



# Parent Preferences for Peer Connection in Virtual Mental Health and Parenting Support Platforms

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## Abstract

Peer connections can be integrated in online and app-based (eHealth) family mental health and parenting programs through forums/chats or video group sessions. Little is known about parental preferences regarding eHealth features, yet they could be key factors influencing uptake and utility of programs. Accordingly, the present study aims to examine parent preferences for connecting with other parents in eHealth programs. Parents ( $n = 177$ ) of 0–5-year-old children in the United States were recruited on MTurk. Parents were asked about peer connection preferences through questions framed around how and with whom they would like to connect when using a virtual mental health and parenting support platform. Most (86.4%) preferred connecting with other parents in an eHealth program with 73.2% preferring to connect anonymously. If using a forum, 45.5% of mothers were comfortable connecting only with other mothers whereas 54.5% were comfortable connecting with parents of any gender; 80.3% of fathers were comfortable connecting with all parents. Results were similar for videoconferencing. Age, income, number of children, recent stressful events, social support, mental health symptoms, and parenting stress did not predict any of these preferences. Our results suggest that integrating peer connection should be considered in developing parental eHealth programs as it may be in line with the preferences of most parents and programs that match user preferences have been shown to have higher enrollment and adherence. These preferences should be further studied with community samples and diverse participants to strengthen confidence in the findings and properly inform program development.

**Keywords** mHealth · Parent-to-parent · Therapy · Internet · Social network · Family

## Introduction

Social support and connections have repeatedly been found to have a positive impact on mental health and behavioral practices (Bedaso et al., 2021; DiMatteo, 2004; Fasihi Harandi et al., 2017). In parents, connection with other

parents can provide emotional, informational, and parenting support as well as increase self-efficacy and reduce parenting anxiety (Nolan et al., 2012; Strange et al., 2014). These peer connections can be integrated in mental health and parenting support programs and have been shown to help parents discuss personal experiences and questions in

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a low-judgement environment (Strange et al., 2019). In turn, this feature of some parental programs can help in creating a network of peers experiencing similar issues that can support each other, exchange tools, and reinforce the application of program components together (Hunt et al., 2019; Strange et al., 2019).

Interest in online and app-based health (eHealth) has sharply increased in recent years (Rioux et al., 2022) to meet needs during the COVID-19 pandemic and maintain increased accessibility to health services thereafter. Indeed, eHealth's key advantages reported by users are that it is less dependent on location/travel and scheduling (Linardon et al., 2021). This can meet important needs for parents since the most common contextual barriers they report for in-person programs are scheduling issues, transportation, and childcare (Morin et al., 2022). Parental eHealth programs can integrate peer connections through forums/chats or videoconference support groups, although only a minority of programs have integrated this feature (Attard et al., 2022; Florean et al., 2020). While research shows that internet-based peer support and online parental communities are generally enjoyed by parents (Niela-Vilén et al., 2014), parental preferences regarding the integration of these peer connections in eHealth programs are unknown. Accordingly, the present study aimed to examine (1) whether parents prefer connecting with other parents in eHealth programs, (2) whether they prefer connecting anonymously, and (3) the gender of parents they would prefer connecting with on forums and in videoconference calls. Potential covariates of these preferences were also explored.

## Method

This study comprised an anonymous online cross-sectional survey of parents who completed self-reported, CAPTCHA-protected questionnaires using Qualtrics. Ethics approval was obtained from the Psychology/Sociology Research Ethics Board at the University of Manitoba (HE2021-0090). All study procedures were conducted with the electronic informed consent of participants, who received 6USD for their participation.

## Participants

A convenience sample ( $n = 177$ ) was recruited through Amazon Mechanical Turk (MTurk) in March 2022 following best-practice recommendations (Aguinis et al., 2021) based on research showing MTurk is an effective and efficient online parent recruitment strategy (Dworkin et al., 2016). English-speaking MTurk workers aged 18+ with a Parenthood Status in the United States or Canada were eligible to participate if they had at least one child between ages 0 and 5.

## Measures

### Peer Connection Preferences

Participants were asked about peer connection preferences through three questions framed around how and with whom they would like to connect when using a "virtual mental health and parenting support platform." The first question asked if they would prefer connecting with other parents anonymously, non-anonymously (using personally identifying details such as their name) or would prefer not to have contact with other parents in the program (i.e., no peer connection). Then, separately for forums and videoconferencing group therapy sessions, participants were asked if they would prefer connecting with mothers only, fathers only, or all parents.

### Covariates

**Mental Health and Parenting Stress** Depression symptoms over the last 2 weeks were measured using the Patient Health Questionnaire-9 item (PHQ-9) (Kroenke et al., 2001) with items rated from 0 (not at all) to 3 (nearly every day). Reliability of sum scores was good in this sample (Cronbach's  $\alpha = 0.88$ ). Dichotomous scores were computed based on the established cut-offs: mild depression symptoms (0–9) and moderate-high depression symptoms (10+; Kroenke et al., 2001). General anxiety symptoms over the last 2 weeks were measured using the Generalized Anxiety Disorder 7-Item Scale (GAD-7) (Spitzer et al., 2006) with items rated from 0 (not at all) to 3 (nearly every day). Reliability of sum scores was excellent in this sample (Cronbach's  $\alpha = 0.90$ ). Dichotomous scores were computed based on the established cut-offs: mild anxiety symptoms (0–9) and moderate-high anxiety symptoms (10+; Spitzer et al., 2006). Continuous depression and anxiety scores for depression and anxiety were highly correlated ( $r = 0.78$ ,  $p < 0.001$ ), thus their scores were combined into one dummy variable, with 0 = mild mental health symptoms, and 1 = clinically concerning mental health symptoms (depression and/or anxiety is moderate-high).

Parenting stress was measured using the 36-item Parenting Stress Index-Short Form (PSI-SF) (Abidin, 2012) with items rated from 1 (Strongly disagree) to 5 (Strongly agree). The PSI-SF assessed parent stress and interactional style in terms of how parents feel in their role, how satisfied they are in the relationship with their child, and how difficult they perceive their child to be. Participants were asked to think about their oldest child between 0 and 5 years of age. Reliability of sum scores was excellent in this sample (Cronbach's  $\alpha = 0.97$ ). Dichotomous scores

were computed based on the established cut-offs: mild parenting stress (36–89) and clinically concerning parenting stress (90+; Abidin, 2012).

**Recent Stressful Experiences** Cumulative exposure to recent stressful experiences was measured using the Recent Stressful Experiences Checklist (Roos et al., 2020). Ten questions answered with “Yes” or “No” assess the presence or absence of ten stressors in the last 12 months. Items were summed to obtain a cumulative recent stressful experiences score ranging from 0 to 10. Reliability was acceptable in this sample (Cronbach’s  $\alpha=0.71$ ).

**Social Support** Perceived adequacy of social support from family, friends, and significant others was measured using the 12-item Multidimensional Scale of Perceived Social Support (Zimet et al., 1988) with items rated on a Likert scale from 1 (Very strongly disagree) to 7 (Very strongly agree). Higher scores represent higher perceived levels of social support. Reliability of mean scores was excellent in this sample (Cronbach’s  $\alpha=0.92$ ).

**Sociodemographics** Information was collected on parent age, income, education, marital status, ethnicity, gender, and number of children.

## Data Analyses

Analyses were conducted using IBM SPSS Statistics 27. Chi-square tests were used to assess preferences. Multinomial logistic regressions were used to examine predictors of preferences with all covariates outlined above included as predictors.

## Results

### Sample Description

Our Human Intelligence Task (HIT) yielded 335 completed surveys from eligible participants, of which 47.2% were deemed unreliable during data cleaning based on attention checks, mismatches between country and province/state (e.g., selects US and a Canadian province for their current residence), and unrealistic completion times. This led to the final sample of 177 parents, all of whom were in the United States.

Research suggests that parents on MTurk may be considered an at-risk clinical sample (Jensen-Doss et al., 2022). Our sample is in line with this recommendation, as 70.1% of participants had clinically concerning mental health symptoms and 74.6% had clinically concerning parenting stress symptoms. On average, the sample was

32.6 years old ( $SD=8.2$ ) with 1.5 ( $SD=0.6$ ) children; 45.8% were female and 53.7% male (with one intersex participant), 97.1% identified as cisgender, 84.7% identified as White American or White European, 86.5% had a university degree, 93.8% were married or in a domestic partnership, and 11.3% had a pre-tax household income under \$40,000. There was not enough variability in education, marital status, and ethnicity to examine these variables as covariates. As 97.1% of participants were cisgender, gender-based analyses included only mothers and fathers identifying as cisgender women and men.

### Peer Connection Preferences

Preference results and chi-square results are provided in Table 1. Significantly more parents indicated a preference for connecting with other parents if part of an eHealth program. Among those preferring connecting with other parents, a significant majority preferred connecting anonymously. None of the covariates predicted these preferences for connecting with other parents or for connecting anonymously (see Table S1 in the online supplementary information).

Regarding the gender of parent peers, the results were similar for forums and videoconferencing. Chi-square analyses among mothers showed no significant difference in the frequency at which participants indicated being comfortable connecting with mothers only or parents of all genders, whereas among fathers, more indicated being comfortable connecting with all parents vs. fathers only (Table 1). Covariates were not associated with these preferences in mothers or fathers (see Table S2 in the online supplementary information).

**Table 1** Chi-square test results for parent preferences for peer connection in eHealth programs

	Yes %	No %	$\chi^2(1)$	<i>p</i>
Prefer connecting with other parents	86.4	13.6	94.02	<.001
Prefer connecting anonymously	73.2	26.8	32.95	<.001
<b>Among mothers only</b>				
Comfortable connecting with parents of all genders (vs. mothers only)				
On a forum	54.5	45.5	0.64	.43
Videoconferencing	55.3	44.7	0.84	.36
<b>Among fathers only</b>				
Comfortable connecting with parents of all genders (vs. fathers only)				
On a forum	80.3	19.7	27.84	<.001
Videoconferencing	82.4	17.6	28.47	<.001

## Discussion

In our sample, there was a high preference for connecting with other parents in online platforms designed to provide mental health and/or parenting support, with the majority preferring anonymous connections. These preferences were independent from a range of factors, including age, income, number of children, recent stressful events, social support, gender, mental health symptoms, and parenting stress. The development of eHealth programs for parents should prioritize the integration of peer connections since programs in line with parent preferences have higher enrollment and adherence, which in turn can improve the reach of effective treatments (Bannon & McKay, 2005; Nock & Kazdin, 2001). While complete anonymity may not be possible (e.g., videoconferencing), programs could clearly outline to participants how their information will be protected and give platform users the option to not use personal information in user profiles/screen names to enhance parents' comfort in joining the program. Although the majority of participants preferred connecting with other parents, 13.6% indicated a preference for not having these connections. Thus, diverse program options or multimodal programs where parents can choose which features to participate in could be expected to best meet parents' needs.

In both forums and videoconferencing, mothers were evenly split in terms of being comfortable connecting with other mothers only or with all parents, while more fathers were comfortable connecting with all parents (> 80%). Related research has focused on group therapy for substance abuse with most being on cisgender women's experiences, showing that single-gender groups may enhance support and affiliation (e.g., Greenfield et al., 2013; Sugarman et al., 2016). One study looking at both cis men and cis women similarly found that men mostly perceived benefits of having women in substance abuse groups while women perceived both disadvantages and advantages to mixed-gender groups, in turn preferring single-gender groups more than men (Sugarman et al., 2022). Qualitative findings showed that cis women perceived enhanced intimacy, support, empathy and ability to be open and honest about their life circumstances in all-women groups while cis men preferred mixed-gender groups due to the perceived enhanced empathy and support (Sugarman et al., 2022). Future research on parent support groups could include qualitative components to examine if the thought processes behind these preferences are similar to substance abuse groups.

Results of the present study are limited to predominantly highly educated White American/European cisgender participants and our convenience sample of MTurk parents can be considered an at-risk clinical sample (Jensen-Doss et al.,

2022). Thus, while this study provides important insights on preferences for peer connection in parental eHealth programs, results should be used to inform studies with community samples and more diverse participants. The setting of the mental health platform was not specified in asking about these preferences. Our intention was for the questions to apply to a variety of mental health delivery platforms that serve the general populations and/or those with clinically significant symptoms. In the future, it may be helpful to add specificity to program delivery models. Furthermore, while this study provided data on self-reported parent preferences, discrete choice experiments (McGrady et al., 2021; van den Broek-Altburg & Atherly, 2020) could be used to test whether these preferences for connecting with peers are associated with parents' decision-making processes when choosing between program attributes.

Overall, the present study suggests that integrating peer connection should be considered in developing parental eHealth programs and would be in line with the preferences of most parents. This could be beneficial through potential effects of (1) meeting user preferences on enrollment and adherence, and (2) peer social support on parental well-being and parenting practices (Cunningham et al., 1995; Nolan et al., 2012; Strange et al., 2014). Replication in more diverse samples would strengthen confidence in these findings to better inform evidence-based program development.

**Supplementary Information** The online version contains supplementary material available at <https://doi.org/10.1007/s41347-024-00408-8>.

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**Data, Materials and/or Code Availability** Materials and data for this study are available by emailing the corresponding author.

## Declarations

**Ethics Approval** This study was performed in line with the principles of the Declaration of Helsinki. Ethics approval was obtained from the Psychology/Sociology Research Ethics Board at the University of Manitoba (Ethics approval number: HE2021-0090).

**Consent to Participate** Informed consent was obtained from all individual participants included in the study.

**Competing Interests** The authors declare no competing interests.

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