

The Practice of Online Peer Counseling and the Potential for AI-Powered Support Tools

TONY WANG*, Cornell University, USA

AMY S. BRUCKMAN, Georgia Institute of Technology, USA

DIYI YANG, Stanford University, USA

What challenges do volunteers providing peer support in online mental health platforms (OMHPs) face in operating and growing their communities? How could the HCI community develop human-AI systems to help? Recent work on online peer counseling has led to the development of novel AI tools for conversational interaction, but it remains unknown how such technology can fit into broader practices that include extratherapeutic tasks. In this research, we conducted interviews and design exercises with seventeen peer counselors from 7 Cups of Tea, a large online therapy and counseling platform, to design tools — AI or not — that resolve challenges that arise from day-to-day community practices. Participant responses suggest three classes of tools that could improve online peer counseling: real-time decision support, productivity, and management and training. Investigation of design motivations surfaced four practice-based challenges including chat interface limitations, difficulties in support seeker management, fragmented contexts of practice, and lack of visibility due to privacy concerns. Based on counselors' discussion of benefits and risks associated with AI features in the tools they designed, we offer suggestions for research on AI tools embedded within peer counseling practices, and connect our findings with broader implications about online peer counseling as a form of volunteer-based mental health practice.

CCS Concepts: • **Human-centered computing** → **Empirical studies in HCI**; **Empirical studies in collaborative and social computing**.

Additional Key Words and Phrases: online communities, mental health, counseling, artificial intelligence, volunteering, practice

ACM Reference Format:

Tony Wang, Amy S. Bruckman, and Diyi Yang. 2025. The Practice of Online Peer Counseling and the Potential for AI-Powered Support Tools. *Proc. ACM Hum.-Comput. Interact.* 9, 2, Article CSCW191 (April 2025), 33 pages. <https://doi.org/10.1145/3711089>

1 Introduction

Recent research has shed light on the role that peer support plays in the growth of online mental health platforms (OMHPs), which provide spaces where support seekers can receive help anonymously from support providers on the internet [3, 67]. Some platforms enable peer counselors, volunteers who typically have little to no formal training in therapy or counseling skills, to share their lived experiences with support seekers looking for an empathetic listener. Peer counselors are

*Work done at the Georgia Institute of Technology.

Authors' Contact Information: [Tony Wang](mailto:yw2567@cornell.edu), Cornell University, USA, yw2567@cornell.edu; [Amy S. Bruckman](mailto:asb@cc.gatech.edu), Georgia Institute of Technology, USA, asb@cc.gatech.edu; [Diyi Yang](mailto:diyi@cs.stanford.edu), Stanford University, USA, diyi@cs.stanford.edu.

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for components of this work owned by others than the author(s) must be honored. Abstracting with credit is permitted. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee. Request permissions from permissions@acm.org.

© 2025 Copyright held by the owner/author(s). Publication rights licensed to ACM.

ACM 2573-0142/2025/4-ARTCSCW191

<https://doi.org/10.1145/3711089>

often limited in the amount of feedback they can obtain to improve counseling skills, instead learning through practice to develop expertise in handling counseling conversations [4, 74, 84, 115, 117]. Given challenges in learning effective support provision practices among volunteers, researchers and practitioners have become increasingly interested in using artificial intelligence (AI) to improve the quality of seeker-supporter interactions. For example, personalized matching can improve conversations and support seeker outcomes [7, 30, 58, 93] and real-time response generation tools can scaffold support providers' acquisition of psychotherapeutic techniques [43, 86]. By facilitating high quality conversations, these tools aim to ensure better mental health outcomes for support seekers and prevent burn out among volunteers, enabling OMHPs to provide mental health services to a large population of users [8, 65].

On the other hand, a growing body of evidence suggests that peer counselors engage in extratherapeutic tasks beyond having conversations with support seekers, but less attention has been paid to AI technology that supports these tasks. Peers actively contribute to the growth of their platforms as long-term community members who transition from seeking support to providing it [108, 114] and participate in various organizational capacities such as supporting and mentoring new members of their communities, moderating interactions between community members, and overseeing administrative tasks such as spam control [75, 80, 91, 115]. Research is just beginning to explore support providers' collaborative and organizational needs, including the potential ways AI-powered tools can reduce friction with extratherapeutic tasks necessary to the operation of OMHPs. Some studies have shown that designing novel AI systems that augment existing practices such as note-taking have the potential to improve volunteers' workflows in crisis counseling [26]. More recently, large language models (LLMs) have been proposed as a potential AI tool to help simplify extratherapeutic tasks in professional clinical settings [25, 95]. However, design ideas stemming from volunteer peer supporters remain scarce.

Participatory design methods have been used to identify design opportunities for new AI technology in the mental health domain, but prior work has tended to focus on professional therapists' or support seekers' perspectives [56, 69, 103]. Inviting peer counselors to design new tools can help bridge diverse proposals from mental health, human-computer interaction (HCI), and natural language processing (NLP) researchers on how to develop peer support tools that effectively augment or improve existing workflows and practices. Studies in healthcare informatics highlight the importance of novel technologies being integrated with organizational contexts and clinical workloads (see [49, 61, 90] for systemic reviews) to be useful to professional healthcare practitioners. Social computing research has also begun studying the impact of organizational and administrative practices such as community moderation [80] and volunteer-led training programs [115] on OMHPs. This leads to three research questions (RQs) that motivate the present research centered on the peer supporter perspective:

RQ1: What opportunities are there for new tools to help supporters accomplish their work?

RQ2: What practices and challenges do supporters have that AI technology can improve?

RQ3: What benefits and risks do supporters perceive with AI in peer support?

We answer these questions by leveraging a semi-structured interview and design exercise with seventeen volunteers on a large online therapy and counseling platform to understand the tooling needs of peer counselors. Our findings include three types of intelligent tools designed to improve online peer counseling, four practice-based challenges to being an online peer counselor, and three perceptions regarding the benefits and risks of AI for peer counseling. Based on these findings, we discuss opportunities for organizationally embedded language technologies that resolve problems faced by peer counselors both inside and outside of one-on-one conversations.

2 Related Work

2.1 Peer Support Providers on OMHPs

Peer support is both a motivator of engagement and an intervention that enables behavior change for wellbeing. Studies with platforms such as Koko [65], Flip*Doubt [93], and HORYZONS [5] have examined how peer feedback can enhance digital interventions for behavioral change, such as improving the acquisition of coping techniques like cognitive reappraising. On platforms such as Facebook Groups¹ or the Cancer Survivors Network², support providers form a group of core contributors that converse with others experiencing shared struggles to provide emotional and informational support [76, 114]. Computational methods have identified types of support [89, 102], amount of self-disclosure [110], and choices in linguistic or expressive style [62, 81] as factors of communication that lead to successful conversational support in OMHPs, which in turn leads to better support seeker wellbeing and platform user retention [78, 105, 106, 111].

The training and management of peer support providers has also seen attention in the literature. Yao et al. [115] pointed out that interactions on 7 Cups of Tea³ (7 Cups) center around one-on-one conversations that do not have the same affordances for social interaction and learning that other online communities have. Unlike other peer production platforms, where informal social learning mechanisms help novice contributors become expert contributors [14, 32], training support providers is difficult because of a lack of low-risk practice opportunities, privacy considerations that prevent sharing of conversations, and the personalized nature of each support seeker's needs. Since support providers on 7 Cups have little to no training, they must formulate counseling strategies on the fly while chatting with support seekers [115]. Some platforms introduce peer supervisors and moderators to mitigate harms and ensure overall user experience [56, 75, 80]. For example, Koko, a crowdsourced cognitive reappraisal platform, relied on experimenters and Mechanical Turk workers to oversee content violations separately from the population of peers providing cognitive reframing feedback on community members' posts [65].

2.2 AI and Peer Support on OMHPs

Recent developments in NLP have garnered interest in AI's ability to improve training and scaffolding of seeker-supporter interactions. Interventions using conversational AI that provide recommendations and guide seeker-supporter conversations in real-time can serve as convenient and adaptive learning tools for support provider training [43, 73, 84, 87, 92]. Some studies have begun examining whether AI can teach cognitive-behavioral skills on demand in lieu of expert human supervision using models trained specifically for peer support contexts [15, 48, 88]. While researchers continue to explore the potential of AI in personalizing conversational interaction in digital mental health interventions [28], questions about the appropriateness of using AI as replacements for human interaction [25, 33, 44, 57, 64] make their full deployment on OMHPs unlikely in the near future.

Exploring the ethical dimensions of AI replacing counselors, therapists, and psychiatrists is beyond the scope of this paper, but one probable use of AI is in the realm of organizational tasks such as training and administration [25] to automate work outside of conversations so support providers can focus on conversation with support seekers. Stade et al. [95] suggest that, in addition to real-time conversational suggestions for training support seekers, LLMs have applications to clinical practice such as improving administrative workflows. AI matching of seekers and supporters based on extratherapeutic factors has also been studied. On OMHPs, the low cost of interaction lead to a large number of requests from seekers going unanswered or ending early due to poor compatibility

¹<https://www.facebook.com/groups/discover/>

²<https://csn.cancer.org/categories>

³www.7cups.com

between seeker and supporter [8, 89]. To tackle issues in visibility and needs matching, Smith et al. [93] and Fang et al. [30] suggest that matching algorithms can drastically improve conversations by identifying the needs of support seekers and pairing them with peer supporters that are best able to meet those needs. The use of AI in these applications emphasize non-conversational factors that influence providers' ability to provide support.

AI can also be viewed as a productivity-enhancing personal assistant that scaffolds the writing process, helping build confidence in communication. In a survey of 210 counseling and mental health education students who have used ChatGPT, Ajlouni et al. [2] discovered that a majority of respondents found ChatGPT helpful for reflecting on their skills and values. Peng et al. [73] showed that a custom writing assistant that assesses the amount of informational and emotional support in support providers' writing and recommends edits based on that assessment can reduce the amount of time spent drafting responses. Writing assistants have also been found to be effective in supporting the development of writing style and improving writing quality in fields such as law [100] and education [68]. More broadly, HCI researchers have argued that crowdworkers leverage additional productivity tools such as browser extensions or scripts to improve their workflows, despite such tools contributing to more multitasking and fragmentation in work [55, 107]. It is unclear whether support providers on OMHPs use off-the-shelf AI tools such as ChatGPT or Grammarly⁴ in their writing process to improve counseling skill acquisition and expression.

2.3 Integrating Technologies into Support Provider Practices

Many studies reviewed above were motivated by the goal of improving conversation-related interactions. However, less work has examined the organizational interactions between peers that foster community growth and operations. The scale of OMHPs can require volunteers to take on tasks beyond interactions with support seekers such as supervising the training of new peer supporters, managing administrative tasks such as group discussions, or moderating content for quality and harms [80, 115]. For example, TalkLife has moderators that "are trained to help ensure the TalkLife community is a safe and supportive place"⁵ and 7 Cups has mentor and ambassador roles for supporting their peer supporter community⁶. Other platforms employ mental health professionals as moderators. In a survey of three OMHPs, Perry et al. [75] discovered that professional mental health moderators, despite having formal training, are limited in their ability to directly help support seekers due to organizational policies, and suggest that a better understanding of "practice-based experiences" of moderators could identify organizational challenges to routine work on OMHPs.

Technology has the potential to support or improve the **practices of a community** [34, 82] that have formed around the common cause of peer support. Little work has been done on designing technology to support how peer supporters organize and self-manage, but HCI researchers have developed a variety of AI tools to enhance peer production practices for communal activities such as knowledge production (e.g. WikiBench for evaluating articles [51] and ORES for supporting quality article writing [39] on Wikipedia) and content moderation (e.g. AutoMod on Reddit [46]). These tools are designed to fit within collaborative workflows between volunteers engaged in joint activity, and may be of inspiration to designing technologies for support providers on OMHPs. For instance, since moderators learn and act through reflective practice [22], investigating support providers' moderation challenges may offer new insights on AI moderation tool design.

⁴www.grammarly.com

⁵<https://www.talklife.com/faq>

⁶<https://www.7cups.com/community-guidelines/62fc58e918694a08aa4c616ebbca6da>

Technology can also be used to support evidence-based **mental health practices** used in the design of digital mental health interventions. Many studies on OMHPs and AI are explicitly designed to teach a subset of psychotherapeutic skills such as cognitive appraisal, motivational interviewing, and empathetic responses [24, 43, 73, 87, 93]. However, mental health practices also include approaches to organizational and administrative tasks such as workload management, patient referrals, and supervision of team members [12, 18, 21, 97]. In physical contexts like clinics, technology supporting such tasks can improve professionals' working conditions [17, 77], but little work has focused on the same topic for OMHPs. One notable exception is Dinakar et al. [26]'s contextual inquiry of Crisis Text Line⁷ (CTL) workers that highlighted breakdowns in workflows between callers, volunteer crisis counselors, and supervisors caused by the creation of counselor notes. Note-taking is a practice that professional therapists and counselors are encouraged to engage in to facilitate self-reflection, build therapeutic alliance, and manage patient information [20, 96]. In response to their findings, Dinakar et al. proposed the development of a novel interface that summarized conversations for volunteer training, automated note-taking during conversation, and extracted important problems for supervisors to review [26]. Such an approach enables AI tool design that supports social processes surrounding artifacts produced by crisis counselors engaging in the practice of note-taking.

Although tools can be used to empower pre-existing community practices for organizational and administrative tasks in OMHPs, most prior research on peer supporters has focused on tools that teach skills and techniques related to psychotherapy. A study on the potential of AI to support individual and community practices that address organizational problems may provide new opportunities to empower volunteers on OMHPs and situate prior ideas in a broader design space.

2.4 Designing Technology for Online Peer Counseling

Given that direct observation of online communities is challenging, design methods can help elicit the practices of support providers and uncover such a design space. Prior research suggests training in information technology is increasingly critical for healthcare practitioners, but often the technologies introduced are cumbersome for social and ethical rather than technical reasons [29, 77, 97]. Munson et al. [66] used Ackerman's sociotechnical gap [1] to elucidate the challenge of addressing users' need for care and better health outcomes with the current technical and social limitations of healthcare systems. Drawing from approaches focused on understanding contexts of use to identify design opportunities for digital technologies [42, 53], we address this gap in this study by examining the practices of a peer counseling community to unify design and analysis of tools for online peer counseling. By highlighting the day-to-day operation of peer counseling, we hope to illuminate support providers' values and needs in a way that bridges various proposals by NLP and HCI scholars on how to develop effective AI-powered tools for OMHPs.

To accomplish this, we turn to participatory design methods, which not only have roots in the study of practice, but also generate designs that capture real-world user needs [38, 94]. HCI researchers have used them to demonstrate the needs of mental health support seekers [69, 103] and healthcare providers [113] in the design of sociotechnical systems. A diverse set of design exercises have been documented in HCI literature for studying human-AI interaction including scenario writing [69], concept sketches [113], and storyboards [52]. Design research techniques can also uncover contexts and challenges to practitioners' use of healthcare technology [31, 103]. To the best of our knowledge, no studies have examined how support providers' use of technology shape community peer counseling practices.

⁷<https://www.crisistextline.org/>

3 Method

3.1 Research Site

7 Cups is a large, online peer counseling and therapy platform where support seekers, called **members**, and support providers, called **listeners**, can discuss a variety of issues anonymously. Before listeners are allowed to begin conversations with members, they complete an approximately 30 to 60 minute initial training that teaches various psychotherapy techniques such as active listening, showing empathy, summarizing and reflecting back to members their concerns, and asking guiding questions. Chats on 7 Cups start with a member requesting support by placing a request in a site-wide queue or directly messaging listeners through listeners' profile pages. Listeners can choose to chat with members by accepting requests from the queue or through direct messaging. Listeners with interest in managing the community may take on additional roles designated by platform administrators such as a mentor, who is a more senior listener that other listeners can go to with questions, or an ambassador, who works on contributing content or directing other listeners to efforts that need staffing.

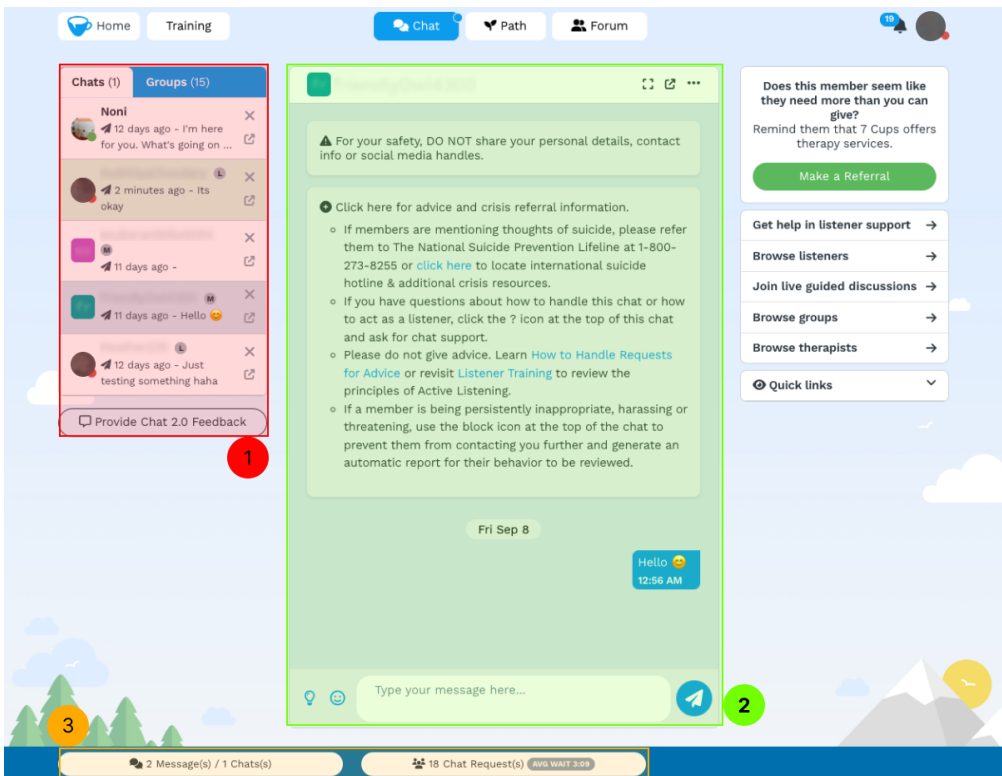


Fig. 1. Chat UI for listeners on 7 Cups uses a list structure to navigate through multiple conversations. (1) The individual and group tabs for navigating through chats; (2) the chat interface; (3) the queue for picking up chats.

Listeners interact with both members and other listeners through text-based chatting as shown in Fig. 1. The chat interface allows listeners to navigate conversations using a list of chats (1), which has separate tabs for one-on-one and group chats. Conversations occur in the chat window (2).

At the bottom of the screen is a banner (3) signifying the status of the platform's queue and the average wait time for members to enter a chat. Lastly, direct messages sent to listeners appear in the list of chats (1) where new activity appears at the top ordered by temporal recency.

We select 7 Cups as a research cite several reasons. First, it is one of the largest OMHPs that leverages volunteers for both counseling and moderation roles. Second, Yao et al. [115] conducted a review of the informal learning process for listeners on the platform and noted that most conversations are private, one-on-one seeker-supporter chats, which inhibits learning through socialization. Thus, any practices uncovered in the operation of peer counselors on 7 Cups are likely to have generalizable insights to other OMHPs where learning through observation or participation across conversations is difficult (e.g. crisis hotlines such as CTL, peer counselor-led private support groups such as HeyPeers⁸). Third, investigating a range of volunteer roles can help us understand a broader design space of tools that support administrative and operational tasks, which prior literature has suggested AI has significant potential to improve.

3.2 Interview Recruitment

This project was approved by the Institutional Review Board (IRB) at the Georgia Institute of Technology. Participants were recruited from 7 Cups through a survey posted on listener channels. In consideration of the sensitive nature of healthcare-adjacent topics, 7 Cups community administrators posted links to our recruitment materials, serving as a community contact for participants who may have questions about our study to ensure informed consent. We did not place restrictions on whether participants had to be in a specific role (e.g. mentor, ambassador). An initial round of eleven interviews was completed in Spring 2023. A second round of six interviews was completed in Summer 2023 for a total of seventeen interviews. To protect participant privacy, recruitment and data collection were conducted through university servers and participant details were only known to the researchers. 7 Cups was not involved in the study outside of posting links to the survey.

Table 1 shows that participants had varying amounts of experience and roles. Some participants were newer listeners with less than one year on the platform, while the most experienced listeners had several years. Activity frequency differs individually, with some participants preferring to provide support at a slower pace while others are more active volunteers. One listener's conversation count could not be confirmed as they were on break and had paused their public profile at the time of the interview. To maintain anonymity of participants, we do not map participant numbers to demographic information so quotes cannot be connected to individuals since mentors and ambassadors have specific tasks that could identify their participation in the study.

3.3 Interview Procedure and Analysis

We conducted a semi-structured interview and design activity with participants via Zoom. The interviews consisted of three sections: a warm-up interview (5-10 minutes), a heads-down design exercise (10 minutes), and a follow-up interview (30-40 minutes) about the design exercise. Interviews started with questions about the participants' general experience as a listener to facilitate recall of positive and negative moments while voice and camera were on. Then, listeners were provided a worksheet (Appendix B) with scaffolding questions for the design process (e.g. "What are some problems you have as a listener where technology would assist you?", "What does the tool help you with?") and asked to type out in two to three sentences a scenario describing a tool that would solve a problem they encountered as a support provider. The worksheet was linked as a Qualtrics survey via the Zoom chat feature and completed silently with microphone and camera off. Participants typed responses through Qualtrics text input. After completing the worksheet,

⁸<https://www.heypeers.com/>

Role	Num. Conv.	Tenure	Gender	Age
Listener	<250	2y	M	18-25
Ambassador	2000+	7y	F	26-30
Ambassador	1500	8y	F	18-25
Listener	250	3y	F	31-35
Listener	1250	<1y	F	36-40
Listener	<250	8y	F	18-25
Mentor	750	8y	F	26-30
Listener (ex-Mentor)	1000	5y	M	31-35
Listener	500	<1y	F	45+
Listener	Unknown	3y	F	41-45
Listener	250	4y	F	26-30
Mentor	500	2y	F	36-40
Listener	1000	1y	M	41-45
Listener	250	<1y	F	45+
Listener	1500	7y	F	45+
Listener	<250	<1y	F	26-30
Listener	<250	3y	F	18-25

Table 1. Participant demographics at time of interview. Number of conversations are floored to multiples of 250. Tenure is rounded down to the nearest year. Participant numbers are not shown to maintain anonymity.

participants were asked to verbally elaborate on their scenario, design rationale for their tool, and reasons they felt the features of the tool would be helpful with voice and camera on again. To avoid biasing participants towards AI, we use the design exercise as a springboard for investigating participant experiences and perceptions of AI technology in the follow-up interview. For example, if a participant did not mention AI when describing their tool, our interview protocol (Appendix A) was set up to then ask about whether the tool can be powered by AI. If the participant said no, we were prepared to ask about connections between their imaginary tool and their experience with one or more well-known intelligent writing assistants that the participant reported having used in a screener survey. All participants had either designed AI tools or said they could imagine their tool being powered by AI.

We adopted this technique from O’leary et al. [69], who asked support seekers to identify design opportunities for patient-oriented mental health technology using an application scenario. Initially, we prototyped mockups of a hypothetical support chat unrelated to 7 Cups using exercises such as design sketches [113] or storyboards [52], but feedback from researchers outside of the authors with experience in peer support suggested that the examples may bias participants and were lacking context compared to actual chats. This led to a protocol where participants were first asked to recall examples of concrete incidents to ground their thinking in experience before being led into an open-ended design exercise. We ensured that participants were comfortable with typing for the design exercise as part of recruitment process, which was not an issue for participants due to the text-based nature of peer support work on 7 Cups. A \$20 USD Amazon gift card was provided as compensation. Interview times ranged between 43 minutes and 67 minutes with an average of 51.53 minutes. All participants consented to having their interview responses recorded and transcribed for analysis. Two interviews were conducted only in voice and without camera.

Interviews were analyzed using thematic analysis [13]. An initial set of codes and themes were developed by the first author from eleven interviews conducted in Spring 2023. These were then shared with the other authors for discussion, after which the first author reflected on and refined themes until stability. To ensure data saturation, an additional six interviews were conducted and analyzed in Summer 2023, leading to refinements of some themes. Codes and themes were finally applied over the full dataset of seventeen interviews to produce the set of themes presented here.

4 Results

In this section, we present participants' design ideas and the concrete scenarios in which their novel tools could improve listener experience. Based on listeners' motivations for their design ideas, we also surface challenges in day-to-day activities that listeners face and perceptions of how AI technology can improve existing peer counselor practices.

4.1 Design Opportunities for Technology and Peer Counseling

Twenty tools were described by participants resulting in three categories: *real-time decision support*, *productivity*, and *management and training*. Real-time decision support tools integrate within a conversation, offering techniques for in-the-moment decisions during conversational interaction. Productivity tools augment individual workflows such as chat management and scheduling. Management and training tools focus on building community and ways of automatically scaling counseling quality. Fig. 2 summarizes the three types and highlights a subset of tools quoted in this section. A detailed description of every tool can be found in Appendix C along with a number used for referencing throughout this manuscript. Approximately half of the participants ascribed intelligent features to their tools or acknowledged that their design process was motivated by experience with AI tools such as chatbots or writing assistants.

Each tool was assigned one category that constitutes the main problem the tool is meant to solve, but some tools may also fall into multiple categories. For example, a tool describing the ability to track the rating members give a listener for the listener's performance could be considered a conversational tool, but the use of such a tool over time reflects broader training mechanisms on the platform. In such cases, the context of the problem the tool is meant to solve, which was investigated in the follow-up interview after the design exercise, influenced classification of the tool. Three participants described two tools, reflecting multiple pain points where technology could support their workflows. In these cases, the tools are counted separately in our analysis.

4.1.1 Real-time Decision Support Tools. Several listeners with a smaller number of completed chats reported wanting a tool to help them handle difficult situations where they felt "stuck" in the middle of a conversation. For example, a certain technique may not be effective in progressing a conversation with one member despite having worked with other members in the past, leading to a breakdown in the conversation. When members suddenly stop interacting or become uncooperative, listeners reported blaming themselves for not being able to understand the member's needs. To handle challenging situations in progressing conversations, some listeners described personalized assistants that could suggest responses or talking points to help the listener generate ideas on the fly. One listener described wanting an intelligent pop-up with the ability to quickly summarize and identify meaningful talking points based on a member's prior messages on 7 Cups (tool #1). For them, this tool offered the ability to take a step back from a redundant conversation and identify possible avenues for changing topics by surfacing details about a member's personal experiences:

There's lots of redundancy, talking about the same things over and over because [members have] been feeling that way. [Members] try to work through it, but it's just not working. I




Category	Concept	Description
 <p>(a) Real-time Decision Support Tools</p>	Pop-up Summaries	See past history and make recommendations on talking points
	Question Reframing	Suggestions on reframing questions to move conversation forward
	Resource Search	Shortcuts to relevant information and crowdsourced community contributions
 <p>(b) Productivity Tools</p>	Customizable Chat Space	Personalizable space for managing and viewing multiple conversations
	Color-coded Organization	Smart labels for chats based on progress and length of relationship
	Message Manager	Sending and grouping messages by task to facilitate efficient responses
 <p>(c) Management & Training Tools</p>	Approval-based Training	Approval tools for new counselor registration built into training
	Intelligent Mentorship	Personalized suggestions for improvement with differential experience
	Community Alarms	Emergency button for peer support intervention for difficult chats

Fig. 2. A summary of the tools we highlight in Section 4.1. The left column groups each tool into one of three broad categories, the middle column captures the design concept behind the tool, and the right column contains a brief description of the tool's function.

think when you have that option to see [what a member has mentioned about themselves in the past], it's possible to have a better idea of something else to talk about.

Multiple participants mentioned that variations on how a question is written could elicit different responses from a distressed member, but they were not always able to move a difficult conversation forward through their own efforts at reframing. Several felt it would be ideal to receive feedback on why a conversational strategy did not work and have access to alternative ways of progressing the conversation. One listener designed an intelligent conversational assistant (tool #6) that detects members' emotions so they know when a question "might be triggering" to a member. Another

wanted a listener-only chatbot (tool #5) that they could ask for help in real time to escape these situations:

I had a person tell me about infidelity, and she was asking me if she should tell her spouse. I asked her a question about her state of mind before it happened. She didn't say anything. [I could] just put that [question] in and [the tool] can tell me some questions or I can just choose from an array of questions. It'd be great to have some help with [reframing my question].

How smoothly a conversation goes can be impacted by the resources at a listener's disposal. 7 Cups encourages listeners to respond in a timely manner to members in order to keep conversations going, but sometimes listeners are unfamiliar with the topic a member wants to discuss. In these situations, listeners must search for relevant resources to educate themselves in the middle of a conversation. Some participants note that it can be difficult to find resources they had seen previously posted by others on the platform. Self-harm, for example, is a topic that listeners are asked not to address as a platform-wide policy. The recommended practice is to end the conversation and recommend reaching out to a crisis resource when a member discusses self-harm, but not all listeners prefer to end conversations abruptly using a referral. One listener manually collected and organized information related to self-harm mentioned by other listeners because they did not want to end the conversation without responding to a member's request for help. They proposed a search feature to improve this process (tool #4):

A search tool to help us find resources that that we don't know are there. I don't know of an easy way to access [external resources] during a chat... I wanted to be able to respond to [someone actively self-harming] in an appropriate way with resources because they didn't want to keep doing that. I know people have participated in a forum on 7 Cups with some suggestions on how to respond to that, but I couldn't find it. I've made my own chart of links from a number of conversations in the listener support room.

4.1.2 Productivity Tools. Design ideas from experienced listeners that have completed thousands of chats or lead internal teams such as listener support revealed a distinct category of tools centered around amplifying helpful routines and removing challenges in managing repetitive tasks such as regular check-ins or handling of new chat requests. Many of these tools had a function of improving tasks that take place outside of conversations, reminiscent of the idea that technology-enhanced activities should be supportive, productive, and comfortable [47]. For example, one listener with several years of experience noted that a significant number of interface interactions is necessary in order to toggle back and forth between conversations, so they suggested detachable tabs (tool #10) for multiple conversations:

With the way the UI is setup, you have a big window setup or whatever. You have all your information, your side panel with all of your previous chats. Instead of having to constantly click through each one, if there was some sort of tool on the platform where you can have small windows open on each screen, it'll make toggling a lot easier.

Several participants referred to existing scripts or notes they used to improve their training process and reflect on their counseling strategies. For example, a listener with education in psychology and mental health noted that their process for organizing conversational outcomes was to "write down anything that stands out as well as anything that is useful", but their notes were poorly organized due to taking on a large number of chats. Since the use of cognitive artifacts such as notes is known to facilitate learning and the development of procedural knowledge among mental health professionals [9, 83], our interviews unearthed an ad-hoc process by which peer counselors also learn to be more effective at managing their chats through practice. One particularly active

listener, who reported accepting multiple new chats on a daily basis, suggested a comprehensive system for managing multiple ongoing conversations that builds on top of an introductory script for new members (tool #9):

Color coding things, like one color for initial conversations, another color for follow-up conversations, another color for members that you've spoken to many times. This might change how you might want to begin the conversation. Let's say the color is orange when you have an initial meeting with someone, so there's a little script I've learned to do. 'Hi, my name is [redacted]. This is my role on the site, I'm happy to answer any questions.' There's initial introductions that I wouldn't give to a more experienced member.

Even for listeners who primarily worked with other listeners such as mentors and ambassadors, productivity tools were a way to complete manual tasks more comfortably within real-world time constraints. Conversations between listeners are also listed in the same area of the UI as member chats, denoted by a 'L' marked next to the user's name (Fig. 1 (1)). Since these conversations are mixed in with member chats, listener-listener interactions can also be improved by automating away manual tasks that are administrative in nature. To solve this problem, a mentor suggested an assistant with scheduling and summarizing capabilities (tool #14):

What came to mind was something similar to social media posting that you can set to advance notice. Some sort of tool where I could write a check-in message over the weekend and have it sent on a Monday and have it check-in on the responses. After work where I have to check in after a busy day... I'll get a bunch of responses right away. Other times I won't get a response. I want to answer everyone's questions.

4.1.3 Management and Training Tools. As listeners develop interest in platform growth and maintenance, their reported needs for tools shift from being focused on personal applications to organizational ones. One concern outlined by experienced listeners, mentors, and ambassadors is the need for higher quality training and feedback tools since the barrier to becoming a listener on 7 Cups is low. The current barriers to entry are also inadequate for filtering out individuals who may abuse the platform, elucidating tension between ease of access and governance for OMHPs. A listener argued that AI tools could have a role in filtering out repetitive patterns among members who spam in conversations so listeners could ensure that they "*work with someone that is trying to legitimately better their situation*". To improve listener quality, an ambassador suggested that personalized training with expert approval (tool #16) would increase the barrier of entry for new accounts by requiring more time to develop in-depth conversational skills:

I feel as though the training needs to be more in depth as well as approved before a new listener is able to speak with members. My main motivation for this is due to there being an influx of listeners who are on the site specifically for sexual purposes rather than wanting to support members. It also would benefit listeners who do want to support members by assisting them in learning and utilizing active listening skills.

One concept for training was the idea of a feedback tracker to support the development of procedural knowledge. 7 Cups listeners go through brief training during the onboarding process, and sometimes are unsure of why a technique works with one member but not another. The development of differential knowledge is critical to developing expertise in psychotherapeutic skills [9, 98], yet peer counselors often can only rely on experience to develop it [115]. A listener with over a thousand completed conversations described the benefits of their feedback tracker (tool #18):

[The current training module] is a lot of reading and questions, but it's always different with different situations. My tool would be like more learning from doing, from practicing, and how the technology can suggest new ideas based on my previous tendencies. Talking

to 2-3 people, the same techniques may be useful or not. In one of the cases, if my answers were more straightforward answers, so the tool would say, "These are the three points you can improve."

Some experienced listeners' tools emphasized amplifying the work of the community as a whole. This finding echoes prior work on other peer production and crowdsourced platforms that highlights the lack of tools in spaces that accommodate both new and expert users. Bryant et al. [14] documented a process of Wikipedia novices becoming expert "Wikipedians" who thought of tools from a communal perspective. Similarly, experienced listeners on 7 Cups see the potential of tools in maintaining overall site quality. This concept is best reflected by one experienced listener's system (tool #19) that allows other listeners to tune in when a challenging conversation occurs so responsibilities can be shared by everyone when help is not available:

It's a bell for listeners. When listeners are stuck with in a chat with a member, it goes out to all [listeners in the listener chat]. The tool would help with getting listeners support quicker by making it like a bell or ping to chat supporters so they can PM you quicker with less delay.

Although this study did not examine needs quantitatively, the design exercise results suggest that tool categories roughly corresponded to different amounts of experience chatting with members on 7 Cups. Our interview responses imply a progression where inexperienced peer counselors desire technology that helps them progress through difficult conversations while experienced counselors were primarily concerned efficiency and improvement of work through productivity, training, and management tools. The shift in needs of AI technologies from the conversational level to the platform level reveals important context about designing tools for OMHPs.

4.2 Practice-based Challenges for Peer Counselors

Participants were asked about specific experiences their tools were meant to improve. Here, we describe broad themes in practice-based experiences of peer counselors that situate the tools designed by participants among the challenges they face regularly. Our findings elucidate the interplay between the design of the 7 Cups platform, organizational and social practices, and the rich variety of adaptations peer counselors make to provide support.

4.2.1 Limits to chat interface design increases friction in managing conversations. Unlike professional therapy, in which therapists schedule regular meetings with individuals for dedicated one-on-one sessions, and crisis hotlines, where counselors pick up a single conversation and conclude when the crisis has been mitigated, there is no specific end point for conversations on 7 Cups. For this reason, all participants reported having multiple ongoing conversations simultaneously. Although 7 Cups recommends listeners focus on a single conversation at a time, counseling conversations can extend into long-term commitments or adopt an asynchronous communication rhythm due to time zone differences. Several participants reported finding it difficult to say no to those in need despite being aware of this guideline. For example, a listener with several years of experience mentioned that members are not always understanding when a listener is online but focusing their attention elsewhere:

Usually if I have to, it's going back to say: "Can you schedule a time to chat with me later?" Sometimes they won't and just sit and bother me in the chat. They'll say something is urgent and I'll have to respond to them. It's not great because it breaks my concentration from the conversation I'm in, but [7 Cups doesn't] want us to not respond if we're there.

This also leads to difficulties with managing long-term commitments. When a previous conversation is no longer shown above the fold in the chat tab, the current interface induces cognitive

burden through recall rather than recognition as listeners will need to manage their follow-ups or check-ins without the use of a visual aid. A listener who has completed over a thousand support chats within a year put it succinctly: *"It gets really complicated when seven different people want to talk to you about many different things."* If a listener takes new chats frequently, even a conversation from several days ago may fall below the fold. In these cases, it becomes difficult for a listener to know if they should follow up or if the member was able to receive support from another listener since the UI does not provide indication of whether a member is being helped by another listener or chatting with multiple listeners. One relatively new listener reflected on such cases where they are unsure of whether to follow up or not with a member:

Sometimes people randomly ghost, but they'll come in with a problem. I just won't get a response for a day or a week. I assume they got another listener, but I never know. The UI hides chats that disappear in the past week. There are periods where people have a rough time, and they're unmotivated to do anything.

4.2.2 High member intake leads experienced listeners to develop ad-hoc chat management processes. Participants also described issues with managing conversations despite existing platform features meant to improve matching experiences between members and listeners. When members request a chat in the queue, they can label the topic of their chat using categories similar to tags on social media. Multiple listeners mentioned that this feature has enabled easier filtering of conversations, but categories are not always representative of a member's true underlying needs. For example, three participants reported that occasionally members will start a conversation about the category listed in their request but move to inappropriate topics such as seeking off-site contact or asking for sexual conversation. Even when a member may not have bad intentions, sometimes a conversation will simply touch on a topic that is triggering for the listener. One listener described a process for terminating chats for their own personal safety:

Sometimes [topics members want to discuss] aren't even accurate to the topics they put in the request. When they shared it I didn't expect them to. I've kindly let them know: "Thank you for sharing, but I'm not comfortable with this topic."

7 Cups allows members to browse and search for listeners, each of whom have a public facing profile, to message a listener directly. A listener's profile includes statistics such as their number of chats, ratings, reviews, and amount of completed training. It also serves as a personalizable space for the listener to introduce themselves. Any listener can write about their approach to peer counseling and choose to highlight categories or lived experiences that they are open to handling such as depression, breakups, or dealing with grief. When listeners want to make it clear that they cannot take on requests, they explicitly state such conditions on their profile for members that find them via search. A veteran listener of several years with over a thousand chats mentioned that they avoided taking in new members through the queue, but will *"make [themselves] available and take [on a new conversation]"* if a member messages them after reading their profile because they want to work with members who show a genuine interest in discussing a shared lived experience.

Some participants reported conversing regularly with members who require long-term care as an important motivator for returning to the platform. One listener mentioned *"sometimes you do build long-term relationships with a member... for months and months"* and estimated that half of their chat requests were from repeat users. Such a finding is not unique to online peer counseling. Vessey et al. [101] noted that as practice matures among professional psychotherapists, their case loads are increasingly dominated by long-term clients as well. One listener offered an example of how caring for long-term illness can take up a large portion of emotional bandwidth:

I remember one time, somebody who was – is – diagnosed with Stage 3 cancer, was looking for support... They said, 'Hey, this is super helpful for me. Would you come along in this journey?' To be asked is sort of an honor. At the time I said, 'As long as I can and am available.' I've since had second thoughts. Going along with someone whose outcome is death... I'm not sure if I'm ready for that emotionally.

These findings suggest that listeners on 7 Cups develop practices for member management reminiscent of those of professional therapists, who may decide to manage workloads by choosing clients based on characteristics and fit with the practitioner [21, 41]. To the best of our knowledge, 7 Cups does not offer guidance on how peer counselors can reduce bottlenecks in amount and quality of care due to the high number of conversations.

4.2.3 Diverse contexts of use lead to fragmentation in individual practice. Several participants noted that the ease of communication on 7 Cups offered an opportunity to leverage their spare time to help others. The 7 Cups mobile application was considered a convenient method for juggling support conversation with real life obligations, such as one listener noting that they would sometimes take multiple new conversations in a single week if they *"have one hour and the mental space to be helpful"*. Another listener, who is a certified peer counselor with experience in crisis counseling, compared time commitment on 7 Cups to CTL:

When you're with [CTL], they expect an hour to help people. One thing I like better about 7 Cups is that it's more versatile. If you couldn't be around a computer for very long, or if you have some time but just have your phone, you can do one-to-one through the app. You can use that time to talk or listen to someone.

The above account offers a point of comparison between established practices for crisis counselors and those of peer counselors who participate in OMHPs without explicit guiding principles behind conversational outcomes. Crisis counseling has been studied extensively in counseling and therapy literature in contexts such as synchronous communication via phone or text [23, 36, 71]. In contrast, peer support takes place on anonymous, easily accessible platforms that enable communication synchronously and asynchronously, at home or on the go [44, 67]. At least one listener with education in mental health found this to be a strength of OMHPs compared to professional settings:

Peer counseling doesn't have any ethics. I've read rules and stuff for counselors and therapists, but you can only do things that are peer-reviewed. My thought is, "What if I have a client that really wants help, but what if I can't try anything else to help them?" I can't look at somebody and say I have an idea but I can't use it. For peer counseling, we can't offer treatment because I share with people techniques and things I've learned. It's more like a collaborative way to find things that people can try.

Other participants reported similar perceptions of listeners as *"impartial friends"* or *"guiding the conversation without judgement"*. One mentor, who started on 7 Cups as member, was inspired to become a listener by a chat with a listener that went beyond platform guidelines to provide support:

[That listener] bended (sic) the rules a bit. I'm not saying we're supposed to follow a script or anything, but we're not supposed to be too straightforward. You might be able to share a few life experiences. But she was just a force, telling me: "Your life is not over." You can't tell [members] what to do, but [that listener] just really understood my walk of life and the things I was going on in my time.

Participants' reports of developing personal style aligns with similar findings in crisis counselors [117] and also suggest that the lack of formal oversight allows room for personalized practices in OMHPs. Peer counseling is effective because of social learning theory: seekers benefit from

peer counselors' experiences dealing with the same issues because the counselor's experiences serve as models for learning skills to handle mental health problems [27, 35, 40, 85]. In the case of listeners on 7 Cups, ease of use and lack of formal rules may foster platform engagement and the development of individualized approaches to peer counseling.

4.2.4 **Lack of visibility requires developing workarounds for referrals and learning.**

Confidentiality is a notable challenge for listeners on 7 Cups and can hinder developing expertise as a peer counselor. Participants described challenges with ensuring that the member chat queue did not become too long, a directive from 7 Cups administrators. Under pressure to take chats, a listener may choose to speak first with a member before referring the member to another listener if they cannot handle a request themselves. However, this process is cumbersome because the amount of information shared between listeners is limited. One experienced listener noted that confusion arises from poor matching and chat management with such a practice:

"You go into the listener support group chat and say, "I have a member who is dealing with this issue and I can't [deal with it]." You can only state the topic in 5 words or less. Then you have to go back to the member to give them a link [to another listener's profile]. I don't know if [the member] will actually connect with [the other listener]. The listeners will sometimes say, "I don't have a member that reached out. Can you give me their user profile?" Some new listeners don't know [about communicating through user profiles], and it'll turn out that someone already spoke with that member."

7 Cups provides a listener support chatroom in which listeners will be available to answer questions from other listeners, but these chatrooms were described as resources for solving problems rather than places of discussion or learning. Several listeners mentioned that the support rooms can provide pinpoint advice given a problem faced by a listener, but that support was not always immediately available. An ambassador was upfront about the wait times for listeners, stating that *"it would be great if the listener could have an answer and not wait forever."* One mentor active in listener support and training noted that ethical considerations such as confidentiality make it overwhelming *"to search [for information] for a listener while that listener is chatting with a member"* in real-time. Another experienced listener reported developing an ad-hoc method for handling referrals in which they use their profile page to specifically inform members to reach out to another listener when they were not available:

There's one listener in particular that I was kind of close to. An old school listener like me. We have a term called 'listener twins'. Someone that you connect with really well. You have the same mentality on how to help people. You call them your twin. Sometimes you have a note on your profile that says 'My twin is...' If one of us is on vacation, you can have the member chat with the listener twin.

Feedback initiatives on 7 Cups are administered by experienced community members who are ultimately volunteers subject to the same privacy regulations as other listeners. Since direct feedback using member conversations is absent, training is conducted using mock tests instead. Two participants believed that paid supervision and more stringent mock conversations would be an effective way to improve listener performance, but barriers to implementing these included a lack of staff for administering live tests and lack of ability to guide training in a personalized way for novice listeners. Even when supervision is available, the scale of new listener onboarding can make it difficult to make resources known. A listener who aimed to become a mentor on the coaching team for listener improvement mentioned that their team spends time reaching out to listeners to let them know about listener coaching and how to sign up for the program. Despite the availability of such resources, some listeners are not receptive to improvement:

[Sometimes] you get listeners that don't really want to hear what you have to say. They can be rude. That doesn't happen to me very often. Typically they're the ones that haven't been verified yet.

Experienced volunteers such as ambassadors and mentors establish initiatives that maintain and grow the 7 Cups platform. Aside from teams for listener chat support, mentoring, and listener quality improvements, participants also reported handling other activities such as moderation, content strategy, and facilitating group discussion. The bottom-up volunteer initiatives on 7 Cups for management and training represent broader tensions balancing platform-level privacy policy, community growth, and volunteer labor in OMHPs. CTL, for instance, hires and pays for clinical supervisors that have visibility into the work of volunteer counselors, allowing them to monitor and provide feedback on conversations [26]. In-person peer counseling education and research has emphasized environments where novice counselors have access to supervision from mental health professionals [18], but for OMHPs where supervision consists of volunteer labor, best practices for training, quality of care, and social interaction between counselors established in prior research may not be applicable due to visibility constraints.

4.3 The Potential of AI in Peer Counseling

After follow-up questions regarding design ideas (Section 4.1) and the problems they were meant to solve (Section 4.2), we investigated perceptions of AI. To avoid biasing participants, we centered discussion around features of each participants' tools and asked whether those features were powered by AI. This section outlines themes that arose from listeners perspectives on the development of meaningful tools for peer counseling: lack of need for AI writing assistants, opportunities for AI to inform practice, and the need for counselor control of AI tools.

4.3.1 Personal conversation styles reduce need for AI writing assistants. No participants described integrating existing writing tools into their peer counseling workflows, despite many reporting use of AI tools such as autocorrect, Grammarly, or email autocomplete for personal or professional use in the screener survey. Around half of participants expressed a sense of style or identity associated with the way they write, with some even describing their counseling style as more "casual" in order to create a connection with members. A listener described their thought process on both of these points, noting that they preferred not to use suggestions in word processors due to negative experiences with scripted conversation:

Word has the option to tell me to reword things. I don't use it — I've always been a writer because I want to write it myself. I don't even copy from [the suggested responses provided by] 7 Cups. I try to make it how I say it. I have talked to customer service people on the phone. You know they're just talking from a script. I could tell that they're just saying word-for-word what they're supposed to be saying.

The focus on writing original responses stemmed from a common philosophy of adopting casual, informal, or interactive approaches to chats. One listener mentioned that if there was something they did not know about a members' specific context, they would ask the member to explain more in detail instead of querying a tool for an answer. Similarly, although five participants reported using Grammarly in the screener survey, the same participants did not bring up using it as a part of chatting with members. A relatively newer listener who had previously been a long-time member noted that AI tools can "feel like cheating" because they wanted to develop their own responses. When asked about AI in general, one mentor explained how they ignored Grammarly suggestions during member chats:

Grammarly is always running on the background on my computer. When I type on 7 Cups, I get suggestions in my chat bubbles. I'm not too concerned about if I typed too fast and misspelled something.

Several participants felt users come to 7 Cups precisely because they know there are humans willing to listen to them. One listener believed that they needed to be attentive to a member by "*asking [members] questions*" as part of their role while another suggested that members are "*craving some kind of human interaction*" that the listener could provide. The mental models of human-human connection espoused by participants show a resistance to AI tools out of worry for the support seeker, echoing findings from prior work that found mixed human-AI writing is perceived as less sincere or trustworthy [45, 60].

Perspectives on the complexity of peer counseling revealed mental models of chatbots as robotic and poor at leading conversations in the right direction. While our interview protocol did not specifically use the term chatbot, half of participants chose to describe or contrast their tool with the concept of one. Some participants felt that smarter chatbots could be used as assistants for listeners rather than as a primary resource for members to go to. Others felt that chatbots could also be equally as confused as humans, lacking the ability to understand why one technique worked in one conversation while one technique did not work in another. One listener with a self-described interest in AI described limitations to AI-generated responses based on their experience using ChatGPT as a listener for themselves:

Sometimes ChatGPT is good to me. Sometimes it's too quick to provide advice when I just want to be heard and feel validated... It doesn't want you to whine. It's very masculine.

While no other participants described using ChatGPT for themselves in lieu of human support, others noted that there were fundamental humanistic aspects of peer counseling that they felt could not be replaced by chatbots. Participants saw peer counseling as a way to connect with others based on their lived experience rather than being solution-oriented, corroborating findings found in other studies [92, 115]. A listener that preferred peer counseling to existing AI apps highlighted a missing element of the human connection between seekers and supporters:

I've tried some of the mental health [AI apps]. They can work if all you want is somebody that responds to you matter-of-factly but doesn't have any emotions or feelings about it.

Similar concerns were reflected in perceptions on the use of automatic tools to improve training processes. One mentor who had experience being involved with quality control and training on 7 Cups stated that the highest level of tests are open-ended and may not even have an agreed upon answer among human evaluators:

They tried doing automatic grading, but active listening tests are a lot harder because there's not one right answer. The other half are essays, so that's harder to grade. They're graded on grammar. I know they've tried [automatic grading] for other aspects of the site.

4.3.2 AI can improve practice by addressing visibility of seeker outcomes. While participants revealed hesitations with AI-assisted communication and writing, most did acknowledge that an intelligent tool could improve their experience on 7 Cups by augmenting or automating tasks critical to seeker outcomes. Even for those who stated a dislike of using AI-assisted writing tools, there was an acknowledgement of how AI could plug into conversations to provide support outside of writing specific responses. One listener brought up the idea that AI could be used as a type of risk mitigation tool, bringing potential problems with members to their attention before they occurred. Examples of this included members who had been unsupported in a queue too long or ways of visualizing particularly difficult or complex conversations. A mentor mentioned a way intelligent assistants could prevent issues from occurring yet still play a role in guiding conversation:

"Maybe if there was some sort of AI feature that could detect if your chats are going south or whatever, it could pop up and say: 'Let me help!' That would be great."

Including the above mentor, at least half of listeners noted that AI could surface important patterns or information that are otherwise not visible to humans. These ideas included AI tools that could automatically detect listener responses by "[tagging] my responses and connect it to training" (tool #18) or "pinpoint [members'] emotions" (tool #6) to help listeners understand a member's emotional reactions to what they say. Some participants acknowledged that such tools would be pervasive, all-knowing support systems that constantly processed conversations behind the scenes. The listener who wanted an intelligent pop-up that surfaced what a member talked about in the past as potential talking points (Section 4.1) reasoned that their tool would need to be embedded within the 7 Cups platform to function, but also felt that such a system would be acceptable as long as listeners had agency in how they chose to respond:

[I]t can be a computer that records all chats with an iterating transcript. It brings up sentences [a member has] said... AI shouldn't give specific suggestions. Maybe give a very broad expanse of potential things, but not constricting the listener to any one [response].

4.3.3 AI tools should allow error correction and control to mitigate risks. Participants placed a significant amount of focus on the responsibility of listeners to filter and edit responses. One relatively less experienced listener who wanted a real-time tool to help with reframing their questions during chats suggested that even if AI could be helpful, the "risk would go down if I can edit the response." Such ideas reflect well-known problems in designing for user freedom and control in human-AI interaction [112], treating the AI as an assistant or tool that empowers the listener.

Privacy and data usage had mixed responses from participants. Several tools were designed in a way that leveraged personal member history, but it was not always clear that their designers had a image of how that data might be collected. On one hand, an ambassador noted that they were "worried about privacy" due to the fact that "there's no context" when large-scale systems extract information from chats. On the other hand, a mentor felt that "it's just a fear most people have" and is waiting for the right tool to be developed specifically to be useful to peer counselors. Some participants had a more nuanced approach. One listener explicitly mentioned AI in the design of a tool that would classify members' emotions during a conversation, and when asked about the perceived risks to privacy, believed that systems may be able to achieve their goals using data from outside the platform:

I absolutely do [see risks]. It is supposed to be anonymous. I'm not saying it needs to be 7 Cups data. It can use any sort of emotional text.

Among participants that included AI in their imaginary tools, suggestions for ways to control AI to protect privacy illuminated a strong preference towards the principle of user control and freedom in the case of inaccuracies. The desire for humans to make the final decision in support provision harkens to literature revealing a fundamental concern with agency and responsibility associated with healthcare outcomes [112, 113]. For one listener, such tools could be integrated into platform design and governance to be more lenient with moderation:

I feel like [AI] should be carefully managed by someone. 7 Cups is a very structured platform for support. I hope the AI would also be as structured as the platform, capable of knowing the platform and the difference between purpose of the platform and having a general conversation. I feel like there's so many specifics to account for that AI needs to be aware of. It's not like social media – it's a support platform. What if AI misinterprets a sentence when the member is violating a guideline but it's just an accident?

4.4 Summary of Findings

We contribute to research on designing new AI technology for OMHPs by interviewing peer counselors about their experiences and collecting design ideas for peer counseling tools. In answer to *RQ1: What opportunities are there for new tools to help supporters accomplish their work?*, we identify a need for both tools embedded within conversations as well as those that support extratherapeutic tasks, corroborating findings from prior research on opportunities for both conversational and organizational support using AI. For *RQ2: What practices and challenges do supporters have that AI technology can improve?*, we reveal four distinct challenges that shape practices developed by volunteers that can be the target of study in future research on peer counseling. Lastly, in response to *RQ3: What benefits and risks do supporters perceive with AI in peer support?*, we find that participants believe that AI lacks capability in handling humanistic aspects of counseling conversations but possesses capability in automating, visualizing, and recommending information related to seeker outcomes. To ensure novel AI systems do not harm seekers, participants suggested design ideas for error correction and risk mitigation by integrating AI tools into the 7 Cups platform. Figure 3 summarizes each of the previous subsections, highlighting key themes from our work.

4.1 Tool Categories

Real-time Decision Support

See past history and make recommendations on talking points

Productivity

Enhance expert management of workflows such as scheduling

Management & Training

Automatic methods for increasing counseling quality

4.2 Practice-based Challenges

Chat Interface Limitations

Cognitive burden resulting from poor usability with chat UI

Support Seeker Management

Lack of flexibility in managing multiple conversations at different stages of progression

Real-World Constraints

Counselors provide support across multiple devices, locations, and working styles

Privacy and Visibility

Workarounds developed to handle privacy limitations when working with other counselors

4.3 Perceptions of AI in Peer Counseling

Lack of AI-mediated Communication

Counselors ignore AI writing assistants during counseling

Need for AI-mediated Practice

AI can remove challenges to visibility such as predicting conversational outcomes

Need for Control & Privacy

Systems for AI-mediated practice should be editable, anonymous, and manageable

Fig. 3. Summary of our findings organized by subsection.

5 Discussion and Implications

The findings in this study contribute to prior research on support provider skill acquisition [4, 115, 117] and supporter provider moderation and governance on OMHPs [75, 80] by conducting participatory design of tools that improve online peer counseling. We present two types of contributions: a set of design recommendations for AI-based systems that account for practice-based challenges and a set of theoretical implications for the use of AI in OMHPs.

5.1 Practical Design Recommendations

Based on our findings that there is a strong need for AI tools that address productivity and governance in OMHPs, we corroborate calls for adopting a work-centric perspective of volunteer labor in order to build better tools for online peer counselors [59]. To show what an AI-powered peer counseling system for extratherapeutic tasks would look like, we outline below three features of an **intelligent workload manager** to demonstrate how our participants' design ideas could be used to drive future tool development for both seeker-supporter and supporter-supporter interactions. Drawing from the role of clinical caseload managers, who help clinics manage patients by planning, monitoring, and reviewing cases [70], our system focuses on support seeker management as opposed to conversational tasks, circumvents chat interface limitations and privacy and visibility constraints, and accommodates peer counselors' real world constraints. We also discuss how the design of such a system can accommodate peer counselors' perceptions of AI. Given the ongoing debate regarding the role of AI in healthcare [16, 19, 44, 57], we adopt a perspective that a novel AI system should augment peer counselors' work rather than replace them. As such, our design is inherently sociotechnical and includes steps where humans are critical.

5.1.1 Mixed-Initiative Chat Management. Improving on current direct manipulation chat interfaces, the intelligent workload manager can be considered a companion personalized to each peer counselor that introduces mixed-initiative interactions based on chat history. It is able to provide reminders to follow up on conversations by examining a member's history (tool #1) because it automatically labels conversations (tool #9) based on an underlying classification algorithm that estimates the urgency of a chat (tool #6). Prior work on classifying urgency and topic modeling of mental health conversations such as [63] could be used to train this system. In addition, the workload manager can intelligently surface conversations that require follow-up by monitoring chats, and contact support seekers directly to let them know if a peer counselor is busy with another conversation or in a situation where the peer counselor cannot chat extensively. When integrated in a peer counselors' calendar, the system can optimize for matching seekers with supporters using simple availability criteria (tool #12), but would be more robust with advanced recommendation techniques such as those proposed in [7, 30, 58, 93].

5.1.2 Community Referrals. The workload manager can be integrated with a chat queue and expert peer counselors to create a referral system that monitors support seeker requests and suggests referrals to change to more experienced peer counselors if necessary. The referrals may be to external or professional resources (tool #8) such as a national crisis hotline, providing a concrete method for peer counselors to track that an individual is in contact with continued care. The referrals may be internal in the form of a bell that summarizes the chat and alerts other peer counselors (tool #19) to take over the conversation. Such a system would combine human computation techniques [116] that factor in the available pool of peer counselors with the language-based interaction, classification, and suggestion capabilities of AI. In line with recommendations made by participants in Section 4.3 and human-AI control principles [64], referrals created by the system could be general descriptions of a support seekers' needs, which can then be reviewed and edited as necessary by the referring peer counselor. Peer counselors can opt into logging conversations so that experienced peers, moderators, and researchers can begin to build a dataset of conversational breakdowns.

5.1.3 Experience-based Data for Training and Moderation. By logging the outcomes of conversations and referrals from novice to experienced peer counselors, the workload manager creates a dataset of unsuccessful conversations that are resolved by more experienced peer counselors after referral. This contrastive dataset could be used to power training solutions by enabling

fine-tuning of AI-powered training sandboxes (e.g. [43, 84]) or serving as material for tests to be administered by experienced peer counselors, moderators, or administrators [115]. Once the database contains enough data on successful and unsuccessful conversations from novice and expert peer counselors, the workload manager could provide personalized suggestions to novice peer counselors on how to improve support provision skills (tools #18 & #20) based on other peer counselors' experiences. Lastly, a visualization interface that tracks support providers with a large number of stuck conversations could be fed into a mentoring and moderation program that enables experienced peer counselors to moderate novice accounts proactively (tool #16).

5.1.4 Other Considerations. Prior work has noted that factors increasing productivity also increase likelihood of online volunteers leaving a platform [104]. For experienced peer counselors and administrators of OMHPs, a workload manager may provide an alternative source of behavioral logs data for understanding routines, habits, and workarounds that peer counselors develop. Visualizing the amount of work done can elucidate the monetary value of volunteer work [59] and highlight opportunities for interventions that reduce volunteer burnout [23] by enabling expert peer counselors to monitor community health through a supervisory interface [26]. Combined with empirical research on role differentiation on OMHPs (e.g. old-timers [109], community moderators [80], professional paid moderators [75]), future studies on the design of AI systems for OMHPs could benefit from using design methods to accommodate the diverse productivity needs of various support provider stakeholders while also mitigating negative impacts such as burnout.

These design recommendations can be applied to improve other types of digital interventions beyond peer counseling platforms such as 7 Cups or TalkLife. A workload manager could be helpful to mental health professionals that moderate seeker-supporter interactions such as those studied in [65, 75] for instance. Applications may also exist for professional therapy services like TalkSpace, which uses a quiz during customer onboarding to help match clients with professional therapists based on preferences while also offering the ability to "seamlessly switch providers, at no extra cost" as a benefit of using its online platform⁹. Future studies can engage in a round of design ideation with mental health professionals from these platforms to provide additional design ideas that ensure that the workload manager's features are tailored towards their expertise and training.

5.2 Theoretical Implications

By focusing on the practices of a community of peer counselors on 7 Cups, the four practice-based challenges we identify reveal a set of organizational practices that have not been discussed much in the literature. Prior work has suggested improving psychological wellbeing of support providers through interventions that teach self-care and emotion regulation [72, 115]. We contribute an additional dimension by which OMHP designers can improve support provider experiences: training in organizational skills. Another implication of our work is the potential connection between organizational practices of peer counselors with those of professional mental health practitioners. Since professional therapists and counselors transitioning to digital formats have reported similar challenges with managing text-based communication formats, ease of access, and high case loads [44, 79, 97], our findings on organizational needs represent broader challenges in digital workload of mental health care providers. To this end, we suggest future studies can reflect on what would it be like to help volunteers learn best practices for extratherapeutic tasks, moving from informal practices of a community of volunteers to communities dedicated to peer counseling as a practice that teaches the application of both psychotherapeutic and organizational skills.

This study corroborates much of prior literature on worries about using AI in support provision and care [10, 45, 60]. The value of feeling heard by someone else, which some participants described

⁹<https://www.talkspace.com/online-therapy/>

as part of their motivation and identity as peer counselors, constitutes key gap between what technology can afford and what social interaction offers in health AI [54, 66]. It is possible that our participants' mental models of limitations in AI capabilities and the unique role of counselors in creating human connection led to more benefits than risks being mentioned in our interviews. Risks that were mentioned (e.g. privacy issues) had alternative proposals for prevention based on beliefs that humans should have agency in communication (e.g. allowing counselor control). Future studies can examine whether peer counselors' perceived benefits and risks of using AI change in accordance with beliefs about the potential capabilities of AI.

Furthermore, participants' enthusiasm for AI in making peer counseling more productive and collaborative hints at a link to rich HCI and AI literature on crowdsourced and human computation systems involving volunteers. Our findings reveal that distributed workers and volunteers on a major therapy and counseling platform collaborate with their network to handle administrative overhead, make group decisions, and provide support to one another to solve organizational needs similar to behaviors found in other studies on online volunteering [6, 37]. Peer counselors on OMHPs may be engaging in a form of collective action, similar to how volunteers can work together to build services for societal good [99]. With AI's capabilities in guiding distributed work [11, 50], our study establishes the potential of AI in tackling challenges with distributed volunteer labor on OMHPs.

6 Limitations

Our findings are shaped by the study of a specific demographic: volunteers on 7 Cups. Design affordances and platform policies are also led by 7 Cups. Although the online mental health space includes trained crisis counselors, professional therapists, and professional moderators, their perspectives are not reflected in the design ideas developed in this paper. We suggest one avenue for expanding this work is to leverage similar participatory design methods with a variety of stakeholders such as professional therapists engaging in text-based communication with clients or in-person peer counselors in community mental health clinics to see if similar categories of tools are needed in those contexts. Additionally, it remains unclear the full extent of whether practice-based challenges found in this work apply to support providers on platforms with different communication mechanisms and norms. Aside from therapy or counseling platforms such as 7 Cups, peer support has been studied on many types of platforms including social media communities on Reddit and Facebook and illness-focused forums such as the American Cancer Society's Cancer Survivors Network. Future work can also examine the ways in which peer supporters on other OMHPs interact with one another to develop novel organizational practices.

Another limitation is that we only have self-selected participants. We spoke to people who were willing to speak with us, which may influence the prominence of ideas surrounding practice-based challenges and productivity that reflect particularly enthusiastic or active listeners' needs. However, it is possible that design ideas for less active listeners may reveal different needs for real-time decision support and productivity tools. When evaluating novel interventions on OMHPs, identifying types of volunteers based on their activity could help better understand exact user types to design for. Future work can leverage behavioral or computational methods similar to [114, 117] to see if the problems reported in our interviews can be substantiated with quantitative studies on the skill growth trajectories of listeners on 7 Cups, or peer counselors more broadly on other platforms such as TalkLife or HeyPeers.

Lastly, to ensure some familiarity with AI, we included a question in our recruitment survey about recent experience with any tools from a list of well-known writing assistants or products that include writing assistance features such as email autocomplete in Gmail, Grammarly, Microsoft Word, and smartphone autocomplete. While all participants were able to discuss their experience

with AI without us having to ask about these tools explicitly, it is possible that references to writing assistants during recruitment influenced the data we collected about perceptions towards AI.

7 Conclusion

OMHPs have received significant interest from NLP and HCI researchers interested in studying community dynamics and building computational tools to improve the outcomes of peer counseling conversations for users. In this study, we build upon and bridge these interests by interviewing seventeen peer counselors on a large online therapy and counseling platform to understand support providers' practice-based experiences. We present three classes of tools that focus on different problems: real-time decision support, productivity, and management and training. Analysis of motivations behind these design ideas elucidate four practice-based challenges in online peer counseling and perceptions of how AI tools can resolve those challenges. Our participants' designs showcase opportunities for NLP and HCI researchers to solve multiple challenges in growing and maintaining OMHPs using AI as a form of infrastructure that helps support providers in their day-to-day work. Future tool development for OMHPs could benefit from examining the range of tasks conducted by counselors and remain cognizant of the labor involved in support provision.

Acknowledgments

We would like to thank all the members of Stanford SALT Lab and reviewers for their feedback. This work is supported in part by an NSF grant IIS-2247357 and by the Stanford Impact Labs award.

References

- [1] Mark S Ackerman. 2000. The intellectual challenge of CSCW: the gap between social requirements and technical feasibility. *Human-Computer Interaction* 15, 2-3 (2000), 179–203.
- [2] Aseel Ajlouni, Abdallah Almahaireh, and Fatima Whaba. 2023. Students' perception of using ChatGPT in counseling and mental health education: the benefits and challenges. *International Journal of Emerging Technologies in Learning (iJET)* 18, 20 (2023), 199–218.
- [3] Kathina Ali, Louise Farrer, Amelia Gulliver, Kathleen M Griffiths, et al. 2015. Online peer-to-peer support for young people with mental health problems: a systematic review. *JMIR mental health* 2, 2 (2015), e4418.
- [4] Tim Althoff, Kevin Clark, and Jure Leskovec. 2016. Large-scale Analysis of Counseling Conversations: An Application of Natural Language Processing to Mental Health. *Transactions of the Association for Computational Linguistics* 4 (2016), 463–476. doi:10.1162/tacl_a_00111
- [5] Mario Alvarez-Jimenez, Sarah Bendall, Reeve Lederman, Greg Wadley, Gina Chinnery, Sonya Vargas, M Larkin, Eoin Killackey, PD McGorry, and JF Gleeson. 2013. On the HORYZON: moderated online social therapy for long-term recovery in first episode psychosis. *Schizophrenia research* 143, 1 (2013), 143–149.
- [6] Yair Amichai-Hamburger. 2008. Potential and promise of online volunteering. *Computers in Human Behavior* 24, 2 (2008), 544–562.
- [7] Nazanin Andalibi, Madison K Flood, et al. 2021. Considerations in designing digital peer support for mental health: Interview study among users of a digital support system (Buddy Project). *JMIR mental health* 8, 1 (2021), e21819.
- [8] Amit Baumel. 2015. Online emotional support delivered by trained volunteers: users' satisfaction and their perception of the service compared to psychotherapy. *Journal of Mental Health* 24 (2015), 313 – 320.
- [9] James Bennett-Levy. 2006. Therapist skills: A cognitive model of their acquisition and refinement. *Behavioural and Cognitive Psychotherapy* 34, 1 (2006), 57–78.
- [10] Oloff C Biermann, Ning F Ma, and Dongwook Yoon. 2022. From tool to companion: Storywriters want AI writers to respect their personal values and writing strategies. In *Designing Interactive Systems Conference*. 1209–1227.
- [11] Jeffrey P Bigham, Michael S Bernstein, and Eytan Adar. 2015. Human-computer interaction and collective intelligence. *Handbook of collective intelligence* 57, 4 (2015).
- [12] L DiAnne Borders, Harriet L Glossoff, Laura E Welfare, Danica G Hays, Lorraine DeKruyf, Delini M Fernando, and Betsy Page. 2014. Best practices in clinical supervision: Evolution of a counseling specialty. *The Clinical Supervisor* 33, 1 (2014), 26–44.
- [13] Virginia Braun and Victoria Clarke. 2012. *Thematic analysis*. American Psychological Association.
- [14] Susan L Bryant, Andrea Forte, and Amy Bruckman. 2005. Becoming Wikipedian: transformation of participation in a collaborative online encyclopedia. In *Proceedings of the 2005 ACM International Conference on Supporting Group Work*.

1–10.

- [15] Gillian Cameron, David Cameron, Gavin Megaw, Raymond Bond, Maurice Mulvenna, Siobhan O'Neill, Cherie Armour, and Michael McTear. 2017. Towards a chatbot for digital counselling. In *Proceedings of the 31st International BCS Human Computer Interaction Conference (HCI 2017)*. BCS Learning & Development.
- [16] Pascale Carayon, Ellen J Bass, Tommaso Bellandi, Ayse P Gurses, M Susan Hallbeck, and Vanina Mollo. 2011. Sociotechnical systems analysis in health care: a research agenda. *IIE transactions on healthcare systems engineering* 1, 3 (2011), 145–160.
- [17] Pascale Carayon, Christine Cassel, and Victor J Dzau. 2019. Improving the system to support clinician well-being and provide better patient care. *JAMA* 322, 22 (2019), 2165–2166.
- [18] Rey A Carr. 1984. Theory and Practice of Peer Counselling. *Educational and Vocational Guidance* 42 (1984), 1–10.
- [19] Stevie Chancellor, Eric PS Baumer, and Munmun De Choudhury. 2019. Who is the "human" in human-centered machine learning: The case of predicting mental health from social media. *Proceedings of the ACM on Human-Computer Interaction* 3, CSCW (2019), 1–32.
- [20] Chelsea D Christie, Taryn B Bemister, and Keith S Dobson. 2015. Record-informing and note-taking: A continuation of the debate about their impact on client perceptions. *Canadian Psychology/Psychologie canadienne* 56, 1 (2015), 118.
- [21] Gerald Corey. 2012. *Theory and practice of counseling and psychotherapy*. Cengage learning.
- [22] Amanda LL Cullen and Sanjay R Kairam. 2022. Practicing moderation: Community moderation as reflective practice. *Proceedings of the ACM on Human-computer Interaction* 6, CSCW1 (2022), 1–32.
- [23] Carolyn Cyr and Peter W Dowrick. 1991. Burnout in crisisline volunteers. *Administration and policy in mental health and mental health services research* 18 (1991), 343–354.
- [24] Simon D'alfonso, Olga Santesteban-Echarri, Simon Rice, Greg Wadley, Reeve Lederman, Christopher Miles, John Gleeson, and Mario Alvarez-Jimenez. 2017. Artificial intelligence-assisted online social therapy for youth mental health. *Frontiers in psychology* 8 (2017), 796.
- [25] Dorottya Demszky, Diyi Yang, David S Yeager, Christopher J Bryan, Margaret Clapper, Susannah Chandhok, Johannes C Eichstaedt, Cameron Hecht, Jeremy Jamieson, Meghann Johnson, et al. 2023. Using large language models in psychology. *Nature Reviews Psychology* 2, 11 (2023), 688–701.
- [26] Karthik Dinakar, Jackie Chen, Henry Lieberman, Rosalind Picard, and Robert Filbin. 2015. Mixed-initiative real-time topic modeling & visualization for crisis counseling. In *Proceedings of the 20th international conference on intelligent user interfaces*. 417–426.
- [27] Alan G Downe, Hal A Altmann, and Ione Nysetvold. 1986. Peer counseling: More on an emerging strategy. *The School Counselor* 33, 5 (1986), 355–364.
- [28] Simon D'Alfonso. 2020. AI in mental health. *Current Opinion in Psychology* 36 (2020), 112–117.
- [29] R Scott Evans. 2016. Electronic health records: then, now, and in the future. *Yearbook of medical informatics* 25, S 01 (2016), S48–S61.
- [30] Anna Fang and Haiyi Zhu. 2022. Matching for Peer Support: Exploring Algorithmic Matching for Online Mental Health Communities. *Proceedings of the ACM on Human-Computer Interaction* 6, CSCW2 (2022), 1–37.
- [31] Michael Feffer, Michael Skirpan, Zachary Lipton, and Hoda Heidari. 2023. From Preference Elicitation to Participatory ML: A Critical Survey & Guidelines for Future Research. In *Proceedings of the 2023 AAAI/ACM Conference on AI, Ethics, and Society*. 38–48.
- [32] Casey Fiesler, Shannon Morrison, R Benjamin Shapiro, and Amy S Bruckman. 2017. Growing their own: Legitimate peripheral participation for computational learning in an online fandom community. In *Proceedings of the 2017 ACM conference on computer supported cooperative work and social computing*. 1375–1386.
- [33] Amelia Fiske, Peter Henningsen, and Alena Buyx. 2019. Your robot therapist will see you now: ethical implications of embodied artificial intelligence in psychiatry, psychology, and psychotherapy. *Journal of medical Internet research* 21, 5 (2019), e13216.
- [34] Silvia Gherardi et al. 2009. Community of practice or practices of a community. *The Sage handbook of management learning, education, and development* (2009), 514–530.
- [35] Steve Gillard, SL Gibson, Jess Holley, and Mike Lucock. 2015. Developing a change model for peer worker interventions in mental health services: a qualitative research study. *Epidemiology and psychiatric sciences* 24, 5 (2015), 435–445.
- [36] Madelyn S Gould, Anthony Pisani, Carlos Gallo, Ashkan Ertefaie, Donald Harrington, Caroline Kelberman, and Shannon Green. 2022. Crisis text-line interventions: Evaluation of texters' perceptions of effectiveness. *Suicide and Life-Threatening Behavior* (2022).
- [37] Mary L Gray, Siddharth Suri, Syed Shoaib Ali, and Deepti Kulkarni. 2016. The crowd is a collaborative network. In *Proceedings of the 19th ACM conference on computer-supported cooperative work & social computing*. 134–147.
- [38] Joan Greenbaum. 1991. Towards participatory design: The head and the heart revisited. *DAIMI Report Series* 20, 374 (1991).

- [39] Aaron Halfaker and R Stuart Geiger. 2020. Ores: Lowering barriers with participatory machine learning in wikipedia. *Proceedings of the ACM on Human-Computer Interaction* 4, CSCW2 (2020), 1–37.
- [40] Beatrix A Hamburg and Barbara B Varenhorst. 1972. Peer counseling in the secondary schools: a community mental health project for youth. *American Journal of Orthopsychiatry* 42, 4 (1972), 566.
- [41] Ben Hannigan, Deborah Edwards, and Philip Burnard. 2004. Stress and stress management in clinical psychology: Findings from a systematic review. *Journal of Mental Health* 13, 3 (2004), 235–245.
- [42] Kasper Hornbæk and Antti Oulasvirta. 2017. What is interaction?. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. 5040–5052.
- [43] Shang-Ling Hsu, Raj Sanjay Shah, Prathik Senthil, Zahra Ashktorab, Casey Dugan, Werner Geyer, and Diyi Yang. 2023. Helping the Helper: Supporting Peer Counselors via AI-Empowered Practice and Feedback. *arXiv preprint arXiv:2305.08982* (2023).
- [44] Zac E Imel, Derek D Caperton, Michael Tanana, and David C Atkins. 2017. Technology-enhanced human interaction in psychotherapy. *Journal of counseling psychology* 64, 4 (2017), 385.
- [45] Maurice Jakesch, Megan French, Xiao Ma, Jeffrey T Hancock, and Mor Naaman. 2019. AI-mediated communication: How the perception that profile text was written by AI affects trustworthiness. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. 1–13.
- [46] Shagun Jhaver, Iris Birman, Eric Gilbert, and Amy Bruckman. 2019. Human-machine collaboration for content regulation: The case of reddit automoderator. *ACM Transactions on Computer-Human Interaction (TOCHI)* 26, 5 (2019), 1–35.
- [47] Victor Kaptelinin and Liam J Bannon. 2012. Interaction design beyond the product: Creating technology-enhanced activity spaces. *Human-Computer Interaction* 27, 3 (2012), 277–309.
- [48] James Kelly, Patricia Gooding, Daniel Pratt, John Ainsworth, Mary Welford, and Nicholas Tarrier. 2012. Intelligent real-time therapy: Harnessing the power of machine learning to optimise the delivery of momentary cognitive-behavioural interventions. *Journal of Mental Health* 21, 4 (2012), 404–414.
- [49] Chris Keyworth, Jo Hart, Christopher J Armitage, and Mary P Tully. 2018. What maximizes the effectiveness and implementation of technology-based interventions to support healthcare professional practice? A systematic literature review. *BMC medical informatics and decision making* 18 (2018), 1–21.
- [50] Aniket Kittur, Jeffrey V Nickerson, Michael Bernstein, Elizabeth Gerber, Aaron Shaw, John Zimmerman, Matt Lease, and John Horton. 2013. The future of crowd work. In *Proceedings of the 2013 conference on Computer supported cooperative work*. 1301–1318.
- [51] Tzu-Sheng Kuo, Aaron Halfaker, Zirui Cheng, Jiwoo Kim, Meng-Hsin Wu, Tongshuang Wu, Kenneth Holstein, and Haiyi Zhu. 2024. Wikibench: Community-Driven Data Curation for AI Evaluation on Wikipedia. *arXiv preprint arXiv:2402.14147* (2024).
- [52] Tzu-Sheng Kuo, Hong Shen, Jisoo Geum, Nev Jones, Jason I Hong, Haiyi Zhu, and Kenneth Holstein. 2023. Understanding Frontline Workers' and Unhoused Individuals' Perspectives on AI Used in Homeless Services. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. 1–17.
- [53] Kari Kuutti and Liam J Bannon. 2014. The turn to practice in HCI: towards a research agenda. In *Proceedings of the SIGCHI conference on human factors in computing systems*. 3543–3552.
- [54] Emily LaRosa and David Danks. 2018. Impacts on trust of healthcare AI. In *Proceedings of the 2018 AAAI/ACM Conference on AI, Ethics, and Society*. 210–215.
- [55] Laura Lascau, Sandy JJ Gould, Anna L Cox, Elizaveta Karmannaya, and Duncan P Brumby. 2019. Monotasking or multitasking: Designing for crowdworkers' preferences. In *Proceedings of the 2019 CHI conference on human factors in computing systems*. 1–14.
- [56] Reeva Lederman, Greg Wadley, John Gleeson, Sarah Bendall, and Mario Álvarez-Jiménez. 2014. Moderated online social therapy: Designing and evaluating technology for mental health. *ACM Transactions on Computer-Human Interaction (TOCHI)* 21, 1 (2014), 1–26.
- [57] Ellen E Lee, John Torous, Munmun De Choudhury, Colin A Depp, Sarah A Graham, Ho-Cheol Kim, Martin P Paulus, John H Krystal, and Dilip V Jeste. 2021. Artificial intelligence for mental health care: clinical applications, barriers, facilitators, and artificial wisdom. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging* 6, 9 (2021), 856–864.
- [58] Zachary Levonian, Matthew Zent, Ngan Nguyen, Matthew McNamara, Loren Terveen, and Svetlana Yarosh. 2022. "Some other poor soul's problems": a peer recommendation intervention for health-related social support. *arXiv preprint arXiv:2209.04973* (2022).
- [59] Hanlin Li, Brent Hecht, and Stevie Chancellor. 2022. Measuring the monetary value of online volunteer work. In *Proceedings of the International AAAI Conference on Web and Social Media*, Vol. 16. 596–606.
- [60] Yihe Liu, Anushk Mittal, Diyi Yang, and Amy Bruckman. 2022. Will AI console me when I lose my pet? Understanding perceptions of AI-mediated email writing. In *Proceedings of the 2022 CHI conference on human factors in computing systems*. 1–13.

- [61] Maria Lluich. 2011. Healthcare professionals' organisational barriers to health information technologies—A literature review. *International journal of medical informatics* 80, 12 (2011), 849–862.
- [62] Haiwei Ma, C Estelle Smith, Lu He, Saumik Narayanan, Robert A Giaquinto, Roni Evans, Linda Hanson, and Svetlana Yarosh. 2017. Write for life: Persisting in online health communities through expressive writing and social support. *Proceedings of the ACM on Human-Computer Interaction* 1, CSCW (2017), 1–24.
- [63] David N Milne, Kathryn L McCabe, and Rafael A Calvo. 2019. Improving moderator responsiveness in online peer support through automated triage. *Journal of medical Internet research* 21, 4 (2019), e11410.
- [64] Adam S Miner, Nigam Shah, Kim D Bullock, Bruce A Arnow, Jeremy Bailenson, and Jeff Hancock. 2019. Key considerations for incorporating conversational AI in psychotherapy. *Frontiers in psychiatry* 10 (2019), 746.
- [65] Robert R Morris, Stephen M Schueller, and Rosalind W Picard. 2015. Efficacy of a web-based, crowdsourced peer-to-peer cognitive reappraisal platform for depression: randomized controlled trial. *Journal of medical Internet research* 17, 3 (2015), e72.
- [66] Sean A Munson, Hasan Cavusoglu, Larry Frisch, and Sidney Fels. 2013. Sociotechnical challenges and progress in using social media for health. *Journal of medical Internet research* 15, 10 (2013), e226.
- [67] John A Naslund, Kelly A Aschbrenner, Lisa A Marsch, and Stephen J Bartels. 2016. The future of mental health care: peer-to-peer support and social media. *Epidemiology and psychiatric sciences* 25, 2 (2016), 113–122.
- [68] Nabi Nazari, Muhammad Salman Shabbir, and Roy Setiawan. 2021. Application of Artificial Intelligence powered digital writing assistant in higher education: randomized controlled trial. *Heliyon* 7, 5 (2021).
- [69] Kathleen O'Leary, Arpita Bhattacharya, Sean A Munson, Jacob O Wobbrock, and Wanda Pratt. 2017. Design opportunities for mental health peer support technologies. In *Proceedings of the 2017 ACM conference on computer supported cooperative work and social computing*. 1470–1484.
- [70] Steve Onyett. 1998. *Case management in mental health*. Nelson Thornes.
- [71] Amber Paukert, Brian Stagner, and Kerry Hope. 2004. The assessment of active listening skills in helpline volunteers. *Stress, Trauma, and Crisis* 7, 1 (2004), 61–76.
- [72] Sachin R Pendse, Faisal M Lalani, Munmun De Choudhury, Amit Sharma, and Neha Kumar. 2020. "Like Shock Absorbers": understanding the human infrastructures of technology-mediated mental health support. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. 1–14.
- [73] Zhenhui Peng, Qingyu Guo, Ka Wing Tsang, and Xiaojuan Ma. 2020. Exploring the effects of technological writing assistance for support providers in online mental health community. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. 1–15.
- [74] Verónica Pérez-Rosas, Rada Mihalcea, Kenneth Resnicow, Satinder Singh, Lawrence An, Kathy J. Goggin, and Delwyn Catley. 2017. Predicting Counselor Behaviors in Motivational Interviewing Encounters. In *Proceedings of the 15th Conference of the European Chapter of the Association for Computational Linguistics: Volume 1, Long Papers*. Association for Computational Linguistics, Valencia, Spain, 1128–1137. <https://www.aclweb.org/anthology/E17-1106>
- [75] Amanda Perry, Andrea Lamont-Mills, Jan du Preez, and Carol du Plessis. 2022. "I Want to Be Stepping in More"—Professional Online Forum Moderators' Experiences of Supporting Individuals in a Suicide Crisis. *Frontiers in psychiatry* 13 (2022), 863509.
- [76] Bernd Ploderer, Wally Smith, Steve Howard, Jon Pearce, and Ron Borland. 2013. Patterns of support in an online community for smoking cessation. In *Proceedings of the 6th International Conference on Communities and Technologies*. 26–35.
- [77] Eric G Poon, S Trent Rosenbloom, and Kai Zheng. 2021. Health information technology and clinician burnout: current understanding, emerging solutions, and future directions. 895–898 pages.
- [78] Yada Pruksachatkun, Sachin R Pendse, and Amit Sharma. 2019. Moments of change: Analyzing peer-based cognitive support in online mental health forums. In *Proceedings of the 2019 CHI conference on human factors in computing systems*. 1–13.
- [79] Fujiko Robledo Yamamoto, Amy Voida, and Stephen Voida. 2021. From therapy to teletherapy: Relocating mental health services online. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW2 (2021), 1–30.
- [80] Koustuv Saha, Sindhu Kiranmai Ernala, Sarmistha Dutta, Eva Sharma, and Munmun De Choudhury. 2020. Understanding moderation in online mental health communities. In *Social Computing and Social Media. Participation, User Experience, Consumer Experience, and Applications of Social Computing: 12th International Conference, SCSM 2020, Held as Part of the 22nd HCI International Conference, HCII 2020, Copenhagen, Denmark, July 19–24, 2020, Proceedings, Part II 22*. Springer, 87–107.
- [81] Koustuv Saha and Amit Sharma. 2020. Causal Factors of Effective Psychosocial Outcomes in Online Mental Health Communities. *Proceedings of the International AAAI Conference on Web and Social Media* 14, 1 (May 2020), 590–601. <https://ojs.aaai.org/index.php/ICWSM/article/view/7326>
- [82] Theodore R Schatzki, Karin Knorr-Cetina, Eike Von Savigny, et al. 2001. *The practice turn in contemporary theory*. Vol. 44. Routledge London.

- [83] Donald A Schön. 2017. *The reflective practitioner: How professionals think in action*. Routledge.
- [84] Raj Sanjay Shah, Faye Holt, Shirley Anugrah Hayati, Aastha Agarwal, Yi-Chia Wang, Robert Kraut, and Diyi Yang. 2022. Modeling Motivational Interviewing Strategies On An Online Peer-to-Peer Counseling Platform. *Proceedings of the ACM on Human-Computer Interaction* 6 (2022). doi:10.1145/3555640
- [85] Reham A Hameed Shalaby and Vincent IO Agyapong. 2020. Peer support in mental health: literature review. *JMIR mental health* 7, 6 (2020), e15572.
- [86] Ashish Sharma, Inna W Lin, Adam S Miner, David C Atkins, and Tim Althoff. 2021. Towards facilitating empathic conversations in online mental health support: A reinforcement learning approach. In *Proceedings of the Web Conference 2021*. 194–205.
- [87] Ashish Sharma, Inna W Lin, Adam S Miner, David C Atkins, and Tim Althoff. 2023. Human–AI collaboration enables more empathic conversations in text-based peer-to-peer mental health support. *Nature Machine Intelligence* 5, 1 (2023), 46–57.
- [88] Ashish Sharma, Kevin Rushton, Inna Wanyin Lin, David Wadden, Khendra G Lucas, Adam S Miner, Theresa Nguyen, and Tim Althoff. 2023. Cognitive Reframing of Negative Thoughts through Human-Language Model Interaction. *arXiv preprint arXiv:2305.02466* (2023).
- [89] Eva Sharma and Munmun De Choudhury. 2018. *Mental Health Support and Its Relationship to Linguistic Accommodation in Online Communities*. Association for Computing Machinery, New York, NY, USA, 1–13. <https://doi.org/10.1145/3173574.3174215>
- [90] Lucy Shinnars, Christina Aggar, Sandra Grace, and Stuart Smith. 2020. Exploring healthcare professionals’ understanding and experiences of artificial intelligence technology use in the delivery of healthcare: An integrative review. *Health informatics journal* 26, 2 (2020), 1225–1236.
- [91] Richard M Smedley and Neil S Coulson. 2017. A thematic analysis of messages posted by moderators within health-related asynchronous online support forums. *Patient Education and Counseling* 100, 9 (2017), 1688–1693.
- [92] C Estelle Smith, Avleen Kaur, Katie Z Gach, Loren Terveen, Mary Jo Kreitzer, and Susan O’Conner-Von. 2021. What is spiritual support and how might it impact the design of online communities? *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW1 (2021), 1–42.
- [93] C Estelle Smith, William Lane, Hannah Miller Hillberg, Daniel Kluver, Loren Terveen, and Svetlana Yarosh. 2021. Effective strategies for crowd-powered cognitive reappraisal systems: A field deployment of the flip* doubt web application for mental health. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW2 (2021), 1–37.
- [94] Clay Spinuzzi. 2005. The methodology of participatory design. *Technical communication* 52, 2 (2005), 163–174.
- [95] Elizabeth C Stade, Shannon Wiltsey Stirman, Lyle H Ungar, Cody L Boland, H Andrew Schwartz, David B Yaden, João Sedoc, Robert J DeRubeis, Robb Willer, and Johannes C Eichstaedt. 2024. Large language models could change the future of behavioral healthcare: a proposal for responsible development and evaluation. *NPJ Mental Health Research* 3, 1 (2024), 12.
- [96] Giorgio A Tasca, John Sylvestre, Louise Balfour, Livia Chyurlia, Jane Evans, Benjamin Fortin-Langelier, Kylie Francis, Jasmine Gandhi, Linda Huehn, John Hunsley, et al. 2015. What clinicians want: Findings from a psychotherapy practice research network survey. *Psychotherapy* 52, 1 (2015), 1.
- [97] Kelly J Thomas Craig, Van C Willis, David Gruen, Kyu Rhee, and Gretchen P Jackson. 2021. The burden of the digital environment: a systematic review on organization-directed workplace interventions to mitigate physician burnout. *Journal of the American medical informatics association* 28, 5 (2021), 985–997.
- [98] Terence JG Tracey, Bruce E Wampold, James W Lichtenberg, and Rodney K Goodyear. 2014. Expertise in psychotherapy: An elusive goal? *American Psychologist* 69, 3 (2014), 218.
- [99] Giuseppe Valetto, Antonio Bucchiarone, Kurt Geihs, Monika Buscher, Katrina Petersen, Andrej Nowak, Agnieszka Rychwalska, Jeremy Pitt, Joseph Shalhoub, Francesca Rossi, et al. 2015. All together now: Collective intelligence for computer-supported collective action. In *2015 IEEE International Conference on Self-Adaptive and Self-Organizing Systems Workshops*. IEEE, 13–18.
- [100] Bart Verheij. 2005. *Virtual arguments: on the design of argument assistants for lawyers and other arguers*. Vol. 6. Springer.
- [101] John T Vessey, Kenneth I Howard, Robert J Lueger, Horst Kächele, and Erhardt Mergenthaler. 1994. The clinician’s illusion and the psychotherapy practice: An application of stochastic modeling. *Journal of Consulting and Clinical Psychology* 62, 4 (1994), 679.
- [102] Tatiana A Vlahovic, Yi-Chia Wang, Robert E. Kraut, and John M. Levine. 2014. Support Matching and Satisfaction in an Online Breast Cancer Support Community. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (Toronto, Ontario, Canada) (CHI ’14)*. Association for Computing Machinery, New York, NY, USA, 1625–1634. doi:10.1145/2556288.2557108
- [103] Greg Wadley, Reeva Lederman, John Gleeson, and Mario Alvarez-Jimenez. 2013. Participatory design of an online therapy for youth mental health. In *Proceedings of the 25th Australian Computer-Human Interaction Conference*:

Augmentation, Application, Innovation, Collaboration. 517–526.

- [104] Loxley Sijia Wang, Jilin Chen, Yuqing Ren, and John Riedl. 2012. Searching for the goldilocks zone: trade-offs in managing online volunteer groups. In *Proceedings of the ACM 2012 conference on Computer Supported Cooperative Work*. 989–998.
- [105] Tony Wang, Haard K Shah, Raj Sanjay Shah, Yi-Chia Wang, Robert E Kraut, and Diyi Yang. 2023. Metrics for Peer Counseling: Triangulating Success Outcomes for Online Therapy Platforms. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. 1–17.
- [106] Yi-Chia Wang, Robert Kraut, and John M. Levine. 2012. To Stay or Leave? The Relationship of Emotional and Informational Support to Commitment in Online Health Support Groups. In *Proceedings of the ACM 2012 Conference on Computer Supported Cooperative Work (Seattle, Washington, USA) (CSCW '12)*. Association for Computing Machinery, New York, NY, USA, 833–842. doi:10.1145/2145204.2145329
- [107] Alex C Williams, Gloria Mark, Kristy Milland, Edward Lank, and Edith Law. 2019. The perpetual work life of crowdworkers: How tooling practices increase fragmentation in crowdwork. *Proceedings of the ACM on Human-Computer Interaction* 3, CSCW (2019), 1–28.
- [108] Diyi Yang, Robert Kraut, and John M. Levine. 2017. Commitment of Newcomers and Old-Timers to Online Health Support Communities. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (Denver, Colorado, USA) (CHI '17)*. Association for Computing Machinery, New York, NY, USA, 6363–6375. doi:10.1145/3025453.3026008
- [109] Diyi Yang, Robert E Kraut, Tenbroeck Smith, Elijah Mayfield, and Dan Jurafsky. 2019. Seekers, providers, welcomers, and storytellers: Modeling social roles in online health communities. In *Proceedings of the 2019 CHI conference on human factors in computing systems*. 1–14.
- [110] Diyi Yang, Z. Yao, and R. Kraut. 2017. Self-Disclosure and Channel Difference in Online Health Support Groups. *Proceedings of the ... International AAAI Conference on Weblogs and Social Media. International AAAI Conference on Weblogs and Social Media 2017 (2017)*, 704–707.
- [111] Diyi Yang, Zheng Yao, Joseph Seering, and Robert Kraut. 2019. The channel matters: Self-disclosure, reciprocity and social support in online cancer support groups. In *Proceedings of the 2019 chi conference on human factors in computing systems*. 1–15.
- [112] Qian Yang, Aaron Steinfeld, Carolyn Rosé, and John Zimmerman. 2020. Re-examining whether, why, and how human-AI interaction is uniquely difficult to design. In *Proceedings of the 2020 chi conference on human factors in computing systems*. 1–13.
- [113] Qian Yang, Aaron Steinfeld, and John Zimmerman. 2019. Unremarkable AI: Fitting intelligent decision support into critical, clinical decision-making processes. In *Proceedings of the 2019 CHI conference on human factors in computing systems*. 1–11.
- [114] Zheng Yao, Diyi Yang, John M Levine, Carissa A Low, Tenbroeck Smith, Haiyi Zhu, and Robert E Kraut. 2021. Join, Stay or Go? A Closer Look at Members' Life Cycles in Online Health Communities. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW1 (2021), 1–22.
- [115] Zheng Yao, Haiyi Zhu, and Robert E Kraut. 2022. Learning to Become a Volunteer Counselor: Lessons from a Peer-to-Peer Mental Health Community. *Proceedings of the ACM on Human-Computer Interaction* 6, CSCW2 (2022), 1–24.
- [116] Haoqi Zhang, Edith Law, Rob Miller, Krzysztof Gajos, David Parkes, and Eric Horvitz. 2012. Human computation tasks with global constraints. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. 217–226.
- [117] Justine Zhang, Robert Filbin, Christine Morrison, Jaclyn Weiser, and Cristian Danescu-Niculescu-Mizil. 2019. Finding Your Voice: The Linguistic Development of Mental Health Counselors. In *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics*.

A Interview Protocol

The following semi-structured interview script was used for all participants.

(1) Introduction

- (a) How long have you been active on 7cups?
 - (i) How long have you been a listener on 7cups?
- (b) In the past month, have you used anything apart from 7 Cups to find support for yourself or provide support to others?
- (c) In general, what is your experience like as a listener on 7 Cups?
 - (i) Why did you volunteer to become a listener on Cups?
 - (A) Can you tell me something that's rewarding about being a listener?
 - (B) What's difficult about being a listener?
 - (ii) In general, how do you feel your conversations with members on 7 Cups go?
 - (iii) Have you interacted with other listeners?
 - (A) In general, what is your experience like interacting with other listeners?
 - After becoming a listener, what keeps you motivated to stay on 7 Cups?

(2) Design Exercise (Appendix B)

(3) Follow-up Questions

- (a) Can you describe to me what kind of tool you created? [Check for various challenges in listener process]
- (b) Can you elaborate more about why you wanted [feature]? [Check while looking at submitted worksheet answers]
 - (i) Are there any experiences you had in mind when designing this?
 - (ii) Is this tool inspired by any existing tools? *If yes*
 - (A) How often would you use [tool]?
 - (B) Why do you use [tool]?
 - (C) What motivated you to start using [tool]?
- (c) Can you elaborate more on who you think this tool might be helpful for?
- (d) *If their tool already has AI features* – Is there any existing tool, experience, or idea that you based your tool off of?
 - (i) *If they say no* – In the screener, you mentioned some experience with a writing assistant tool. Can you tell us more about your experience with that?
 - (ii) What do you see AI as helping with?
- (e) *If their tool is not AI-powered* – What happens if your tool is powered by artificial intelligence (AI)?
 - (i) *If it cannot be powered by AI* – In the screener, you mentioned some experience with writing assistant tool. Are there any differences between that and this?
 - (A) *If yes* – What are the differences between the tool designed today and your experience with writing assistant tool?
 - (ii) *If it can be powered by AI* – What do you see AI as helping with?
- (f) Do you see any risks associated with using AI to help with what you do as a listener?
- (g) Are there any AI-powered tools you use in your daily activity?

B Design Exercise Worksheet

The following worksheet was implemented in a survey format and sent to all participants during the study. Worksheets took approximately 15 minutes to complete. One participant was allowed to verbally respond to the questions during the interview for accessibility reasons associated with the Qualtrics platform.

Instructions for Designing a Listener Tool

Imagine that you are designing a tool that will help you as a listener on 7 Cups. This can be anything you would like based on personal experience or ideas you have about being a listener. It doesn't have to be realistic! We would love to hear about anything that would be ideal to you.

Below are some questions that may help you think about the design of the tool. Feel free to write or type your responses in this document or in a separate one. Please keep responses to one or two sentences so we can chat more about your tool when you're done.

Question	Your Response
What are some problems you have as a listener where technology would assist you?	
What does the tool help you with?	
Is it a part of the 7 Cups website, a personal tool, or something else?	
Besides you, who else might like to use the tool?	

Next, please tell us a short story (3-4 sentences) on how you think that tool may be useful. It can be based on a specific experience that you had on 7 Cups. We would like to know a bit more about how you imagine using that tool to solve a problem you've experienced.

Fig. 4. Text-based design exercise given to participants who filled out responses in Qualtrics.

C List of Tools

Descriptions of 20 tools submitted by participants and the category of the tool. Each tool has been edited for brevity and clarity based on follow-up questions about the motivation for their design. Tools that could be placed in multiple categories were given a main category based on the challenges in practice the tool was designed to address.

No.	Participant-suggested Tools	Category
1	A pull up tab that labels the topic in chat that can bring up instances of things that happened in the past and follow the [member's chat] history.	Real-time Decision Support
2	If I'm in a chat about a topic I don't know anything about, the tool can help us with what to say or give us directions to go based on the scenarios or texts that the member is saying.	Real-time Decision Support
3	I have come to a dead end speaking to someone. The conversation is running in circles and I don't know what to say. I type what the scenario is into this tool and it gives me a list of questions I could possibly ask.	Real-time Decision Support
4	A search tool to help us find resources that 7 Cups is connected with that we don't know are there or trouble. Someone is looking for a therapist to help support them regarding abuse. The tool might help me locate an online therapist who specializes in that.	Real-time Decision Support
5	A chatbot type thing. I would sort of just put in this basic scenario without too many details, and maybe it could give me some subjects to ask about or just common questions it might use that I might not have thought of at the time. I've tried to ask what I think are different questions and [members] tend to just repeat what they said.	Real-time Decision Support
6	The tools pick out words and compare them to commonly expressed emotions. If someone reaches out to say their relationship is at a standstill because there has been no in depth conversations or dates recently, the tool could say the member might feel too comfortable or angry or lonely.	Real-time Decision Support
7	The member becomes too nervous to share a lot and needs help. I would use the tool to look up a list of activities that can be helpful for anxiety like grounding techniques with instructions for listener to work together with the member.	Real-time Decision Support
8	Person tells me they are struggling with an issue. E.g., divorce, parents who are controlling, LGBTQ identity, etc. I chat with them as a listener. I see that there's "official" info I could send them a link to get more info.	Real-time Decision Support
9	I think it would be similar to Calendly or Google Calendar in which you can indicate different appointment slots or different color coded things depending on what you're doing.	Productivity
10	[Having] multiple windows on one screen to make it easier to jump through one chat to the next. I tend to get multiple people requesting a chat.	Productivity

No.	Participant-suggested Tools	Category
11	Almost like a zoom meeting where you can choose to see everyone in the meeting. And to be able to have the support room open on the same screen.	Productivity
12	With this tool, it would help members make scheduled appointments. That should be available on 7 Cups because there's so many listeners now to help members make an appointment.	Productivity
13	It would be easier if all screens were open at once so I could just click from one [chat to another]... I cant really keep my eye on the [listener support chat] to see if anyone has a question.	Productivity
14	I would write a listener check-in message [on Sunday], and set the day and time for [it] to be sent. I would focus on my work day in my personal life on Monday, knowing that the message was already sent. After work, I can then log in and check-in on the responses back and reply back without this tool.	Productivity
15	The tool would allow me to notify the chatroom that I am the assigned host for the next hour. The tool will help relieve the moderators or other users as they don't always know the scheduled meetings. It will help allow the group discussions to run on time.	Productivity
16	The tool would allow seasoned listeners the ability to approve accounts for new listeners based on their responses to the training.	Management and Training
17	A tool to help with referring chats to other listeners that states the topic in five words or less.	Management and Training
18	Train you with example scenarios and tracking progress with the users. Example text responses that show empathy and that you care. Collect data from what topics you supported in the past and [each members'] experience to help you support people in the future.	Management and Training
19	It's a bell for listeners. When listeners are stuck with in a chat with a member, it goes out to all chat support members. The tool would help with getting listeners support quicker by making it like a bell to chat supporters so they can PM [members] quicker with less delay.	Management and Training
20	Improved rewards system or progress tracking... I imagine that I've been away from [7 Cups] for a while, and I'm having a hard time refocusing myself on using the app... Using the tool, I see that I just need to spend four hours this month helping to get me this badge.	Management and Training

Received January 2024; revised July 2024; accepted October 2024