Table 1). Comments included the following barriers, in order from most to least commonly reported: difficult to navigate (23%, $n=6$), complex reflection activities (e.g., list your child's top five strengths in order; 23%, $n=6$), incompatible with small devices (15%, $n=4$), indirect, generic recruitment methods (e.g., sending a note

Table 1 The proportion of parent comments which identified barriers to engaging with the online program

Barrier	Example Quote	<i>n</i> (%)	<i>α</i>
Recruitment			
Indirect, generic advertisement	As soon as people go home, they put the paper [advertisement] down... It's going to get a whole bunch of other papers on top of it.	3 (12%)	0.78
Intervention			
Content			
Excessive information	It was a lot of information all at once.	3 (12%)	0.84
Term "resilience" not used in intervention	I was disappointed not to see resilience... It's one of those things that will get you to the top no matter what your obstacles.	2 (8%)	0.65
Format			
Difficult to navigate	It's just giving me a list of different pieces. So, I was trying to figure out where am I supposed to click to go on to what's next.	6 (23%)	1.00
Complex reflection activities	It says read each strength and identify which ones are your child's top three. I don't know if I could. There are so many to choose from.	6 (23%)	1.00
Incompatible with small devices	If people are going to be potentially using this on tablets or phones, that lettering underneath is very small.	4 (15%)	1.00
Structural			
Parents' busy schedules	I know there's good things on there... I keep on meaning to [access it], but other things come along.	1 (4%)	0.65

Note. *N*=26 comments.
 α =Krippendorff's alpha

home to parents; 12%, *n*=3), excessive information (12%, *n*=3), term "resilience" not used in program (8%, *n*=2), and parents' busy schedules (4%, *n*=1).

Eighty-two of the focus group participants' comments described facilitators, that is, factors which increase the likelihood that parents would access and complete the program (Table 2). The following facilitators were identified, in order from most to least commonly

reported: visuals (18%, *n*=15), intuitive navigation (17%, *n*=14), recruitment at pre-existing school events (e.g., parent-teacher interviews; 12%, *n*=10), short definitions of key terms in plain language (11%, *n*=9), strength-based information (10%, *n*=8), videos (10%, *n*=8), recruitment by school staff (4%, *n*=3), applicable beyond parenting (4%, *n*=3), links to webpages with additional information (4%, *n*=3), interactive questionnaires (4%, *n*=3), advertisement in pre-existing school materials (e.g., school newsletter; 2%, *n*=2), recruitment via an information meeting (2%, *n*=2), self-paced (2%, *n*=2), and integrated within the school's online platform (2%, *n*=2).

Table 2 The proportion of parent comments which identified facilitators to engaging with the online program

Facilitator	Example Quote	<i>n</i> (%)	α
Recruitment			
Advertisement at pre-existing school events	If you connected [promotion] to when they come to school and meet the teacher... you'd have a better response.	10 (12%)	0.88
Recommendation by school staff	You really want to personally have [teachers and principals] pulling them in.	3 (4%)	0.80
Advertisement in pre-existing school materials	You could prod [school administration] to put a little message and the website address or something on the [school newsletter].	2 (2%)	0.80
Recruitment via an information meeting	If you held that meeting... gave a twenty, thirty-minute presentation and then opened it up for discussion... [parents] become more involved.	2 (2%)	1.00
Intervention			
Content			
Short definitions of key terms in plain language	I like that you can click on the individual [character strengths] and then there's that short, brief description – very helpful.	9 (11%)	0.78
Strength-based information	I really related to the quote about happiness, because that's what I always say about my kids, 'I just want them to be happy.'	8 (10%)	0.52
Applicable beyond parenting	It's good for everyone. You can apply it to any work-related situations.	3 (4%)	0.85
Links to web-pages with related information	Not 'this is where you go', it just would be 'here's a link to the website' because people do want to potentially go for more.	3 (4%)	0.85
Format			
Visuals	I think the format and the pictures and the colours... I think all makes it easier to get through, makes it more interesting	15 (18%)	0.88
Intuitive navigation	I'm not really a digital-minded person but I figured out [how to navigate]. So, if I can do it, I'm sure digital minded people can do it.	14 (17%)	0.91
Videos	The initial video is what peaked my interest to start looking more at the underpinnings of the thinking and of the teaching.	8 (10%)	1.00
Interactive questionnaires	Encourage the parents to do their own strengths questionnaire because... it's kind of fun to learn about yourself and... you can relate to your own children.	3 (4%)	0.80
Self-paced	You sort of stroll at your own pace too. I think that's great.	2 (2%)	1.00
Integrated within the school's online platform	It fits in really good with e-portfolio.	2 (2%)	1.00

Note. $N=82$ comments. α =Krippendorff's alpha

The comments containing barriers and/or facilitators ($N=95$) were organized into three over-arching categories: recruitment-related factors, program-related factors, and structural or systemic factors. Parent comments primarily revolved around program-related factors (75%, $n=71$) as opposed to recruitment-related factors (18%, $n=17$) and structural factors (1%, $n=1$). Program-related factors were further divided into two categories: content (the information presented in the program) and format (the medium used to present the information). More comments described the impact of format on engagement (53%, $n=50$) than the impact of content (27%, $n=26$).

9 Study 2: Electronic Distribution of Program

After the focus groups were completed, the program was released to parents of children enrolled in full-day kindergarten at a school board in Southwestern Ontario. Parents of kindergarten students were recruited via the classroom teacher who distributed consent forms to parents via paper or electronic means, depending on the teacher's typical form of communication. Parents who consented to participate in the study ($N=457$) were contacted via phone for a 15-minute interview which involved open-ended questions about child characteristics as part of a larger study. Parents who completed the interview ($N=151$) were provided with access to an online pre-program questionnaire and the character strengths program. The program was integrated into parents' CourseLink accounts within the school board. CourseLink is a digital interface which enables parents to log-on to a personal online account and access information from the school regarding their child.

10 Study 2.1: Program Reflection Question

10.1 Method

Participants. Fifty-four parents (91% women) completed a reflection question embedded within the program. On average, these parents were in their mid-thirties ($M=36.52$, $SD=4.40$, range=24.66–50.27). Parents endorsed the following racial identities for their child: Arab (2%, $n=1$), Black (2%, $n=1$), Latin American (2%, $n=1$), White (87%, $n=47$), and a racial identity not specified (7%, $n=4$). The proportion of racial identities endorsed in the sample is comparable with that of the school board in which the program was released. Parents reported the following marital statuses: separated (2%, $n=1$), single (2%, $n=1$), and married (96%, $n=52$). Participants endorsed the following as their family's highest level of education: elementary school (2%, $n=1$), high school (6%, $n=3$), college (33%, $n=18$), university (35%, $n=19$), graduate (15%, $n=8$) and post-graduate (9%, $n=5$).

Procedures. During the program, parents viewed a video called "The Science of Character" (Shlain, 2014). This 8-minute video outlines major research findings on character strengths. Specifically, it describes the value of identifying and developing character strengths in self and others, provides examples of character strengths, argues that character strengths can be developed (i.e., through a growth mindset), and indicates the importance of making choices consistent with the character strengths one wishes to develop. Thus, the video summarized much of the strength-based information in our program (and in other character strengths programs). After watching the video, parents wrote a response to the question: "What information delivered in the Science of Character video stood out to you most? Please be as descriptive as possible."

Analysis. Conventional content analysis was employed to identify the information which was most salient to parents (Hsieh & Shannon, 2005). The content analysis followed the process outlined in Study 1. Specifically, one researcher (RO) developed a preliminary coding scheme which delineated themes in the data and provided

a label or code for each theme. For each parent comment, two researchers (RO and RT) independently recorded whether each code was present or absent. The researchers coded 10% of the data, calculated their inter-rater reliability, and then refined the coding scheme through discussion until sufficient reliability was obtained (mean Krippendorff's $\alpha > 0.79$; Sun 2017). The researchers then independently re-coded the entire dataset using the final coding scheme (see Online Resource 2 for the final coding scheme). Final reliability was calculated, and any discrepancies were resolved through discussion.

11 Results

Parents resonated with the following concepts, in order from most to least commonly reported (Table 3): notice and focus on character strengths (52%, $n=28$), develop character strengths (50%, $n=27$), character strengths can be categorized (9%, $n=5$), everyone has a unique combination of character strengths (9%, $n=5$), specific example(s) of character strengths (e.g., kindness; 7%, $n=4$), character strengths are universally valued (6%, $n=3$), and use character strengths (6%, $n=3$). The concepts were further divided into two over-arching categories: concepts related to the definition of character strengths and concepts related to the application of character strengths. More parents resonated with information about applying character strengths (67%, $n=36$) than information about the definition of character strengths (26%, $n=14$).

12 Study 2.2: Pre-Program Demographics Survey

12.1 Method

Participants. A total of 129 parents (88% women) completed the online pre-program survey. After the survey, 38 completed the entire program (full completers), 33 completed part of the program (partial completers), and 58 declined the program (non-completers). Most parents were in their mid-thirties ($M=36.68$, $SD=4.41$, range=24.66–50.27) and had 2 children ($M=2.33$, $SD=0.99$, range=1–7). Participants endorsed the following racial identities for their child: Arab (1%, $n=1$), Black (2%, $n=2$), Latin American (2%, $n=2$), Southeast Asian (2%, $n=2$), White (86%, $n=113$), and a racial identity not specified (9%, $n=12$). Participants reported the following marital statuses: common law (2%, $n=3$), divorced (2%, $n=2$), married (86%, $n=114$), separated (7%, $n=9$), and single (3.8%, $n=5$). The highest levels of schooling completed were: elementary school (1%, $n=1$), high school (7%, $n=9$), college (31%, $n=41$), university (34%, $n=45$), graduate (18%, $n=24$), and post-graduate (10%, $n=13$).

Procedures. Demographic questions were included in the online survey which parents completed prior to engaging with the program. The survey included several additional measures of parent and child characteristics as part of a larger study. Only the measures relevant to the present study are reported below.

Table 3 The proportion of parents who identified key concepts as important

Key Idea	Example Quote	<i>n</i> (%)	α
Application			
Notice and focus on character strengths	What stood out to me most was that being self aware of our strengths, rather than our weaknesses or our failures can really make an impact on our character...	28 (52%)	0.93
Develop character strengths	I think what stood out is that your character strengths can be grown over time and developed no matter your age.	27 (50%)	0.85
Use character strengths	It made me think of how I might use my strengths to really embrace and develop my child's strengths...	3 (6%)	0.65
Definition			
Character strengths can be categorized.	I didn't know that great list of strengths could be divided up under those headings – and I love it.	5 (9%)	1.00
Everyone has a unique combination of strengths.	The fact that the five character strengths that I might define myself as having are going to be different from the five that I might define each one of my children as having.	5 (9%)	0.88
Specific example(s) of character strengths	Seven strengths can contribute to ... happiness and success: optimism, gratitude, social intelligence, curiosity, self-control, enthusiasm, and perseverance.	4 (7%)	0.85
Character strengths are universally valued.	Its interesting that the same strengths are valued across cultures, and throughout centuries.	3 (6%)	0.79

Note. *N*=54 parents.
 α =Krippendorff's alpha

Parents reported their gender, marital status, level of education, and their child's race. Parents from dual parent households also reported their partner's level of education. SES was indirectly (and imperfectly) inferred from the parents' level of education based on research that indicators of SES (e.g., education, income, occupation) should be considered separately and that questions about income can feel intrusive to parents (Ensminger & Fothergill, 2003). SES was operationalized as the highest level of education achieved by the parent or by the parent's partner (if the partner's level of education was higher).

Analysis. Consistent with previous research (Chacko et al., 2017; Dadds et al., 2018), parents who completed the pre-program questionnaire were divided into three groups based on electronic records of their progress in the online program. Full completers were parents who completed all sections of the online program. This included viewing eight pages and completing two interactive questionnaires. Partial completers finished at least one section of the program (i.e., viewed a page or completed

an interactive questionnaire) but did not finish the program. Non-completers did not begin any section of the program.

Relative risk ratios were used to describe the likelihood of belonging to a particular engagement group relative to another, given the presence of a certain parent characteristics. First, parents who declined the program were compared to parents who completed at least some of the program (i.e., non-completers vs. partial or full completers). The relative likelihood of completing at least some of the program was calculated given the following parent characteristics: identify as a parent of a White child, highest level of education is a university degree, identify as a woman, identify as a single parent. A similar process compared parents who did some of the program (i.e., partial completers) to parents who completed the program (i.e., full completers) using the same parent characteristics. Given the small sample size, parent characteristics were examined using descriptive rather than inferential statistics.

13 Results

Participants who identified as women were slightly less likely to begin the program [risk ratio (RR)=0.91] but one and a quarter times more likely to complete the program (RR=1.23). Individuals who were divorced, separated, or single were half as likely to begin the program (RR=0.42) or to complete the program (RR=0.45). Participants who reported higher SES (i.e., one or more parents had a university degree) were slightly less likely to begin (RR=0.89) or complete the program (RR=0.85). Parents of a White child were slightly less likely to start the program (RR=0.95) but one and quarter times more likely to complete the program (RR=1.23).

14 Discussion

Although there is growing evidence for the value of involving parents in school-based character promotion efforts (Roth et al., 2017; Waters, 2020), parents face barriers to accessing and engaging with school initiatives (Baker et al., 2016; Garcia-Dominic et al., 2010; Murray et al., 2014; Povey et al., 2016; Walker et al., 2005). Attempts to redress these concerns through the delivery of online resources seem promising (Baker et al., 2017; Breitenstein et al., 2014; Ifdil et al., 2020; Liu et al., 2020; McGoron et al., 2018; McGoron & Ondersma, 2015; Perrino et al., 2018), but research on the factors that make online parenting resources accessible and engaging remains limited, particularly with regards to strength-based programs which possess different characteristics than deficit- or remediation-based programs (e.g., not responding to a child difficulty/challenge). The present study informs this gap by gathering parents' perspectives on making an online character strengths program accessible and engaging. Prior research with traditional parenting programs also indicates that barriers to access and engagement disproportionately impact certain groups of parents (e.g., low SES parents). The present study describes the sociodemographic characteristics of parents who accessed an online, school-based character strengths program to identify families who were not engaged by an online, strength-based format.

Parents identified numerous factors which impact engagement with an online character strengths program. Approximately one-fifth of parents' comments described the impact of recruitment methods on engagement. This is significant because research has largely focused on the factors which influence engagement once parents enroll in a parenting program (Chacko et al., 2016). This has meant that the effectiveness of different advertising methods has been largely ignored. For example, a systematic review of over a decade of research on the advertisement of parenting programs found only eight experimental studies, and each were limited by serious methodological weaknesses (Gonzalez et al., 2018). Fortunately, more recent studies have begun responding to these concerns. For example, a randomized controlled trial found that recruitment calls were a particularly effective method for engaging low-income, urban families (Abraczinskas et al., 2020). However, extant research focuses on traditional, in-person parenting programs and the findings may not generalize to a strength-based, online program. The current study begins to respond to this need with evidence that parents recommend advertisements to be personalized and integrated within school contexts (e.g., delivered at parent-teacher interviews). This is consistent with prior research in its emphasis on personalized recruitment strategies but extends this research by emphasizing the importance of capitalizing on parents' relationships with the school.

In addition to recruitment, the majority of parents' comments focused on program-related factors that influenced engagement. Parents commented more frequently on the format of the program (i.e., how information was presented) than the content of the program (i.e., the information itself). This suggests that when parents access an online program, they may be particularly sensitive to the formatting of that program. This is a valuable finding as it supports the practice of retaining the content of effective programs while adapting the format to meet the needs of different families (e.g., Perrino et al., 2018).

Regarding parents' specific suggestions around program format, previous research has suggested that videos are particularly effective for delivering online parenting information (Metzler et al., 2012; Speth et al., 2015). Although videos were well-received in the present study, parents also valued the simpler visual elements within the program (e.g., colours, cartoons, pictures, infographics). This suggests that, in situations in which videos are not feasible (e.g., communities with limited internet bandwidth), well-made visuals may serve a similar role in engaging parents. Previous research suggests that part of the reason that visuals engage parents is that parents frequently feel burdened by the amount of information they process on a day-to-day basis (Canadian Association of Family Resource Programs, 2010). Well-designed visuals may help parents to quickly identify and understand the key information (Canadian Association of Family Resource Programs, 2010).

In addition to visuals, parents indicated that intuitive, easy-to-understand navigation was an important feature of the program's format. This echoes research that complexity in traditional face-to-face programs can deter parents (Baker et al., 2016; Murray et al., 2014) and extends those findings to an online context. Given the importance of intuitive navigation, online programs are likely to benefit from applying research on user interface design. For example, theories such as The Website Developmental Model for the Healthcare Consumer can be applied to online resources to

create a user-centered design that is easy to navigate (Taylor et al., 2011). It is also important that the target age of parents is taken into account, given research that different age groups may benefit from different user interface styles (Newell, 2011).

Regarding engaging content, parents were strong advocates of keeping content volume brief. This finding is consistent with concerns about excessive content in prior research (Speth et al., 2015) which is often seen as unfeasible due to parents' significant time constraints (Povey et al., 2016). The present study extends this research by identifying specific suggestions for efficiently delivering online parenting information. Specifically, parents advocated for defining key terms with short, plain-language definitions that could be accessed by clicking on the term. This allows parents to quickly access the information without having to complete a separate search for definitions or read several sentences explaining the term. Secondly, parents suggested including hyperlinks to websites with related information. This would allow parents to selectively access further information about the topics which were most relevant to them. If implemented, these ideas could increase the likelihood that every parent gets a minimum exposure to the information while still allowing parents with more specific interests to pursue further information.

The present study also adds to the literature by identifying the value of strength-based content to parents. Not only did parents respond positively to strength-based information, but they also appeared to be looking for strength-related terms (e.g., resilience). Strength-focused parenting information is popular in the media (Hoffman, 2010). Thus, strength-based content may have a familiarity that is appealing to parents. However, the familiarity of program content requires balance. For example, in a study of parents accessing online information about anxiety and depression, some parents appreciated that much of the content was familiar, indicating that it reinforced their knowledge and increased their sense of parenting self-efficacy (Sim et al., 2017). However, other parents interpreted the familiar information negatively, feeling that it was too basic and therefore unhelpful (Sim et al., 2017). Parents may benefit most from a mixture of familiar and novel information that incorporates key terms which are recognizable and important to parents.

In addition to identifying that parents are generally interested in strength-based content, the present study suggests that parents are specifically interested in the *application* of strength-based information. This general finding is consistent with research that parents value applied content (Rostad et al., 2018). At a greater level of specificity, messaging concerning the importance of noticing and developing strengths most often resonated with parents, compared to information about the value of using strengths. It is a positive sign that parents resonate with messaging about noticing strengths because identifying strengths is generally viewed as the foundation of strength-based programs (Lottman et al., 2017; Niemiec, 2013). Parents' greater identification with developing strengths over using strengths may reflect parents' underlying assumptions about strengths. Biswas-Diener et al., (2016) indicate that people who view strengths as stable personality traits tend to be more interested in using strengths, whereas people who view strengths as malleable abilities tend to be more interested in developing strengths. Thus, parents may view strengths through the lens of abilities to be developed and, thus, resonate more strongly with information that reflects this perspective.

An exploration of the sociodemographic characteristics of parents across engagement levels suggested that, within our sample, individuals of lower SES (as measured by education) were able to access and engage with the program. This is consistent with other research that online programs reduce barriers for lower SES families (Calam et al., 2008). This is significant because low SES families are consistently unable to access face-to-face programs (Eisner & Meidert, 2011; Fernandez & Eyberg, 2009; Heinrichs et al., 2005; Lavigne et al., 2010). Online programs may be more accessible to parents who are difficult to access via traditional, face-to-face methods.

However, completion rates were lower for fathers, parents of racial minority children, and single parents. This is consistent with other literature showing that these socio-demographic groups face unique barriers (Panter-Brick et al., 2014; Speth et al., 2015; Whisenhunt et al., 2019) and may benefit from tailored engagement strategies (Tully et al., 2017; Barnett et al., 2020). For example, it is particularly important for fathers to have clear information about what the program involves and to establish confidence in the abilities of the facilitator (Tully et al., 2017). For racial and ethnic minorities, cultural appropriateness can be a key factor in influencing engagement (Barnett et al., 2020; Speth et al., 2015), and within ethnic minorities, different levels of acculturation may associate with different preferences (Perrino et al., 2018). Single parents may benefit from highly streamlined supports as they often experience additional financial and emotional burdens relative to dual parent households (Meier et al., 2016; Whisenhunt et al., 2019). Thus, there is a need for further research to understand how programs can be designed to remain accessible and engaging despite the additional barriers faced by these families.

15 Strengths, Limitations, and Future Directions

The present study responds to the need to better understand the accessibility and engaging qualities of online strength-based parenting programs. It extends this nascent research area by gathering parents' recommendations for promoting engagement and providing a more in-depth examination of the specific content that resonates with parents. Nonetheless, there are limitations which require consideration. First, the focus group data were collected from parent council members. Parent council members may have the advantage of holding expertise in implementing school-based projects. Indeed, the parent council members frequently based their advice on past experiences of developing and delivering events and programming to parents. At the same time, as highly engaged parents, parent council members are not representative of all parents' experiences. This may have been particularly evident, for example, in the limited number of comments on systemic barriers to engagement identified in this study (e.g., constraints on parents' time and finances). Furthermore, the participants' preferences to integrate recruitment and the program with school-based events and materials may reflect the positive relationship parent council members have with their school community. These findings may not generalize to parents who have neutral or negative feelings toward their child's school. Thus, there is a need for additional examination of barriers and facilitators of online program engagement within diverse samples of parents. Qualitative methods, particularly participatory action research

(MacDonald, 2012), may be ideally suited to involving diverse perspectives in all stages of program development and evaluation.

Additionally, focus groups allow for a more in-depth examination of parents' ideas than a written response, as spoken responses tend to be longer and allow the researcher to ask follow-up questions. However, there is less anonymity provided than written forms of data collection. As a result, parents may have felt uncomfortable discussing the program's limitations in front of the researcher. This may be a reason that a greater number of participants' comments identify positive features of the program rather than negative features. Future research may benefit from providing parents the opportunity to also provide anonymous written feedback.

Next, we used parents' responses to a video that summarized character strengths information to analyze the strength-based information that parents found most engaging. This approach had the advantage of allowing us to analyze parents' responses to strength-based information commonly found across character strengths focused parenting programs. However, additional important findings may have emerged if parents had been asked to reflect on the program as a whole rather than a summary video.

The small sample size of parents who completed the pilot program prevented inferential tests of the parents' sociodemographic characteristics in relation to their engagement. Although reporting the relative risks descriptively is more limited, it is hoped that these preliminary data will also inform future investigation. The sample size was also too small to examine effectiveness. Future research may benefit from using the findings in this study to access a larger group of caregivers. Employing a control group, such as a waitlist control design, could also help to better understand the effect of a brief, online, strength-based parenting program.

Finally, the researchers who completed the coding and the analysis (RO and RT) were not involved in the creation and development of the program in an effort to reduce researcher bias. At the same time, it is important to acknowledge that the other two authors (JF and ML) were involved as developers of the program. As evaluation of the program continues, it will be important that it is eventually evaluated by research teams that were uninvolved in the program's development.

In conclusion, online parenting programs have the potential to make school-based character strengths initiatives accessible and engaging for a larger, more diverse group of caregivers. To harness this potential, it is necessary to understand the unique factors which influence the accessibility and engaging qualities of online character strengths programs. The present study addresses this goal by identifying factors which potentially enhance or dampen accessibility and engagement with a character strengths program, the specific content that parents find impactful, and the sociodemographic characteristics of parents who access the program. Given evidence that certain sociodemographic groups face additional barriers to accessing online, strength-based parenting programs, future qualitative research with more diverse samples could illuminate the unique factors which influence engagement among parents of racial or ethnic minority children, single parents, and fathers.

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