

# Development and evaluation of Kids Helpline's My Circle



THE UNIVERSITY OF  
SYDNEY



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*A collaboration between Kids Helpline, Bupa and  
The University of Sydney*

Authors

**Dr Brad Ridout**  
**Dr Krestina Amon**  
**Dr Rowena Forsyth**  
**A/Prof Andrew Campbell**

**Cyberpsychology Research Group**

Discipline of Biomedical Informatics and Digital Health  
School of Medical Sciences  
Faculty of Medicine and Health  
The University of Sydney

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City Road  
Camperdown NSW 2006  
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Contact

[brad.ridout@sydney.edu.au](mailto:brad.ridout@sydney.edu.au)

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## BACKGROUND

Supporting the mental well-being of young people is a significant challenge in public health. Half of all life-time mental illnesses develop before age 14<sup>1</sup> and 75% of all mental health problems appear before age 25.<sup>2</sup> The 2021 National Study of Mental Health and Wellbeing revealed that almost 40% of young Australians aged 16-24 years had experienced symptoms of a mental disorder in the past months<sup>3</sup>. However, more than half of young people experiencing mental illness are not accessing professional help<sup>3</sup> – increasing their likelihood of life-long chronic mental health disorders.<sup>4</sup> Unfortunately, many problems go undetected until later in life because young people are often hesitant to seek professional help.<sup>5</sup> They also face barriers to treatment, including cost, lack of awareness about mental health, concerns about confidentiality, social stigma, and limited access to resources.<sup>6,7</sup>

Considering that internet-connected mobile devices are now pervasive among young people, it's not surprising that they are increasingly turning to the internet for mental health support and information.<sup>8</sup> Social media platforms in particular have become integral to the lives of young people over the past decade, with almost all adolescents having at least one active social media account.<sup>9</sup> Individuals with mental health issues often use social media extensively, finding a sense of community, support, and acceptance.<sup>10,11</sup> Recent research indicates that actively engaging with peers online about mental health concerns also increases the likelihood of seeking formal mental health care.<sup>12</sup>

In 2014, world-leading research articulated a vision for using social media to “improve the mental health of nations”.<sup>13</sup> While young people are already turning to peers on social media for support and information, the absence of clinical expertise is putting them at serious risk.<sup>14</sup> Seeking help from peers online who are strangers and non-experts on public social networking sites such as Facebook can expose young people to inaccurate or misleading information and hostile or derogatory comments, which may have a negative impact on their mental health.<sup>15</sup>

yourtown and The University of Sydney's Cyberpsychology Research Group have developed an evidence-based solution to address the urgent need for safe and secure clinically guided peer-to-peer online support: My Circle. My Circle is a purpose-built, scalable social media platform that provides young people with an easy pathway to anonymous, clinically guided peer-to-peer support. Unlike existing social media platforms, it's designed for safety and wellbeing, and is integrated with Kids Helpline for 24/7 one-on-one support.

My Circle gives young people choice and control in accessing support the way they want, when they want, by: 1) offering support where they feel comfortable (social media); 2) providing a safe place to connect with and support peers; and 3) building trust and confidence in clinicians and providers. My Circle aims to validate young people's experiences, break down stigma, and normalise help-seeking.

This research report details the development and evaluation of My Circle from its first pilot project as 'Kids Helpline Circles' in 2017, to its 2022 relaunch as a large-scale clinically guided peer-to-peer online social networking platform supporting over 10,000 young Australians. By detailing the iterative changes made to continuously refine the My Circle platform design and delivery, this report presents an innovative, cost-effective model of care other organisations can adopt to support other vulnerable population groups at scale. The report is structured according to the five phases of independent qualitative and quantitative evaluations carried out by the University of Sydney's Cyberpsychology Research Group using participatory action research methodology (see Figure 1):

- Phase 1: Mixed-method evaluation of KHL Circles (8-week modules using Elgg platform)
- Phase 2: Mixed-method evaluation of KHL Circles (8-week modules using Humhub platform)
- Phase 3: Qualitative review of the service operating model
- Phase 4: Trial of the new My Circle operating model (open community using Humhub platform)
- Phase 5: Mixed-method evaluation of My Circle operating model (open community using Humhub platform)



Figure 1. Participatory Action Research Methodology

## PHASE 1 & 2: MIXED-METHOD EVALUATION OF KHL CIRCLES

During Phase 1 of the evaluation, My Circle was known as 'KHL Circles', which will be the term used in this section of the report. Kids Helpline (KHL) began a pilot of KHL Circles in 2017 as a purpose-built, secure, private, and clinical moderator-controlled mental health-focused social networking site (SNS) designed to support children and young adults with online counselling and peer-to-peer support. Participants joined a 'Circle' of no more than 36 participants for an 8-week online group counselling support program, guided by clinical moderators making regular posts and providing topic-specific content for psychoeducation and discussion.

KHL Circles was trialled and evaluated in two Phases. Phase 1 used the free open-source social networking software 'Elgg' to host the 8-week Circles. Findings from the Phase 1 evaluation saw users and counsellors reporting value in the model and innovation of the online counselling service delivery and peer-to-peer support environment (see Appendix A for full Phase 1 results published in *Journal of Medical Internet Research*).<sup>16</sup> Study results and participant feedback from Phase 1 informed amendments to improve KHL Circles for Phase 2. Key changes were to increase the number of participants per Circle, reduce the survey burden on participants, and move the service to a more user-friendly social networking platform. Phase 2 used the more advanced open-source social networking platform 'HumHub'. Results from the Phase 2 evaluation found that while the 8-week psychoeducation program met the needs of many young people seeking support, the majority of participants either disengaged from the program after a few weeks or continued to share their experience with peers through off-topic posts (see Appendix B for full Phase 2 results).<sup>17</sup> It was concluded that the majority of young people were using KHL Circles for the purpose of debriefing, catharsis, and validation from peers and counsellors, rather than for working through a psychoeducation program. The details and results of the Phase 1 and 2 KHL Circles evaluation studies are summarised below.

### PLATFORM & SAFETY PROTOCOL

Using participatory action research design principles,<sup>18</sup> KHL Circles was developed by a team of researchers, psychologists, and programmers following consultation and beta testing with KHL clients. The platform for Phase 1 was developed using a free open-source social networking software 'Elgg'.<sup>19</sup> Elgg provided the framework to build the KHL Circles SNS and was customized by a team of web developers and graphic designers to meet the requirements of the service. Platform issues were raised in Phase 1 as part of the evaluation and as such, KHL Circles was moved to the open-source HumHub<sup>20</sup> platform for Phase 2. HumHub has an interface and functionality closely aligned with popular SNSs such as Facebook, and is customizable to suit the requirements of KHL Circles (e.g. turn off private messaging between the participants). KHL Circles was available to participants via any Internet-enabled computer or mobile device. The mobile version of the site was adjusted to fit the size of the screen being used by the participant but included all the same components as the desktop version. The platform was monitored by clinical moderators 7 days a week, and the participants could log in to KHL Circles anytime throughout the study.

During both Phase 1 and Phase 2, KHL Circles was hosted on the KHL's own private servers and used a URL secured with Hypertext Transfer Protocol Secure (HTTPS), conforming to industry best practice. Participant privacy and online safety were managed in accordance with recommendations by the Australian eSafety Commissioner.<sup>21</sup> Furthermore, existing safety protocols of the KHL phone and web counselling service (including policies for crisis management and mandatory reporting) were utilised by clinical moderators operating KHL Circles. Having access to participant KHL files, allowed for clinical moderators to address any potential risks to the safety or mental health of a participant proactively by direct contact to the participant. Before joining KHL Circles, participants were required to accept the terms of use of KHL Circles. This included clauses regarding their privacy, online bullying or harassment, and the use of offensive comments. Participants were informed that failure to comply with these guidelines may result in temporary or permanent removal from the service.

To abide by the international standards of the legal age to register for a social media account, participants were required to be aged 13-25 to enrol in the study. As per the University of Sydney's Human Research Ethics Committee (HREC No. 2016/132) and the Australian New Zealand Clinical Trials Registry (ANZCTR No. 12616000518460), participants aged between 13-15 years were required to provide personal assent to take part in the study. Participants aged 16 years and over needed to provide personal consent. All participants under the age of 18 years were informed that parental consent was optional.

### PHASE 1 AND 2 PROCEDURE

Participants created a pseudonym to be known by in their Circle (which they provided in the Baseline survey) which was reviewed by the site administrator to ensure that it did not reveal their identity. The site administrator emailed participants with unique log-in details and were assigned to their Circle in the days leading up to week 1. They were then asked to log in to the site prior to the week 1 commencement date to complete their profile by including details such as their identifying gender, hobbies and likes, and in Phase 1, to choose a profile image from a suite of cartoon 'alien' images. In Phase 2, participants were able to upload their own profile image, as long it did not show their face or any other identifying information. This decision was made to protect the privacy of participants for safeguarding purposes.

A clinical moderator posted a welcome message for the participants in each Circle on the first day of week 1. The message explained how the Circle would be run and asked them to test out the posting features of the site (i.e., posting text, pictures,



and videos, and liking or commenting on posts of other users). Participants were also provided with ground rules (e.g., respecting others, not posting offensive material, and keeping their identity private) and were asked to expand on this list with their own expectations from their Circle.

There were six Circles run non-concurrently in Phase 1 over a 12-month period, from May 2017 to May 2018. Phase 2 also consisted of six non-concurrent Circles, and was conducted over a 15-month period from October 2018 to January 2020. All Circles ran for 8 weeks, after which they were closed and new participants were recruited to participate in the next Circle. For every Circle, clinical moderators posted new activities and discussion points three times each week every Monday, Wednesday, and Friday (based on a previous pilot study showing little engagement on weekends, and to allow 48 hours for participants to engage with material before posting more). These consisted of age-appropriate psychoeducational material about family discord and included conversational text, images and videos. The weekly topics for Phase 1 and Phase 2 are shown in Table 1 below. Topics also consisted of reflection and discussion activities to encourage engagement and interaction between participants. The mobile interface design of KHL Circles on the Elgg platform and HumHub platform are shown in Figures 2 and 3 respectively. During both Phases, participants were permitted to create their own 'off-topic' posts at any time.

Table 1. Weekly topics for Phase 1 and 2

Week	Phase 1	Phase 2
1	Introduction	Family conflict
2	Family relationships	Managing emotions
3	Emotions	Improving communication skills
4	Mental health and resilience	Serious family conflict and abuse
5	Help-seeking and social support	Negotiation
6	Family communication and negotiation skills	Dealing with setbacks
7	Conflict resolution, self-care and relapse prevention	Invalidation
8	Summary and close	Closure

Figure 2. KHL Circles mobile interface design on Elgg platform

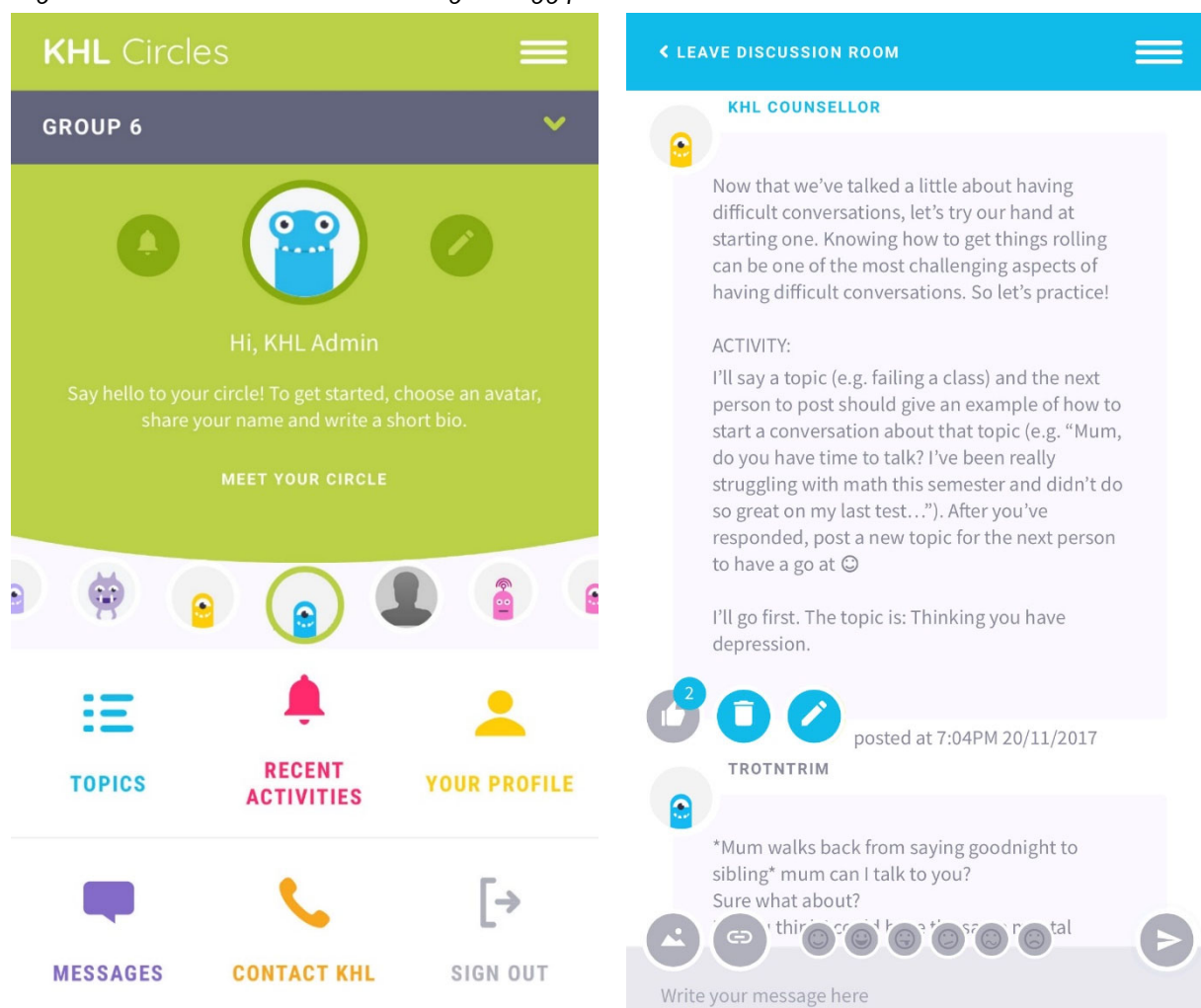
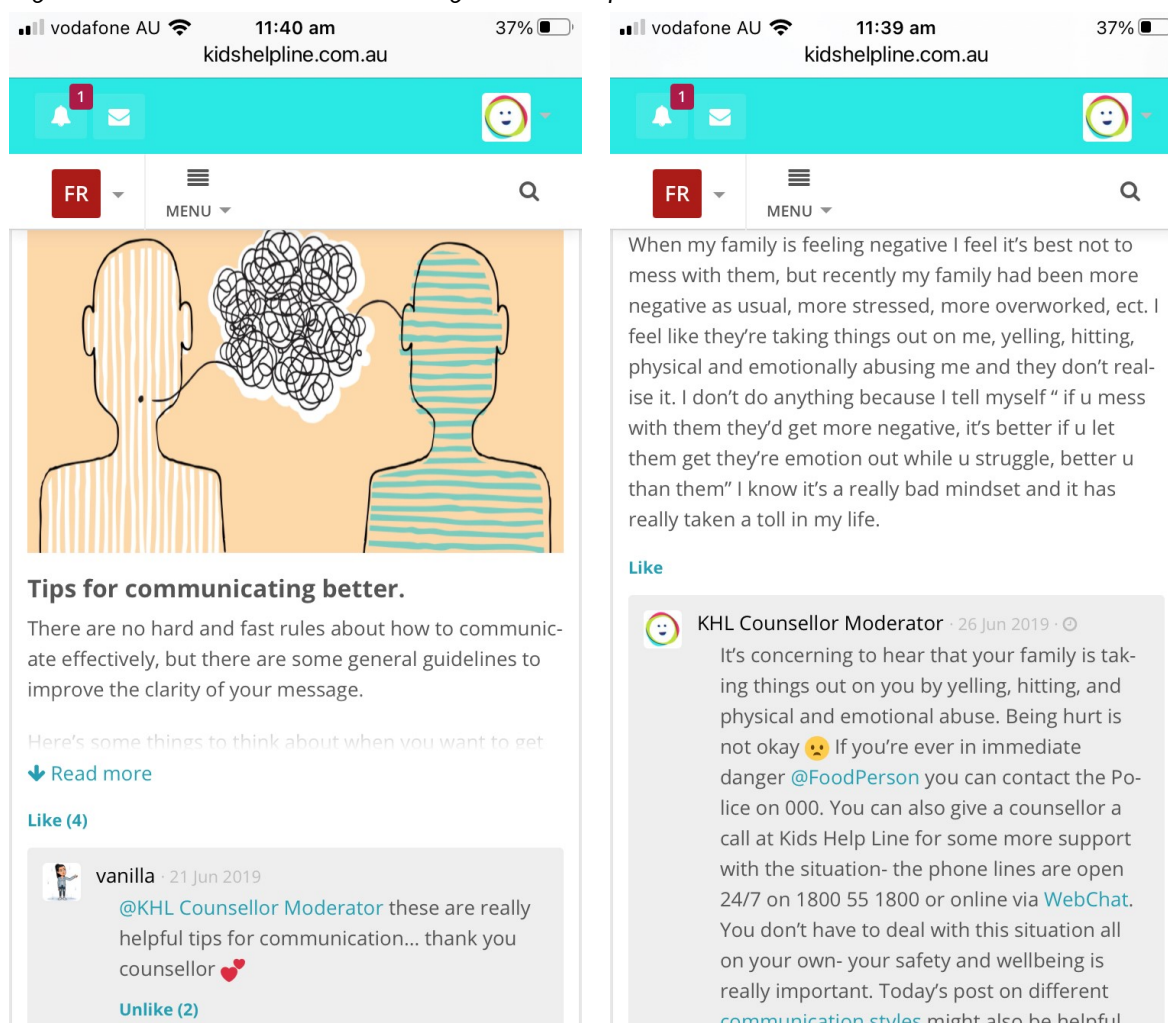


Figure 3. KHL Circles mobile interface design on HumHub platform



## PHASE 1 FINDINGS

### PARTICIPANTS

To successfully enrol into the study, participants needed to be:

1. Aged 13-25 years and of any gender identity,
2. A new contact to KHL or previously engaged (i.e., returning client) with KHL via one-on-one phone and/or Web counselling,
3. Seeking support specifically for emotional well-being issues related to family discord (e.g., at-home psychological abuse, distress, or communication problems with family members),
4. Able to speak English (i.e., required under ethical approval for the study, as no translator for other languages could be provided within the counsellor-mediated social network).

A total of 105 participants were recruited from referrals from clinical moderators (n=25, 80.6%) and from the KHL website (n=2, 6.5%). Other recruitment methods included KHL social media channels (Facebook, n=2, 6.5% and Instagram; n=1, 3.2%), and a participant indicated 'other' with no additional details (n=1, 3.2%).

As recorded in the baseline survey, most participants were female (86/105, 81.9%) and aged between 13 and 15 years (43/105, 41.0%) (mean age=16.2 years, SD 2.9). A total of 105 participants responded to the baseline survey; however, over the course of the study, the number of participants who completed the check-in surveys and the final survey (week 8) reduced significantly. A total of 81.9% (86/105) of the sample spoke only English. Other languages also spoken included Mandarin, Cantonese, Dutch, Bosnian, Telugu, Punjabi, Bisaya, Korean, and Japanese.



## MEASURES

Over the course of the study, participants were surveyed five times in Phase 1. The baseline survey was conducted prior to the start of week 1, check-in surveys were conducted after weeks 2, 4 and 6, and the final survey was after week 8. In addition to the surveys completed by participants, the clinical moderator facilitators wrote weekly summaries to report on participant activity and user experiences.

The following psychometric tests were included as part of each survey presented to the participants in Phase 1:

1. Multidimensional Scale of Perceived Social Support<sup>22</sup>
2. Centre for Epidemiological Studies—Depression Scale for Children<sup>23</sup>
3. Revised Children's Manifest Anxiety Scale<sup>24</sup>
4. Rosenberg Self-Esteem Scale<sup>25</sup>

Additional open-ended questions were also asked. In the baseline survey, participants were asked what they hoped to gain from KHL Circles, and for each check-in survey and the final survey they were asked whether they felt that KHL Circles had helped them feel supported in coping with their problems (yes/no response) and, if so, what made them want to return to communicate with their Circle. The final survey also asked participants to indicate how helpful they found KHL Circles (response was measured on a 4-point scale), if they would return to KHL Circles for any future issues (yes/no), and what sorts of issues they would be comfortable discussing in KHL Circles (from a list of nine options or specify other). In addition, participants were asked to indicate the most helpful and least helpful aspects of KHL Circles (from a list of four options for each or specify other) and what they considered to be the most important features of a social media peer-support site (from a list of eight options or specify other). Each survey concluded with the opportunity for participants to provide additional comments or feedback.

## QUANTITATIVE EVALUATION

There was the intention was to conduct repeated-measures quantitative analyses of the four psychometric tests administered to participants during Phase 1, however, due to the drop-off in response rates between the baseline survey (105/105, 100%) and final survey (8/105, 7.6%), there were not enough responses to conduct meaningful analysis and present any significant changes.

## QUALITATIVE FEEDBACK

Results from the open-ended questions revealed that the main benefit participants hoped to gain from KHL Circles prior to joining was engaging with others with similar lived experiences. This was the most common theme identified in relation to engaging with others for support (n=76; 72%); e.g., "I hope to gain support through meeting people going through similar experiences and not feeling as alone". Other themes identified included gaining new information (n=26; 25%); e.g., "An insight into how others deal with similar circumstances"; and positive self-outcomes (n=22; 21%); e.g., "Something that can make me feel happy and worthy of myself". While low response numbers precluded any significant findings from the psychometric measures used in the study, the majority of participants who completed the final survey reported that the overall experience of being a member of KHL Circles helped them in being supported in coping with their problems with family discord. Participants reported that this was because they felt a sense of community (n=15; 68%) e.g., "I feel like others understand what I am going through, and that I am not alone in my feelings and struggles"; and that it was a safe and helpful environment for them (n=11; 50%); e.g., "All the people I have talked to is [sic] really nice and I feel like we all really make an effort to help and support each other in any way we can".

Clinical moderators reported that the Elgg platform made it difficult for them to facilitate the Circles as it was not easy to navigate or find threaded responses for them to engage with each group. The participants also reported that the platform would have been more engaging had it been like the existing, popular social networks that they were already familiar with (e.g., Facebook) and provided a better quality of standard tools (e.g., emojis, games, and a better mobile interface).

## DISCUSSION

This exploratory, mixed-methods, participant action research study aimed to assess the user experience and potential benefits of a purpose-built social networking platform, KHL Circles, for online group counselling of young people experiencing family discord. Results showed that the main benefit participants hoped to gain from KHL Circles prior to joining was engaging with others with similar lived experiences. This was the most common theme identified in relation to engaging with others for support. Other themes identified included gaining new information and positive self-outcomes. While low response numbers precluded any significant findings from the psychometric measures used in the study, the majority of participants reported that the overall experience of being a member of KHL Circles helped them in being supported in coping with their problems with family discord. Of those who reported that the service did not help them, it was found that comorbid problems not specific to family discord may have been a factor (e.g., school bullying, romantic relationship problems, and specific mental health concerns). While the response rate to the final survey was very low, the

majority of those who did remain engaged through the full 8 weeks reported they would continue to use the purpose-built social network if it was made available, largely due to the sense of community they experienced.

While providing proof of concept for the KHL Circle model, results from this study are limited by low retention rates across the 8-week cycle of each group. User experience feedback should, therefore, be interpreted with caution as it only reflects the experiences of participants who completed the entire 8-week cycle. Completion rates of all psychometric surveys were poor beyond initial baseline collection (see Table 2), so no inferences could be drawn regarding any impact on mental health and emotional well-being. Low engagement with these surveys is not surprising given the age group studied and their primary motivation to be part of the study (ie, to connect with others the same age with lived experience of family discord). The length and clinical focus of the surveys—those not focused on family discord issues—may also have led to refusal to complete the surveys due to self-perceived lack of relevance, disinterest, or disengagement from the study. Phase 2 of KHL Circles will seek to significantly reduce the number and length of mental health surveys provided, as well as to make changes to the platform to increase engagement and activity within the groups in order to encourage higher retention across the 8-week program. The recruitment for this study was restricted to those with mild-to-moderate levels of depression, anxiety, or stress, in order to abide by the strict ethics protocol provided for this exploratory research. As such, through careful ethical consideration of online safety of minors, this study may have inadvertently denied access to those who are in significant need of such an innovation to aid their distress around family discord and provide relatable online community support and expert counselor facilitation. Phase 2 will seek the inclusion of all young people who wish to access the KHL Circles service, given that Kids Helpline's services already attract a high level of distressed young people that would not fit the category of mild-to-moderate levels of depression and anxiety.

Of importance to note was the very high rate of female participants in this study. While not unusual to see more females than males engage in seeking help [22]—historically, yourtown Kids Helplines' client data over two decades supports this trend—ways in which to attract males to online services needs to be further explored. From a technical perspective, the Elgg platform was reported by users and counselors to be too rigid to use in comparison to popular platforms such as Facebook. As discussed, at the conclusion of the Phase 1 study, the researchers sourced a new platform called HumHub,<sup>20</sup> which underwent customisation by Kids Helpline prior to Phase 2. HumHub includes high-level server security features and functions requested by users (i.e., emojis, better integration with linked images and videos, and notifications), with an interface like publicly available social networking sites such as Facebook.

## PHASE 2 FINDINGS

### PARTICIPANTS

For Phase 2, potential participants registered their interest in KHL Circles via the KHL website, and then one week prior to the next Circle starting were asked to complete a baseline survey that included the Depression, Anxiety, and Stress Scale (DASS21)<sup>25</sup> and Clinical Outcomes in Routine Evaluation (CORE-10).<sup>26</sup> The inclusion criteria for Phase 2 were the same for Phase 1, except that participants whose responses to the DASS-21 indicated they were experiencing 'extremely severe' depression, anxiety or stress symptoms were first referred to Kids Helpline's one-on-one counselling services (i.e., phone, webchat or email) and assessed for suitability for KHL Circles being included in the study, as per the updated human ethics requirements of the research project.

A total of 558 participants were enrolled in Phase 2 across six Circle groups. This included six young people that had previously participated in a KHL Circle during Phase 1. They were permitted to participate, but their data was removed from Phase 2 analysis. Most participants found out about KHL Circles via the KHL website (n=383, 69.5%) or referrals from KHL counsellors (n=71, 12.9%). Other participants found out about KHL Circles through school (i.e., school counsellors, health lessons; n=38, 6.8%) and KHL social media channels (Facebook, Instagram, and Snapchat; n=24, 4.3%).

The majority of participants recruited into this Phase of the study identified as female (n=134, 87.0%) and over half were in the 13-15 year age bracket (n=91, 59.1%). Around 1 in 5 (19.5%) reported that they were taking medication for mental health problems, and 44.8% were currently receiving counselling other than through KHL. Of the 552 eligible participants who completed the baseline survey, the majority (n=398; 72.1%) were lost to follow-up and did not complete the mid-point and/or final surveys. There were no significant differences between those who did and not complete these surveys on any of the demographic variables.

### MEASURES

Based on results from Phase 1, the number of surveys and psychometric measures included in each survey was reduced to lessen the burden on participants and encourage a higher response rate. Participants were asked to complete three online surveys throughout the study: one week prior to commencing KHL Circles (baseline), after week 4 (mid-point), and at the end of week 8 (final).

Two psychometric tests were included in all three surveys:

1. Depression, Anxiety, and Stress Scale (DASS21).<sup>25</sup> A set of three self-report scales designed to measure the emotional states of depression, anxiety and stress using seven 4-point Likert-type items each, with higher scores indicating more severe and intense symptoms, and

2. Clinical Outcomes in Routine Evaluation (CORE-10).<sup>26</sup> Contains ten 5-point Likert-type item measuring presentations of psychological distress related to well-being, functioning, symptoms and risk. Higher scores indicate higher levels of general psychological distress.

Additional questions in the baseline survey asked participants for their demographic information (including age, gender, postcode, language/s spoken), if they were undertaking any mental health treatments (e.g., medication and/or external counselling), and their goals from participation in KHL Circles. The mid-point survey consisted only of the two psychometric tests. The final survey also contained 14 Likert-type items (rated on a scale from 1= “strongly disagree” to 4= “strongly agree”) asking participants about their subjective experience of KHL Circles, to assess its safety and perceived benefits, and whether they would recommend it (these questions were adapted from a study of an SNS intervention for young people at risk of depression).<sup>27</sup> Participants were then asked two yes/no questions regarding help-seeking, followed by two open-response questions asking what they thought were the best aspects of KHL Circles, and if there was anything they thought needed improvement. The surveys at each timepoint concluded with the opportunity for participants to provide additional comments. In addition, KHL Circles counsellors provided weekly summaries of participant engagement data and a qualitative commentary of activity on the platform.

## QUANTITATIVE EVALUATION

Data analysis from the participant’s DASS scores revealed that there were significant reductions in symptoms of depression ( $\eta^2=.119$ ; indicating a large effect size) and stress ( $\eta_p^2=.053$ ; indicating a medium effect size;) across each of the three timepoints (see Figure 4 and 6), and from baseline to midpoint and baseline to endpoint for symptoms of anxiety ( $\eta_p^2=.079$ ; indicating a medium effect size; see Figure 5). The reduction in anxiety symptoms from midpoint to endpoint was not statistically significant. The CORE-10 scores revealed a statistically significant reduction from baseline to midpoint and baseline to endpoint ( $\eta_p^2=.067$ ; indicating a medium effect size), however, the difference between midpoint and endpoint scores was not statistically significant (see Figure 7). These findings demonstrated the efficacy of KHL Circles in reducing mental health symptomology and risk of self-harm behaviours, contributing to increasing the evidence base for the role SNS interventions can play in doing so, which has been identified as a challenge for SNS-based interventions<sup>14</sup> and digital mental health tools in general.<sup>28</sup>

Figure 4. Mean DASS21 Depression sub-scale scores      Figure 5. Mean DASS21 Anxiety sub-scale scores

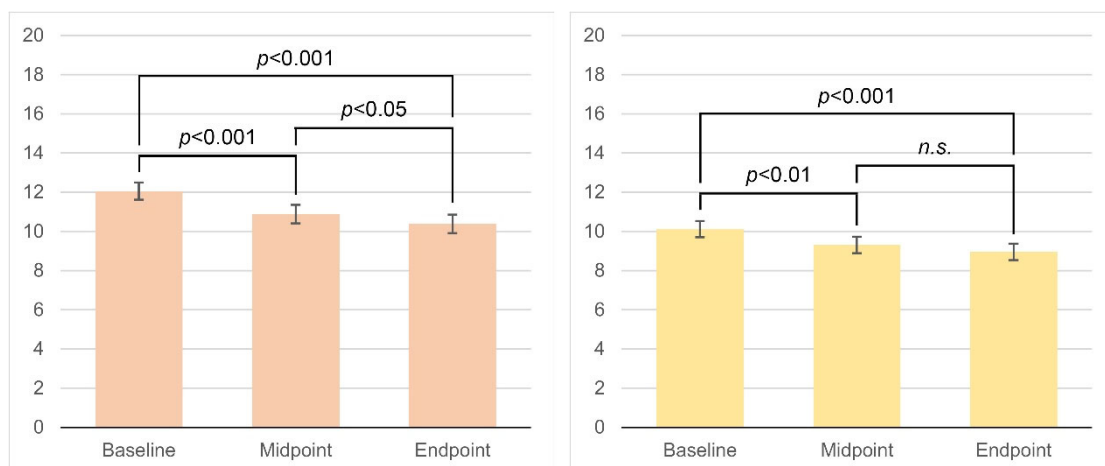


Figure 6. Mean DASS21 Stress sub-scale scores

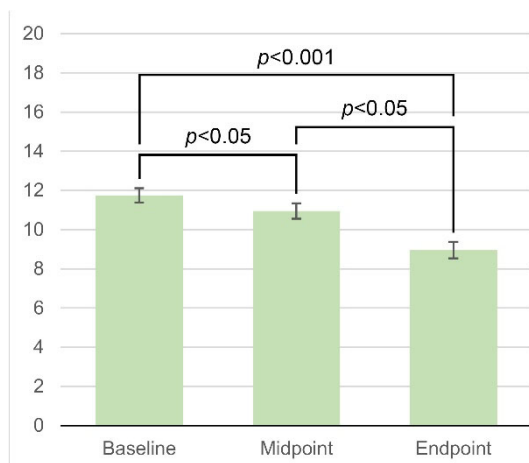
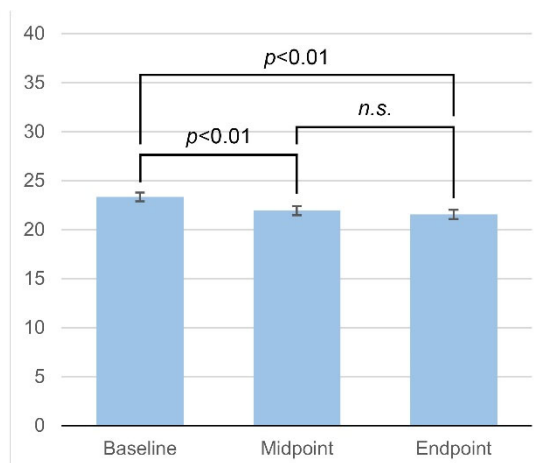


Figure 7. Mean CORE-10 scores



## QUALITATIVE FEEDBACK

A simple content analysis of responses to the open-ended questions was conducted. In the baseline survey, participants were asked “What do you hope to gain in support from joining KHL Circles?”. Analysis of 552 responses to this question produced 5 categories: 1) Engage with others for support (n=210; 44%); 2) Be part of a network (n=210; 38%); 3) Receive information (n=155; 28%); 4) Positive self-outcomes (n=57; 10%); 5) Be part of the study (1%). There were also 21 miscellaneous responses (4%); generally looking for help, just wanting to “give it a go”, and 39 (7%) participants indicated that they were unsure.

In the final survey, participants were asked “What was the best thing about KHL Circles?”. Analysis of the 73 responses produced 3 categories: 1) Being part of a network (n=48; 66%) – participants enjoyed connecting with others with similar issues and feeling like they were not alone; 2) Supportive environment (n=30; 41%) – participants liked receiving support from both counsellors and other members in a safe space, as well as supporting other members; 3) Online characteristics (n=4; 5%) – having constant access to support whenever they needed it, and being anonymous. There were also 2 miscellaneous responses (“the activities provided” and “all of it”), and some who were unsure (n=5; 7%).

Sixty-eight participants provided a written response to “Is there anything about KHL Circles you would like to improve?”. Almost half of those who responded indicated they either felt there was nothing to improve or were unsure (n=32). Analysis revealed 4 categories of suggested improvements: 1) Structure of the program (n=11; 16%) – including extending program length, reducing age-range, having more structured discussions with more involvement from counsellors, more interactive activities, and arranging scheduled chat sessions for synchronous interactions between participants; 2) Private messaging (n=10; 15%) – participants wanted to be able to message other members privately and keep in touch after the intervention ended; 3) Broader topic selection (n=6; 9%) – running more Circles on more topics at the same time; and 4) User experience (n=12; 18%) – including turning KHL Circles into a standalone app, improving notifications (without risk of alerting parents), and improving the overall experience of the platform.

## DISCUSSION

Phase 2 of KHL Circles using the Humhub platform was found to be safe, usable, and meet the needs of young people who engaged with it over their 8-week intervention period. Participants reported significantly reduced symptoms of depression, anxiety, stress, and general distress at the midpoint of the 8-week intervention, with further significant reductions in depression and stress symptoms at the conclusion of the intervention. Further, qualitative feedback presented here expands the knowledge needed to ensure that SNS-based interventions are both engaging and beneficial for young people seeking clinical moderator-led peer-to-peer support online.

Overall, qualitative feedback from participants was extremely positive, with many young people reporting what a positive experience KHL Circles was for them, and how helpful they found the peer-to-peer and moderator support they received (see Figure 4 for sample responses).

The participants’ written responses to questions regarding what could be improved presented requests for more topics, more structured discussions, more interactive activities, as well as extending the program to last longer or remain ongoing. Interestingly, the engagement data from the clinical moderators revealed that participants were more likely to engage with posts made by other participants (almost half of which were ‘off-topic’) than with the posts made by the clinical moderators (which were structured psychoeducation and activities based on weekly topics). The reports from the clinical moderator summaries depicted a general desire by participants to share their experience with peers for the purpose of debriefing, catharsis, and validation, rather than for working through a psychoeducation program.

## LIMITATIONS AND MOVING FORWARD

As discussed, the challenges and limitations experienced in Phase 1 regarding the Elgg platform and survey burden on participants were addressed in Phase 2. During Phase 2, further challenges and limitations were identified as discussed below.

The focus of support and psychoeducation material for Phase 1 and 2 was on the topic of family discord, as this is the most common issue about which young people contact Kids Helpline. The feedback from participants in Phase 2 was to include other topics. Thus, in addition to the existing family discord module, psychoeducation content for other broader topics, such as depression and anxiety, were developed for future KHL Circles. However, the participant feedback from both young people and the clinical moderators also indicated a preference for a less structured approach focused on sharing their experiences with peers, rather than working through psychoeducation material. Future iterations of KHL Circles would therefore need to find a balance between using the psychoeducation material as a guide, and facilitating a supportive community for off-topic peer-to-peer support, which was identified by participants not only as a key strength of the service but the most common reason for joining.

During both Phase 1 and Phase 2, most participants enrolled in the study dropped out and did not complete the surveys, other than the initial baseline survey that was required for entry into the service. While both the number of surveys and psychometric measures included in each survey was reduced from Phase 1 to Phase 2 to lessen the burden on participants and encourage a higher response rate, the number of completed surveys still dropped by over 70% after the initial

baseline survey. Planning for the next iteration of KHL Circle therefore needed to consider alternative measures that are shorter but still scientifically rigorous.

The major reason for low survey response rates was of course the fact that the vast majority of participants who signed up for KHL Circles either did not begin using the service, or disengaged after week 3. There is research evidence showing that low adherence is common for e-mental health interventions,<sup>29,30</sup> and does not necessarily coincide with success or failure, but may reflect user preferences and expectations<sup>31</sup>. Consistent with this, qualitative feedback from Phase 2 indicated that most young people are not interested in committing to a multi-week psychoeducational program and would prefer to use the SNS service on a more ad-hoc basis to discuss off-topic concerns within the peer-to-peer community.

As discussed, feedback from participants in Phase 1 on the Elgg platform resulted in the move to HumHub for Phase 2. Feedback collected in Phase 2 suggested the need to improve the overall experience of the website to make it more convenient to use, with several suggestions from participants such as making the use of emojis more accessible, and making notifications less risky for their parents to find. There was also interest from participants in making KHL Circles available as a mobile app. There is a mobile app version of HumHub for Android smartphones, however an iOS version that would allow access on Apple smartphones has yet to be developed.

It was concluded at the end of the Phase 2 evaluation that the findings supported continued proof-of-concept and user interest for KHL Circle's evolution as a service delivery model within Kids Helpline. Reductions in mental health symptoms were reported, along with extremely favourable user feedback. Suggestions for improving the service were reported by both users and moderators, and would go on to inform continuing adjustments in the ongoing evolution of the service. Changes implemented following Phase 2 feedback included the introduction of two new Circle topics (Anxiety and Depression, and General Well-being), and a change in program length from 8 weeks to 6 weeks.



Figure 4: Qualitative user feedback from Phase 2

<i>"This was a brilliant service. It was so wonderful to be anonymously connected to other people whom I could reach out to for support and comfort. I felt safe, and needed. I haven't felt like that in a while".</i>
<i>"I can honestly say it's been wonderful being a part of this group and it's an experience I won't ever forget. Being here has made me reflect upon the ways I deal with things and who I am as person. Thank you all for being such a supportive group."</i>
<i>"Connecting and speaking with others who are going through or have been through similar situations to my own has given me hope and an immense sense of relief. I thought I'd never find others who understood and related to my own experiences on a personal level, yet through KHL Circles I found I was not as alone and isolated as I've always thought."</i>
<i>"There are so many major benefits of KHL Circles, so many youth just like me need this life-changing service."</i>
<i>"I'd like to say thank you to the team at KHL Circles, you have helped me and supported me in my toughest of times and I have learned lots more on how to cope with my problems and depression. When I'm down I log in to my circle and I find everyone is willing to listen to me and support me. You are amazing and I can't believe that someone would actually listen to me. Thank you so much to the Circles Team."</i>
<i>"I felt like I was actually understood by someone. There were many others that were in almost the exact same situation as I am, and after hanging out with my school friends who have it easy compared to me, it felt nice to be understood."</i>
<i>"The best part was that I never felt overwhelmed by the information that was posted in the forums by KHL counsellors and I always felt included in every discussion and activity. I found that a lot of things helped me and even if it didn't relate to my situation, it was helpful to keep in mind to possibly help others in the future, or even myself if the opportunity popped up. I loved all of it and loved becoming an active member there, and I felt like I could talk about my problems in a welcoming, accepting space with those who could help me and other people like me."</i>
<i>"Everyone looks after everyone and it's an amazing experience. They have all been so helpful, the counsellors and the other members"</i>
<i>"I could go on at any time of the day and everyone would be so supportive, even when they were having really bad days."</i>
<i>"I feel that the best part of KHL Circles was the fact that if I was feeling down, I could rant about how I felt, be honest without being judged and get positive feedback from others"</i>
<i>"Having a group of similarly aged people who are going through similar struggles as myself - having them there for me, along with the counsellors, to talk to and console really was invaluable. I will miss this, it gave me much more of a reason to not kill myself, through checking in with everyone at least once each week. Thank you, thank you so much."</i>
<i>"I thought the best thing about KHL Circles was when the others posted updates on what was happening to them and feeling brave enough to share that with everyone else."</i>
<i>"The best thing was knowing that I'm not the only person that feels the way I do, and that I could talk/share things with people who are going through the same things as me."</i>
<i>"This has been great :) I would love to be involved in KHL Circles. I am better now than I was before when I applied for this, but I would like to share my experience and listen to other people's stories."</i>
<i>"Thank you for creating a place like this. I don't know if you've been told recently, but on behalf of the people you help, we appreciate and thank you."</i>

## PHASE 3: REVIEW OF THE OPERATING MODEL

In August 2020, the Bupa Health Foundation awarded Kids Helpline and the University of Sydney a \$1 million grant to extend the KHL Circles digital platform (to be renamed 'My Circle') to support up to 10,000 young people over two years. In order to grow the service as 'My Circle', yourtown and the University of Sydney undertook an extensive review of the operating model to reimagine what a larger scale social networking platform for clinically-moderated peer-to-peer support might look like. This included online focus groups with KHL Circles clients and moderators conducted by the University of Sydney, and a detailed review by an external consultant as part of a broader digital strategy review of Kids Helpline.

## FOCUS GROUP EVALUATION OF THE CLIENT AND MODERATOR EXPERIENCE

### MODERATOR EXPERIENCE

The University of Sydney research team conducted an online focus group with KHL Circles moderators in early 2021 to gain insights into their experiences and perspectives of KHL Circles. Five moderators of varying levels of seniority and experience with KHL Circles participated in the focus group under anonymity from yourtown (therefore no demographic data for participants are reported). The focus group was conducted using the video chat function of teleconferencing software Zoom. Two University of Sydney researchers asked questions of the KHL Circles moderators via the hosting call, and participants dialled in either separately or in pairs dependent on their location. Audio transcription and thematic analysis was completed by the University of Sydney research team. Five key themes were identified and are discussed below.

#### 1. KHL Circles requires a different skill set to other counselling services

Moderators were asked to compare their role moderating KHL Circles with their counselling work in other modalities. A major difference noted was the different skill set needed, with KHL Circles requiring a focus on fostering the group dynamic and encouraging clients to support each other, rather than providing individual support.

*"[You need to] have awareness of the different stages of group development and group formation, and keep an eye out for how participants are interacting with each other in the group. And awareness of what the group rules are, monitoring that, intervening as necessary".*

*"I like seeing other young people supporting each other and encouraging that and facilitating that. It's using a slightly different skill. I like that variety."*

*"It's different in the way that we're sort of taking a step back where we're encouraging them to support each other, rather than giving individual help and support, so we probably use the skills of validation more. So we're not getting into that individual story, but still acknowledging the client's concerns and then refocusing back on the group to support that participant."*

*"That's a big part of it – facilitating the discussion between themselves, rather than with me as moderator."*

This creates more complexity compared to other counselling modalities, as moderators need to monitor how client interactions may impact others in the group and use judgment about how long to wait before responding to an unanswered post, or when it is necessary to 'jump in' to conversations between clients.

*"We have much greater awareness of the group and the group processes and how the comments and the posts from one individual may affect other people in the group. So there are more levels of complexity in some ways, more interactions among participants that we need to keep an eye on. Not just looking at one transcript with one person."*

*"I often find that when we do jump in, sometimes that does hinder the peer-to-peer support. So that is sometimes delayed, to help them kind of support each other before we jump in."*

*"If [the unanswered post] is concerning, we wouldn't leave them hanging, but if it's, you know, something that's not risk, I might see it in the morning and go, oh, okay, well, no one's responded. I'll keep an eye on that. And then towards the end of my shift, if no one's responded, I don't wanna leave them hanging. So I'll jump in and validate and reply and try and generate some engagement with the other participants."*

There was consensus among the moderators that while their role was to facilitate peer-to-peer discussion and not provide 'counselling' per se, they did try to make their responses to client posts relevant to the specific situations under discussion.

*"I do try and tailor it to their specific presenting concerns, but it's not as in depth as I would do in a one-on-one call where you can really nut that out with them, and sit with them and explore the story."*

Any interactions using the private messaging function, however, were kept more vague, so as to not get into a conversation resembling one-on-one counselling.

*"I try to keep it fairly vague... no exploration sort of questions where there's a back and forth, you kind of keep things quite curt, and just really let them know the reason why that you are reaching out to them, but also keeping it warm as well, you know, lots of emojis and letting them know that we are here to support them, but just not in any sort of counselling role."*

Other differences between KHL Circles and other modalities that moderators noted were that KHL Circles appeals to clients who may not have otherwise contacted Kids Helpline for support, and that moderators receive a lot more feedback from KHL Circles clients.

*"Circles is probably better for those people who wouldn't have otherwise opened up or contacted us over Kids Helpline. That's what we see over and over again, is people opening up there that may not have ever called us before or ever shared those concerns, if it wasn't for the Circles platform."*

*"I do notice there's a lot more feedback on Circles, um, that we don't often get in the one-to-one counselling. They're more likely to say how helpful someone's comments have been, or an activity has been or a post."*

## 2. Managing risk is more thorough but also more complicated for KHL Circles

Moderators believed that most clients understand the need for moderators to respond to potential risk by using KHL Circles's private messaging function. Clients generally responded positively to referrals for one-on-one counselling, though were sometimes vague as to whether they had in fact taken up this recommendation.

*"[Circles] is a really safe space for them to discuss suicide, self-harm, all those sorts of things in a very sort of general way. So we are certainly not shying away from it, which I think is good, they sort of understand the duty of care that we have. So if there's anything that's kind of immediate or if the risk is very blatant, then we certainly do direct messaging and just strongly encourage them to get onto the counselling service."*

*"Often if we send a private message to follow up the risk and encourage them to call, we'll often get a message back saying, yeah, I might try that or I might try and give them a call. So it's tentative."*

The process for managing risk and duty of care issues was said to be more complicated and time consuming for KHL Circles compared to other Kids Helpline services, due to a lack of integration with Kids Helpline case note management tools, and the fact that conversations with clients are asynchronous and therefore may take place over a number of days, requiring handover between different moderators.

*"We do have a bit of a process that we follow when there's a comment with risk or a post with some risk that we publicly acknowledge at first, and then we'll follow up with a private message. And then we may consult with the on-shift supervisor, and then we have to document that in our own documents – it's not integrated with the case note management tools that we have for the other modalities. So yeah, there's a few more steps involved. Um, and sometimes the supervisors may or may not be familiar with Circles, so we might need to spend a bit of time familiarising them."*

*"DOC [duty of care] can be really time consuming actually. And something I mentioned earlier was that we might have ongoing conversations with young people over a couple of days. Um, and that's different because normally when we're in a session with someone and there's DOC, we can usually tie it off, I suppose, at the end of the session and do what we need to do and move on. Whereas with Circles, it can run over for days. And so we're having to hand it on to the next moderator in the next one."*

The handover process between moderators was both informal (using a chat function) and formal (using a process log and 'responding to risk' document).

*"It's probably more informal in that we use the chat function, and just say watch out for this person – they posted risk, see process log for notes, and just alert the next moderator to go and read the notes and keep an eye out for a response."*

*"And we have a responding to risk document as well. So if there is somebody that we're following up, I'll be added to that as well as the process log. And then one of the supervisors checks them every week, sees where they're at. That's sort of like an extra layer of making sure we followed people up so they don't get lost, I guess."*

This multilayered process for following up risk was identified as being more thorough than for other 'drop in, drop out' Kids Helpline services such as webchat or phone counselling.

*"That's a bit of a difference because when we're doing the other modalities, there's no follow up, you just start your shift and you talk to whoever is waiting in the queue. Whereas with Circles, we've gotta go in, we've gotta look, is there any follow up what needs to be done? Um, so there's a bit of a before-shift preparation."*

There was mention of instances of KHL Circles clients being identified as having a regular Kids Helpline counsellor that could be informed about their duty of care incidents, however this was haphazard rather than systematic due to a lack of integration between KHL Circles and existing client systems.

*"And then you might discover that they have a regular [Kids Helpline] counsellor already that they're in touch with, who we could possibly link in with and let them know that they presented at risk on Circles."*

### 3. Platform improvements are needed to automate time-consuming processes

When asked if there were any improvements they'd like to see to the KHL Circles platform, moderators mentioned a desire for automation of time-consuming aspects of their role such as working out which daily activities to post, manually reporting user engagement (counting number of posts, comments and likes), and finding out whether users already have a client file in the Kids Helpline system when duty of care issues arise.

*"To be able to schedule posts would make it a bit easier... it takes a bit of time to see what groups are running, what week they're in, what day they're in, what post is for that day, go look for it and post it. So that chews up time rather than, you know, just sitting down at the start of the week and putting them all in and have them all ready to go."*

*"In terms of the link between Kids Helpline and Circles, there is definitely a lot of room for improvement there in terms of, like for example, us knowing whether clients are already a client of Kids Helpline and have a CS file... Things like that would certainly make our job easier and for us to be able to hit the ground running when care [issues] arise."*

### 4. Ongoing moderator training is needed

Moderators were asked to reflect on the training for KHL Circles they had received. The newer moderators mentioned that they had received their training remotely due to COVID restrictions, and that this actually helped the training process through screen sharing.

*"I was at home and I actually find it maybe even better to have it over the laptop because we screen share and then I get to sort of interact and actually do it in real time on my own computer. And so if I don't understand something, I can just say, hey, I don't really get this. Can you show me this? And it feels much more interactive than sort of standing over someone's shoulder and kind of trying to work it out. So I actually really enjoyed doing it from home."*

Training to date had mostly focused on the practicalities of how to run the platform, rather than develop skills such as fostering group dynamics.

*"It was based on need and what we needed was for moderators to hit the ground running. And so we focused on the most important aspects and the elements of the being able to just perform the role. So we didn't go in depth into theories of group dynamics and different models of group development and things like that. Although that would be wonderful. That'd be really great to incorporate that."*

The more experienced moderators also discussed a need for ongoing training, not only to keep up with changes the service as they are rolled out, but to develop their online moderation and counselling skills.

*"I did the initial training like six years ago with Andrew Campbell [Cyberpsychologist from University of Sydney], more around like how to handle group dynamics and group counselling. And that was really good, but it was so long ago. So, it would be helpful to have something annually to keep updating our skills as a platform develops, and learn more about how to guide interactions on there."*

*"I agree, it would be great to have it as an annual thing, or whenever a new update happens with the software or if there's something that we sort of might need to know, even if it's just a really brief 15-minute sort of check in showing us how to do something. But, overall I think the training's been great."*

Moderators working different shifts and therefore rarely overlapping with each other in person contributed to challenges in delivering information and training regarding iterative changes to the platform.

*"Things evolve and change all the time. I feel like sometimes we're sending an update every week about what's changed. And I worry about how confusing that might be and disjointed that might feel for the moderators who have to pick this up and keep changing and keep adapting [but] they do it and they do it well."*

These challenges had been overcome to some extent by recording short 'how to' training videos to distribute to the moderator team.

*"We have done some training videos and uploaded them on certain aspects. Little 'how to' videos. Just internally among the team."*

## 5. User engagement is highly variable and difficult to foster

Moderators agreed that engagement levels are highly variable between different groups, and that good engagement often relied on having naturally 'active' users inspiring others to post.

*"Often if you've got a really active user that can inspire others to comment as well. [But] if you don't have many active users in a group, it can be really difficult to generate."*

*"It's usually a really small subset of people who are actively engaged."*

There was also agreement that it was difficult to maintain consistent engagement throughout the 6-8 week module structure of KHL Circles. Moderators discussed strategies they use to encourage user engagement, such as the 'ice breaker' activities that are planned in the first week of each Circle to get discussions going and help new users become familiar with the platform. In addition, moderators said that they are more active with their own posting during the first week (e.g., posting comments in response to posts more often and more quickly).

*"[We are] probably a little more active in those first few days, commenting underneath people's comments, liking comments, being quicker to respond, to generate that engagement and that momentum. So that's something I've noticed we do."*

Moderators agreed that the ideal Circle group size is around 100-150 users, but noted that of these only around 30% would contribute to discussions in the first week, and then it would reduce further in subsequent weeks. When asked what changes they think could be made to KHL Circles to increase engagement, one moderator suggested having 'live broadcast' sessions.

*"I think maybe having some live sessions with the counsellor moderator or like an 'agony aunt' session where they can come along and ask whatever's on their mind, we have a round table discussion anonymously with whoever's there. Or just the counsellor broadcasting live, just checking in and maybe discussing a topic of the week or something like that."*

*"And make it really informal – like we're chatting now. Because I feel that maybe some of the content that in the group is... it's very structured and it's very good and evidence-based. Um, but it does feel like it is structured. So maybe we could mix it up with a bit more informality [sic], a bit more fun, a bit more flexibility."*

When asked about engagement with off-topic posts, moderators identified that sexuality, school issues (friendships, bullying), and mental ill health received strong engagement from clients and would be suitable for future KHL Circles module topics.



## CLIENT EXPERIENCE

KHL moderators conducted an online focus group with KHL Circles participants in early 2021 to gain further insights into the experiences and perspectives of KHL Circles users. All young people who had completed a KHL Circles follow-up survey in the previous six months were invited to participate via email. Of the 20 young people who expressed interest in taking part, nine participated in the focus group. Participants ranged in age from 13-18 years and were predominantly female (see Table 2 below). Due to the anonymous nature of participation in KHL Circles and the associated research, responses are not linked to demographic details nor chosen pseudonyms in this report. The focus group was conducted using the teleconferencing software Zoom. Moderators asked questions of the group verbally and the young people responded in the chat function using pseudonyms. Audio transcription and thematic analysis was completed by the University of Sydney research team. Four key themes were identified and are discussed below.

*Table 2. Focus group participant demographic data*

Demographic	N
Age (years)	
13 years old	2
14 years old	5
17 years old	1
18 years old	1
Gender	
Female	7
Male	1
Prefer not to say	1

### 1. Positive peer support was the best aspect of KHL Circles

One prominent theme in participants' responses was the positive peer support that took place within their Circle. This predominantly took the form of individuals sharing their experiences and then other young people offering advice or help:

*"Yeah other people were venting, I was too and we'd all offer our advice to the person who vented"*

*"The depression [Circle] allowed a place for people to let out of there [sic] head what was going on and allowed other people to give strategies and help"*

The opportunity to connect with peers their own age was also noted favourably by the participants:

*"My circle has other people our age helping when they know about how it feels rather than an adult"*

*"It's definitely easier to connect with people your own ages dealing with the same problems"*

*"You feel more of a connection with people your age"*

*"You can vent freely and stuff without having your parents know and criticise you or judge you"*

Participants also identified commonality of experience with other participants as a positive aspect of participating in KHL Circles:

*"You get help from people going through the same thing so the advice is more helpful"*

*"[It was] definitely easier to connect with people in the Circle because they understand your situation better"*

One participant linked the anonymous nature of the Circle with feeling safe:

*"I liked that it was anonymous so u didn't know who each other were. I felt more safer [sic] for some reason not knowing who everyone is"*

## 2. Coping strategies provided by moderators were useful

The participants found the information provided by the moderators to be useful:

*"The articles really helped when you didn't know where else to go"*

*"It was a lot better than I thought there was always great replies [sic] and helpful strategies to try"*

Coping strategies were noted as particularly useful:

*"It really focused on how to deal through anxiety attacks and panic attack which gave us a lot of coping strategies... we did activities and stuff to learn about how to cope with stuff which was fun"*

*"I found that the coping strategies stood out as there was many tricks and tips to try"*

They also identified specific strategies they had used:

*"I had a week where I was finding it really hard to get out of bed and go to school the advice I was given was to imagine your depression or situation as a monster and give it a name"*

*"I use the 5,4,3,2,1 strategy and it helps a lot with my panic attacks"*

*"Yeah the traffic lights help me notice when I was gonna have a panic attack or an episode/relapse"*

## 3. KHL Circles is a positive and safe environment for young people

Participants positively viewed the online community environment:

*"It was a very accepting environment I felt safer talking about my feeling"*

*"It was kinda reassuring I wasn't alone"*

*"Yeah I wasn't scared to vent or just talk... it was really warm and happy I guess because the counsellor was really nice"*

It also helped the participants to alter their self-stigma towards their mental health issues:

*"I didn't feel like I was the only one"*

*"It didn't really change it but it allowed you to accept it more"*

Another positive outcome of participating in KHL Circles was that participants perceived that they were able to talk about their mental health with other members of their social network:

*"Yeah it allowed [sic] me to open up to friends"*

*"Actually my friend who had been going through the same thing"*

*"I opened up to my English teacher and I found it really helpful"*

## 4. Negatives and suggestions for improvement

Some negative aspects of KHL Circles were present in participants' responses. One negative was the limited active engagement of participants with the group:

*"I thought it would be a lot more active. But nobody really commented and it was always the same people replying"*

Whilst the moderator posts were mostly considered easy to understand some participants found them to be too long and wordy. The repetition of some images was viewed negatively:

*"So you were like oh god again with the traffic lights, even though it was helpful you kinda wanted to learn something new to help you"*

One participant also noted some technical difficulty linking the images with the chats:

*"When I first joined I couldn't connect some of the photos with the group chats"*

Some participants noted that the language level of the moderator posts often too young for their age group:

*"Sometimes they were a bit younger"*

*"I agree too I find them a bit young")*

The relevance and usefulness of some of the strategies was also viewed negatively by some participants:

*"I really tried all of them for the anxiety and depression but I found some weren't my thing... Some were easy to understand and implement but some just weren't easy to know how to do or how to use them in real life"*

*"During a public situation I find it harder to implement the strategies"*

Participants were asked whether the anxiety and depression modules should be split into two separate modules in future iterations of the KHL Circles and all responded positively to this suggestion:

*"Yeah I think it would be better because when there's two, one is focused on more and it would help to just focus on one"*

*"Two separate modules would be better as you can focus on one topic more in depth"*

Participants responded very favourably when asked what they thought about having an ongoing group to participate in after their Circle had finished, and had suggestions for specific features this group could include:

*"Make it so you can make group chats and private chats with members"*

*"Maybe more ways to communicate instead of venting and activities... like more informal"*

Participants were also asked to suggested topics for additional future Circles. Suggestions were received from most participants and included self-harm, LGBTQIA+ issues, eating disorders, disability and neurodiversity (ADHD, ASD). Other members of the focus group responded positively to suggestions by other members, agreeing that they were all great ideas.

## **STRENGTHS OF THE KHL CIRCLES OPERATING MODEL**

The Phase 1 and 2 evaluations of KHL Circles and Phase 3 focus groups identified a number of strengths associated with the existing psychoeducation module-focused operating model, summarised as follows:

- Young people thought the best aspect of KHL Circles was the peer support they received from connecting anonymously with other young people with similar experiences to them
- KHL Circles is a safe and supportive environment for young people
- KHL Circles helped young people feel less stigma around seeking help for mental health concerns
- KHL Circles helped young people feel less alone in their struggles
- Young people found the coping strategies provided by moderators useful
- Young people who were highly engaged with KHL Circles demonstrated significant reductions in symptoms of depression, anxiety, stress and general psychological distress

## **CHALLENGES OF THE KHL CIRCLES OPERATING MODEL**

The Phase 1 and 2 evaluations of KHL Circles and Phase 3 focus groups also identified several challenges associated with the existing KHL Circles operating model. These included:

- Rather than for working through the weekly psychoeducation program with peers, young people were predominantly using KHL Circles to connect with peers for the purpose of debriefing, catharsis, and validation
- The vast majority of young people who entered KHL Circles reduced their participation after 1-3 weeks, once they had posted and received support from peers and moderators
- Young people who were highly engaged with KHL Circles expressed a strong desire to keep in touch with peers in an ongoing, less-structured version of the service
- Young people were reluctant to complete the 'check in' surveys sent to them via email
- The HumHub platform required significant technological updates and customisations to address not only user experience issues, but to automate time-consuming administrative duties required of moderators
- The moderator team required expansion and ongoing training to meet increasing demand.

In addition, the external consultant review of the operation model revealed three additional 'pain points' that were acting as a barrier to participant entry to KHL Circles:

- A proportion of young people didn't really understand from the information on the Kids Helpline website what KHL Circles was and does as a service
- A high proportion of young people were being 'screened out' of the service by the My Circle sign-up questionnaire (due to scoring in the 'extremely severe' range on the Depression, Anxiety and Stress Scale; DASS21) and directed to one-on-one Kid Helpline counselling services for support instead in the first instance
- Young people had to wait between 2 to 6 weeks after signing up for KHL Circles before they could enter the service, due to the need for moderators to assess suitability (based on sign-up survey responses), and the 6-week cycle format of the psychoeducation program.

The external consultant review also determined that KHL Circles was unsuitable for scaling up to 10,000 participants due to both technological limitations and the current group counselling operating model. For example, the current model required manual review of participants' expression of interest for suitability before being allocated to a 'Circle', and manual review of every post due to a lack of automatic moderation support features. Moderators would therefore be unable to moderate a significant increased number of participants and posts under the current operating model.

## A NEW OPERATING MODEL: MY CIRCLE

The challenges observed in the Phase 1-3 evaluations drew attention to the need to reconceptualise the service operating model for KHL Circles, in order to grow the service as 'My Circle'. A new operating model was needed to develop the platform in a way that:

1. Improves the way in which young people first hear about, express interest in, and join My Circle
2. Better accommodates the needs and help-seeking patterns of young people
3. Provides all young people with an optimal experience that is engaging and effective
4. Is scalable to meet increasing demand

The following changes to the operating model were implemented to address the above aims and the challenges, with all decision-making guided by human-centered design principles, and hypothesis testing and metrics evaluation conducted internally by yourtown.

**CHALLENGE: Most young people disengaged from the service after 1-3 weeks. Those with high engagement wanted to continue using an ongoing version of the service**

**SOLUTION: Structure changed from 6-week psychoeducation/counselling program to an ongoing open discussion peer-support forum**

The reduction in the length of the 'Circle' program from 8 weeks to 6 weeks and the development of new psychoeducation content for new 'Circles' (focused on topics such as depression, anxiety, bullying, and alcohol and other drug use) had not succeeded in increasing the engagement of young people with the 'Circle' content. The operating model of the My Circle platform was therefore changed from structured 6-week program cycles on chosen topics, to an open discussion forum where users can post and chat about whatever issues are on their mind, whenever they like. The architecture of the platform was segmented into separate sub-forums where users can congregate to discuss a variety of mental well-being topics, which were selected based on user feedback (see Table 3). This major change to the operating model also addressed the challenge of meeting the needs of highly engaged young people who expressed a strong desire to keep in touch with peers in an ongoing, less-structured version of the service. Upon entry to My Circle, participants were automatically provided 'membership' to every Circle on the platform by default (see Figure 5). Participants could then 'opt-out' of any Circles that were not of interest to them, so that content from those Circles would not appear in their 'Dashboard' (a stream of new posts from all Circles for which a participant is a member, similar to Facebook's 'feed').

**CHALLENGE: Many young people ignored psychoeducation program content**

**SOLUTION: Psychoeducation program repurposed into 'self-help' programs**

To support the change in focus to an open discussion format, the psychoeducation program group content was repurposed into 'self-help' programs, to allow users to read and engage with psychoeducational content about a variety of mental well-being issues at their own pace, without the need to stick to a weekly program. Additionally, moderators began repurposing content from Kids Helpline's social media channels as conversation starters within the open discussion 'Circles', to encourage engagement from those who may not yet feel ready to actively participate by creating their own posts.

**CHALLENGE: Young people didn't understand what My Circle is**

**SOLUTION: My Circle website redesigned and promoted**

The dedicated My Circle webpage was redesigned to explain the service and what it can offer young people more clearly, to manage expectations of how this social platform operates relative to other social platforms they may be familiar with (see Figure 6). Additional promotion of My Circle was undertaken via Kids Helpline's social media channels to inform potential users of the service and how they might benefit from joining (see Figure 4).

Figure 4. My Circle social media marketing post

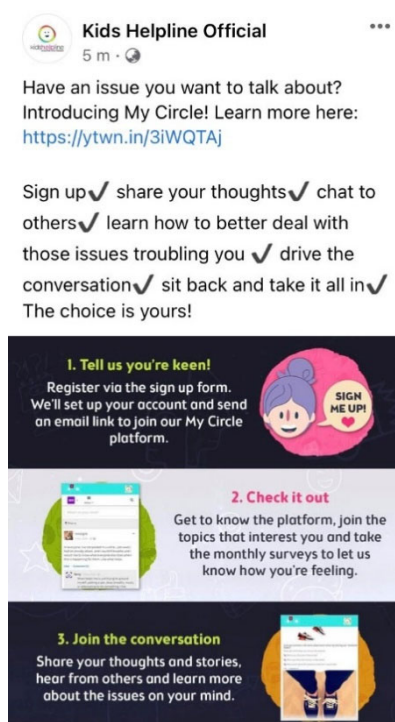




Table 3. My Circles new operating model architecture

Space	Description
<i>Circles</i>	
Bullying and harassment	A Circle to talk about bullying and harassment experiences.
COVID-19 / The World Around Me	A Circle about all the events that happen in our lives
Culture, Religion and Spirituality	A Circle to talk about cultural backgrounds, religion and spiritual beliefs
Dating and Sex	A Circle to talk about the ups and downs of dating and sex
Disability, Illness & Physical Health	A Circle to discuss coping with disability, illness and physical health issues
eSafety & Social Media	A Circle to talk about the good and not-so-good parts of being online
Family Relationships	A Circle to talk about the ups and downs of family life
Friendships	A Circle to talk about the ups and downs of friendships
Getting Help & Resources	A Circle to discuss ways of getting help and sharing useful resources
LGBTIQAP+	A Circle and safe space to talk about sexual and gender identity
Mental Health	A Circle to talk about your emotional and mental well-being
Natural Disasters & Climate Change	A Circle to talk about natural disasters and climate issues
School & Work	A Circle to discuss the ups and downs of managing school and work
Self-Esteem & Body Issues	A Circle to talk about struggles with low self-esteem and body issues
Substance Use & Other Addictions	A Circle to discuss substance use and other addictions
Suicidal thoughts & Self-Harm	A Circle and safe place to discuss worries about suicidal thoughts & self-harm urges
The Vibezzz 🍷	A Circle to hang out and talk about anything off topic
<i>Housekeeping</i>	
My Circle News	A Circle for important My Circle updates, news and announcement
Welcome and announcements	A Circle to help you get started in My Circle & read important info
<i>Self-help courses</i>	
Coping with Bullying	Information and resources to combat bullying
Dealing with Depression	Information and resources for dealing with depression
Family Relationships Conflict	Information and resources to manage family conflict
Loneliness & Social Connection	Information and resources to deal with loneliness
Managing Anxiety	Information and resources to manage anxiety
Staying Safe with Alcohol & Other Drugs	Information and resources to stay safe with alcohol & other drugs

Figure 5. Screenshot of Circle navigation and imagery

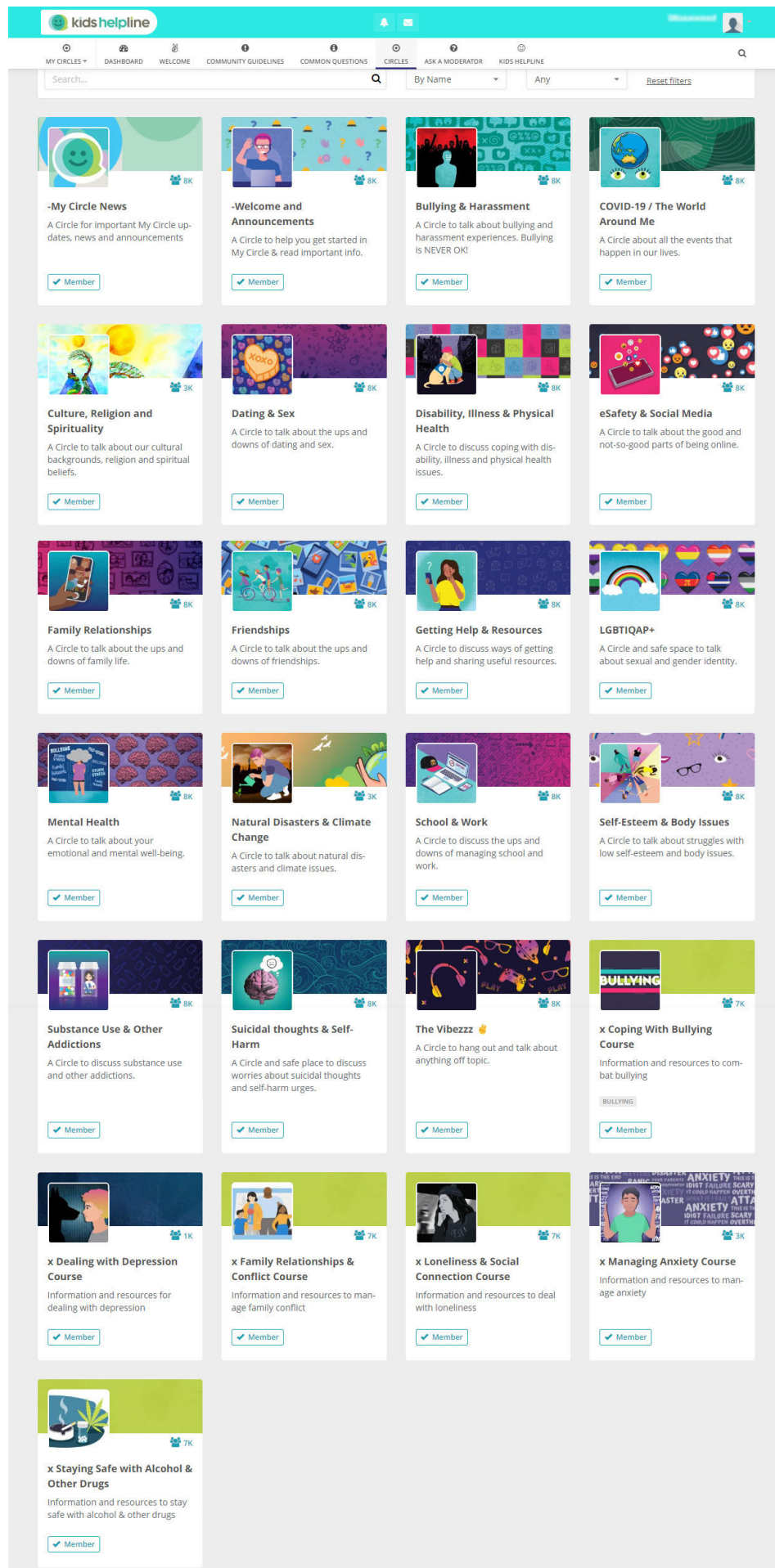


Figure 6. My Circle redesigned website, June 2021



**CHALLENGE: Young people had to wait 2-6 weeks for the next 'Circle' to start before entering service**

**SOLUTION: Self-registration and automated validation system that allows entry to service within an hour**

The barriers to enter My Circle were significantly reduced from a waiting time of up to six weeks for screening, account approval, and batch importing of new users onto the platform, to a self-registration system that allows users to enter the platform within an hour of completing the Expression of Interest form after approval by a moderator (or overnight for accounts created during unmoderated periods). This was facilitated by an automatic validation system which was developed to screen information entered by clients at sign-up for any breaches of specific rules for accounts, such as being outside the required age range (13-25 years), postcodes outside of Australia, or usernames that contain offensive words or identifiable information such as names or date of birth. The list of words that are not allowable in usernames and a list of email addresses (to prevent banned users from re-registering) can be added to and maintained by My Circle moderators over time.

**CHALLENGE: Highly distressed young people were being 'screened out' by baseline survey**

**SOLUTION: No young people 'screened out', instead provided information about other support services**

The My Circle entry/baseline survey form that contained the DASS21 and CORE-10 screening questionnaires was replaced with an Expression of Interest form and briefer mental health check survey embedded into the My Circle website (rather than being delivered separately by email). Most importantly, young people were no longer 'screened out' of the service if their survey scores indicated they were severely distressed. Instead, all users were provided information about other available support services before they entered My Circle, including one-to-one counselling via Kids Helpline's other channels.

**CHALLENGE: Young people were reluctant to complete 'check in' surveys**

**SOLUTION: Conduct survey methodology review**

To address the very low response rates for the check-in surveys observed to date, it was decided that a review of the survey methodology would be conducted as part of the Phase 4 trial of the new operating model. This would consist of A/B testing to determine whether the length of the questionnaire used to measure changes in psychological distress as part of the check-in survey significantly impacts on response rates. This review would determine which questionnaire is the most appropriate for the service in terms of both achieving scientific rigour for measuring changes in distress over time, and not deterring participation in the service or evaluation surveys.

**CHALLENGE: HumHub platform requires significant technological updates**

**SOLUTION: Technical team engaged to assist with programming the platform to have the desired functionality and achieve future state**

A scope of works was prepared to determine the most urgent technological updates to HumHub required to not only improve the user experience of clients, but also the moderation capabilities given the anticipated growth of the platform following implementation of the new operating model. In terms of user experience, improvements included better photo, video and emoji integration, an improved notification system, and trigger warnings for sensitive content. Moderation improvements focused on automating the time-consuming administrative duties required of moderators such as account approval, engagement data capture, and introducing machine learning to help draw moderators' attention to posts of interest, rather than requiring them to conduct serial searches of content.

**CHALLENGE: Moderator team requires expansion and ongoing training to meet increasing demand**

**SOLUTION: Increase size of moderator team and develop internal training resources**

To meet the increasing demand for My Circle that was anticipated by moving to an ongoing open discussion format with no 'screen outs', the moderating team was expanded from four full-time staff to a team of 15 staff. This ensured that at least two moderators were on shift to live moderate My Circle from 8am-10pm, seven days a week. A five-day internal training program was developed to provide new moderators with a thorough introduction to My Circle, and train them on all moderating, record keeping, privacy, and risk management procedures. A detailed moderation manual and risk management procedures were developed (discussed in detail in the next section), including step-by-step instructions, and screenshot and video examples to assist new moderators.

## MODERATION MANUAL AND RISK MANAGEMENT PROCEDURES

A Moderation Manual that includes updated Risk Management Procedures was developed by the yourtown My Circle leadership team to accompany the trial of the new 'open community' operating model of My Circle.

The Moderation Manual details My Circle's community management approach to moderation, which fosters respectful and helpful behaviour by encouraging positive contributions, moderating negative content, keeping discussions 'on track', responding to urgent situations, and providing referrals and links to relevant services and resources. The provision of information by moderators should be non-directive, strength-based and use empowerment methods.

Given that the new operating model of My Circle is not intended to be a form of counselling, despite its response and facilitation framework being based on group psychotherapy principles, the manual advises moderators to avoid engaging in lengthy discussions that can be construed as counselling or providing personal advice. Such conversations should instead be referred to a dedicated counsellor via one of Kids Helpline's core one-to-one modalities (e.g., telephone, webchat, email), who are positioned to provide more in-depth, focused, and personalised support. It is noted that it may be necessary to manage users' expectations by explaining the limits of the moderators' role within My Circle. The moderators are advised to enlist the support of a Kids Helpline supervisor where possible to help them manage challenging discussions.

### MODERATOR SHIFT TASKS

The Moderation Manual describes and provides 'How to' guides and screenshots explaining for the various moderator tasks and responsibilities, including responding to posts and PMs as needed, posting notices and engagement material, recording significant clinical events in the community using the Process Log (i.e., a system of case note recording) and consulting it for any follow-up actions required from previous moderator shifts.

### MODERATING CONTENT POSTED BY USERS

Aside from facilitating conversations to keep them on track and providing information and support to users, moderators have a role in ensuring that the content posted by users is appropriate, respectful, safe, and helpful to the community and matches the aims of the service.

Content that requires intervention by moderators are divided into four categories depending on the nature and seriousness of content: 1) Borderline comments; 2) Safety and wellbeing; 3) Unacceptable comments; 4) Zero tolerance. Table 4 shows examples of each category and the actions that moderators should take in each case. The Moderation Manual details the steps that moderators should take to address posting behaviour requiring intervention (e.g., screenshot post before removing, how to contact user, how to resolve any resulting conflict, recording warnings on profiles) and templates for warning messages to users, etc.

### RESPONDING TO RISK

As per Kids Helpline and yourtown policy, moderators have a duty of care obligation to assist vulnerable people who disclose through My Circle that they are in crisis and require help, and to take immediate action where a threat or disclosure is made that indicates there is a serious and imminent threat to the life or health of a person or where a child has suffered or is likely to suffer harm. The Moderation Manual also includes detailed information about what constitutes potential grooming behaviour on peer-to-peer social networks, informed by the Australian eSafety Commissioner.<sup>21</sup>

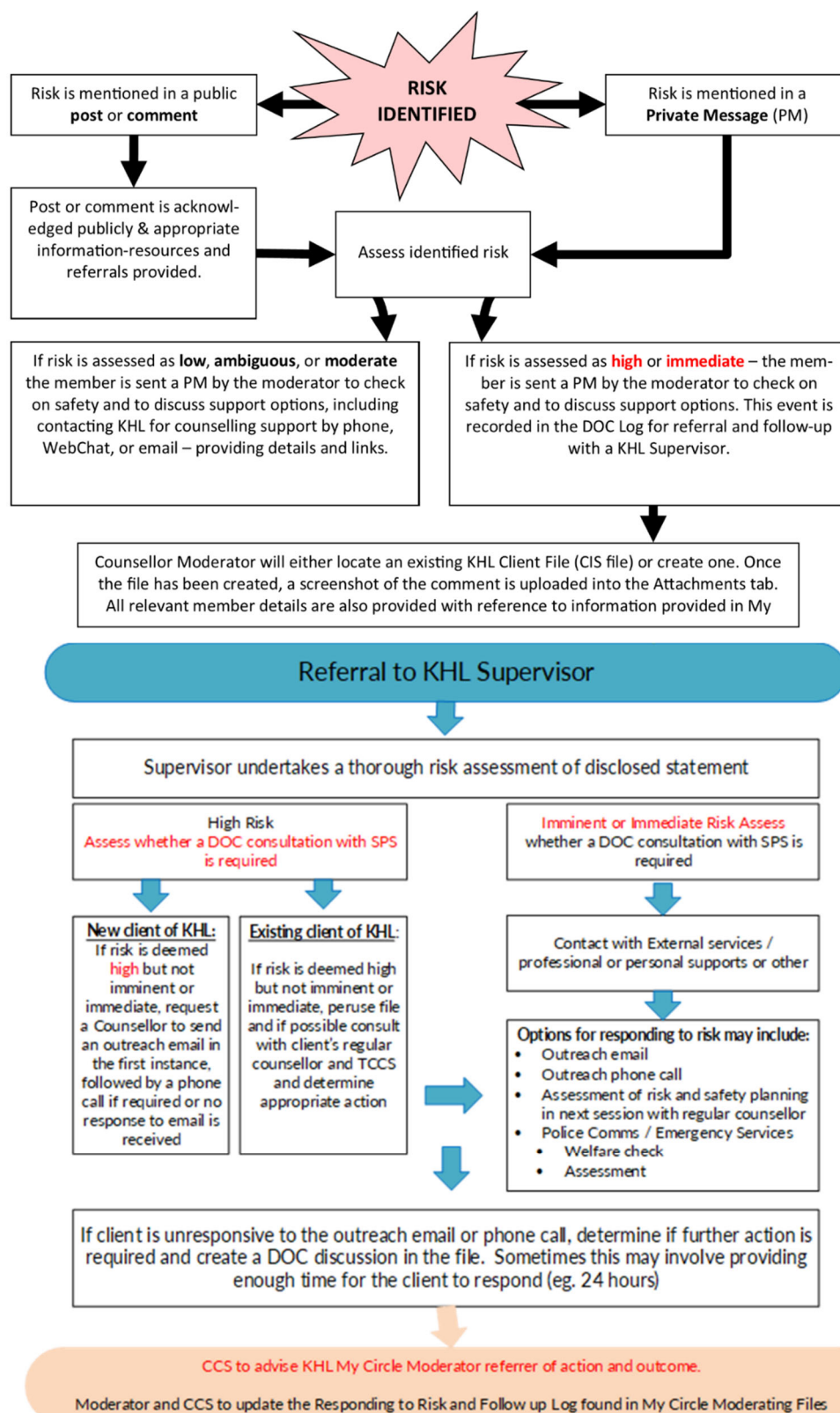
As Kids Helpline counsellors and clinicians, all moderators are trained to follow the Kids Helpline Counselling Centre Duty of Care (DOC) and Response to Risk Procedures. However, moderating My Circle requires specific Risk Management Procedures which are detailed in the Moderation Manual and summarised in a flowchart (see Figure 7). If the disclosure is made on a public post (as opposed to in a PM), the first step is for the moderator to acknowledge the comment publicly by replying with an acknowledgement of their concerns and providing appropriate information resources, including contact details for counselling support via Kids Helpline's one-on-one services (telephone, webchat and email). This serves the dual function of role-modelling positive support behaviour to members of the community and signalling to them that the moderator has seen the message and is following up with any potential risk, which further aims to lower the community's concern, anxiety, and potential internalisation of responsibility to provide crisis support to the impacted member. The next step is to assess the identified risk. If a risk is assessed as either 'low', 'ambiguous', or 'moderate', the moderator sends a PM to the user to check on their safety and discuss their support options, and flags the case for follow-up by the moderator team. If the risk is determined as 'high' or 'immediate', in addition to sending a PM, the moderators will locate or create a client file for the user to record the relevant information (including screenshots of My Circle posts), and refer the case to a Kids Helpline Supervisor for follow-up and a thorough risk assessment, which may be conducted by email or phone outreach. For members at high and imminent risk of harm, child protection or emergency services may be contacted directly to assess and support the member (or related others) in question. The Moderation Manual contains details procedures for each step in the risk management process, including 'How to' videos, and templates for PMs and outreach emails.



Table 4. Content classification of posting behaviour requiring intervention

Category	Examples	Actions
Category 1. Borderline Comments	<ul style="list-style-type: none"> <li>- Posting material not relevant to the thread being posted in</li> <li>- Unintentionally sharing names of themselves or others</li> <li>- Minor disrespectful exchanges</li> <li>- Direct criticism of another user's view or dogmatic discussion about an issue</li> <li>- Criticisms that are vaguely defamatory of health professionals or services</li> <li>- Sharing support of inaccurate or toxic ideologies that may come from the user being misinformed</li> <li>- Minor unintentional breaches of other community guidelines</li> </ul>	<ul style="list-style-type: none"> <li>- Provide feedback comment to the user to remind them about community guidelines</li> <li>- Depending on seriousness and potential impact, moderation may involve leave for community to self-moderate, intervening with guiding comments, or removing the post</li> </ul>
Category 2. Safety and wellbeing	<ul style="list-style-type: none"> <li>- Posting that indicates a potential threat to the safety of the user or someone else</li> <li>- Sharing of photographs (even if deidentified) that could enable traceability</li> <li>- Sharing of misinformation that could have a public health impact on others</li> <li>- Creating a negative sentiment about help-seeking</li> <li>- Non-consensual intimate interactions</li> <li>- Posting that breaches guidelines within specific Circles that are designed for the safety and wellbeing of the broader community (e.g., posting about diet methods in Self Esteem &amp; Body Issues Circle)</li> </ul>	<ul style="list-style-type: none"> <li>- Provide feedback comment and/or PM with information about how to mitigate risks or seek help related to the subject matter in the post</li> </ul>
Category 3. Unacceptable comments	<ul style="list-style-type: none"> <li>- Posting any identifying information about themselves, people in their life, or other users</li> <li>- Impersonating or falsely representing another person</li> <li>- Disrespectful behaviour, such as comments that are intended to insult, humiliate or harass others</li> <li>- Comments which passively or indirectly incite, induce or aid discrimination, harassment, or victimisation</li> <li>- Defamatory comments about established health programs, organisations or professionals, that may discourage others from help-seeking in the future</li> <li>- Clearly flippant comments encouraging violence or other serious criminal behaviour</li> <li>- Sexually suggestive or provocative comments</li> <li>- Obscene or offensive language or images</li> <li>- Posting related to third party interests (e.g., infringing on intellectual property rights, promoting commercial interests, party-political comments)</li> <li>- Comments which may incite, encourage, or make reference to conduct that may constitute a minor criminal or civil offence or otherwise violate Australian law</li> </ul>	<ul style="list-style-type: none"> <li>- Remove post/comment immediately</li> <li>- Issue warning to user via PM and explain reason for removal of post/comment</li> <li>- Provide feedback that continued conduct in the same manner will result in their account being deactivated (i.e., two warnings will result in account deactivation)</li> </ul>
Category 4. Zero tolerance	<ul style="list-style-type: none"> <li>- Comments that directly and knowingly incite, induce or aid discrimination, harassment, victimisation or violence</li> <li>- Comments that directly and intentionally incite, induce or aid violence, indecent or violence sexual acts, serious physical injury, use of weapons,</li> <li>- Comments which may incite, encourage, or make reference to conduct that may constitute a major criminal or civil offence or otherwise violate Australian law</li> <li>- Information known about a user that may constitute a serious risk to the safety of other community users (e.g., history of online sex offences) or to the wellbeing of the user themselves with continued use</li> </ul>	<ul style="list-style-type: none"> <li>- Remove post/comment immediately</li> <li>- Deactivate user account</li> <li>- Sent email with clear information about why their account was deactivated</li> </ul>

Figure 7. Identifying and Responding to Inappropriate Content or Risk



## PHASE 4: TRIAL OF THE NEW OPERATING MODEL: JUNE 2021 TO FEBRUARY 2022

Following implementation of the solutions discussed in the previous chapter, a 36-week naturalistic trial of the new 'open discussion forum' operating model for My Circle was conducted from June 2021 to February 2022. The trial included a review of the survey methodology, evaluation of any changes in client distress over time, user experience analysis, and feedback sessions from My Circle moderators.

### SURVEY METHODOLOGY REVIEW

As part of this trial, the existing survey methodology used to evaluate the effectiveness of My Circle was reviewed to address the challenge of low response rates. The Depression Anxiety Stress Scale (DASS21)<sup>25</sup> had been the preferred evaluation questionnaire since Phase 2. The DASS21 is a 21-item self-report instrument designed to measure the three related negative emotional states of depression, anxiety and stress. As well as being used to track changes in mental health symptomology over time, the DASS21 had enabled yourtown to identify young people reporting extremely severe depression, anxiety or stress symptomology, and advise them to seek one-on-one counselling first before joining My Circle.

With the decision made to no longer 'screen out' any young people from participating in My Circle, and the length of the DASS21 questionnaire reportedly contributing to low survey responses, yourtown and the University of Sydney conducted an A/B test of two assessment instruments – the DASS21 and the Kessler Psychological Distress Scale 6 (K6)<sup>32</sup> – to test whether the choice of assessment instrument had any impact on initial and follow-up survey completion, or on conversion rates to an active My Circle account. This would assist in determining which questionnaire was the most appropriate for the service in terms of achieving scientific rigour, but not deterring participation in the service.

The K6 is a shortened 6-item version of the K10, a 10-item questionnaire that has been widely used in assessing non-specific psychological distress in a variety of settings, including online. Unlike the DASS21, the K6 and K10 do not provide separate sub-scale scores for depression, anxiety and stress. However, both the K6 and K10 have been validated as a sensitive screening tool for anxiety and mood disorders among general and clinical populations from different cultural backgrounds, and they are frequently used in population health surveys, especially in situations where it is not feasible to include a long diagnostic interview to assess mental disorders.<sup>33</sup> The K6 was chosen for the A/B test over the K10, as the aim was to ensure that the initial screening questionnaire for My Circle was as brief as possible.

The A/B test was conducted over 70 days from July to September 2021. During this period, each young person who expressed interest in joining My Circle via the My Circle website was randomly assigned to complete one of the two questionnaires as part of their Expression of Interest form, to investigate whether the questionnaire had an impact on survey completion rate and/or login conversion rate. Survey completion rate was defined as the proportion of young people who completed the survey, out of those who started the survey. Login conversion rate was defined as the proportion of young people who completed the survey, created a My Circle account and then logged in to the service, out of those who started the survey.

Table 5 shows that the initial survey completion rates were very similar for the DASS21 (88.8%) and the K6 (89.0%), with no statistically significant difference detected ( $\chi^2=0.02$ ;  $p=0.89$ ). The login conversion rate of for those who completed the K6 (23.3%) was higher than the login conversion rate for those who completed the DASS21 (21.6%), however, this difference was not statistically significant ( $\chi^2=1.38$ ;  $p=0.24$ ). These results indicate that young people are not less likely to complete the longer DASS21 compared to the shorter K6 when expressing interest in joining My Circle, and that there is little difference between the performance of the DASS21 and K6 in facilitating young people to join and login to My Circle.

Table 5. My Circle survey completion and login conversion rates for DASS21 and K6

	DASS21	K6	Overall
Started survey	1,412	1,947	3,359
Completed survey	1,254	1,732	2,986
Survey completion rate (of those who started survey)	88.8%	89.0%	88.9%
Created account	533	782	1,315
Logged in to My Circle	305	454	759
Login conversion rate (of those who started survey)	21.6%	23.3%	22.6%

However, it appeared that the DASS21 had a negative impact on the survey response and rates for the one-month and two-month follow-up surveys (containing either the DASS21 or K6 assessment, according to which group they were randomly allocated to at sign-up). The survey response rate for the follow-up surveys was defined as the proportion of young people who completed the follow-up survey, out of those who had been invited to complete one (because they had logged into My Circle after creating an account).

Table 6 shows that for the first follow-up survey, the survey completion rate (i.e., proportion of those who completed the survey of those who started it) for the DASS21 (73.9%) was lower than for the K6 (85.4%), but this difference did not reach statistical significance ( $\chi^2=2.55$ ;  $p=0.11$ ). The survey response rates (i.e., proportion of those who completed the survey of those who were invited to complete it), however, were significantly different ( $\chi^2=4.6$ ;  $p=.03$ ), with the rate for the DASS21 (11.1%) over one-third lower than for the K6 (16.7%). This suggests that young people were less likely to complete the first follow-up survey if they had been assigned to the complete the DASS21 (i.e., at sign-up and follow-up), compared to those who had been assigned to complete the shorter K6.

Table 6. My Circle first follow-up survey response and completion rates for DASS21 and K6

	DASS21	K6	Overall
Invited to complete first follow-up survey	305	454	759
Started first follow-up survey	46	89	135
Completed first follow-up survey	34	76	110
Survey response rate (of those who were invited)	11.1%	16.7%	14.5%
Survey completion rate (of those who started)	73.9%	85.4%	81.5%

Table 7 shows that while the completion rates for the second follow-up survey were similar to those for the first follow-up survey, the survey response rate from those who were invited to complete the second follow-up survey dropped to 2.6% for the DASS21 group and 7.2% for the K6 group. This difference between groups was much larger than for the first follow-up survey and statistically significant ( $\chi^2=10.5$ ;  $p<.01$ ), suggesting that young people who had been assigned to the DASS21 group were even less likely to complete the second follow-up survey compared to the first follow-up survey (however all those who started the DASS21 did complete it).

Table 7. My Circle second follow-up survey completion and response rates for DASS21 and K6

	DASS21	K6	Overall
Invited to complete second follow-up survey	305	454	759
Started second follow-up survey	8	39	47
Completed second follow-up survey	8	33	39
Survey response rate (of those who were invited)	2.6%	7.2%	5.1%
Survey completion rate (of those who started)	100.0%	84.6%	83.0%

In conclusion, while the longer DASS21 assessment did not act as an obstacle to young people joining My Circle, it did negatively impact on their likelihood of completing follow-up surveys. A decision was therefore made to replace the DASS21 with the K6 to encourage a higher response rate and reduce survey fatigue on participants. However, subsequent to the A/B test, a decision was made by yourtown to standardise the measurement of distress at Kids Helpline services by implementing the K10 across all service modalities going forward, including My Circle. For the remainder of the Phase 4 trial (from October 2021 to February 2022), all new clients of My Circle therefore completed the K10 as part of the sign-up form embedded into the My Circle website, and any follow-up surveys they completed.

It should be noted though that while better than the DASS21, the follow-up survey response rates for the K6 observed in the A/B test were still low, and lower than in the Phase 1 and 2 evaluations. A likely reason for this was the change in the framing of participation in My Circle from 'being part of an 8-week research trial' to joining a new larger scale service that was ongoing and didn't actively encourage weekly participation.

To address the challenge of low response rates to follow-up surveys going forward, custom software development was undertaken to integrate the K10 follow-up surveys into the Humhub platform as a 'pop-up' that appears monthly when a member logs in to My Circle (as opposed to the previous method of inviting members to complete the surveys via a monthly emailed link). This 'pop-up' survey would contain the K10 and additional questions to evaluate user experience of and satisfaction with My Circle.

## EVALUATION OF PSYCHOLOGICAL DISTRESS OVER TIME

An evaluation of psychological distress over time was undertaken to compare the sensitivity of each of the three measures used during the Phase 4 trial (K6, DASS21 and K10). As this evaluation was concerned with comparing the measures, analysis of demographic data collected was not conducted.

Following the decision to standardise the measurement of distress at Kids Helpline, all new clients of My Circle who joined from October 2021 completed the K10 as part of the sign-up form embedded into the My Circle website. One month after completing sign-up, clients were emailed a link to a 'check in' survey (as the 'pop-up' version of the survey was still in development), which contained the K10 and the same 20 Likert-type scale questions and two open-response questions used in Phase 1 and 2, to assess usability and perceived effectiveness of My Circle, and the best aspects and areas for improvement respectively. The same 'check in' survey was emailed to clients again two months after completing sign-up. Clients who had joined between June and October 2021, having completed the K6 or DASS21 upon sign-up, received email invitations to the same one- and two-month check-in surveys, but containing the questionnaire they completed upon sign-up (i.e., either the K6 or DASS21). Table 8 shows a breakdown of response rate patterns to the three versions of the check-in surveys from June 2021 to February 2022. None of the differences in response rates between the three questionnaires were statistically significant.

Table 8. Breakdown of response rates to distress scales (% of participants who completed baseline survey)

	K10	K6	DASS21
Baseline completed	1,365 (100%)	1,171 (100%)	842 (100%)
No follow-up completed	1,159 (84.9%)	943 (80.5%)	701 (83.2%)
a First-follow up completed only	98 (7.2%)	108 (9.2%)	79 (9.4%)
b Second-follow up completed only	42 (3.1%)	48 (4.1%)	25 (3.0%)
c Both follow-ups completed	66 (4.8%)	72 (6.2%)	37 (4.4%)
One follow-up completed (a+b)	140 (10.3%)	156 (13.3%)	104 (12.4%)
Two follow-ups completed (c)	66 (4.8%)	72 (6.1%)	37 (4.4%)

Note. K10 = Kessler psychological distress scale 10 item version. K6 = Kessler psychological distress scale 6 item version. DASS21 = Depression Anxiety and Stress scales-21.

Table 9 presents the mean baseline scores on each measure of psychological distress. The mean K10 score at baseline was 35.94 ( $SD=8.20$ ), with 77% of participants scoring 30 or higher. According to K10 scoring guidelines, individuals scoring 30 or higher are likely to have a severe mental disorder.<sup>32</sup> The mean K6 score at baseline was 22.18 ( $SD=4.55$ ), with 80.4% of participants scoring 19 or higher, which according to Kessler and colleagues<sup>33</sup> indicates 'a probable serious mental illness'. Mean scores on the DASS21 subscales indicated that on average, respondents were suffering from severe depression, extremely severe anxiety, and moderate stress.<sup>25</sup>

Table 9. Mean baseline scores on measures of psychological distress

Measure	N	M	SD
Kessler psychological distress scale 10 item version (K10)	1,365	35.32	8.20
Kessler psychological distress scale 6 item version (K6)	1,171	22.18	4.55
DASS21 Depression subscale	842	13.54	5.37
DASS21 Anxiety subscale	842	10.63	5.10
DASS21 Stress subscale	842	12.17	4.66

Note. M = Mean. SD = Standard deviation. K10 scores range from 10-50. K6 scores range from 6-30. DASS21 = Depression Anxiety and Stress scales. DASS-21 subscale scores range from 0-21.

While follow-up surveys were emailed to participants one and two months after sign-up, there was no way to ensure consistency in terms of when they were completed by participants, with some responses to the one-month survey received weeks after they were sent, and some responses to the two-month survey received from participants who did not complete the one-month survey. Similarly, participants did not necessarily begin using My Circle immediately upon sign-up, taking some weeks before they first logged on to use the service. Survey responses therefore do not necessarily reflect levels of distress after one and two months of using My Circle, but rather a snapshot of distress levels among a cohort of users who were sufficiently motivated to respond to either one or two surveys after non-defined periods of time. Furthermore, as the new operating model of My Circle was not based on a set weekly psychoeducation program (as it was for the KHL Circles operating model), the frequency and quantity of My Circle use each month varied greatly between participants. For these reasons, the current sample was split for analysis into two cohorts – participants who completed one follow-up only (either one- or two-month), and those who demonstrated their longer-term engagement by completing two follow-ups.

## PARTICIPANTS WHO COMPLETED ONE FOLLOW-UP SURVEY ONLY

Mean baseline and follow-up scores among those who completed one follow-up survey only are shown in Table 10. A repeated measures *t*-test revealed that there were significant reductions in distress among those who completed the K10 from baseline ( $M=35.94$ ;  $SD=8.22$ ) to first follow-up ( $M=34.56$ ;  $SD=8.37$ ;  $t(139)=2.45$ ,  $p<.05$ ). This was a small effect size ( $d=0.21$ ), but represented a change from participants being on average likely to have a *moderate* mental disorder at baseline, to being likely to have a *mild* mental disorder at follow-up.

For those who completed the K6 at baseline and one follow-up only, there no significant change in mean distress scores between these two timepoints.

A repeated measures *t*-test revealed that there were significant reductions in DASS21 Depression subscale scores from baseline ( $M=13.52$ ;  $SD=5.43$ ) to first follow-up ( $M=12.38$ ;  $SD=5.96$ ;  $t(103)=2.70$ ,  $p<.01$ ). This was a small effect size ( $d=0.27$ ), however did not represent a change in average category on the DASS21 scoring guide, with both average baseline and average follow-up scores in the 'severe' range. There were no significant changes in average Anxiety or Stress subscale scores on the DASS21, with similar scores across at baseline and follow-up among those who completed one follow-up only.

Table 10. Change in distress scale scores of participants who completed baseline and one follow-up survey only

	Baseline		First follow-up		<i>t</i> -test	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
K10 (N=140)	35.94	8.22	34.56	8.37	2.45*	0.21
K6 (N=156)	23.56	3.75	23.81	4.18	-0.94	-0.08
DASS21-Depression (N=104)	13.53	5.43	12.38	5.96	2.70**	0.27
DASS21-Anxiety (N=104)	10.44	4.91	10.53	5.19	-2.18	-0.02
DASS21-Stress (N=104)	12.05	4.37	11.73	5.11	0.84	0.08

Note. *M* = Mean. *SD* = Standard deviation. K10 = Kessler psychological distress scale 10 item version. K10 scores range from 10-50. K6 = Kessler psychological distress scale 6 item version. K6 scores range from 6-30. DASS21 = Depression Anxiety and Stress scales. DASS-21 subscale scores range from 0-21. \* $p<.05$ . \*\* $p<.01$ .

## PARTICIPANTS WHO COMPLETED TWO FOLLOW-UP SURVEYS

Mean baseline and follow-up scores among those who completed two follow-up surveys are shown in Table 11. A repeated measures ANOVA revealed that there were significant changes in K10 scores across the three timepoints ( $F(2,130)=6.70$ ,  $p<.01$ ). Contrast analysis revealed that average K10 scores were significantly lower at first follow-up ( $M=33.82$ ;  $SD=8.93$ ) compared to baseline ( $M=37.23$ ;  $SD=7.53$ ;  $p<.001$ ). This was a small effect size ( $\eta_p^2=0.09$ ), but represented a change from participants on average being likely to have a *moderate* mental disorder at baseline, to being likely to have a *mild* mental disorder at first follow-up. Mean scores were slightly higher at second follow-up ( $M=34.73$ ;  $SD=10.13$ ), however, the significant reduction from baseline was maintained ( $p<.05$ ). There were no significant changes in K6 scores, with similar scores across the 3 time-points.

While the overall repeated measures ANOVA conducted to analyse changes in DASS21 Depression subscale scores across the three timepoints failed to reach significance ( $F(2,70)=3.00$ ,  $p=.056$ ), contrast analysis revealed that average DASS21 Depression subscale scores were significantly lower at second follow-up ( $M=12.17$ ;  $SD=6.43$ ) compared to baseline ( $M=13.63$ ;  $SD=5.13$ ;  $p<.05$ ). This was a small effect size ( $d=0.25$ ), and did not represent a change in average category on the DASS21 scoring guide, with scores at all timepoints remaining in the 'severe' range. There were no significant changes in average Anxiety or Stress subscale scores on the DASS21, with similar scores at baseline, first follow-up and second follow-up.

Table 11. Change in distress scale scores of participants who completed baseline and two follow-up surveys

	Baseline		First follow-up		Second follow-up		F-test	$\eta_p^2$
	M	SD	M	SD	M	SD		
K10 (N=66)	37.23	7.53	33.82	8.93	34.73	10.13	6.70*	.09
K6 (N=72)	21.63	4.32	21.96	5.10	21.81	5.26	0.28	.00
DASS21-Depression (N=36)	13.63	5.13	13.27	5.54	12.17	6.43	3.00	.08
DASS21-Anxiety (N=36)	10.94	5.35	10.94	5.08	10.91	5.84	0.01	.00
DASS21-Stress (N=36)	12.58	4.77	11.86	4.88	11.58	5.33	1.66	.05

Note. M = Mean. SD = Standard deviation. K10 = Kessler psychological distress scale-10. K10 scores range from 10-50. K6 = Kessler psychological distress scale-6. K6 scores range from 6-30. DASS21 = Depression Anxiety and Stress scales-21. DASS-21 subscale scores range from 0-21. \* $p < .01$ .

Overall, it can be concluded from the Phase 4 review of survey methodology and changes in psychological distress that the K10 is an appropriate choice as a screening questionnaire, demonstrating an acceptable response rate and enough sensitivity to detect changes in distress over time. Although the K6 demonstrated slightly higher responses rates to follow-up surveys, it appeared to have less sensitivity in terms of detecting changes in distress over time.

## USER EXPERIENCE

A similar user experience survey to that included in the end-point survey to evaluate KHL Circles in Phase 2 under the old operating model (i.e., the 8-week psychoeducation program) was completed by participants as part of the follow-up surveys for Phase 4 under the new open discussion forum operating mode. This included 14 Likert-type items that asked participants to indicate their agree with statements about their experience of My Circle on a 4-point scale (rated from 1 = "strongly disagree" to 4 = "strongly agree"). A new item regarding about awareness of mental health and well-being services was included for Phase 4, and two items that were presented in Phase 2 with binary yes/no options were instead presented on the same 4-point scale for Phase 4. In total there were 17 Likert-type scale items on the Phase 4 follow-up surveys.

Table 12 presents a comparison between Phase 2 and 4 survey responses in terms of the percentage of respondents who agreed with each evaluation statement. It should be kept in mind that the cohort who completed the Phase 2 survey was very different to that which completed the Phase 4 surveys. The Phase 2 respondents had been members of smaller 8-week Circles focused on a specific topic (family discord), where engagement was facilitated by psychoeducation content and moderator-led online activities. In contrast, the Phase 4 open discussion forums were not actively facilitated by psychoeducation content posted by clinical moderators, but by posts from users on a wide-variety of topics in separate Circles. Mental health symptomology among participants was also higher in Phase 4 compared to Phase 2.

Given these differences, it was very encouraging to see similarly high agreement scores on many of the evaluation questions from Phase 4 respondents who used the unstructured open discussion forums, particularly those around feeling supported by both clinical moderators and peer users of the service. The vast majority of Phase 4 respondents thought that My Circle was a positive experience, would recommend it to others, and felt that their activity was private and confidential. Although the role of clinical moderators in actively facilitating engagement was greatly reduced in Phase 4, a similarly high proportion of respondents felt accepted by clinical moderators and thought that they encouraged open discussion and contributed to the safety of My Circle.

The percentage of respondents who said they felt safe on My Circle, while still over 90%, was not as high as the 99% in Phase 2. This was not surprising given that Phase 4 was a much larger community of very different presentations and personalities, compared to Phase 2 where participants were in smaller groups of individuals seeking help specifically for issues related to family discord.

Slightly fewer participants said that My Circle helped them feel more socially connected compared to in Phase 2. The reason for these differences is likely because Phase 2 Circles involved 'closed' 8-week programs where smaller groups of participants all followed the same psychoeducation program together, as opposed to the open community format of the Phase 4 Circles, which allowed a 'drop-in drop-out' experience resulting in greater time needed to build familiarity between participants.

Another notable difference was fewer Phase 4 respondents (though still more than half) agreeing that they learned new coping skills from clinical moderators (known within the service as 'KHL counsellors' at the time) and other users under the new open discussion forum operating model, which is unsurprising given that the old operating model focused on psychoeducation and coping skill development for a dedicated topic and minimised off-topic conversation. By comparison, the open discussion operating model places a greater emphasis on member-focused posts, which results in many different topics being discussed at once, and a lower exposure to (or more steps required to find) psychoeducation and coping skill content being sought.



Slightly fewer respondents said that their overall mental health had improved as a result of using My Circle compared to in Phase 2. Similar to the previous observation, this may be because members experience less exposure to psychoeducation and coping skill content among high levels of peer-created content. However, it is likely to be due to participants with higher levels of mental health symptomatology being allowed to use the open discussion operating model (compared to the old operating model where these participants were screened out), and them having more complex mental ill health, or support needs that are less malleable to change.

Compared to Phase 2, a greater proportion of Phase 4 respondents reported that their perceptions of stigma around seeking help for mental health issues had reduced, particularly in the second follow-up survey. This may possibly be from the greater exposure to participants with similar lived experiences to one's own, which is more emphasised in the open community discussion operating model. Somewhat contradictorily, a smaller proportion of respondents said they would be more willing to seek help from mental health/well-being services in Phase 4 compared to Phase 2 (though this question was presented as a yes/no option in Phase 2), however a sizeable majority reported having better awareness of mental health and well-being services available to them as a result of using My Circle.

*Table 12. Comparison of % agreement with user experience items from Phase 2 operating model (8-week psychoeducation Circles) and Phase 4 operating model (open discussion forum)*

	Phase 2: Old model	Phase 4: New model	
	Endpoint survey	First follow-up	Second follow-up
I felt safe on KHL Circles/My Circle	99.0	93.0	91.7
I felt my activity on KHL Circles/My Circle was private and confidential	92.9	90.2	89.5
KHL Circles/My Circle helped me feel more socially connected	78.6	71.1	71.1
KHL Circles/My Circle helped me feel more empowered to tackle my challenges	68.7	65.8	65.7
I felt supported by the KHL counsellors	87.9	84.6	86.0
I felt supported by other users of KHL Circles/My Circle	89.8	86.3	84.8
I learned new coping skills from KHL counsellors	72.4	63.5	60.3
I learned new coping skills from other users of KHL Circles/My Circle	74.7	66.0	64.4
I feel like my overall mental health has improved as a result of KHL Circles/My Circle	57.1	45.1	49.2
My perceptions of stigma around seeking help for mental health issues have reduced	63.1 <sup>a</sup>	67.6	72.4
I have better awareness of mental health and well-being services available to me	-	82.4	70.4
I would now be more willing to seek help from mental health/well-being services	86.9 <sup>a</sup>	69.1	62.1
The Kids Helpline counsellors encourage open discussion	90.8	88.5	90.2
The Kids Helpline counsellors contribute to the safety of My Circle	95.0	90.2	93.3
I felt that the KHL counsellors accepted me	93.9	79.8	90.8
KHL Circles/My Circle was a positive experience	90.8	90.6	92.4
I would recommend KHL Circles/My Circle to others	88.8	87.3	87.3

Note. Old model N = 99; New model first follow-up N = 488; New model second follow-up N = 315.

<sup>a</sup> Based on response to yes/no item. All others based on 4-point Likert items from 1 = strongly disagree; 4 = strongly agree.

## USER SATISFACTION

In Phase 4, three Likert-type user satisfaction questions were introduced to follow the user experience questions, with participants asked to indicate their satisfaction on a 5-point scale (from 1 = “very dissatisfied” to 5 = “very satisfied”) with the service and support they received, the look and feel of My Circle, and its usability and functionality. Table 13 shows that the proportion of respondents who were satisfied or very satisfied with the service/support and look/feel of My Circle was similar across follow-up surveys. However, the satisfaction with the usability and functionality of My Circle was higher at second follow-up compared to first follow-up. This reflects the co-design focus of the open community and the mechanisms put in place to respond to feedback, suggesting that longer-term members witnessed and appreciated iterative changes in usability and functionality made during Phase 4 (discussed in the next section).

Table 13. User satisfaction over time

Overall, how satisfied are you with...	First follow-up N=488	Second follow-up N=315
The service and support received in My Circle	66.6	67.9
The look and feel of My Circle	67.2	68.6
The usability and functionality of My Circle	62.9	66.7

Notes. Items rated from 1 = very dissatisfied; 5 = very satisfied

## TECHNOLOGICAL AND SERVICE ENHANCEMENTS

Throughout the 36-week trial of the new operating model for My Circle, weekly service development meetings were held between the yourtown My Circle leadership team and senior moderators. These included discussions about further technological and service enhancements that may be required to the Humhub platform and new operating model, based on observations and experiences of My Circle moderators and leadership team, and feedback and suggestions made by users. The following changes to the My Circle operating model were implemented to address challenges raised throughout the Phase 4 trial.

### **CHALLENGE: Account approval/validation time-consuming**

#### **SOLUTION: Automatic validation function added to screen usernames and demographic information**

An automatic validation function was developed to screen information entered by clients at sign-up for any breaches of specific rules for accounts, such as being outside the required age range (13-25 years), postcodes outside of Australia, or usernames that contain offensive words or identifiable information such as names or date of birth. The system allows a list of words that are not allowable in usernames and a list of email addresses (to prevent banned users from re-registering) to be added to and maintained by My Circle moderators over time.

### **CHALLENGE: Young people weren't completing follow-up research surveys regularly**

#### **SOLUTION: Implementing software to deliver research surveys to young people via pop-up while they are using the platform**

During Phase 4, baseline research surveys were completed by new users upon sign-up via the external survey site SurveyMonkey, before being redirected back to the My Circle webpage to complete their self-registration. Every month thereafter, young people were asked to complete follow-up surveys sent via personalised SurveyMonkey links sent to their nominated email accounts. As discussed, response rates to these follow-up surveys were low during the Phase 4 trial (7.2% for first K10 follow-up, 3.8% for second K10 follow-up), often because these email accounts had been specifically created for the purposes of My Circle registration and were therefore not checked.

To increase the completion rate of the follow-up surveys, a customisation was designed and implemented to host the baseline and follow-up surveys within the My Circle platform using analytics package 'SurveyJS', which allowed them to be delivered to young people via pop-up as they logged onto My Circle at a monthly cadence (see Figure X). The follow-up surveys remained voluntary, with young people having the option to 'skip and dismiss for this session'. Following the implementation of this change for Phase 5, the response rates rose substantially to 26% for the first follow-up and 13% for the second.

### **CHALLENGE: Young people were using language that was distressing to other young people on the platform**

#### **SOLUTION: Implementing a feature to quarantine posts and comments with certain keywords for review before being made live**

Young people presenting to My Circle with more complex issues, such as experiences of trauma or mental ill health, were often telling their stories using language that was reported by other users to be distressing, due to the level of detail or lack of consideration of others' emotional triggers. This was a safeguarding concern due to the risk of distress leading to wellbeing deterioration and contagion to other vulnerable users. Despite implementing community guidelines for safe posting in My Circle, many newer users would either not read this information or experienced users would disregard them when feeling emotionally heightened. To reduce this risk, a platform customisation was designed and implemented that automatically quarantined posts and comments from going live if they contained keywords that had been reported to be distressing for the community, went against the community guidelines, or were clinically judged to be highly triggering. These posts were then reviewed by the clinical moderator team for appropriateness and then either made live, edited and made live, or permanently quarantined with feedback to the user via private message. After implementation, this was observed to reduce the frequency of such posts and change the language used by users in the My Circle community.

**CHALLENGE: Young people were sharing personally identifying information****SOLUTION: Removing platform functions that can be used to share personally identifying information**

My Circle is designed as an anonymous platform, in which community guidelines prohibit users from sharing any content with information that could personally identify them, which is designed to overcome issues of safety that inhibit service use and as a safeguard from harmful individuals seeking to contact young people. However, as many young people are used to interacting on other social platforms by disclosing their identities, they found creative ways to share content that could be used to personally identify them (e.g., uploading videos of themselves, voice recordings/memos, sharing links to live google documents or signing up with usernames that were not unique to My Circle). Once these platform functions were identified, they were either removed or certain safeguarding measures put in place to prevent this information from being shared. Functions that were removed included the ability to upload audio or video files (e.g., MP4, MOV, WAV), with the platform now only supporting the upload of imaged based files. A username check was added to the registration process where users are reminded to select an anonymous username that is unique to My Circle. After selecting a username, members are prompted with the question "Have you ever used this username with any other online accounts?" If a user confirms that the username has been used with other online accounts, the clinical moderators could change the username and provide feedback around anonymity upon entry into the My Circle Community. To prevent live Google documents from being shared on the platform, which can contain identifying information or lead to communication off platform, certain links and strings of information were added to the 'Post Quarantined' feature to capture and stop these links from being shared live.

**CHALLENGE: Young people were leaving themselves logged onto the platform, which affected engagement statistics and created a security risk for them****SOLUTION: Implementing an auto-logout feature**

As the My Circle community grew, regular users of platform began to make posts that indicated they were always logged into the platform to circumnavigate the need to sign in and out. As a result, it was observed that the engagement statistics detailing how long members tended to use My Circle for, on average, was skewed by these members and were not representative of most users. This effected the ability to understand user behaviour on the platform. Additionally, users who remained logged into the platform were conceptualised as potentially being at higher risk of security issues than other users, such as other people borrowing their devices and viewing material posted onto My Circle. To help better track user behaviour and reduce the risk of security-related issues for users, a customisation was designed and implemented to the platform to log them out after 30 minutes of inactivity.

**CHALLENGE: Young people were unsure where to post about their specific lived experiences****SOLUTION: Development of new Circles using co-design principles**

My Circle is organised into themed 'Circles', which are spaces on the platform where young people can meet to discuss various subjects of interest to them (e.g., mental health, family matters, school and work, LGBTIQA+ identity). Within each Circle are tailored moderation guidelines for that space as well as pinned information resources on the Circle subject matter, designed in response to young people's requests and drawn from Kids Helpline social media resources. My Circle Community was launched with a baseline of 16 Circles covering a wide range of subjects that were derived from content classifications used within Kids Helpline to capture data on presenting concerns. Feedback provided over time by My Circle users expressed the need for more Circles to be developed due to feeling unsure about where to post about some specific lived experiences. Using co-design principles, suggestions of new Circle spaces were collated and polled within the My Circle community, those with the highest level of interest were prioritised for development. To date this has led to the development of three new Circles to capture more specific areas of lived experience within the Community (Culture, Religion and Spirituality; Natural Disasters and Climate Change; Neurodivergence). My Circle users were invited to participate in the design of these new Circle spaces, such as the title of the Circle and submitting suggestions for the creative artwork to be displayed in each Circle.

**CHALLENGE: Clinical moderators were struggling with certain clinical presentations on the platform****SOLUTION: Provision of specialised training and supervision**

With the change in My Circle from the former 6-week group psychoeducation program on chosen topics, to an open discussion forum where users can post and chat about whatever issues are on their mind, young people started to access the platform for longer periods of time and with more complex clinical presentations and interactions. With this change, clinical moderators reported struggling to respond and provide group facilitation to work with certain group dynamics, clinical presentations, and social issues within the platform. Specialised training was therefore developed and delivered to staff to help train the team with a unified understanding of the theory and practice of clinical moderation, which was thereafter routinely assessed as part of their continuing professional development to maintain their knowledge and skills. Additionally, regular individual and group supervision was coordinated to help the clinical moderator team to manage more complex and nuanced presentations on My Circle.

**CHALLENGE: Community was growing faster than available clinical moderators****SOLUTION: Development of workforce algorithm and change in hours of clinical moderation**

As the My Circle community grew, the workload became more challenging for the existing workforce to manage. However, there was no clear way to determine how many clinical moderators were needed for its present size. To help guide this, a workforce algorithm was developed that took samples of the length of time taken by clinical moderators to conduct each of their passive and active duties against year-long averages for user engagement, and then produced an estimate of the workforce size needed depending on the average of daily users. Additionally, analytics software was implemented onto the platform to map the typical engagement patterns of users. This showed that the daily average of users had approximately doubled from launch, and more users were remaining on the platform for later periods into the evening. The size of the clinical moderator team was therefore increased to allow coverage of up to four moderators on shift at a time from 8am to midnight.

**CHALLENGE: Young people under 13 were accessing My Circle outside of the scope of the service****SOLUTION: Re-evaluation of the age scope of the service and methods of managing members who are out of scope**

The age scope for My Circle is 13-25 years of age. Despite this criteria, young people who were 11-12-year-olds were observed to register accounts for the service, and upon being declined, would re-register with new accounts that had their age adjusted to fit the scope of the service. Due to the inability to track these accounts, user demographics showing that 11-12yo were a significant minority of users seeking access, as well as 13yrs being an arbitrary age determined by American social media organisations that has little relevance to whether young people are mature enough or would benefit from services like My Circle - the age scope and methods of managing these out of scope members were reviewed. The service holds a philosophy to service all young people and avoid turning them away where possible, who likely already have access to less safe social platforms and might turn to them if rejected from My Circle or not seek help at all. Therefore, it was initially decided to admit young people aged 11-12 years of age into My Circle who re-registered with new accounts that had similar demographic details but an 'older' age to fit within the age scope. In time, the age scope for the service was formally shifted to 12-25 years of age given that 12-year-olds represented a large minority of the community. Due to platform limitations, manual processes and procedures also had to be developed to be able to track members who entered the community a few months from turning 25yo or who become out of scope while in the community.

**CHALLENGE: Changes to the Notification System and Email Summaries****SOLUTION: Default notification settings for all users were changed and email summaries were made redundant.**

On entry into the My Circle Community, users' default notifications settings were set to inform them about any new post created within Circles they were subscribed to. Due to users being automatically subscribed to all Circles on the platform, as the community grew and more users were posting, there was significant increase in the number of notifications all users were receiving on the platform. Not only were these notifications seen as redundant by users, as they could access the new content via the Dashboard or within each Circle, but they also created large data sets for each user and their associated Circle subscriptions. Consequently, the default notification settings for all users were changed to remove new post notifications for all Circles except for 'My Circle News', which was used to send users important information on updates or changes to the platform. Furthermore, the My Circle Email Summary feature, which sent users an email to inform them about recent activities within My Circle, was reduced in frequency at first and then completely deactivated in response to user feedback about its redundancy.

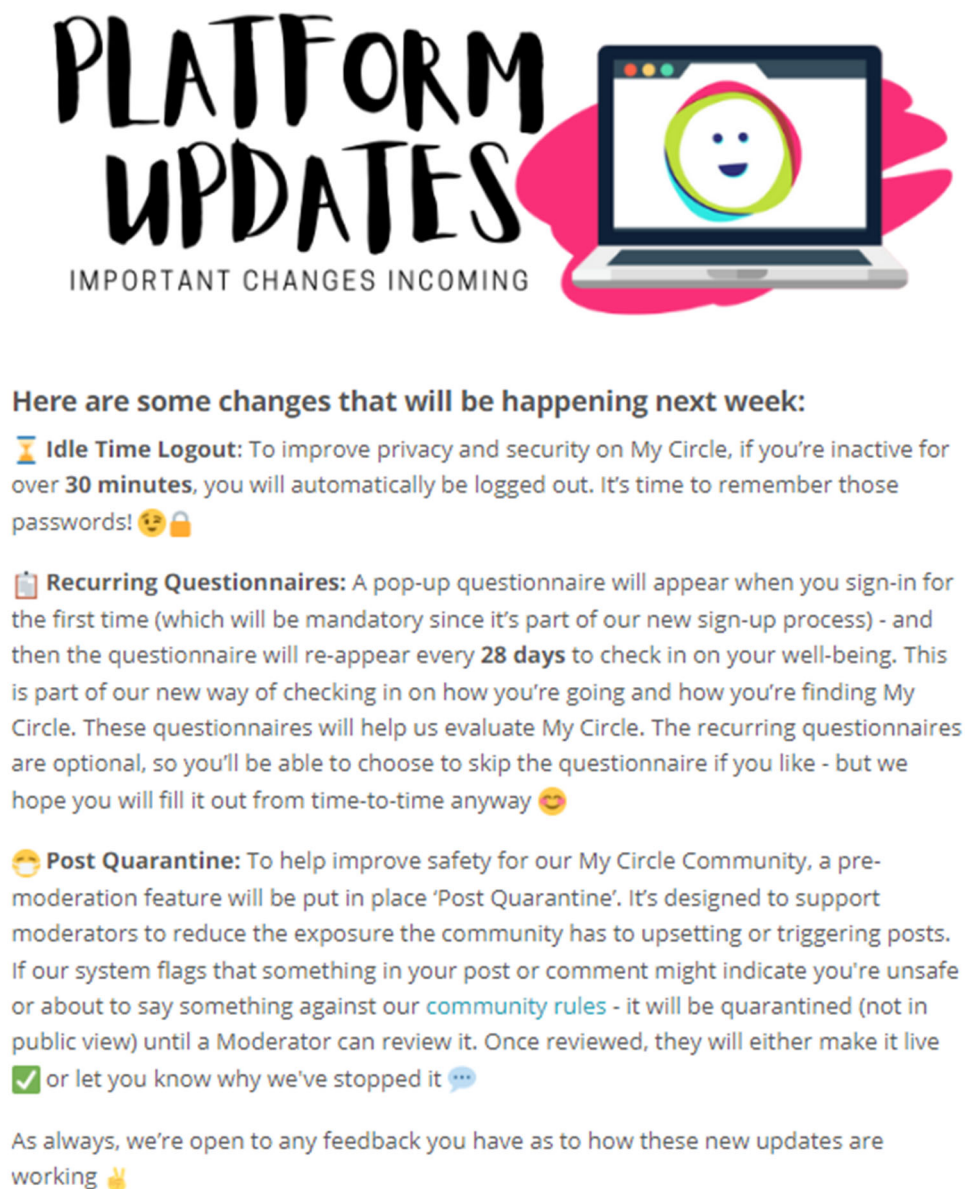
**CHALLENGE: Management of deleted users and their posts****SOLUTION: Implementation of a soft delete feature on the platform**

As the My Circle community grew, there were more observations of young people deleting their accounts and posts in response to situations, such as: feeling discomfort from sharing their stories, feeling distressed from reading others' stories, feeling embarrassment and shame from crossing community guidelines, aging out of the community, and concealing their identities due to privacy concerns or attempts to circumvent community guidelines. The key issue that emerged from these practices was that in deleting one's account, posts, and comments - the platform would delete all trace of this content for the clinical moderators. This created a problem of tracking users who would later present under a new account name but had history on the platform that was important to track for the purposes of providing them support, managing safety-related issues or safeguarding the wider community from banned users. This was initially managed manually by the clinical moderator team who: flagged potential duplicate accounts on registration, cross-referenced former account records to validate return users, asked users of suspected duplicate accounts whether they had held a former account, and used in-house guidelines to determine whether possible duplicate accounts could reasonably be validated as such. In response to the high administration load created by these processes, a platform enhancement was developed and implemented to retain all deleted user account information and deleted contributions and be visible only to clinical moderators for community management purposes.

## PHASE 5: NEW MODEL EVALUATION: FEBRUARY 2022 TO OCTOBER 2022

Following implementation of the new pop-up survey and other technological and service enhancements discussed in the previous chapter, My Circle was relaunched on 21<sup>st</sup> February 2022 and a 36-week detailed evaluation was conducted. Figure 8 shows the announcement that was posted in My Circle in the weeks leading up to the relaunch. Upon their first sign-in after the relaunch, users were asked to complete the new pop-up survey (which included mandatory K10 questions) to provide baseline data for the new Phase 5 time series evaluation of My Circle. Non-mandatory follow-up surveys (also pop-ups within My Circle) that included the K10 and user experience and satisfaction questions were then presented to users when they logged in to My Circle at a monthly cadence.

Figure 8. Announcement posted in My Circle in January 2022



## DEMOGRAPHICS SUMMARY

Overall, there were 2,900 respondents to the My Circle baseline survey from February 2022 to October 2022. During data cleaning, 109 respondents were removed from analysis because they both: (1) 'straight-lined' their K10 response (i.e., selected '1' for each item or '5' for each item); and (2) skipped the non-mandatory questions (only K10 responses were mandatory). This resulted in a baseline sample of N=2,791 for analysis. Demographic data is summarised in Table 14. Unfortunately, demographic data is missing for 127 respondents who deleted their My Circle account before their demographic data was able to be extracted from their profile and matched to their survey responses (Humhub did not retain information from deleted accounts at the time).

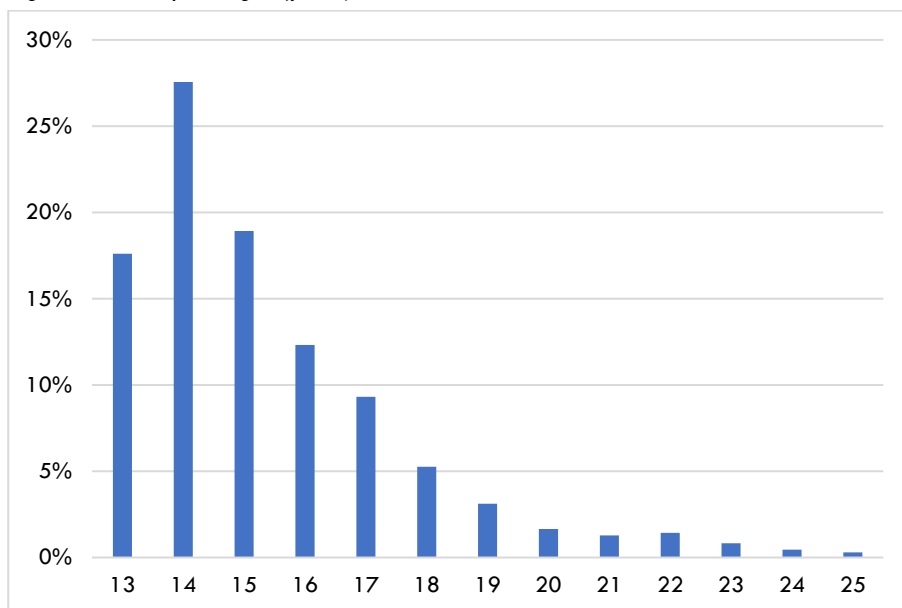
Table 14. Participant demographic data

Demographic	Baseline sample (N=2,791), n (%)
Age (years)	
13 years old	469 (16.8)
14 years old	734 (26.3)
15 years old	504 (18.1)
16 years old	328 (11.8)
17 years old	248 (8.9)
18 years old	140 (5.0)
19 years old	83 (3.0)
20 years old	44 (1.6)
21 years old	34 (1.2)
22 years old	38 (1.4)
23 years old	22 (0.8)
24 years old	12 (0.4)
25 years old	8 (0.3)
Missing	127 (4.6)
Gender	
Woman/Girl	1,751 (62.7)
Man/Boy	347 (12.4)
Gender-diverse	183 (6.6)
Non-binary	187 (6.7)
Customised response	95 (3.4)
Prefer not to say	105 (3.8)
Missing	123 (4.4)
Location	
Australian Capital Territory	52 (1.9)
New South Wales	872 (31.2)
Northern Territory	18 (0.6)
Queensland	487 (17.4)
South Australia	180 (6.4)
Tasmania	62 (2.2)
Victoria	716 (25.7)
Western Australia	259 (9.3)
Missing	145 (5.2)
Remoteness	
Major cities	2,014 (72.2)
Inner regional	448 (16.1)
Outer regional	143 (5.1)
Remote	35 (1.3)
Very remote	6 (0.2)
Missing	145 (5.2)
Taking medication for mental health	
Yes	550 (19.7)
No	2,241 (80.3)
Receiving counselling	
Yes	928 (33.2)
No	1,863 (66.8)

## AGE

All ages in the eligible range of between 13 and 25 years were represented in the sample (see Figure 9). The mean age at baseline was 15.36 years ( $SD=2.26$ ), however, the sample was heavily skewed towards younger participants, with 64.1% under 16 years and only 3.0% over 21 years.

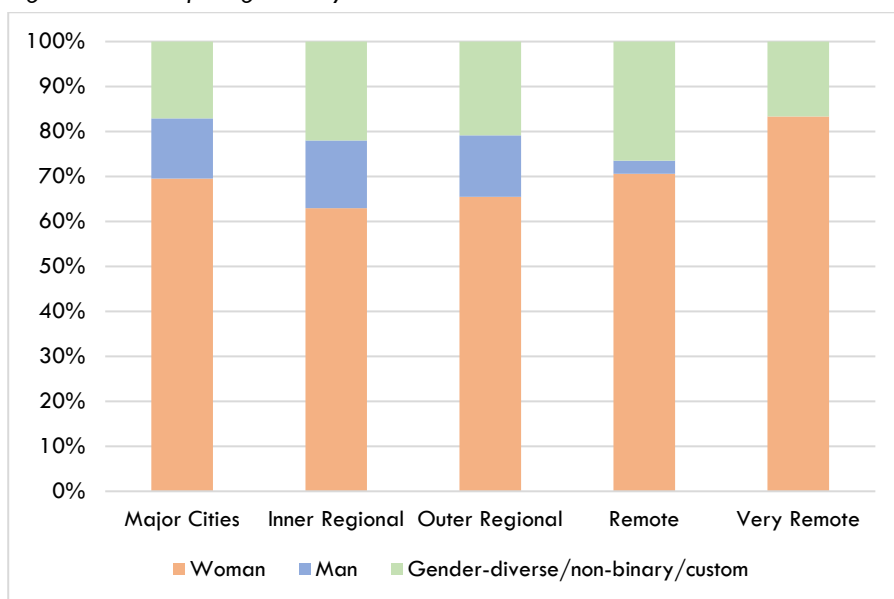
Figure 9. Participant ages (years) at baseline



## GENDER

The majority of the sample identified as women/girls (62.7%), with only 12.4% of the sample identifying as men/boys. Gender-diverse, non-binary and custom gender responses made up 16.7% of the overall sample, and were combined for analysis as recommended by Cameron and Stinson (2019). Gender-diverse, non-binary, and custom gender individuals were more highly represented outside of major cities (see Figure 10), in particular remote locations (26.5%). In contrast, there was only one man from a remote location and none from very remote locations.

Figure 10. Participant gender by remoteness



Gender-diverse, non-binary and custom gender participants were also significantly younger on average ( $M=14.8$  years,  $SD=1.78$ ) compared to cis-gender participants ( $M=15.48$  years,  $SD=2.33$ ), suggesting that My Circle may be particularly appealing to this younger group of gender-diverse, non-binary and custom gender individuals.



## COUNSELLING AND MEDICATION

Around 1 in 5 participants (19.7%) reported that they were taking medication for mental health problems (consistent with the rate reported in the Phase 2 evaluation of KHL Circles). Around one-third of participants were receiving counselling other than through Kids Helpline, which is lower than the 44.8% reported in Phase 2. Receiving counselling and medication for mental health issues were moderately correlated ( $r=.375$ ,  $p<.01$ ). There were also small significant correlations between age and receiving counselling ( $r=.042$ ,  $p<.05$ ), and age and medication ( $r=.126$ ,  $p<.01$ ), such that older participants were more likely to be reporting each.

## EVALUATION OF PSYCHOLOGICAL DISTRESS OVER TIME

### LEVELS OF PSYCHOLOGICAL DISTRESS AT BASELINE

In the Phase 5 evaluation, the mean K10 score at baseline was 33.43 ( $SD=8.20$ ), which is almost 2 points lower than the mean K10 score at baseline in Phase 4 ( $M=35.32$ ;  $SD=8.20$ ). However, Phase 4 and 5 results are not directly comparable, as the relaunch of My Circle for Phase 5 meant that many baseline responses were from existing My Circle users. In contrast, all Phase 4 baseline responses were from new users, who as Phase 4 data analysis showed, on average reported significantly higher K10 scores at baseline compared to after having used My Circle for at least one month. Unfortunately, the new survey system used in Phase 5 was not able to differentiate between existing and new users of My Circle, so it was not possible to test for any differences between baseline scores from new and existing users.

The average K10 scores reported in Phase 4 and 5 were both higher than the average score of 29.6 previously reported in face-to-face surveys of young people (aged 12-25 years) attending headspace centres for mental health concerns,<sup>34</sup> and much higher than the average score of 27.10 across all age groups seeking psychological treatment in Australia.<sup>35</sup> A recent study comparing online and face-to-face responses to the K10 found that scores were significantly higher among those who completed survey online, with the greatest difference among those aged 18 to 34-years.<sup>36</sup> The authors suggested there are compelling reasons to believe that online surveys elicit more honest responses on sensitive issues, while face-to-face surveys are more prone to social desirability bias. This suggests that Australian psychological distress as measured by the K10 may have been systematically underestimated in previous research, and may explain why K10 scores among My Circle participants were so much higher than previous studies of young people seeking help in face-to-face settings. It is also possible that as My Circle respondents were completing the K10 while using/joining a peer-to-peer support platform rather than seeking mental health treatment per se, they may have rushed through the survey and not have taken it as seriously as those seeking formal mental health treatment.

Table 15 presents a summary of Phase 5 K10 scores at baseline according to score groupings used in primary healthcare settings to assist in monitoring distress. According to these K10 category descriptors, the vast majority (93.9%) of My Circle users indicated they were likely to have at least a moderate mental disorder, with most of these (69.6% of the overall sample) likely to be in the severe range.

Table 15. K10 category descriptors breakdown

K10 score ranges	Level of psychological distress	N (%)
10-19	Likely to be well	170 (6.1%)
20-24	Likely to have a mild mental disorder	271 (9.7%)
25-29	Likely to have a moderate mental disorder	408 (14.6%)
30-50	Likely to have a severe mental disorder	1,942 (69.6%)

There was no significant association between age and K10 score at baseline ( $r=.003$ ,  $p=.87$ ), but there were significant differences between gender categories ( $F(2,2468)=44.70$ ,  $p<.001$ ), with gender-diverse, non-binary, and custom gender participants reporting significantly higher K10 scores at baseline ( $M=36.57$ ,  $SD=7.09$ ) than both women/girls ( $M=33.23$ ,  $SD=8.04$ ;  $p<.001$ ) and men/boys ( $M=31.21$ ,  $SD=8.51$ ;  $p<.001$ ). The mean K10 of women at baseline was also significantly higher than for men ( $p<.001$ ).

On average, significantly higher K10 scores were reported by participants who were currently receiving counselling other than from Kids Helpline ( $M=35.71$ ,  $SD=8.03$ ) compared to those who were not ( $M=32.80$ ,  $SD=8.54$ ;  $t(1932)=-8.61$ ,  $p<.001$ ), and those who were taking medication for mental health issues ( $M=37.03$ ,  $SD=8.48$ ) compared to those who were not ( $M=32.94$ ,  $SD=8.42$ ;  $t(893)=-10.67$ ,  $p<.001$ ). Similarly, significantly higher K10 scores were reported by participants who had received counselling from Kid Helpline's one-on-one services previously ( $M=34.66$ ,  $SD=8.37$ ) compared to those who had not ( $M=32.93$ ,  $SD=8.50$ ;  $t(2747)=-5.343$ ,  $p<.001$ ). There was also a significant correlation between K10 scores and how often My Circle participants has received counselling from Kid Helpline's one-on-one services, such that those with higher K10 scores had engaged in more one-to-one counselling from Kids Helpline previously ( $r=.163$ ;  $p<.001$ ).

## LEVELS OF PSYCHOLOGICAL DISTRESS AT FOLLOW-UP OVER TIME

Non-mandatory follow-up surveys that included the K10 and user experience and satisfaction questions were presented to users when they logged in to My Circle at a monthly cadence (i.e., their first login after each 28-day period). As with Phase 4, there was no way to ensure consistency in terms of when follow-up surveys were actually completed by users, as many users may have had a longer than one month break between logging into My Circle, or may have chosen to skip a survey for a particular month, and then complete a subsequent survey in a later month. Survey responses therefore do not necessarily reflect levels of distress after each month of using My Circle, but rather a snapshot of changes in distress levels over time from a cohort of users who were sufficiently motivated to respond to the follow-up surveys. As discussed in the previous section, unlike in Phase 4, baseline scores do not necessarily represent new users of My Circle.

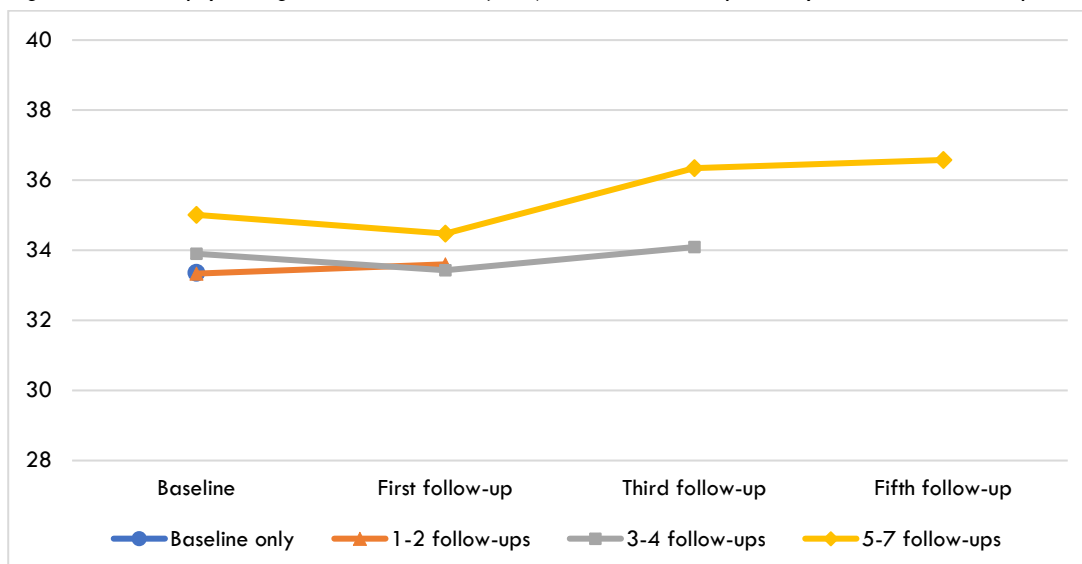
The mean K10 scores of the overall sample at each follow-up survey are summarised below in Table 16. As with all other phases, the sample size for each follow-up declined over time. However, the response rates for the first two follow-up surveys of 26% and 13% respectively are substantially higher than the 10% and 5% for Phase 4, in which follow-up survey links were sent to participants via email rather than presented to them directly as pop-ups. While the average K10 score at first and second follow-up were similar to those in Phase 4, there were no significant changes compared to baseline (which as discussed was lower in Phase 5 compared to Phase 4).

Table 16. Mean psychological distress scores (K10) at each follow-up

	N	M	SD	Minimum	Maximum
Baseline	2,791	33.43	8.20	10	50
First follow-up	730	33.68	9.57	10	50
Second follow-up	366	34.03	9.28	10	50
Third follow-up	220	35.01	9.10	10	50
Fourth follow-up	142	34.27	9.06	10	50
Fifth follow-up	90	36.58	8.66	13	50
Sixth follow-up	53	36.96	8.59	14	50
Seventh follow-up	16	36.62	7.20	18	45

Figure 11 shows a breakdown of K10 scores according to how many follow-up surveys participants completed. Though not significant, there was a general trend in which the more follow-up surveys participants completed, the higher their K10 scores were at baseline on average. This suggests an association between experiencing higher levels of distress at baseline and maintaining engagement with My Circle and the follow-up surveys for a longer period of time. Furthermore, among participants who completed 5 or more follow-up surveys (i.e., demonstrated engagement with My Circle for at least 6 months), there was a significant linear increase in K10 scores over time ( $F(1,89)=4.38$ ;  $p<.05$ ;  $\eta^2=.047$ ), with their increasing distress possibly contributing to their ongoing engagement with My Circle. There were no significant interactions between changes in mean psychological distress over time and gender or age, or whether participants were receiving counselling or medication for mental health issues.

Figure 11. Mean psychological distress scores (K10) at different time points by number of follow-ups completed



## USER EXPERIENCE AND SATISFACTION

### USER EXPERIENCE OF ALL PARTICIPANTS

Responses to the user experience questions received from all participants at first, second and third follow-up are summarised in Table 17. Notable differences over time included increases in the percentage of participants who agreed that they felt safe on My Circle, that they learnt new coping skills from other users, that their perceptions of stigma around seeking help for mental health issues had reduced, and that they had better awareness of mental health and well-being services available to them. There were also notable decreases over time in the percentage of participants who felt their activity of My Circle was private and confidential, and who felt their overall mental health has improved as a result of My Circle. While it is unclear why participants who used My Circle for longer may be slightly less likely to think their activity was private and confidential, it is likely that they were less likely to feel their mental health had improved due to the greater complexity mental ill health presentations among longer-term users of My Circle. Note that due to the vastly different number of responses to each survey, any differences over time should be interpreted with caution. Table 17 also compares Phase 5 results to those from the first follow-up survey conducted during the Phase 4 evaluation of the new model trial conducted from June 2021 to February 2022 (i.e., prior to the latest round of technological and service enhancements). The following notable differences were observed:

- More participants agreed that My Circle helped them feel more socially connected (79.5% vs 71.1%)
- More participants agreed that My Circle helped them feel more empowered to tackle their challenges (70.4% vs 65.8%)
- More participants felt supported by other users of My Circle (70.4% vs 65.8%)
- More participants felt their overall mental health improved as a result of KHL Circles (56.0% vs 45.1%)
- More participants felt their perceptions of stigma around seeking help for mental health issues reduced (71.1% vs 67.6%)
- More participants are now more willing to seek help from mental health and well-being services (74.4% vs 69.1%)
- More participants felt that the Kids Helpline moderators accepted them (92.0% vs 79.8%)
- More participants would recommend My Circle to others (91.4% vs 87.3%)
- Although still in the majority, less participants agreed that they felt safe on My Circle (84.6% vs 93.0%), and that their activity was private and confidential (86.6% vs 90.2%)

Table 17. Comparison of % agreement with user experience items over time between Phase 4 and 5

	% Agree			
	Phase 4	Phase 5		
	First follow-up N=488	First follow-up N=683	Second follow-up N=343	Third follow-up N=210
<b>I felt safe on My Circle</b>	<b>93.0</b>	<b>84.6</b>	<b>81.4</b>	<b>87.9</b>
<b>I felt my activity on My Circle was private and confidential</b>	<b>90.2</b>	<b>86.6</b>	<b>85.7</b>	<b>83.1</b>
<b>My Circle helped me feel more socially connected</b>	<b>71.1</b>	<b>79.5</b>	77.4	77.0
<b>My Circle helped me feel more empowered to tackle my challenges</b>	<b>65.8</b>	<b>70.4</b>	71.1	70.2
I felt supported by the Kids Helpline counsellors	84.6	85.0	81.7	84.3
I felt supported by other users of My Circle	86.3	90.0	87.2	88.3
I learned new coping skills from Kids Helpline counsellors	63.5	66.4	70.2	68.6
<b>I learned new coping skills from other users of My Circle</b>	<b>66.0</b>	<b>73.8</b>	<b>79.7</b>	<b>77.3</b>
<b>I feel like my overall mental health has improved as a result of My Circle</b>	<b>45.1</b>	<b>56.0</b>	<b>59.4</b>	<b>51.1</b>
<b>My perceptions of stigma around seeking help for mental health issues have reduced</b>	<b>67.6</b>	<b>71.1</b>	<b>73.8</b>	<b>75.7</b>
<b>I have better awareness of mental health and well-being services available to me</b>	<b>82.4</b>	<b>80.2</b>	<b>79.9</b>	<b>84.4</b>
<b>I would now be more willing to seek help from mental health and well-being services</b>	<b>69.1</b>	<b>74.4</b>	73.6	76.7
The Kids Helpline counsellors encourage open discussion	88.5	88.4	83.7	91.0
<b>I felt that the Kids Helpline counsellors accepted me</b>	<b>90.2</b>	<b>87.1</b>	85.6	88.7
The Kids Helpline counsellors contribute to the safety of My Circle	79.8	92.0	87.7	92.9
My Circle was a positive experience	90.6	92.4	88.2	93.3
<b>I would recommend My Circle to others</b>	<b>87.3</b>	<b>91.4</b>	85.6	88.8

Note. Items rated from 1 = strongly disagree; 4 = strongly agree. Percent agree = 3 or 4.

## USER SATISFACTION OF ALL PARTICIPANTS

Table 18 shows the results of the satisfaction questions received from all participants at first, second and third follow-up. The percentage of respondents satisfied with the service and support, look and feel, and usability and functionality of My Circle ranged from 71-78%. These satisfaction levels are significantly higher than those during the Phase 4 trial of the new operating model conducted from June 2021 to February 2022, which ranged from 62-69%. This suggests that the technological and service enhancements made as a result of the Phase 4 evaluation had a positive impact on user satisfaction. There was a notable increase in the satisfaction with the service and support received in My Circle from first follow-up the second follow-up, and this was maintained at third follow-up. A smaller increase in satisfaction with the usability and functionality of My Circle was seen over the follow-ups. These increases suggest that users who were most satisfied with the service were more likely to remain engaged for a longer period. However, due to the vastly different number of responses to each survey, any changes over time should be interpreted with caution.

Table 18. Comparison of % satisfaction over time between Phase 4 and 5

	% Satisfied				
	Phase 4		Phase 5		
	First follow-up N=488	Second follow-up N=315	First follow-up N=679	Second follow-up N=340	Third follow-up N=212
Overall, how satisfied are you with...					
The service and support received in My Circle	66.6	67.9	74.0	78.3	77.3
The look and feel of My Circle	67.2	68.6	73.1	73.8	72.7
The usability and functionality of My Circle	62.9	66.7	71.4	73.7	73.1

Note. Items rated from 1 = very dissatisfied; 5 = very satisfied. Percent satisfied = 4 or 5.

## USER EXPERIENCE OF PARTICIPANTS WHO USED MY CIRCLE FOR AT LEAST THREE MONTHS

Table 19 compares the user experience responses over time of the sub-sample of participants who used My Circle for at least three months at their first and third follow-up. A series of repeated measures *t*-tests comparing the mean 1-4 scores for each item revealed that for most items there was no change in mean score over time. There were, however, two significant changes over time identified. First, there was a significant increase in the proportion of participants who agreed they felt safe on My Circle from first follow-up (75.4%) to third follow-up (87.9%;  $t(199)=3.14$ ,  $p<.01$ ). Second, there was a significant decrease in the proportion who agreed that their mental health had improved as a result of My Circle, from first follow-up (67.3%) to third follow-up (51.1%;  $t(203)=3.27$ ,  $p<.01$ ). The latter result is consistent with the increase in psychological distress reported by this sub-sample over time, but may also reflect changes in perception over time as they became longer term users of the service.

Table 19. Comparison of % agreement with user experience items over time between first and third follow-up

	First follow-up		Third follow-up		<i>t</i> -test
	% agree	M (SD)	% agree	M (SD)	
<b>I felt safe on My Circle</b>	<b>75.4</b>	<b>2.90 (.97)</b>	<b>87.9</b>	<b>3.12 (.75)</b>	<b>3.14*</b>
I felt my activity on My Circle was private and confidential	85.2	3.20 (.77)	83.1	3.17 (.77)	0.57
My Circle helped me feel more socially connected	79.8	3.09 (.83)	77.0	3.04 (.80)	0.82
My Circle helped me feel more empowered to tackle my challenges	72.3	2.96 (.89)	70.2	2.90 (.84)	-0.75
I felt supported by the Kids Helpline counsellors	82.4	3.14 (.80)	84.3	3.15 (.79)	0.17
I felt supported by other users of My Circle	87.7	3.19 (.75)	88.3	3.24 (.77)	0.75
I learned new coping skills from Kids Helpline counsellors	70.2	2.85 (.93)	68.6	2.90 (.89)	0.75
I learned new coping skills from other users of My Circle	76.1	2.97 (.86)	77.3	3.02 (.82)	0.66
<b>I feel like my overall mental health has improved as a result of My Circle</b>	<b>67.3</b>	<b>2.81 (.93)</b>	<b>51.1</b>	<b>2.54 (.96)</b>	<b>-3.27*</b>
My perceptions of stigma around seeking help for mental health issues have reduced	78.2	2.94 (.85)	75.7	2.90 (.86)	-0.58
I have better awareness of mental health and well-being services available to me	82.9	3.07 (.78)	84.4	3.03 (.85)	-.57
I would now be more willing to seek help from mental health and well-being services	80.4	3.03 (.84)	76.7	2.96 (.85)	-0.88
The Kids Helpline counsellors encourage open discussion	85.7	3.11 (.78)	91.0	3.17 (.74)	0.88
I felt that the Kids Helpline counsellors accepted me	84.3	3.08 (.81)	88.7	3.16 (.76)	1.18
The Kids Helpline counsellors contribute to the safety of My Circle	92.6	3.22 (.72)	92.9	3.22 (.74)	.09
My Circle was a positive experience	90.2	3.21 (.70)	93.3	3.26 (.70)	0.93
I would recommend My Circle to others	88.7	3.19 (.75)	88.8	3.18 (.79)	-.09

Note. Items rated from 1 = strongly disagree; 4 = strongly agree. Percent agree = 3 or 4. N=199-211. \* $p<.05$ .

Table 20 compares the user experience responses compares the first follow-up responses of the sub-sample of participants who used My Circle for at least three months with a sub-sample who completed *only* the first follow-up. A series of paired samples *t*-tests comparing the mean 1-4 scores for each item revealed that participants in the sub-sample who went on to complete three follow-ups were significantly more likely than those who only completed the first follow-up to agree that My Circle helped them feel more socially connected ( $t(380)=-1.99$ ;  $p<.05$ ) and more empowered to tackle their challenges ( $t(369)=-2.47$ ;  $p<.05$ ).

It is noteworthy that at first follow-up, those who went on to use My Circle for at least three months were significantly more likely to agree that their mental health had improved as a result of My Circle (67.3%) compared to those who only completed the first follow-up (47.8%;  $t(549)=-4.33$ ;  $p<.001$ ). However, as discussed above, the percentage agreement among those who completed three follow-ups reduced over time to 51.1% at third follow-up.

Participants who completed three follow-ups were also significantly more likely than those who only completed one to agree that their perceptions of stigma had reduced ( $t(541)=-3.33$ ;  $p<.001$ ), that they had better awareness of mental health services ( $t(542)=-2.95$ ;  $p<.01$ ), and were more likely more likely to seek help for mental health issues ( $t(537)=-3.51$ ;  $p<.001$ ). The fact that these positive results of using My Circle did not coincide with significant reductions in psychological distress as measured by the K10 suggest that the K10 may not be the best measure of success for a peer-to-peer well-being support service like My Circle.

Interestingly, at first follow-up, those who only completed this first follow-up were significantly more likely to agree they felt safe on My Circle (88.1%) compared to those who went on to complete three follow-ups (75.4%;  $t(350)=2.54$ ;  $p<.05$ ). However, by the third follow-up, the proportion who agreed they felt safe had risen to a similar level to those who only completed one follow-up (87.9%).

*Table 20. User experience of participants at first follow-up who completed 3 follow-up surveys compared to 1 follow-up only*

	1 follow-up only		3 follow-ups		<i>t</i> -test
	% agree	M (SD)	% agree	M (SD)	
<b>I felt safe on My Circle</b>	<b>88.1</b>	<b>3.09 (.71)</b>	<b>75.4</b>	<b>2.90 (.97)</b>	<b>2.54*</b>
I felt my activity on My Circle was private and confidential	86.6	3.10 (.67)	85.2	3.20 (.78)	-1.56
<b>My Circle helped me feel more socially connected</b>	<b>79.1</b>	<b>2.96 (.68)</b>	<b>79.8</b>	<b>3.09 (.83)</b>	<b>-1.99*</b>
<b>My Circle helped me feel more empowered to tackle my challenges</b>	<b>68.0</b>	<b>2.78 (.72)</b>	<b>72.3</b>	<b>2.96 (.90)</b>	<b>-2.47*</b>
I felt supported by the Kids Helpline counsellors	87.6	3.05 (.66)	82.4	3.12 (.82)	-1.00
I felt supported by other users of My Circle	90.1	3.16 (.61)	87.7	3.19 (.76)	-0.48
I learned new coping skills from Kids Helpline counsellors	62.7	2.72 (.75)	70.2	2.84 (.94)	-1.54
I learned new coping skills from other users of My Circle	71.1	2.85 (.74)	76.1	2.97 (.86)	-1.80
<b>I feel like my overall mental health has improved as a result of My Circle</b>	<b>47.8</b>	<b>2.49 (.83)</b>	<b>67.3</b>	<b>2.82 (.94)</b>	<b>-4.33**</b>
<b>My perceptions of stigma around seeking help for mental health issues have reduced</b>	<b>65.6</b>	<b>2.72 (.79)</b>	<b>78.2</b>	<b>2.96 (.86)</b>	<b>-3.33**</b>
<b>I have better awareness of mental health and well-being services available to me</b>	<b>76.3</b>	<b>2.88 (.74)</b>	<b>82.9</b>	<b>3.08 (.78)</b>	<b>-2.95**</b>
<b>I would now be more willing to seek help from mental health and well-being services</b>	<b>69.9</b>	<b>2.79 (.79)</b>	<b>80.4</b>	<b>3.04 (.85)</b>	<b>-3.51**</b>
The Kids Helpline counsellors encourage open discussion	88.6	3.07 (.62)	85.7	3.12 (.78)	-0.80
I felt that the Kids Helpline counsellors accepted me	87.2	3.05 (.65)	84.3	3.08 (.81)	-0.44
The Kids Helpline counsellors contribute to the safety of My Circle	91.3	3.13 (.59)	92.6	3.23 (.71)	-1.62
My Circle was a positive experience	92.2	3.14 (.59)	90.2	3.22 (.70)	-1.22
I would recommend My Circle to others	91.9	3.20 (.62)	88.7	3.20 (.74)	-0.05

Note. Items rated from 1 = strongly disagree; 4 = strongly agree. Percent agree = 3 or 4. \* $p<.05$ . \*\* $p<.001$ .

## USER SATISFACTION OF PARTICIPANTS WHO USED MY CIRCLE FOR AT LEAST THREE MONTHS

Table 21 compares the user satisfaction responses over time of the sub-sample of participants who used My Circle for at least three months, at first, second and third follow-up. It also compares the first follow-up responses of this sub-sample with those who completed only the first follow-up.

Over time, the percentage of participants who were satisfied with the service and support received in My Circle, and the usability and functionality of My Circle, increased among those who completed three follow-ups, however these changes were not statistically significant ( $p>.05$ ). The percentage of participants who were satisfied with the look and feel of My Circle did not change over time.

At first follow-up, the percentage of participants who were satisfied with the service and support, look and feel, and usability and functionality of My Circle was slightly higher in the sub-sample that went on to complete three follow-ups compared to those who only completed one follow-up. However, these differences were not statistically significant ( $p>.05$ ).

Table 21. User satisfaction of participants who completed 3 follow-up surveys compared to 1 follow-up only

Overall, how satisfied are you with...	% satisfied			
	Completed 1 follow-up only N=358		Completed 3 follow-ups N=200	
	First follow-up	First follow-up	Second follow-up	Third follow-up
The service and support received in My Circle	71.5	73.7	76.0	77.3
The look and feel of My Circle	71.8	72.3	70.4	72.7
The usability and functionality of My Circle	69.9	71.1	69.8	73.1

Note. Items rated from 1 = very dissatisfied; 5 = very satisfied. Percent satisfied = 4 or 5.

## QUALITATIVE FEEDBACK

As in previous evaluations phases, participants were asked two open-response questions the end of each follow-up survey: "What was the best thing about My Circle?" and "Is there anything about My Circle you would like to improve?". Below is a summary of key themes identified through qualitative analysis, along with example responses to illustrate these.

### WHAT WAS THE BEST THING ABOUT MY CIRCLE?

Overall, there were 832 responses to the question regarding the best thing about My Circle, however 101 of these were 'unsure', 'idk' (I don't know) or similar, and 44 simply said 'everything' or similar. Thematic analysis completed by the University of Sydney research team produced three key themes.

The most common theme identified from responses was to 'connect with peers' (n=330, 39.0% of responses). Many of the responses in this theme category specifically mentioned the benefits of being able to connect with other young people in similar situations, such as feeling understood and that they aren't alone.

*"Being able to communicate with the people that are in the same situation as me."*

*"Knowing that others are going through very similar situations and I'm not abnormal"*

*"How relatable everything is – people are going through the same thing as you are."*

*"I like being able to reach out to people who understand how I feel."*

*"It makes you feel that you're not alone with your problems and it makes you feel accepted"*

*"When you tell people you know about your problems it's difficult for them to understand due to different circumstances and experiences. But here people can choose what posts they relate to and comment so that everyone feels a little less alone."*

Some respondents said that learning coping strategies from connecting with others was beneficial:

*"People can share their coping strategies and I can use them. Other people also go through the same thing as me so I know I'm not alone even though it may feel like it."*

*"We can make more friends who are just like us I can also find new coping strategies to help with my mental health."*

*"The best thing for me is that I can interact with others and they can give me coping techniques that worked for them. Even though it may not work (the techniques) they are extremely helpful as it helps me move forwards."*

Others added that they liked being able to help others as well:

*"It helps being able to talk through things with others who have experienced the same and feel like your own suffering is useful to others when you can offer advice and help them out."*

*"I love the fact that I am able to talk to people that may be in the same exact situation and see what their perspective is on it. It is like a whole new world where you will not be judged and where I can also help others as well. It is truly amazing."*

Some respondents simply liked being able to 'vent', get opinions from peers, or 'hang out' with like-minded peers.

*"I can vent all my problems."*

*"Getting something off your chest"*

*"I can get different opinions from kids my age."*

*"Meeting others with the same issue and hanging out."*

*"Just being able to connect with others who are similar to me."*

The second most common theme identified was 'supportive environment' (n=280, 33.1% of responses). Most responses in this theme category referred to how supportive, accepting and respectful other users of My Circle are, and how safe this made them feel:

*"The people are so nice here and they make me feel safe."*

*"The acceptance of everyone and how no one discriminates and/or bullies one another."*

*"The different areas to talk about different topics and the respect everyone has for one another."*

*"The way everyone both helps others and receives support - a true circle!"*

*"Everyone supports each other because we all have one thing in common which is that we're all struggling one way or another."*

There were various mentions of the 'community feeling' of My Circle, and how they find it to be a much more positive and safe environment compared to other social media platforms:

*"The community we have formed."*

*"The fact that it feels like a welcoming warm understanding family."*

*"That we all care for each other and catch up with each other."*

*"It's like social media but safe and positive (no nasty commenters)."*

*"The positivity compared to other social medias"*

*"Connecting with people without the risks of normal social media and without stigma."*



Some respondents specifically mentioned how the supportive environment of My Circle allowed them to share their feelings and experiences without judgment:

*"The way you are able to share whatever emotion you are feeling and why you feel that way without being judged."*

*"I can talk about anything and won't be judged. I love it :)"*

*"The best thing about My Circle is that I know that at the end of the day there's always some place I can go to where no one can judge me because they don't know me."*

*"I like the fact that I can express my feelings and show how I really feel."*

*"The fact that everyone is free to be themselves."*

Others liked that My Circle gave them safe and supportive place to have conversations that they might find too difficult to have with friends and family:

*"That you can get help solving problems without feeling embarrassed by those real life conversations. And that you are being supported by people who know things from experience."*

*"Being able to share in a way that's easier than sharing face to face. Being open about things that are normally too difficult to mention without fear of ruining the mood or the friendship. Talking knowing that people can't gossip and tell others what you're going through when you wanted it to be somewhat secret."*

*"Support from others without having to reach out to friends."*

*"Sharing and getting things off your chest without having the shame of telling family."*

There was also positive feedback on the My Circle moderators and the genuine support and care they provide both in the Circles and via private messaging.

*"The moderators are so nice."*

*"The moderators respond fast to post and seem to actually take in what was written not just give the same response to everything."*

*"Having the moderators wise advice is always so helpful to me. I really love that there are sections for different concerns. Overall an amazing website."*

*"Having a direct message with moderators as a check in. It really helps to know that someone actually cares."*

*"The feeling of connection between other members and the counsellors. Thank you counsellors for existing, we love y'all <3"*

*"They are the only service that will actually listen to people."*

'Online characteristics' was the next most common theme identified from responses (n=92, 10.9% of responses). Most responses in this theme liked that My Circle was anonymous and confidential:

*"The fact that you can ask questions anonymously."*

*"How you can chat with others and nobody knows who you are."*

*"That I'm anonymous and I can make anonymous friends (:"*

*"We can discuss about anything and the information kept is confidential and private."*

*"I feel comfortable to finally open up a massive weight off my shoulders because i remain anonymous."*

*"Having somewhere to talk confidentially like in one of those box things that they have in church."*

Others liked the organisation of having different 'Circles' for different topics. Some specifically praised My Circle for having a LGBTQIA+ Circle.

*"The overall platform is so amazing but I particularly like that you can post to specific groups e.g. LGBTQIA+ :)"*

*"That we have places to specifically chat about different problems in life. It makes it organised :)"*

*"The different topic rooms so that you can feel like you're not alone in what you're going through."*

*"All the different topics that there are!"*

*"It's LGBTQI friendly :)"*

Other responses in this theme included having 24/7 access to support, and how easy to use the platform is:

*"The support at any hours of the day and the advice from others."*

*"Having that 24/7 offer for help."*

*"It is simple to use and it is well laid out"*

*"Easy to find your way around the different Circles."*

*"It is overall a great platform that I have already recommended to many friends."*

### **IS THERE ANYTHING ABOUT MY CIRCLE YOU WOULD LIKE TO IMPROVE?**

Overall, there were 396 responses to the question regarding the possible improvements to My Circle, however the majority (68.3%) of these were 'no', 'nothing', or 'unsure'. Thematic analysis of responses completed by the University of Sydney research team produced four key themes.

By far the most common theme identified from responses was to 'make more user friendly' (n=86, 17.8%). One of the most common suggestions in this theme was to make My Circle a smartphone app, which would allow for 'push notifications' like other social media apps (e.g., notify users when their post receives a comment from another user). As discussed in previous chapters, HumHub does not currently offer an iPhone compatible iOS app.

*"Please make it an app."*

*"I would like it if you could make it an app with notifications."*

There were almost as many requests for 'dark mode' (i.e., giving users the option of viewing the site as light text on a dark background, as opposed to dark text on a white background), however around half of these responses came from a small number of users who made this request in multiple surveys.

*"I think a dark mode might be good if some people need to talk at night but the screen is too bright :)"*

*"A dark mode option, the light colours hurt my eyes."*

Other responses in this theme related to speed issues with the platform and non-specific suggestions to improve usability and appearance:

*"Everything about the format/usability is good except for the fact that it's pretty laggy on the phone."*

*"The website is a bit slow at times and I'm unable to access it instantly so maybe improve the load times?"*

*"Maybe the aesthetics and the overall look of the website?"*

*"The usability and the appearance"*

*"Usability could be improved"*

The second most common theme identified was 'new or improved features' (n=31, 6.4%). There were a number of suggestions for new Circle topics, while some wanted to be able to start their own.

*"Maybe you could add a circle just for autistic people?"*

*"Add a Woman page where girls can talk about women things eg periods or their body."*

*"Have a DV [domestic violence] circle."*

*"I think a couple more circles – grief would be great."*

*"Inclusion of circles more relevant to young adults particularly 18-24 where they can discuss mental health issues and worries related to things like budgeting, housing etc. in a way that feels safe and don't need to stress out people who are younger about how things might get difficult."*

*"Perhaps have groups for more specific categories like Asexuals and University students."*

*"Make it so we can make circles (with approval)."*

A few respondents wanted to be able to hide their posts from particular users, while another suggested that users should have the ability to flag posts with trigger warnings to warn others about their content (instead of trigger warnings being solely based on automatic keywords).

*"Find a way that we can make some members not be able to see our posts."*

*"I would really like there to be a way for some people to not see my posts... This will be convenient due to the fact that you may know who your friends are."*

*"Add a flag u can click for trigger warning."*

Other specific suggestions related to features present on other social media platforms (such as following other users) and being able to include more information on their profiles.

*"Following other accounts would be nice IMO. Not seeing how many followers other people have but being able to follow people."*

*"Be able to see your past posts. Add a little bio in your profile."*

*"Maybe possibly a chance of being able to add more in someone's 'about me' on their profiles."*

*"It would be really good if you could add a feature to show how many members are actually active at that point in time. Can you please try to do that because I think it would be good. Just a small number up the top but no names."*

One user who completed 3 follow-up surveys each time suggested having a 'quick exit' button, a feature that allows users to quickly navigate away from a sensitive website if someone is able to see their screen (e.g., by switching to a benign webpage such as 'Google').

*"A little off topic but I'd love for there to be a quick exit button that takes you to google or something similar cos I know a lot of people talk about their family, sexuality/gender, self harm, and other topics that parents may not yet know and I know it should be something they should know but finding out from this platform wouldn't be ideal if that makes sense."*

There were also some responses regarding the age restriction feature, with some suggesting that 12-year-olds should be allowed to join My Circle. Initially the minimum age was set to 13 years, consistent with most publicly available social media platforms, however this was subsequently lowered to 12 years given 12-year-olds were simply re-registering with alternate date of births to enter to the service (as discussed on page X).

*"Maybe make it available for 12 year olds because if it's for high school students it would be good to include them."*

*"Make yourself available to 12 year olds."*

At the other end of the age range, an older user asked for more support for when someone 'ages out' (by turning 26 years old), something else that has since been addressed by the My Circle team.

*"Also more information on what happens when someone ages out and where they can go and how to support them through losing the support network they develop here."*

The next most common theme was 'moderation' (n=21, 4.3%). The most commonly raised moderation issue was the automatically 'flagging' feature that quarantines a post for moderator review if it is identified as containing content against My Circle safety rules. Some suggested that better communication was required regarding why posts are flagged, while others thought that there were too many safety restrictions in general.

*"More clarification about the group rules and reasons for posts being taken down."*

*"Post flagging is so annoying especially after you spent a good 20 mins typing it for it to get taken down."*

*"Notify us when our posts are approved after being flagged."*

*"The amount of safety restrictions."*

*"It would be good if it could be a little bit looser but still protect everyone."*

*"How safe everything has to be."*

There were also some responses that related to moderators themselves, with some saying that their responses were too brief or too 'robotic'.

*"I'm not sure if everyone agrees with this but when counsellors respond with like just an emoji to vents, it makes it feel like they don't have the time to help you or just don't care... again not sure if this is everyone!!"*

*"The mods feel like robots."*

Some were not happy with how long moderators would take to respond to their posts (a tactic moderators were encouraged to use to allow other My Circle users to respond first).

*"Can moderators respond more to posts?"*

*"For us not to wait long for a response."*

*"Answer to us ASAP."*

A couple of respondents reported having had negative experiences with moderators (such as being banned), while one thought that some moderators enforced the My Circle rules differently to others.

*"Not treating kids who are banned for a few weeks like they are criminals."*

*"Some of the moderators were quite rude so I would like you guys to be mindful of that."*

*"Stop mixed messages and different rules per different mod on shift."*

The final theme identified from suggestions for improvement was the desire for 'private communication' (n=16, 3.3%), that is, the ability to have a 'private messaging' feature between users so that they can chat privately one-on-one. My Circle is restricted to private messaging between moderators and individual users for safety reasons.

*"Maybe allow for private chats between people so they can talk to people one on one? Still moderated but just more focused."*

*"A way to PM but the moderator can see??"*

*"I would like to be able to talk to other people privately. I know it probably can't happen cause of privacy."*

Some users suggested that moderators could have oversight of such private conversations, however, this would be unfeasible not only due to the sheer number of conversations, but the need for real-time moderation to intercept problematic communications.

*"Perhaps an option to have private group discussions (still anonymous of course --> perhaps a Kids Helpline Counsellor could also be present to ensure adherence to rules) to allow for more interpersonal and in-depth conversations."*

*"I wish you could talk to others privately but be able to block and report messages to stop cyberbullying."*

## FOCUS GROUP EVALUATION OF THE CLIENT EXPERIENCE

In addition to the qualitative feedback collected as part of the follow-up surveys, KHL moderators conducted two online focus groups with My Circle participants in September 2022 to gain further insights into the experiences and perspectives of My Circle users. An invitation for My Circle users to participate was posted in the 'Welcome and announcement' circle (see Figure 12). Sixteen young people expressed interest in booking a place in one of the focus groups, with 12 participating across the two days (8 on day one, 4 on day two). Participants ranged in age from 14-19 years and represented a range of gender identities (see Table 21 below). Due to the anonymous nature of participation in My Circle and the associated research, responses are not linked to demographic details nor chosen pseudonyms in this report.

Focus groups were conducted using the teleconferencing software Zoom, with moderators asking questions of the group verbally and the young people responding in the chat function using pseudonyms. There were nine key themes covered by moderator questions, and responses related to each are summarised below.

Table 21. Focus group demographic data

Demographic	N
Age (years)	
14 years old	2
15 years old	2
16 years old	3
17 years old	2
18 years old	2
19 years old	1
Gender	
Woman/Girl	2
Man/Boy	3
Gender-diverse	2
Non-binary	2
Prefer not to say	2

Figure 12. Post in the 'Welcome and announcement' Circle to recruit focus group participants



### 1. JOINING MY CIRCLE

Most participants found out about My Circle via the Kids Helpline website while browsing for other reasons or waiting for webchat (which most said they had used before). One participant was referred to My Circle via a crisis hotline, and one found out about it from their sister.

Reasons for joining My Circle included curiosity, to 'vent', to talk to others going through similar issues, and to not feel alone. Some remarked that they did not expect there to be so many active users on the platform.

*"To vent and to get help with certain problems and it was a lot friendlier and the people were more helpful then I thought."*

*"I didn't expect there to be as many people. I joined to talk to people with similar issues as me."*

## 2. PATTERNS OF USE

The frequency with which participants logged into My Circle varied greatly, from multiple times a day to once a fortnight. Most said that they logged in at least a couple of times a week and agreed that logging in more often is beneficial.

*"Yeah, My Circle is kinda like a comfort place for me so logging on helps a lot."  
"It helps ground me when I'm having a out-of-mind episode reading others posts."*

Most said that they enjoying both posting and reading/commenting on posts from others.

*"I'm usually reading posts and commenting, but I do post if I have something I want to talk about."  
"I prefer reading and commenting on others posts, but I do also make posts when I'm struggling."  
"A bit of both, I like giving advice."*

Asked if there should be any new Circle topics added in the future, most said that the existing topics 'have it covered'. There were some suggestions for new topics (e.g., sleep problems, racial issues), but suggested are actually already covered by existing Circles (e.g. 'home life' covered is covered in the 'Family Relationships' Circle).

*"No yous have it all covered."  
"I feel like u guys should add a home life circle – like family issues, abuse etc  
"They are fine to me and I think that there should be one for people who want to talk about wanting to leave home."*

## 3. SUPPORT FROM MODERATORS

Participants were very positive about the support provided by KHL moderators, some adding how kind and friendly they were, and that they made them feel safe in the My Circle environment.

*"They are really helpful and on all my posts, I've had them reach out via My Circle and email to check up because I only post major things."  
"They are very kind! The moderators I've gotten seem very friendly."  
"I think they are really nice and encouraging. They make the space a safe place and they are helpful and give good advice."  
"I feel like having them there is like a safety net in case something goes south."  
"I love that the moderators check up on you when u post something."*

Some remarked that moderators are very quick at responding, such that some thought they were 'bots' or were copy and pasting responses.

*"I used to think the moderators were bots because they were so quick to respond!"*

*"Most of the time pretty friendly it's just sometimes it feels a bit like copied and pasted (not usually but yeah)."*

One person said that they sometimes found the moderators' wording 'confusing', while another said they wished moderators were able to provide personal opinions.

*"They are amazing, though I would love to be able to gain more of their personal opinion, though I know that's tricky since that goes against a lot of things."*

Some participants specifically mentioned that they liked the discussion starter and psychoeducational posts from moderators that are sometimes pinned at the top of a Circle stream. However, one user thought these ‘cluttered up’ the newer posts from other users.

*“They give good resources and the right kind of information and advice.”*

*“I think they are helpful cuz they let us know things that we may have skimmed over.”*

*“I think it’s quite good but when accessing through the circles, it often clutters up the newer posts so I have taken to using dashboard to see it coz their posts are all pinned.”*

*“Yeah its up there for a good reason.”*

Participants were asked if the information provided by moderators prompted them to search for more information on the internet or anywhere else. The most common response was ‘sometimes’.

*“Yeah I often click on the hyperlinks or whatever it’s called.”*

*“When I’m in a better mood it’s easier to click links and info shared but when I’m struggling more it feels a bit like – what do I do?”*

*“Not as of yet, sometimes it would prompt me to reach out to people I know in person”*

Participants were also asked if they preferred moderators or other users to respond to their posts. Some said they preferred other users, but most said they liked having both perspectives.

*“I like both because of the different perspectives to be honest.”*

*“I prefer hearing from people who understand cuz it feels less judgemental.”*

*“I feel like they [moderators] definitely try to include everyone but obviously they’re moderators, the interactions aren’t going to ever be the same as someone your age.”*

#### **4. SUPPORT FROM OTHER USERS**

Participants were also generally positive about the support provided by other users of My Circle. Some mentioned how encouraging and empathetic everyone is, while others said that they like hearing different perspectives and strategies from others.

*“They are really empathetic :)”*

*“So many people are really supportive.”*

*“Yes, they’re always really encouraging and sometimes others give suggestions on what strategies help them.”*

*“Even if there’s not a solution, it’s comforting to have a shared experience.”*

*“I find it helpful cuz i get to hear a different perspective to the same issue.”*

Participants were asked if interactions on My Circle feel like a regular conversation and participants agreed that they do. One participant noted that compared to other users, interactions with moderators felt ‘kinda bot like’, but they and others agreed that this was not necessarily a bad thing.

*“Well with moderators it feels kinda like a bot but it’s still humanly.”*

*“Haha yeah they’re so collected and smart sounding but it’s a nice contrast*

*“Massive paragraphs”*

*“Like you can still tell it’s a human but I love how it is.”*



When asked if there was anything they'd like other users do more of in their responses, the most common response was to include problem-solving advice rather than just validation. Others simply thought that responses were sometimes too brief.

*"Majority of the time it's just people basically saying 'it's okay and you're okay' but that doesn't really help more because I have problems identifying and actually experiencing emotions so it doesn't help a lot."*

*"Giving more suggestions on how to solve a problem more than assure that it's okay."*

*"They could elaborate more."*

*"Some responses can be short and it's hard to interpret things."*

One participant said that they sometimes say directly what they need from others to encourage responses that meet their expectations.

*"Like I sometimes try to say what I need because then u get the responses you were looking for."*

There was consensus that other users contributed to making them feel safe using My Circle, particularly because people generally followed the rules.

*"Almost all the posts I see start or end just letting people know that they're safe."*

*"I think knowing that people are there for you is a lot for me, having that extra security. Also knowing people go through the same thing."*

*"It's also good that they go by the rules willingly because that way they are still making sure others are safe."*

*"A lot, but I think it's also due to the rules to not set anyone off with certain triggers."*

Participants were less likely to search for more information after reading another user's post compared to reading moderator posts.

*"Not really."*

*"More so just to do actions, not look up anything or whatever but like take care of myself when I'm not feeling okay."*

*"From time to time, yea, cuz they mention something I don't know."*

*"Not as much as from the moderators, I guess they give more real life experience/advice rather than links, but if they talk about a term or something I'm unfamiliar with I will."*

## 5. SELF-HELP COURSES

Most participants were not aware of the self-help courses within My Circle. Some said that they were aware but hadn't tried them due lack of motivation or a preference for the discussion Circles.

*"I've never seen them."*

*"I haven't because it feels like a lot of info and it's hard to be motivated."*

*"I haven't, mostly because I become afraid that it won't help, since I'm not very independent in being able to focus on something like that if it isn't in person if that makes sense haha. But I think they are a lovely idea."*

*"I like that its split up into sections tho, it makes it seem a bit more manageable but I think I prefer just talking to people."*

*"Maybe if there was more discussion on them although I guess there actually needs to be people there in the first place soon."*

The two participants who had used the self-help courses were positive about them.

*"I found them quite useful, it was very informative. I'm thinking of having a go at some of the activities."*

*"There's good information I like the balance of writing and images and stuff."*

## 6. OTHER SUPPORTS

All participants said that they were receiving other support in addition to being on My Circle, most commonly from a psychologist and/or school counsellor.

*"I'm getting supports from a psychologist and school."*

*"Psychologist, out of school counsellor, school counsellor, mental health ward people."*

*"A counsellor from Kids Helpline calls me every week, I also see a therapist and have a community mental health team."*

*"Yes, my school nurse she's lovely and supportive of me being trans."*

Participants were asked how interactions on My Circle compared with other supports they received. There was consensus that My Circle was a great complementary adjunct to other support (and in some cases more helpful). Reasons for this included that My Circle is convenient, free, and provides a unique opportunity to connect anonymously with peers going through similar situations, which helped some users share more easily.

*"Yeah I have other supports, I feel like I share more on My Circles in general cus it's not as direct."*

*"They both work well."*

*"I feel like the members of my circle are more helpful for some reason. They could have experienced that stuff y'know."*

*"My Circle is different to the other supports I get because in My Circle I know there are others going through a similar situation to me."*

*"With My Circle it's great to anonymously put online and not be in person."*

*"Yes, I think My Circle is really accessible when you just need to hop on, it also free not to mention."*

A couple of participants also mentioned disadvantages of My Circle compared to other supports – having to retell their story each time they want to post asking for support, and the fact that My Circle has restrictions on what you can share.

*"It's easy and hard, easy because it's not as confronting, but hard because sometimes I feel I repeat myself a lot and tell my story over and over, which felt nice to let it out in the short run, but the amount of times I was doing it make it more and more draining and less rewarding."*

*"It's easier to talk on Circles but its good in person and other supports cus you can share more without restrictions."*

## 7. REDUCING STIGMA

Most participants agreed that connecting with others on My Circle had helped reduce any stigma they had about their mental health.

*"Yeah, I think it's shown just how many people go through the same thing as me which definitely has reduced stigma."*

*"Yes! Just knowing other people feeling emotions too, it just feels nice to know you're not alone."*

*"It's reassuring that I'm not the only one yea."*

*"Helps us to understand our thoughts and feelings."*

There were however a couple of participants who felt that My Circle did not have much effect on their stigma around mental health.

*"Somewhat, in some ways, but in a lot of ways, it's hard to relate to anyone since I feel no one has gone through a patch like I have in the My Circle."*

*"Not a lot. It takes a lot more to change my views on stuff."*

Participants were asked to articulate any specific benefits they experienced from connecting with other members on My Circle. Responses included making friends and feeling more connected, having their experiences and feelings validated, and stopping intrusive thoughts.

*"I feel like I'm actually friends with other people on there even tho its anonymous – it's great to have connection and that :)"*

*"I think because the Circles are all split into areas, you have gone through what the person is talking about so there's already a connection."*

*"Getting the validation that what happened to me wasn't alright and wasn't my fault and is an actual problem."*

*"It's good not having to back up why you're feeling that way because people get it and hear you."*

*"I've been on the edge of my life many times so yeah a lot of people have helped to stop the intrusive thoughts getting to my head. They validate my experiences too."*

One user responded that My Circle had changed how their perspective on how they view others who are struggling, to which other focus group members strongly agreed.

*"It has changed my perspective. It's made me really sit and think about myself and how I view other people. How I judge them without knowing what's happening."*

*"Yes OMG same!"*

*"Yes definitely."*

Participants were asked if connecting with others on My Circle had made them more comfortable in discussing their mental health with people outside of My Circle, to which responses were mixed. Those who said it did help did not elaborate, whereas those who said it did not help mentioned the difficulties of speaking in person (particularly with family) and how much easier it was to do so on My Circle. The reasons for this included the validation they receive from those with similar experiences, and the ability to receive advice from multiple other users over a longer period of time.

*"Yes, kind of."*

*"It helps a lot."*

*"Not really because it feels like a completely different setting."*

*"Um no, I can't speak about the things I post about in person. It's still difficult for me."*

*"My family aren't supportive of my mental health so it's good to be in a space like My Circle where I can feel validated and supported, like people care."*

*"I talk about the things I post about with some friends IRL [in real life] but a conversation moves on I guess whereas online it will be there longer and people can give advice yeah."*

## 8. COMMUNITY GUIDELINES

Participants were asked an open question regarding how they felt about the My Circle community guidelines. Responses were mostly positive, with some specifically mentioning that they appreciate how kind the moderators were when having to enforce the guidelines.

*"The guidelines are very good. I feel for secure and safe. It gets rid of very distressing posts and politely asks you to change it."*

*"I think the guidelines are pretty good."*

*"I feel alright with them. I do appreciate the mediators [moderators] being kind about things when we post this that don't follow the guidelines."*

*"They're very polite when rules are accidentally broken which is nice."*

Participants agreed that the guidelines made them feel safer on My Circle (than if there were no guidelines).

*"I think so for sure!"*

*"Yes, it's good to have boundaries for everyone to follow."*

*"It makes me feel like I won't see any distressing posts or content... makes me feel comfortable."*

There were some criticisms of the guidelines related to the strictness and occasional inconsistency regarding the removing of trigger words.

*"They are good. They really go around majority of peoples triggers to stop them and stuff but for some of us they can be a bit much like certain words that for people who are older or have less triggers, it can be a bit of a pain to try and go around it."*

*"Yeah, like sometimes things get edited when they don't say in the guidelines its wrong but then sometimes other things stay in posts but aren't meant to be."*

One participant specifically mentioned that the guidelines for the 'Self-esteem and Body Issues' Circle were confusing (these relate to not posting about body size and shape, diets, exercise, or anything too descriptive or considered pro-eating disorder). The moderator running the focus group acknowledged this was a tricky area and that the guidelines were currently being reviewed to avoid confusion.

*"In the self-esteem and body issues circle it gets bit confusing."*

Other points raised were the removal of names from posts when they weren't real names (to which the moderator running the focus group advised could be avoided by simply adding "not their real name") and the limitation on sharing usernames on other social media platforms for private talk (though this participant acknowledged they understood that this guideline was in place for their safety).

*"The one thing that gets annoying is names because often they're not the person's real name or something but the moderators may think so. Either way, it's good to assume the stricter side of things."*

*"In relation to the guidelines, they're really good at keeping us safe but I do wish we could ask each other to exchange usernames on other social medias to talk more in private. But I know this is obviously for safety."*

Participants agreed that the guidelines helped keep conversations more respectful, but some said that they thought the community would be respectful anyway and the main benefit of guidelines was to avoid triggers for others.

*"Oh absolutely, sometimes as teenagers some people might become a bit out of hand so it's absolutely amazing to have ground rules to follow and to learn to respect. For a lot it's easy but for some that act on impulse it may be harder."*

*"No accidental triggers or miscommunication where to one person it may mean something okay but to the other it may be like the worst thing ever said to them."*

*"Yes! I think even without guidelines everyone I've seen have been very respectful and kind."*

*"To some extent yes but I do feel like most people don't read through them thoroughly and are just good people."*

*"Like in terms of respect I think it's pretty good anyways, I mean but in terms of triggers it helps quite a bit."*

## 9. PLATFORM USABILITY AND INTERFACE

Participants were asked how easy they found the My Circle platform to navigate. Most participants said it was relatively easy to navigate, with the dashboard (which shows the latest posts from all the Circles that a user follows, similar to Facebook's 'Newsfeed') identified as a useful feature of the My Circle interface.

*"The platform is pretty easy to navigate."*

*"Very simple, not too complicated and not too plain either. Being a creative blooded person, would love more personality on the website but that's extremely subjective."*

*"I love the dashboard, I'm mainly on there because it has all [the] topics I want coming in."*

*"I love that it feels like a social media but what social media should've been, being anonymous with no worries or concerns of being tracked down or whatever."*

Some users noted issues with the notifications system. One user found the notifications confusing, one had turned off them because they were receiving too many, while another said they were not receiving notifications when someone commented on their posts.

*"Pretty easy altho [sic] sometimes I miss things because most of my notifications are off because otherwise there's too many and it gets overwhelming."*

*"The notifications can confuse me."*

*"I get a lot of notifications by email when others post but I didn't get one when people comment on my post (unless I missed it)."*

Another issue raised was not being able to see their post straight away after posting. The moderator running the group noted that this was a known glitch that was being rectified.

*"Sometimes I feel confused... like when my post disappears."*

*"My post saves but I don't see it straight away."*

The look and feel of My Circle was also discussed, with participants liking how colourful, calming and age-appropriate it is.

*"The look and feel to My Circle is amazing."*

*"It's very inviting and colourful!"*

*"The animations, very colourful and calming."*

*"Yeah no it's nice, I definitely find it age-appropriate."*

Some participants discussed how much they liked the interface for creating a post in particular.

*"It's sort of weird but I like the way you create a post haha."*

*"Yea same haha."*

*"The formatting and the emojis...it's clear, I love it."*

Participants were asked what features or improvements they would like to see implemented on the My Circle platform to improve their experience. Common responses were having more options to customise the colour scheme of the platform, with the brightness when viewing at night mentioned as a particular issue for some.

*"I'd like to see a customisation feature in the future like changing the colours to our pleasure, different patterns etc."*

*"Colour filters for colour blind people and colour coding for people like me with autism."*

*"I would love colour coding."*

*"Is there a way we can lower the brightness of the platform at some points. Especially when it is night-time? It is pretty blinding."*

Participants in both groups brought up wanting changes to allow them to hide the fact that they are on a Kids Helpline website if other people see their screens (i.e., parents, friends).

*"Maybe a button somewhere to hide the screen to something else because I know some people who have parents who don't like them going on these websites and would get into trouble. Like a panic button."*

*"I just think that maybe with the Kids Helpline logo at the top, maybe changing it to like the My Circle logo because people in my class saw and immediately thought I needed help."*

*"I understand what you mean about when other people see it haha."*

Two users expressed a desire to chat to other users in smaller groups. One user said they'd like to be able to view their post history, and another wanted to be able to include some biographical information on their profile, to which others expressed enthusiasm.

*"Could we have a chat to other users feature like maybe group chats (that are obviously moderated) I'd like that."*

*"I like the idea of being able to chat in a smaller group yeah but I know that not always possible."*

*"Like a post history on our profiles."*

*"Is there a way we can add bios for My Circle?"*

*"Bio!! Yes."*

At the conclusion of the focus groups participants were asked if they had any further comments, to which a number of participants took that chance to communicate their appreciation for the My Circle moderators.

*"I just want to say thank you. I've struggled a lot with my anxiety surrounding my issues and having somewhere to talk with little to no concerns is really relieving and makes me feel better. I've hated myself a lot for stuff I've done in my past and chatting has certainly helped."*

*"Thank you so much!! Love the space."*

*"You guys are doing great I hope you know that :)"*

## ENGAGEMENT DATA

A bespoke reporting portal developed for My Circle allowed for detailed participant engagement data for each 'Circle' to be exported. There were 2,985 users of My Circle who logged on at least once during the evaluation period. Table 22 shows the number of users who created posts in each Circle, and the total number of posts, comments, likes and poll responses in each Circle across the evaluation period. Overall, there were 16,849 posts during the 36-week evaluation period (an average of 468 posts per week) by 1,470 unique posters (50.6% of registered users), 25,204 comments (700 per week) and 24,379 likes (677 per week). Note that users are not permitted to create posts in 'My Circle news' or the self-help courses but may comment on or like moderator posts in these spaces. Google Analytics data indicated the average session length of users was 15:28 minutes, during which they viewed on average 6.75 pages (i.e., different Circles or sections of the My Circle platform). There were three Circles that stood out as being more popular than the others on all engagement measures, accounting for more than half of all posts, comments and likes between them: 'Mental Health', 'Suicidal thoughts and self-harm urges' and the off-topic Circle 'The Vibezzz'.

## SELF-HELP COURSES

The self-help courses received very low engagement compared to the Circles in terms of comments and likes. However, it appears that participants engage with the self-help courses differently to the Circles, with responses to the poll questions posed throughout the psychoeducation modules indicating good engagement with the content in the 'Loneliness and social connection' (1,478 poll responses), 'Managing anxiety' (1,535), and 'Dealing with depression' (1,463) courses. It should be noted that the figures for the latter two courses have been pro-rated across the 36 week evaluation period, as they were not launched until September 2022 and May 2022 respectively. The three other self-help courses appear to have received much less engagement, with less than 300 poll responses each and no more than 10 comments or likes.

Table 22. Total number of My Circle users who created posts, total number of posts, likes and comments

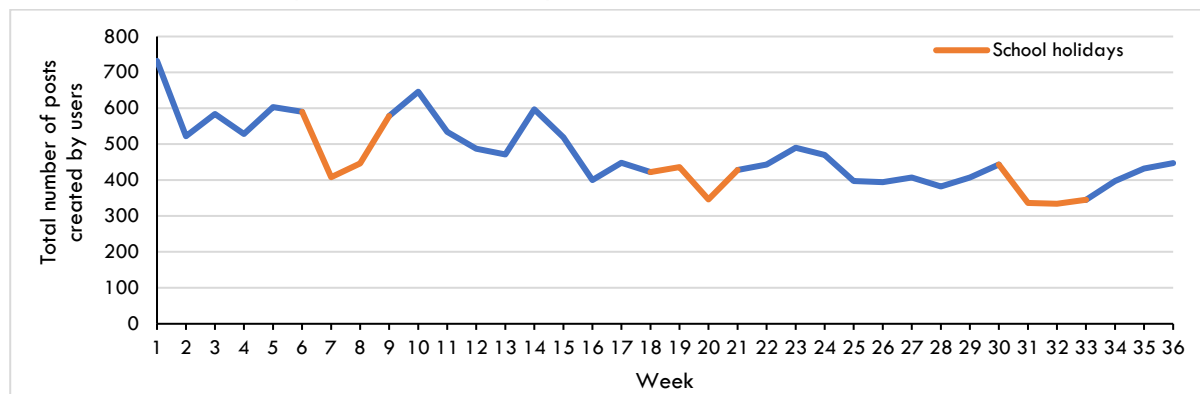
	Topic	Users who posted	Posts	Comments	Likes	Comments per post	Likes per post/ comment	Poll responses
Circles	Mental health	601	3,989	5,546	5,604	1.39	0.59	487
	Suicidal thoughts & self-harm urges	519	3,319	3,924	3,685	1.18	0.51	201
	The Vibezzz	366	2,248	4,513	5,056	2.01	0.75	2,588
	LGBTIQAP+	347	1,214	2,559	2,343	2.11	0.62	325
	Friendships	368	1,017	1,359	1,172	1.34	0.49	180
	School and work	334	914	1,143	1,151	1.25	0.56	279
	Dating and sex	336	868	1,312	1,034	1.51	0.47	108
	Disability, illness & physical health	205	825	951	843	1.15	0.47	10
	Family relationships	392	824	1,034	841	1.25	0.45	93
	Self-esteem and body issues	244	451	609	536	1.35	0.51	33
	Bullying and harassment	158	235	389	215	1.66	0.34	103
	Getting help and resources	100	189	217	213	1.15	0.52	8
	Covid and the world around me	93	183	307	292	1.68	0.60	84
	eSafety and social media	55	86	131	121	1.52	0.56	117
	Substance use and other addictions	62	76	76	70	1.00	0.46	0
	Culture, religion and spirituality	35	65	158	68	2.43	0.30	54
	Natural disasters and climate change	9	16	25	22	1.56	0.54	31
House-keeping	Welcome and announcements	131	330	856	959	2.59	0.81	90
	My Circle news	-	-	45	118	-	-	37
Self-help courses	Coping with bullying	-	-	8	0	-	-	252
	Dealing with depression <sup>a</sup>	-	-	5	23	-	-	1,463
	Family relationships and conflict	-	-	10	3	-	-	203
	Loneliness and social connection	-	-	15	16	-	-	1,478
	Managing anxiety <sup>b</sup>	-	-	24	18	-	-	1,535
	Staying safe with alcohol and drugs	-	-	0	0	-	-	179
Total		1,470	16,849	25,204	24,379	-	-	8,288

Note: <sup>a</sup> Pro-rated for entire evaluation period due to late launch in September 2022. <sup>b</sup> Pro-rated for entire evaluation period due to late launch in May 2022.



Figure 13 shows the overall number of new posts per week across all Circles. The week with the greatest number of posts was the first week of the evaluation period. A drop in the number of posts per week was evident around weeks 7-9, 19-21, and 31-33 which were school holiday periods in Australia (highlighted in orange). There was also a minor drop in week 16 which was a long weekend in all states except Queensland.

Figure 13. Total number of posts across all Circles by week



For visual clarity, engagement results for the ten most popular Circles during the evaluation period (greater than 400 posts) are shown in separate graphs to the remaining Circles (less than 400 posts). Figure 14 shows the number of posts created by users each week in the ten most popular Circles during the evaluation period. The 'Mental health' Circle received the greatest number of posts overall in most weeks (29 of 36 weeks), with the next most popular Circle, 'Suicidal thoughts and self-harm urges', receiving the greatest number of posts in 6 of the 36 weeks evaluated. 'The Vibezzz' received the greatest number of posts in the first week of evaluation.

Figure 14. Total number of posts across ten most popular Circles by week

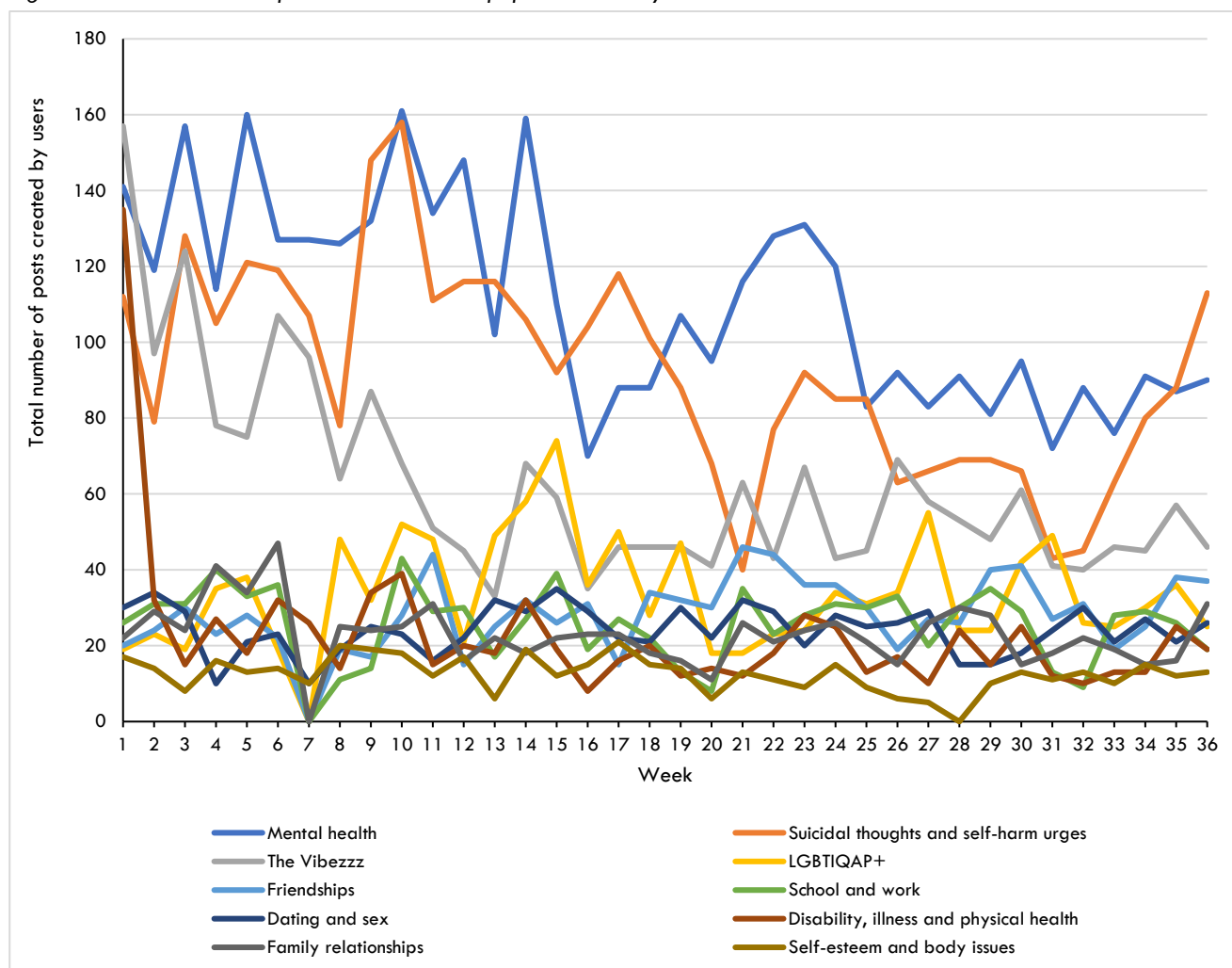


Figure 15 shows the number of posts created by users each week in the remaining eight Circles in which users were able to post. Of these less popular Circles, 'Welcome and announcements' received the greatest number of posts in most weeks (22 of 36 weeks), with the next most popular Circles 'Bullying and harassment' and 'Getting help and resources' receiving the most posts in 6 of the 36 weeks each. The number of posts in the Circle 'Covid and the world around me' varied greatly from week to week, receiving the greatest number posts of the Circles outside the top 10 twice, peaking in week 13 when it was reported that Australia had the highest per-capita COVID infection rate in the world. The 'Natural disasters and climate change' Circle was the least popular, receiving posts in only 6 of the 36 weeks.

Figure 15. Total number of posts across eight least popular Circles by week

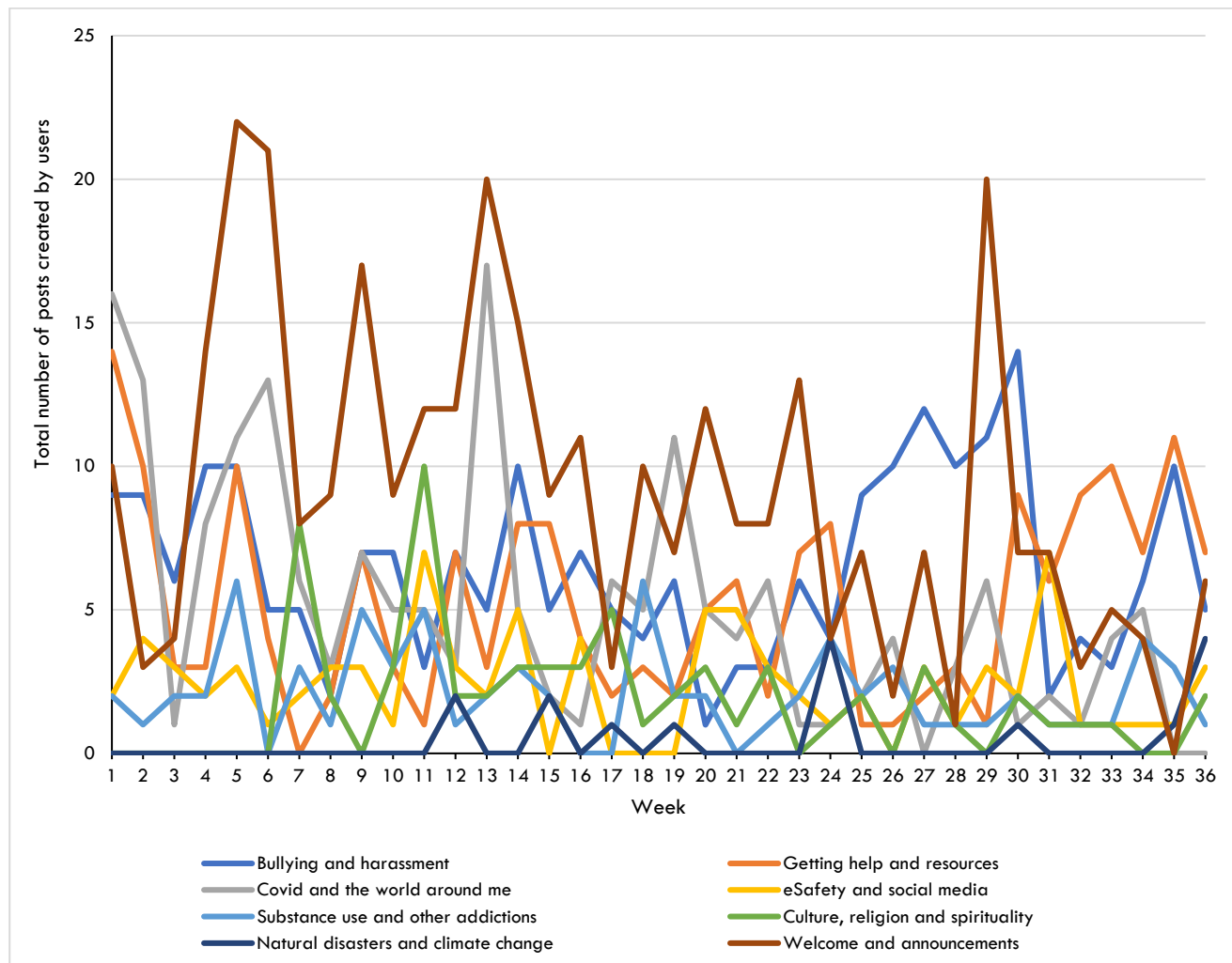


Figure 16 shows the number of comments each week in the ten most popular Circles during the evaluation period. Consistent with having the greatest number of posts in most weeks, the 'Mental health' Circle received the greatest number of comments overall in most weeks (24 of 36 weeks). Despite having less posts than the second most popular Circle, 'Suicidal thoughts and self-harm urges', 'The Vibezzz' received the second greatest number of comments overall, and the most in 6 of the 36 weeks evaluated. This includes the first week, in which its 157 posts generated 558 comments, which was more than double the next greatest number of comments in any Circle in a single week (239).

Figure 16. Total number of comments across ten most popular Circles by week

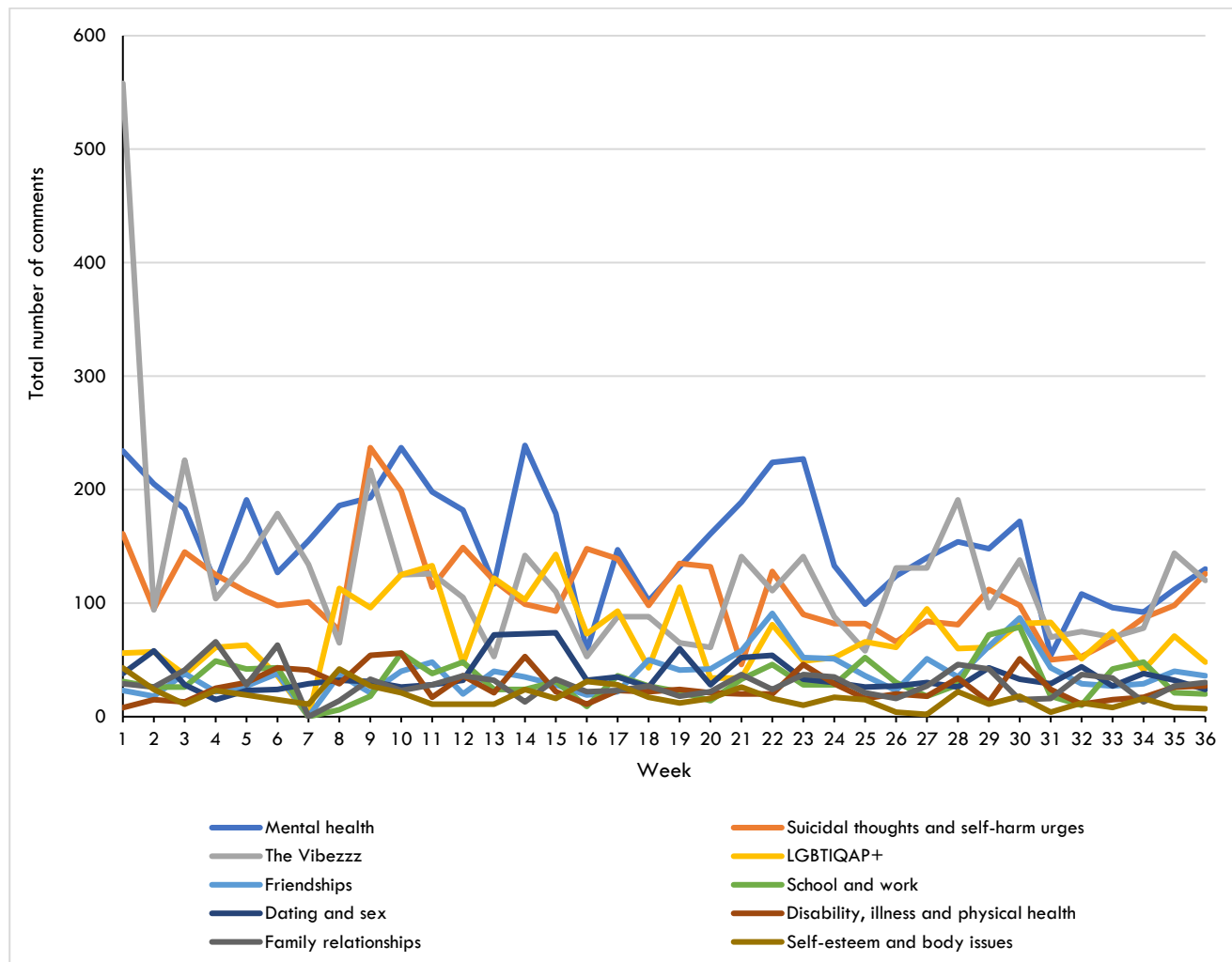


Figure 17 shows the number of comments by users each week in the remaining Circles. 'Welcome and announcements', which received the greatest number of posts among these Circles also received the greatest number of comments overall and in most weeks (28 of 36), at a post to comment ratio of 2.59 (the highest post-to-comment ratio of any Circle, including the those in the 'top 10'). The nature of this Circle (introductory posts from new members and sporadic announcements from moderators) meant that posting activity varied greatly from week to week.

Figure 17. Total number of comments across eight least popular Circles by week

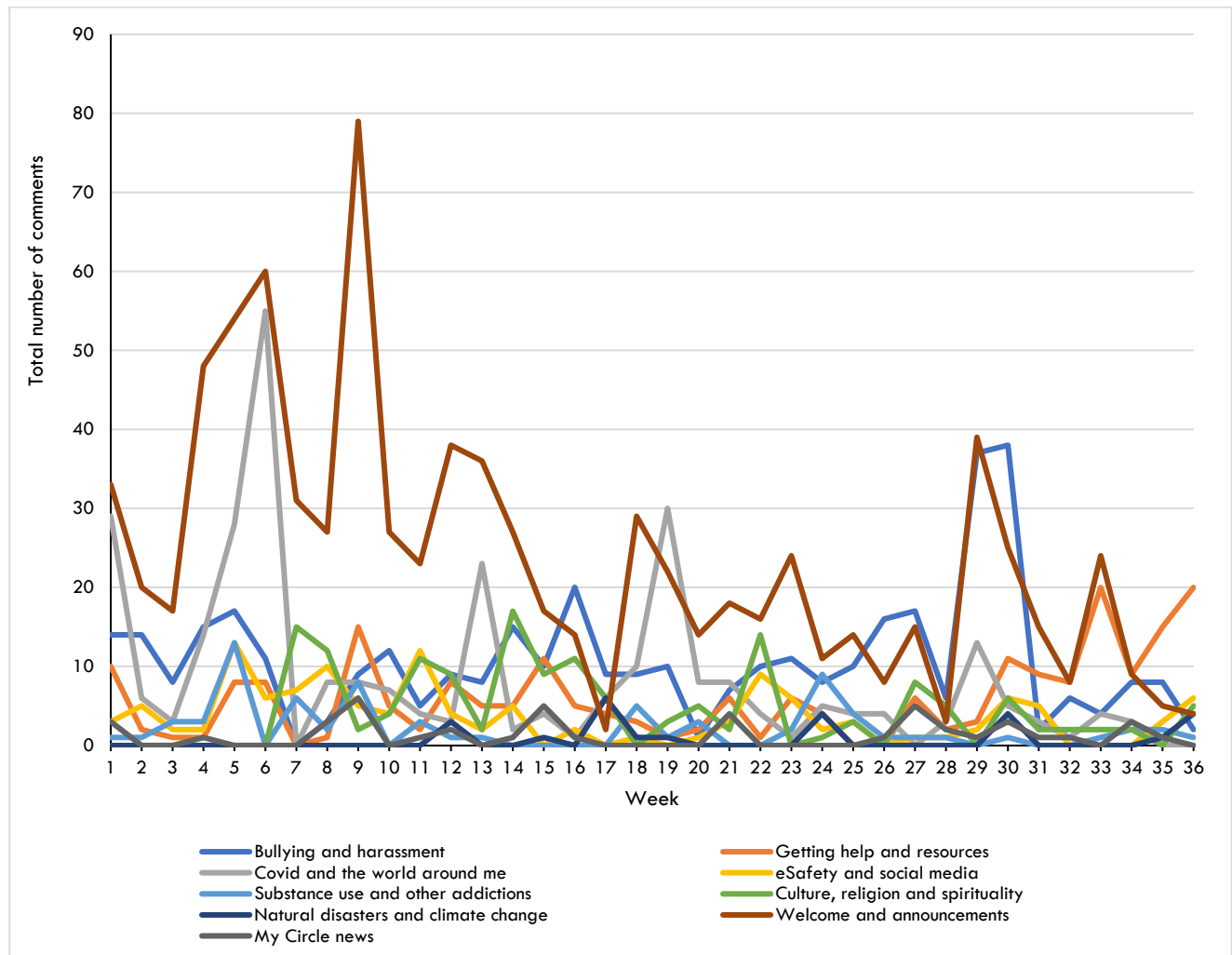


Figure 18 shows the number of likes each week in the ten most popular Circles during the evaluation period. The 'Mental health' (5,604) led 'The Vibezzz' (5,056) for the greatest number of likes, however 'The Vibezzz' had the highest like to comment/post ratio (0.75). 'LGBTIQAP+' also had a high like to comment/post ratio (0.62), leading the greatest number of likes in a week twice.

Figure 18. Total number of likes across ten most popular Circles by week

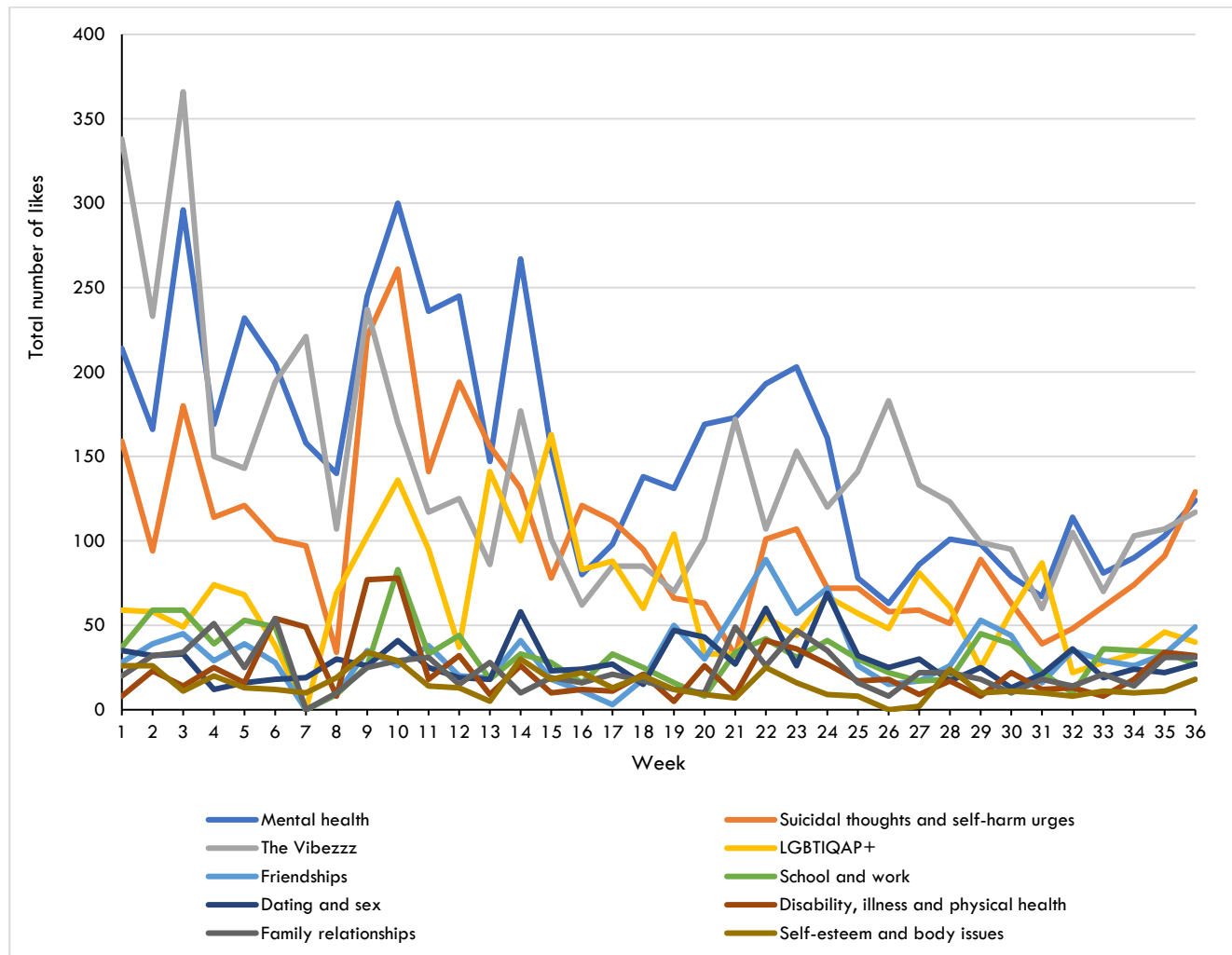
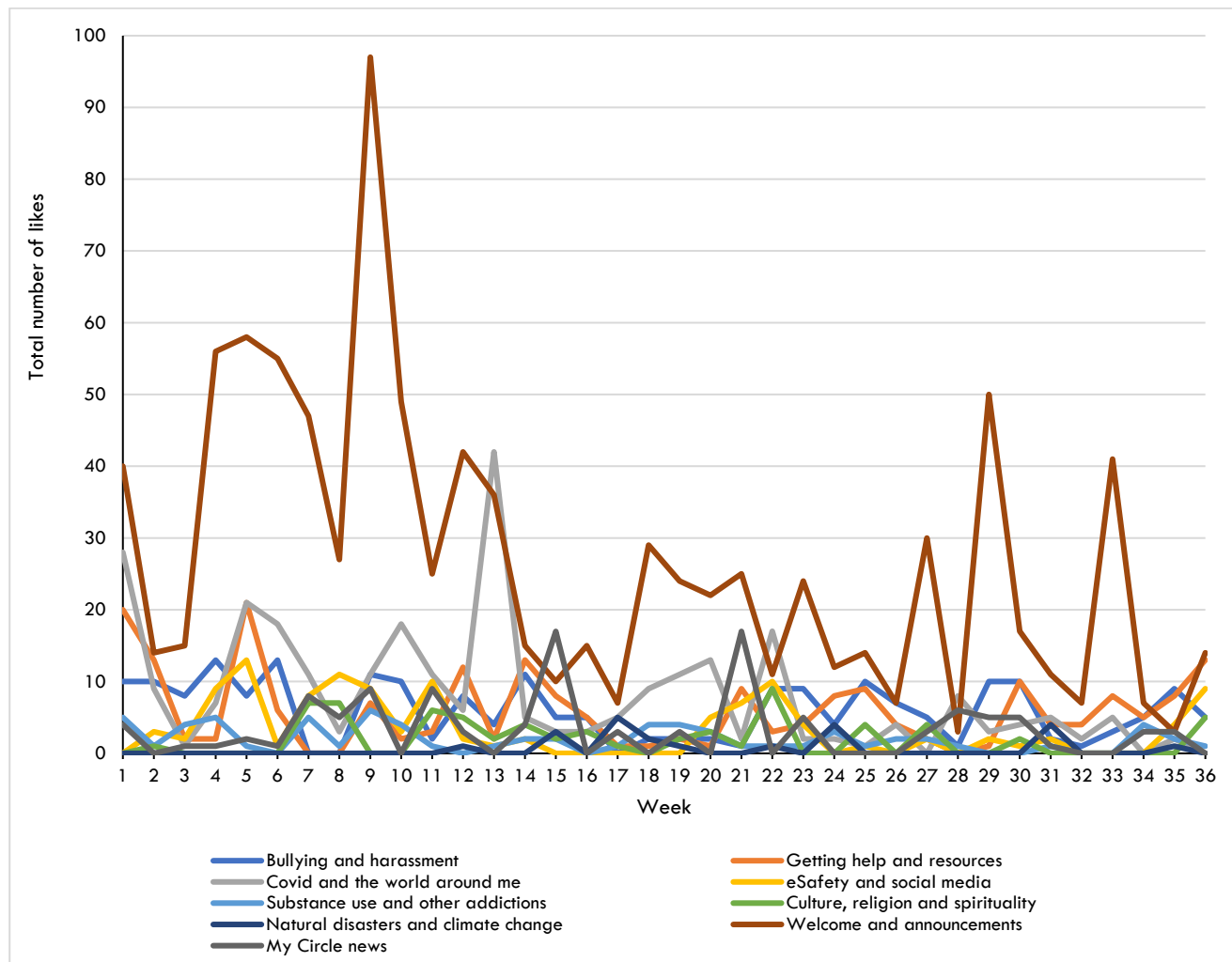


Figure 19 shows the number of likes by users each week in the remaining Circles. Not surprisingly ‘Welcome and announcements’, which received the greatest number of posts and comments among these Circles also received the greatest number of likes overall and in most weeks (32 of 36), at a post to comment ratio of 0.81 (the highest like-to-post/comment ratio of any Circle, including the those in the ‘top 10’). The only other Circle of those outside the top ten to receive more than 20 likes in a week was ‘Covid and the world around me’, which achieved this three times, including 42 likes in week 13 when Australia had the highest per-capita COVID infection rate in the world.

Figure 19. Total number of likes across eight least popular Circles by week



## PRIVATE MESSAGES BETWEEN CLIENTS AND MODERATORS

There were 906 private message conversations between clients and moderators throughout the Phase 5 evaluation period (an average of 25 per week). Almost half of these (44.4%) were 'follow-up of risk' messages initiated by moderators in accordance with My Circle risk management procedures to check in on clients after identifying from a post or comment that they may be at risk (e.g., threat or disclosure of self-harm or abuse). The second most common reason for moderators sending a private message was to contact clients when they committed a rule breach (21.0%), bringing their attention to the My Circle rules and terms of use, and communicating that future breaches may result in them being removed from My Circle.

Around one-quarter of private messages were queries sent from clients to the moderator team, including requests for one-on-one counselling (8.05% overall). However, most queries from clients were regarding administrative issues (18.9% overall) such as how to use platform functions (e.g., "Can I PM other users?"), where to post certain topics (e.g., "Where the best place to post about puberty?"), or what is allowable (e.g., "Can I post a picture of my cat?").

The remaining private messages were regarding concerns about user engagement (7.7%). This included concerns from clients about other users engaging in unsafe or offensive ways (e.g., "Have you seen the post about X that user Y made? It made me a little worried for them"), and moderator concerns about how a client might be engaging ("Just checking in as we can see that you've been posting daily about feeling unsafe and you don't seem to be engaging with some of the support being given?"), or about how a client may be impacted by others (e.g., "Just checking in about how you're feeling about being in that thread where user X made those homophobic comments?").



## DISCUSSION

### SUMMARY OF FINDINGS

The five evaluation phases have collected a vast amount of data and insights regarding the value and role a social networking platform like My Circle, providing young people with a safe place to connect with and support peers, and access accurate wellbeing information and connections to mental health services. The insights gained during each phase, along with significant quantitative and qualitative findings, are summarised below.

#### PHASE 1: MIXED-METHOD EVALUATION OF KHL CIRCLES (8-WEEK MODULES USING ELGG PLATFORM)

- The main reason young people joined KHL Circles was to engage with peers with similar lived experiences
- Circle sizes ranged from 8-34 participants, however most disengaged from the service after 2-3 weeks
- Low response rates to follow-up surveys precluded any qualitative analysis
- The Elgg platform used for KHL Circles was difficult to navigate, with young people suggested a platform that closer resembles existing popular social networks like Facebook would be better
- Qualitative feedback supported proof of concept and user interest for the evolution of KHL Circles as a service delivery model

#### PHASE 2: MIXED-METHOD EVALUATION OF KHL CIRCLES (8-WEEK MODULES USING HUMHUB PLATFORM)

- 9 out of 10 young people found participating in KHL Circles to be a positive experience, felt supported by peers and KHL Counsellors, and would recommend the service to others
- The vast majority of young people found My Circle to be safe and private, and thought that clinical moderators contributed to the safety of the service
- Young people who took part in the 8-week modules reported significant reductions in symptoms of depression, anxiety, stress, and general psychological distress
- Most reported learning new coping skills from both clinical moderators and other users
- More than half subjectively felt their mental health had improved as a result of My Circle, with most feeling more socially connected and empowered to tackle their struggles
- 9 out of 10 would now be more willing to seek help if they experienced mental health issues in the future
- Qualitative feedback from young people was extremely positive, with young people reporting feeling understood and less alone in their struggles
- The highest level of engagement was with off-topic posts from young people (as opposed to psychoeducation posts from clinical moderators)
- Young people demonstrated a desire to connect with peers for the purpose of debriefing, catharsis, and validation, rather than for working through a psychoeducation program
- Although the number of young people in each Circle was increased to 100, most who signed up for KHL Circles disengaged from the service after 2-3 weeks
- There was strong desire from young people for an ongoing version of KHL Circles that allowed continuity of contact between users, and discussions on a broader range of topics
- The change to the Humhub platform resolved most of the usability issues raised in Phase 1, however some technological issues and suggested improvements were raised by clinical moderators and users
- The change to a shorter follow-up survey resulted in an improvement in response rates

### PHASE 3: QUALITATIVE REVIEW OF THE SERVICE OPERATING MODEL

Online focus groups with KHL Circles clients found that:

- KHL Circles was a positive and safe environment for young people
- Positive peer support was the best aspect of KHL Circles
- Coping strategies provided by clinical moderators were useful
- Young people expressed a preference for an ongoing version of KHL Circles where they could keep in touch with their online peers and discuss a more diverse range of topics
- Suggested topics for future Circles included self-harm, LGBTQI+ issues, eating disorders, disability and neurodiversity

Online focus groups with KHL moderators found that:

- KHL Circles required a different skill set from moderators compared to other counselling services
- KHL Circles appealed to clients who may not have otherwise contacted Kids Helpline for support
- The HumHub platform required significant technological updates and customisations to address not only user experience issues, but to automate time-consuming administrative duties required of moderators
- The moderator team required expansion and ongoing training to meet increasing demand
- User engagement with psychoeducation modules was highly variable and difficult to foster

An external consultant review of the operation model found that:

- A proportion of young people didn't really understand from the information on the Kids Helpline website what KHL Circles was and does as a service
- A high proportion of young people were being 'screened out' of the service by the My Circle sign-up questionnaire (due to scoring in the 'extremely severe' range on the Depression, Anxiety and Stress Scale; DASS21) and directed to one-on-one Kid Helpline counselling services for support instead in the first instance
- Young people had to wait between 2 to 6 weeks after signing up for KHL Circles before they could enter the service, due to the need for moderators to assess suitability (based on sign-up survey responses), and the then 6-week cycle format of the psychoeducation program

To address the challenges with the KHL Circles operating model identified in Phases 1-3, the following changes were implemented, with all decision-making guided by human-centered design principles, and hypothesis testing and metrics evaluation conducted internally by yourtown. This new 'open community' model service was rebranded as My Circle.

- Structure changed from 6-week psychoeducation/counselling program to an ongoing open discussion peer-support forum
- Psychoeducation program repurposed into 'self-help' programs
- My Circle website redesigned and promoted, including on social media
- New self-registration and automated validation system to allow entry to service within an hour
- No young people 'screened out', instead provided information about other support services before entering My Circle
- Technical team engaged to assist with programming the platform to have the desired functionality and achieve future state
- Increased size of moderator team and internal training resources developed
- Survey methodology review conducted to ensure balance between scientific rigour for measuring changes in distress over time, and not deterring participation in the service or evaluation surveys

#### PHASE 4: TRIAL OF THE NEW MY CIRCLE OPERATING MODEL (OPEN COMMUNITY USING HUMHUB PLATFORM)

The survey methodology review conducted following the launch of the new My Circle operating model found that:

- There was no significant difference between response rates to the longer DASS21 questionnaire and shorter K6 questionnaire when completing the sign-up process for My Circle
- The response rate to follow-up surveys, however, was significantly lower for the DASS21 compared to the K6
- The K10 questionnaire was adopted for the remainder of the Phase 4 trial following a decision by yourtown to standardise the measurement of distress at Kids Helpline services across all service modalities going forward

An evaluation of psychological distress over time was undertaken to compare the sensitivity of each of the three measures used during the Phase 4 trial (K6, DASS21 and K10) and found that:

- Among those who completed one follow-up survey, there were significant reductions from baseline to follow-up in distress as measured by the K10, and symptoms of depression as measured by the DASS-21
- Among those who completed two follow-up surveys, there were significant reductions from baseline to follow-up in distress as measured by the K10
- It was concluded that the K10 is an appropriate choice as a screening questionnaire, demonstrating an acceptable response rate and enough sensitivity to detect changes in distress over time

An evaluation of user experience of the new My Circle operating model revealed that:

- 9 out of 10 respondents thought that My Circle was a positive experience, would recommend it to others, and felt that their activity was private and confidential.
- 2 out of 3 respondents said that they learned new coping skills from both KHL moderators and other users, that their perceptions of stigma around mental health had reduced, and they would now be more willing to seek help from mental health/well-being services
- Although the role of KHL moderators in actively facilitating engagement was greatly reduced in My Circle compared the KHL Circle psychoeducation module model, a similarly high proportion of respondents felt accepted by KHL moderators and thought that they encouraged open discussion and contributed to the safety of My Circle
- Compared to KHL Circle psychoeducation module model that focused on group counselling, fewer respondents said that their overall mental health had improved as a result of My Circle

Weekly service development meetings were held between the yourtown My Circle leadership team and senior moderators throughout the Phase 4 trial led to the following technical and service enhancements ahead of the relaunch of the service and Phase 5 evaluation:

- An automatic validation function was developed to screen information entered by clients at sign-up for any breaches of specific rules (e.g., out of age range, identifying information in username).
- Follow-up surveys integrated into the platform as pop-up when they log into the platform, rather than links to external survey website being sent via email
- Auto-quarantine feature to hold posts and comments with certain keywords for moderator review before being made live
- Auto-logout feature to address security risks and allow for more accurate engagement statistics
- Removal of audio and video upload functions that were being used by young people to share identifying information
- Suggestions of new Circle spaces were collated and polled within the My Circle community, leading to the introduction of three new Circles (X, Y and Z).
- Specialised training was developed and delivered to moderators to upskill the team to deal with increasingly complex and nuanced clinical presentations and interactions on My Circle
- Development of a workforce algorithm and change in hours of clinical moderation to ensure sufficient coverage and workload distribution

## PHASE 5: MIXED-METHOD EVALUATION OF MY CIRCLE OPERATING MODEL (OPEN COMMUNITY USING HUMHUB PLATFORM)

The 36-week detailed mixed-method evaluation of the relaunched My Circle analysed responses from almost 2,800 young people. Key findings were as follows:

### *Demographics*

- My Circle was particularly appealing to 13-16 year-olds, with two-third of users in this age range
- 63% of My Circle clients identified as woman/girl, and only 12% identified as man/boy
- Gender-diverse, non-binary and custom gender responses made up 17% of the overall sample
- Gender-diverse, non-binary, and custom gender individuals were more highly represented outside of major cities, in particular remote locations where they represented 27% of My Circle users
- There was only one man/boy from a remote or very remote location
- Around one-third of young people were receiving counselling (other than through Kids Helpline) and 1 in 5 were taking medication for mental health issues. Older respondents were more likely to be report doing each of these

### *Psychological distress at baseline*

- At relaunch, 7 out of 10 My Circle users reported levels of psychological distress in the highest range, indicating they were likely to have a severe mental disorder
- The average level of psychological distress reported online by My Circle users was higher than that reported in other face-to-face studies of young people
- Psychological distress was significantly higher among gender-diverse users compared to women/girls, which was in turn significantly higher compared to men/boys
- On average, levels of psychological distress were higher among young people who were receiving counselling (either through Kids Helpline or other services), and/or taking medication for mental health issues

### *Psychological distress over time*

- There was a non-significant general trend in which those who were experiencing higher levels of distress at baseline, maintained engagement with My Circle and the follow-up surveys for a longer period of time
- There was a significant linear increase in K10 scores over time among users who demonstrated at least 6 months engagement with My Circle, with their increasing distress possibly contributing to their ongoing engagement with My Circle

### *User experience and satisfaction*

- Technological and service enhancements introduced for the Phase 5 evaluation resulted in significant increases in user experience and satisfaction scores
- Although not reflected in psychological distress scores on the K10, more than half of My Circle users felt that their overall mental health had improved as a result of My Circle
- Young people who remained engaged with My Circle for at least 3 months were more likely to report feeling that their overall mental health had improved as a result of My Circle at their first follow-up compared to their third follow-up
- This above finding is consistent with increases in psychological distress reported by this sub-sample over time, but may also reflect changes in perception over time as they became longer term users of the service
- The longer young people remained engaged with My Circle, the more likely they were to feel safe and report learning new coping skills, reductions in stigma around seeking help for mental health issues, and awareness of mental health services

### *User engagement*

- There were 16,849 posts during the 36-week evaluation period (an average of 468 posts per week)
- There were 1,470 unique posters, equating to half of all registered users
- There were 25,204 comments (700 per week) and 24,379 likes (677 per week)
- The average session length of users was 15:28 minutes, during which they viewed on average 6.75 pages
- 'Mental health', 'Suicidal thoughts and self-harm' and 'The Vibezzz' (an off-topic zone) were the most commonly used Circles in terms of posts and comments
- Among the top 10 Circles, posts in the 'LGBTIQAP+' Circle received the most user engagement (around 2 comments per post on average) and the most likes per comment/post (0.75 per comment/post on average)
- There was a drop in the number of new posts during school holidays, followed by an increase as the school term resumed
- While the self-help courses received very low engagement compared to the Circles in terms of comments and likes, there was high engagement with poll questions as part of the self-led psychoeducation modules
- The 'Managing Anxiety', 'Dealing with depression', and 'Family relationships and conflict' self-help courses received the highest levels of engagement
- There were 906 private message conversations between clients and moderators (an average of 25 per week)
- Almost half of these were 'follow-up of risk' messages initiated by moderators to check in on clients after identifying from a post or comment that they may be at risk
- The second most common reason for moderators sending a private message was to contact clients when they committed a rule breach (21% of private message conversations)

### *Qualitative feedback*

- The best aspects of My Circle were connecting with peers, the supportive environment, and having online access to 24/7 support
- Young people said the benefits of being able to connect with other young people in similar situations were sharing coping strategies with others, feeling understood, feeling that they aren't alone, and helping others
- Young people liked the 'community feeling' of My Circle, which they found to be a much more positive and safer environment than other social media platforms, allowing them to share their feelings and experiences without judgment
- KHL Moderators were appreciated for the genuine support and care they provide both in the Circles and via private messaging
- The majority of young people did not have any suggestions for improvement for My Circle during Phase 5
- Suggestions that were received focused mainly on usability improvements such as making My Circle a standalone app, allowing more information to be included on user profiles, introducing 'dark mode' for use at night, and a 'quick exit' button
- Suggestions for new Circle topics included neurodivergence (which was introduced in 2023 following a My Circle poll), women's issues, domestic violence, and grief
- Some young people thought that better communication was required from KHL moderators regarding why posts are flagged for quarantine, while others thought that there were too many safety restrictions in general
- Some young people expressed a desire for private messaging between users and even suggested ways in which these could be moderated, however for safety and feasibility reasons this is not possible for My Circle

### Online focus groups with My Circle clients

- Most found out about My Circle via the Kids Helpline website while browsing for other reasons or waiting for webchat
- Patterns of use varied greatly, ranging from multiple times a day to once a fortnight
- KHL moderators were viewed very positively, particularly how kind and friendly they were
- Some participants preferred their posts to be responded to by other users rather than KHL moderators, but most said they liked having both perspectives
- My Circle users liked how encouraging and empathetic other users were, and enjoyed hearing different perspectives and strategies from others
- However, some users would prefer more specific problem-solving advice from other users, rather than just validation
- Most were not aware of the self-help courses within My Circle
- My Circle was considered a great complementary adjunct to other support such as face-to-face counselling, and in some cases more helpful
- Participants liked that My Circle is convenient, free, and provides a unique opportunity to connect anonymously with peers going through similar situations
- Some mentioned how much easier they found it to discuss their issues on My Circle compared to with friends or family
- Most agreed that connecting with peers on My Circle had helped reduce any stigma they had about their mental health
- My Circle felt like a safe space because users generally followed the community guidelines, which kept conversations respectful and minimised triggers for others
- My Circle was considered easy to navigate, and participants liked the look and feel of the platform, in particular how colourful, calming and age-appropriate it is
- Some however wanted to be able to customise the colours, and have the options of 'dark mode' for viewing at night

## ACHIEVEMENT OF RESEARCH OUTCOMES

The findings summarised above have achieved the core research outcomes that were selected at the start of the My Circle project to guide the development and evaluation of the service. These were chosen to enable yourtown and The University of Sydney's Cyberpsychology Research Group to:

1. Expand the scope and service reach of My Circle, and provide an evidence base for the efficacy of My Circle in supporting young people experiencing depression, anxiety, stress, and self-harm behaviours; and
2. Develop a Digital Mental Health Practice Model that organisations across Australia can adopt as a new model of care to support other vulnerable groups at scale.

The following provides a summary of how the research findings have achieved each of the four core research outcomes of the My Circle project.

### **1. My Circle overcomes barriers to mental health support, increasing access and engaging young people at an earlier stage of treatment readiness than existing services**

Being a free, safe, secure and anonymous online service, My Circle overcomes all the major barriers young people face to getting support for their mental health and wellbeing: cost, lack of awareness about mental health, concerns about confidentiality, social stigma, and limited access to resources.<sup>6,7</sup> The majority of My Circle users indicated that their perceptions of stigma around mental health had reduced as a result of My Circle, and they would now be more willing to seek help from mental health and well-being services. Most My Circle users also indicated that upon signing up for My Circle, they were not currently receiving counselling or taking medication for mental health issues, which supports qualitative feedback received suggesting My Circle appeals to clients who may not have otherwise sought support for their mental health or wellbeing.

## **2. My Circle normalises help-seeking, reduces self-stigma and provides much needed social support and connectedness**

For many young people, signing up to My Circle is the first step taken on their help-seeking journey towards getting support for their mental health and wellbeing. My Circle therefore plays an important role in not only providing much needed social support and social connectedness, but in normalising help-seeking among young people. Most My Circle users thought that My Circle helped them feel more socially connected and more empowered to tackle their challenges. Furthermore, the majority said that they learned new coping skills from both KHL moderators and other users, that their perceptions of stigma around mental health had reduced, and they would now be more willing to seek help from mental health and well-being services. Qualitative feedback supported these results, with the supportive community environment of My Circle identified as contributing to young people feeling more connected, less alone, less stigmatised about their struggles, and more likely to seek help now and in the future. Other common themes among young people were that My Circle was a unique service that gave them a safe place to vent and connect to peers with similar experiences, learn new coping skills, and feel validated, accepted, and socially supported.

## **3. My Circle reduces depression, anxiety and stress symptom severity, and self-harm behaviours**

Young people who took part in the 8-week psychoeducation modules under the old 'KHL Circles' operating model reported significant reductions in symptoms of depression, anxiety, stress (as measured by the DASS-21), and general psychological distress and risk of self-harm (as measured by the CORE-10). Following the transition to a new operating model in Phase 4 to expand the scope and reach of the service to better accommodate the needs and help-seeking patterns of young people, the focus of My Circle changed from module-based online group counselling to larger scale clinician-moderated peer-support forums. Despite this change in focus, the Phase 4 evaluation still detected significant reductions in symptoms of depression, and general psychological distress as measured by the K10 reported by users over one and two months.

The larger scale Phase 5 evaluation conducted over a 36-week period, however, did not detect significant reductions in psychological distress over time. While users on average reported small reductions in distress at first, those who continued to engage with My Circle long-term often reported *increases* in distress over time, which likely contributed to their ongoing engagement with the service. This is consistent with previous evaluations of other Kids Helpline services that have found young people who engage in support for long periods of time often do so because of the complexity of their mental ill health. It should be noted that although not reflected in significant reductions in psychological distress scores as measured by the K10, more than half of My Circle users felt that their overall mental health had improved as a result of My Circle, and 9 out of 10 thought My Circle was a positive experience and would recommend it to others. This suggests that the K10 may not be the most appropriate measure of service success for a peer-to-peer well-being support service like My Circle, and that a mental health literacy measure may be more appropriate to demonstrate positive changes in longer-term users.

## **4. My Circle provides an innovative, cost-effective Digital Mental Health Practice Model that other organisations across Australia can adopt to support vulnerable population groups at scale.**

This report on the development and evaluation of the My Circle platform provides guidance for other organisations, who can adopt this innovative online model of care as part of a Digital Mental Health Practice Model to support other vulnerable populations, particularly where anonymity and security are priorities. My Circle also demonstrates how an open-source social networking platform like HumHub can be customised to create a cost-effective online community of support.

The participatory action research approach adopted for this project, involving young people, counsellors, clinicians, and other stakeholders, has ensured that the My Circle model of care is scalable, sustainable, and meets the needs of young people that were not being addressed by existing mental health services. The My Circle model of care also provides a user-centred entry point to mental health support services, and integration with a client record system that provide accessible pathways for connecting clients to other online and offline mental health services. How a model of care such as My Circle fits into a broader Digital Mental Health Practice Model for youth has been proposed by the authors in a viewpoint paper currently under review with the Journal of Medical Internet Research. This proposed model offers clear and accessible pathways for a client to enter the online mental health system using their online entry point of choice, provides accurate navigation to access support for individual needs, and facilitates a seamless connection with offline mental health services using a transferrable patient records system.

The participatory action research approach to the My Circle project has resulted in the following key recommendations for other organisations who may seek to utilise an open-source social networking platform like HumHub to create a secure and cost-effective online community of support.

- The primary motivation for joining an anonymous online community is to safely connect to peers with similar experiences
- Young people prefer a drop-in drop-out service to a structured week-by-week program-based service
- Any survey burden on participants should be kept as low as possible and integrated within the platform
- Effective moderation is essential to ensuring the safety of the community and requires specialised training and skills
- Platform customisations are needed to ensure safety and an optimal user and administrator experience
- Automatic quarantining of posts greatly contributes to a safe and positive community environment



## KEY STRENGTHS OF MY CIRCLE

The purpose of My Circle is to enhance the social, emotional and psychological wellbeing of young people across Australia by providing opportunities for supervised anonymous peer-to-peer support with others that share similar lived experiences to them, while providing access to accurate wellbeing information, and identifying those at heightened distress for referral to counselling and other support services. This evaluation report has documented the achievement of this purpose using a participatory action research methodology, in which collaboration with young people and other stakeholders and experts has ensured that *safety*, *accessibility*, and *inclusivity* have been at the core of all design decisions. The following explains how the data contained in this report demonstrates these key strengths of My Circle.

### SAFETY

My Circle has achieved its goal to create a safe social media environment for young people that minimises risks and ensures a positive online experience. Young people found My Circle to be a much safer and more positive environment than other social media platforms, allowing them to share their feelings and experiences with peers without judgment. While a small number of users thought that there were too many safety restrictions, the vast majority recognised that KHL moderators and community guidelines contributed to the safety of the service and kept conversations respectful and supportive. Furthermore, the longer young people remained engaged with My Circle, the more likely they were to feel safe.

From the first pilot of KHL Circles, Kids Helpline has put the safety and security of young people as the number one priority of the service. Since Phase 1, a team of paid clinical moderators have been employed to screen new accounts, attend to members in high distress, and ensure all conversations on the platform are safe, respectful, accurate, and purposeful. They also ensure that young people maintain strict anonymity so that they are not identifiable in the community or in real life, nor contactable off the platform. Despite requests from some users for a private messaging feature between members, My Circle has been steadfast in its policy to only allow this communication between clinical moderators and members, so all conversations between members are public and can be monitored.

The safety measures of My Circle are constantly reviewed and improved. The most recent technological initiative introduced was a 'post quarantine' feature that screens posts and comments for keywords associated with high-risk issues. This allows moderators to review posts that are 'flagged' as containing content that may potentially trigger other members or be against My Circle safety rules. This implementation of this feature has reduced the frequency of such posts and changed the language used by members in the My Circle community. Further improvements in safeguarding functionality that have been identified for development in the short term include functionality to track 'members of interest' for faster intervention for those in need of higher levels of support, functionality to lockdown certain members from live posting if they are considered to be posting unsafely, and functionality to track duplicate accounts and banned members to prevent risk events from these members.

### ACCESSIBILITY

As discussed in the previous section on research outcomes, My Circle overcomes all of the major barriers young people face to getting access to mental health and wellbeing support. Firstly, young people remain anonymous, which overcomes concerns of confidentiality, issues of social stigma, and having to approach adults or other gatekeepers of access to services such as GPs. My Circle is also free, overcoming issues of costs, and online 24/7, overcoming issues geographic, logistic, and time-based barriers to access. It gives young people choice and control over their support, and provides an evidence-based and clinician-supervised alternative to public social networking sites that can expose young people to inaccurate or misleading information and hostile or derogatory comments.

Results from this evaluation confirm that not only does My Circle help improve young people's overall mental health, it reduces their self-stigma, improves their awareness of mental health and wellbeing services available to them and makes them more likely to seek help from these services in the future. My Circle fills a gap in the current Australian mental health system, connecting young people falling through the cracks by appealing to those who may not otherwise seek help, engaging them at an earlier stage in their mental health journey and providing pathways to online and offline services as part of a Digital Mental Health Practice model.

### INCLUSIVITY

As with all services provided by Kids Helpline, My Circle takes a person-centred approach, placing the young person at the heart of everything they do and involving them in decisions that affect them. This is evident not only in the participatory action research methodology that was adopted to develop My Circle into the client-centred service that it is today, but in inclusivity features that allow for individuals with hearing or sight impairment to access the service, such as 'voice to text', screen reader compatibility, and including subtitles and audio cues for all video content. Kids Helpline has also introduced design initiatives to support children and young people with limited access to devices, data, and network coverage.

My Circle is also inclusive in relation to appealing to and support young people from diverse backgrounds. Demographic analysis shows that My Circle appeals to young people who are gender-diverse, particularly those in rural and remote locations who may feel isolated not only in terms of accessing services but in connecting to peers with shared experiences. While sexuality data was not collected, the LGBTIQAP+ Circle was among the most popular, with the highest comment to post ratio across the platform. As My Circle has developed, it has continued to be responsive to the inclusivity needs of young people, introducing Disability and Neurodiversity Circles, and accommodating young people with unique requirements, such as individuals with Dissociative Identity Disorder or those who non-pathologically identify as systems.

## CONCLUSION

My Circle is the result of years of evidenced-based development and refinement, as documented in this report. Throughout this journey, young people have played a central role at every stage of the co-design, delivery, and evolution of My Circle. The participatory action research approach adopted has ensured that young people, counsellors, clinicians, and all other stakeholders, have been actively engaged in identifying challenges, collecting data for evidence-based decision making, and providing feedback after each iterative change to the service. Led by the University of Sydney's Cyberpsychology Research Group, this evaluation has enabled yourtown to continuously improve the My Circle platform design and delivery to the point where it is now a thriving community of over 10,000 young Australians.

My Circle has been developed with safety, accessibility and inclusivity in mind. The service design of My Circle is based on research that shows that young people are more likely to seek professional support when they feel safe from judgment, blame, minimisation, and invalidation, accessibility barriers that would otherwise deter their help-seeking efforts are overcome, and they feel like the information they're receiving is credible and tailored to their cohort, needs, and diverse backgrounds. My Circle appeals to young people who may not have otherwise sought support for their mental health and wellbeing challenges, engaging them at an earlier stage in their mental health journey and providing pathways to other online and offline services as part of a Digital Mental Health Practice model.

Clinical moderators are a key feature of this model of care, as they provide not only supervision of peer-to-peer support interactions, but feedback, validation, and support to help clients become more aware, knowledgeable, and skilled in areas such as emotion regulation, socialising, and help-seeking. Importantly, they provide support for acute crises, providing tailored content, information and warm referrals to mental health and support services.

In conclusion, the research outcomes of this evaluation demonstrate that My Circle overcomes barriers to mental health support, normalises help-seeking, and provides much needed social support and connectedness to help reduce psychological distress. My Circle therefore provides an innovative, safe, accessible, and cost-effective model of care that other organisations can adopt to support vulnerable population groups at scale as part of a Digital Mental Health Practice Model.

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## APPENDIX A

### PHASE 1 JOURNAL PUBLICATION

Campbell A, Ridout B, Amon K, Navarro P, Collyer B, Dalglish J. A customized social network platform (Kids Helpline Circles) for delivering group counseling to young people experiencing family discord that impacts their well-being: Exploratory study. *Journal of Medical Internet Research*. 2019 Dec 20;21(12):e16176.

Original Paper

# A Customized Social Network Platform (Kids Helpline Circles) for Delivering Group Counseling to Young People Experiencing Family Discord That Impacts Their Well-Being: Exploratory Study

Andrew Campbell<sup>1\*</sup>, BA, MAppSc, PhD; Brad Ridout<sup>1\*</sup>, PhD; Krestina Amon<sup>1</sup>, PhD; Pablo Navarro<sup>2</sup>, BPsych (Hons), MHLthSc, MAppPsych; Brian Collyer<sup>2</sup>, BA, BSc (Hons); John Dalgleish<sup>2</sup>, MBA

<sup>1</sup>Cyberpsychology Research Group, Faculty of Medicine & Health, The University of Sydney, Camperdown, Australia

<sup>2</sup>Kids Helpline, Yourtown, Brisbane, Australia

\*these authors contributed equally

**Corresponding Author:**

Andrew Campbell, BA, MAppSc, PhD  
Cyberpsychology Research Group  
Faculty of Medicine & Health  
The University of Sydney  
Level 2, Charles Perkins Centre  
Camperdown, 2006  
Australia  
Phone: 61 415280495  
Email: [andrew.campbell@sydney.edu.au](mailto:andrew.campbell@sydney.edu.au)

## Abstract

**Background:** It has often been reported that young people are at high risk of mental health concerns, more so than at any other time in development over their life span. The situational factors that young people report as impacting their well-being are not addressed as often: specifically, family discord. Kids Helpline, a national service in Australia that provides free counseling online and by telephone to young people in distress, report that family discord and well-being issues are one of the major concerns reported by clients. In order to meet the preferences that young people seek when accessing counseling support, Kids Helpline has designed and trialed a custom-built social network platform for group counseling of young people experiencing family discord that impacts their well-being.

**Objective:** In this exploratory study, we communicate the findings of Phase 1 of an innovative study in user and online counselor experience. This will lead to an iterative design for a world-first, purpose-built social network that will do the following: (1) increase reach and quality of service by utilizing a digital tool of preference for youth to receive peer-to-peer and counselor-to-peer support in a safe online environment and (2) provide the evidence base to document the best practice for online group counseling in a social network environment.

**Methods:** The study utilized a participatory action research design. Young people aged 13-25 years (N=105) with mild-to-moderate depression or anxiety (not high risk) who contacted Kids Helpline were asked if they would like to trial the social networking site (SNS) for peer-to-peer and counselor-to-peer group support. Subjects were grouped into age cohorts of no more than one year above or below their reported age and assigned to groups of no more than 36 participants, in order to create a community of familiarity around age and problems experienced. Each group entered into an 8-week group counseling support program guided by counselors making regular posts and providing topic-specific content for psychoeducation and discussion. Counselors provided a weekly log of events to researchers; at 2-week intervals, subjects provided qualitative and quantitative feedback through open-ended questions and specific psychometric measures.

**Results:** Qualitative results provided evidence of user support and benefits of the online group counseling environment. Counselors also reported benefits of the modality of therapy delivery. Psychometric scales did not report significance in changes of mood or affect. Counselors and users suggested improvements to the platform to increase user engagement.

**Conclusions:** Phase 1 provided proof of concept for this mode of online counseling delivery. Users and counselors saw value in the model and innovation of the service. Phase 2 will address platform issues with changes to a new social network platform.

Phase 2 will focus more broadly on mental health concerns raised by users and permit inclusion of a clinical population of young people experiencing depression and anxiety.

**Trial Registration:** Australian New Zealand Clinical Trials Registry (ANZCTR) ACTRN12616000518460; <https://www.anzctr.org.au/Trial/Registration/TrialReview.aspx?id=370381>

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## KEYWORDS

social media; social networking; online counseling; family discord; well-being

## Introduction

The demand for Australian online counseling services by young people experiencing family discord and the impact on emotional well-being are substantial and unabating; 8.18% (12,052) and 9.04% (13,322) of the 147,424 contacts recorded by *yourtown* Kids Helpline in 2018 were related to family relationship problems and emotional wellness, respectively [1]. Family discord is defined as disharmony among family members, which may or may not include the child; this can include persistent arguments, controlling behaviors, intimidations, and threats [2]. Improved service reach using online platforms, such as group counseling via a secure social network, is a cost-effective approach to solving consumer demand owing to its accessibility to tech-savvy young people and it gives them the ability to respond en masse. However, challenges in ensuring appropriate user engagement, delivering high-quality evidence-based counseling, and maintaining the confidentiality and safety of clients are key to determining the efficacy of an online mental health service.

It is established that the most popular online resource young people are attracted to is social networking [3-5] and, yet, such platforms are currently not used at scale by mental health services to support young peoples' mental health. This may be largely due to the problem with a lack of evidence-based implementation of social networking as a means of e-mental health service provision. Specifically, they are fraught with safety and privacy issues (ie, maintaining user anonymity as well as allowing counselors to monitor and intervene where necessary with *at-risk* clients). Of major note, globally, no research has been conducted in order to establish evidence-based policy and practice guidelines on how to group-counsel young people via a social network. Given this, online mental health support has typically been provided via chat, Web forum, or email-based counseling in a one-to-one, typically peer-to-peer, format by various mental health services. However, demand by young people for a secure and mobile phone-accessible mental health social networking service, where they can connect to counselors as well as peers experiencing similar issues, is growing given their online communication preferences [4,6]. In this study, we will use a custom-built social networking site (SNS) to address consumer demand as well as user preference for engaging with those with lived experience of family discord. While retaining the option to access counseling experts, this research aims to establish the viability and usability of Kids Helpline Circles (KHL Circles) as an innovative, purpose-built SNS delivered by *yourtown* Kids Helpline for Australian youth.

Kids Helpline is the leading national service in telephone and online counseling in Australia, given that it is the only 24/7 counselor-monitored service (ie, not a peer-to-peer counseling service). Consumers who receive help via the service often wish to revisit in order to receive ongoing counseling support, not just one-time counseling or further referral to other services. Garcia [7] reported that there were more than 70,000 attempts to contact Kids Helpline in the first half of 2019 that were not answered due to the service not having enough online and telephone counselors to meet the increasing demand. To provide more flexibility in meeting demand, Kids Helpline is now focused on providing a professionally facilitated online community for long-term support of clients between the ages of 13 and 25 years, to provide continuous connection and ongoing counseling support to prevent relapse. However, the concept of a purpose-built, secure, private, and counselor-controlled e-mental health-focused SNS needs to be piloted in order to ensure its efficacy before launching it as a new support service for Australian young people.

This participatory action research (PAR)-designed exploratory study [8] sought to develop the evidence base to validate the proof of concept for KHL Circles: a purpose-built, private, and secure SNS, designed to provide 24/7 group counseling to young people in Australia experiencing family discord. This study draws on evidence that young people already seek out others via their private social network choices (eg, Facebook and Instagram) for peer support, in order to feel they are not alone with their problems [4]. However, there are serious concerns that seeking help from peers online who are strangers and nonexperts may expose young people to inaccurate or misleading information and hostile or derogatory comments, which may have a negative impact on their mental health [9]. KHL Circles seeks to address these concerns by providing clients with evidence-based mental health information and support delivered via group counseling. If needed, counselors can direct young people to community services to access legal, financial, disability, or employment advice. KHL Circles also facilitates peer support by connecting clients with other clients of a comparative age who are experiencing similar issues to share stories and support each other; it is facilitated and monitored by professionally trained and accredited counselors who are part of their closed, small-group, social network. This supportive, moderated, online approach has been identified as theoretically optimal in several recent studies that have proposed SNS as an adjunct to online mental health interventions [6,10,11]. However, no research has yet determined a working model for utilizing a private and secure, purpose-built, e-mental health social network for ongoing group counseling to support



young people experiencing family discord and mental well-being concerns.

## Methods

### Participants

A total of 105 participants were recruited from the Kids Helpline telephone and Web-chat counseling service, as well as from their website and social media posts. The participants initially contacted the service to seek help for their concerns and upon counselor interview and assistance for their immediate concerns, they were introduced to the option to join KHL Circles as volunteer participants. The inclusion criteria were as follows: (1) aged 13-25 years and of any gender identity, (2) newly

contacting or previously engaged (ie, returning client) with Kids Helpline via one-on-one phone and/or Web counseling, (3) seeking support specifically for issues related to family discord and emotional well-being (eg, at-home psychological abuse, distress, or communication problems with family members), and (4) able to speak English (ie, required under ethical approval for the study, as no translator for other languages could be provided within the counselor-mediated social network). The mean age of participants was 16.2 years (SD 2.9) and the majority were female (86/105, 81.9%). The age, gender, and location breakdowns of participants are presented in [Table 1](#). A total of 81.9% (86/105) of the sample spoke only English. Other languages also spoken included Mandarin, Cantonese, Dutch, Bosnian, Telugu, Punjabi, Bisaya, Korean, and Japanese.

**Table 1.** Participant demographics and response count.

Demographic	Participants (N=105), n (%)
<b>Age (years)</b>	
13-15	50 (47.6)
16-18	36 (34.3)
19-21	10 (9.5)
22-24	8 (7.6)
25	1 (1.0)
<b>Gender</b>	
Female	86 (81.9)
Male	10 (9.5)
Trans or gender diverse	6 (5.7)
Other	1 (1.0)
Missing	2 (1.9)
<b>Location</b>	
New South Wales	32 (30.5)
Victoria	22 (21.0)
Queensland	22 (21.0)
South Australia	4 (3.8)
Tasmania	1 (1.0)
Western Australia	1 (1.0)
Australian Capital Territory	3 (2.9)
Missing	15 (14.3)

### Design and Procedures

This exploratory study used a single-group, PAR, mixed-method design [8] to assess the acceptability, safety, user experience, and potential mental health benefits of KHL Circles. There were six *Circles* (ie, Groups) conducted over a 12-month period, from May 2017 to May 2018. There were 9 participants in Groups 1 and 2 (conducted concurrently), 8 participants in Group 3, and 13 participants in Group 4 (conducted concurrently with Group 3). After the first four groups were completed, the number of participants per group was increased to 32 for Group 5 and 34

for Group 6 in response to qualitative feedback from participants and to increase engagement and activity within each Circle.

Volunteer participants who contacted a Kids Helpline phone or Web counselor received immediate one-to-one counseling (ie, standard care model for the service). While in one-to-one counseling, they were asked if they would be interested in joining the study trialing the peer-support social network, KHL Circles. Those who indicated they wanted to join the trial were informed that they may not be able to join one of the Circles in the social network immediately and, if this was the case, they would be asked to wait for the next group to begin. Potential volunteer participants were screened for severe mental health

problems (ie, high-level depression and anxiety) or risk of self-harm behaviors before being permitted into the online group-counseling environment. Screening was conducted through counselor interview. Those who were deemed high risk were provided with one-to-one counseling via Kids Helpline's regular telephone or Web counseling services. Once suitable participants were assigned to a KHL Circle, they completed an entrance survey containing psychometric tests to measure baseline depression, anxiety, self-esteem, and perceived social support.

All volunteer participant members of KHL Circles were asked to use pseudonyms in order to protect their identities from each other. The counselor facilitating the group was the only group member aware of their true identities. Participants were instructed not to reveal any identifying information during the trial, including any identifying photos or images. Those recruited were asked to give electronic consent if they were 16 years of age or older, or consent and optional assent from a parent or guardian if 15 years of age or under. Participants were also asked to read the Kids Helpline policy and agree that during their time in KHL Circles, if they choose to start their own social network support group on a non-Kids Helpline service (eg, Facebook), that Kids Helpline would not be liable for the safety and running of those groups.

Participants completed a baseline survey in the week prior to joining their Circle containing psychometric tests measuring levels of depression, anxiety, self-esteem, and perceived peer support. Participants were also asked to complete a *check-in* survey at the end of weeks 2, 4, and 6, and a final survey at the conclusion of the study (ie, end of week 8); all surveys contained the same four psychometric tests, along with open-response questions on their experiences of KHL Circles. Counselors provided weekly reports on their perceptions of group engagement and any group-counseling concerns or functional issues regarding the online platform. All participants were informed prior to joining KHL Circles that their Circle would be closed at the end of the 8-week cycle, after which each member may revert to one-to-one counseling using Kids Helpline telephone and Web counseling services.

The research protocol was approved by The University of Sydney Human Research Ethics Committee (HREC) (Project #2016/132) and registered with the Australian New Zealand Clinical Trials Registry (ANZCTR) (ACTRN12616000518460).

### Kids Helpline Circles Platform

KHL Circles was developed by a team of researchers, psychologists, and programmers following consultation and beta testing with young Kids Helpline clients and using PAR design principles [8]. The platform was developed using the open-source social networking software Elgg [12], which was customized by a team of Web developers and graphic designers to meet the requirements of the service. The platform was available to participants via any Internet-enabled computer or mobile device. The mobile version of the site was adjusted to fit the size of the screen being used by the participant but

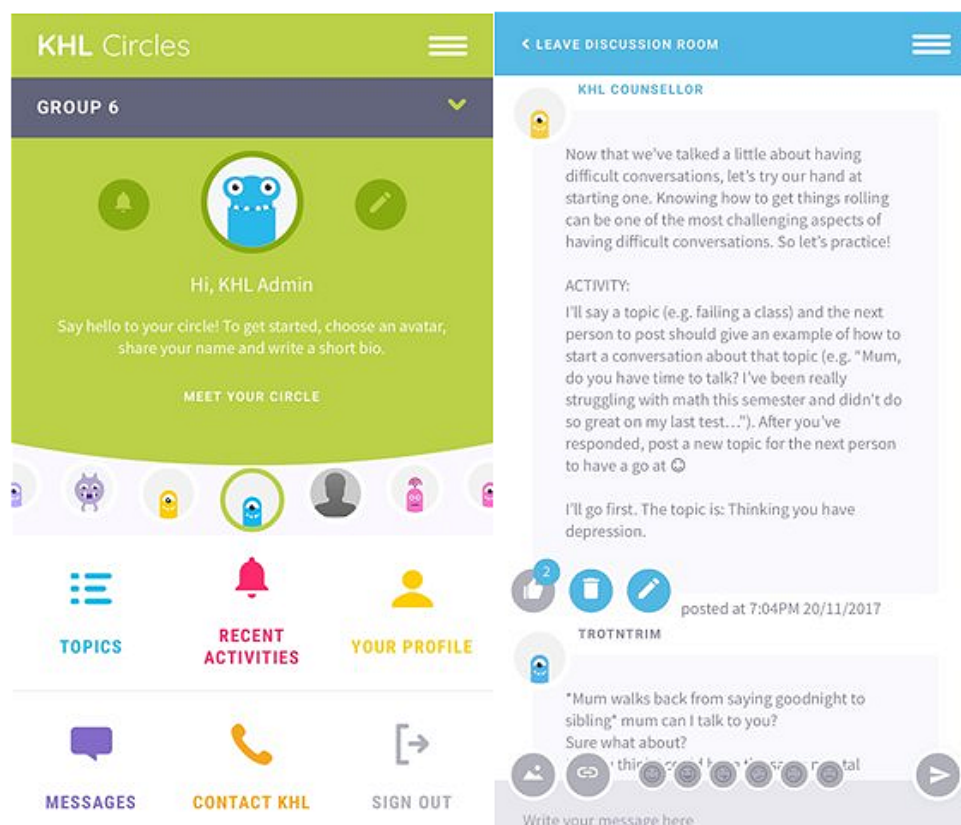
included all the same components as the desktop version. Participants could log in to KHL Circles anytime throughout the trial. The platform was run on Kids Helpline's own private servers and monitored by Kids Helpline counselors 7 days a week. Clients were also asked to report any risk they foresaw or major conflict within the group by contacting Kids Helpline via telephone or Web counseling services.

As part of the baseline survey, participants put forward their pseudonym, which was reviewed by the site administrator to ensure that it did not reveal their identity. In the days leading up to week 1, the site administrator assigned participants to their Circles and emailed them unique log-in details. Participants were asked to log in to the site prior to the week 1 commencement date to complete their profiles (ie, gender, hobbies, and likes) and to choose a profile picture from a suite of *alien* images (see Figure 1 for images of some of the alien characters for user choice). On the first day of week 1, a KHL counselor posted a welcome message explaining to participants how the Circle would be run and asked them to test out the posting features of the site (ie, posting text, pictures, and videos, and *liking* or commenting on posts of other users, similar to well-known Facebook functions; see Figure 1). Participants were also provided with some ground rules (eg, respecting others, no offensive material, and keeping their identity private) and were asked to expand on this list with their own expectations of their Circles.

The main menu bar of the site presented six tools:

1. Topics: the default view, which showed a list of the all discussion posts and threads posted to date, with the most recent at the top of the page.
2. Recent activities: allowed participants to quickly access topics they had contributed to.
3. Your profile: participants could update their profile information here.
4. Messages: participants could send and receive a private message to or from a Kids Helpline counselor but not to or from other participants.
5. Contact KHL: a link to the Kids Helpline phone and Web-chat counseling service.
6. Sign out.

For each Circle, Kids Helpline Counselors posted three new *topics* each week—every Monday, Wednesday, and Friday—consisting of age-appropriate psychoeducational material about family discord, including conversational text, images, and videos; topics also consisted of a reflection and discussion activity to encourage engagement and interaction between participants on ways of addressing various issues within this subject. Each week focused on one of eight modules: (1) Introduction; (2) Family relationships; (3) Emotions; (4) Mental health and resilience; (5) Help-seeking and social support; (6) Family communication and negotiation skills; (7) Conflict resolution, self-care, and relapse prevention; and (8) Summary and close. Participants could also start their own *topics* or contribute to an ongoing *Song of the Day* topic.

**Figure 1.** Kids Helpline Circles (KHL Circles) mobile phone interface design.

## Safety Protocols

The safety protocol of KHL Circles is based upon the existing safety protocols of the Kids Helpline phone and Web counseling service, which includes policies for mandatory reporting. Monitoring of KHL Circles by Kids Helpline counselors was done 24/7 and was combined with having access to contact details via participants' Kids Helpline files; this allowed any potential risks to the safety or mental health of participants to be addressed proactively by contacting the participant directly via email or via the private messaging function of KHL Circles, encouraging them to contact the Kids Helpline phone counseling service.

KHL Circles was hosted on Kids Helpline's private server, using a URL secured with HTTP over Secure Socket Layer (SSL); HTTP Secure (HTTPS) conformed to industry best practice as defined by the Open Web Application Security Project [13]. Privacy and online safety were managed in accordance with recommendations by the eSafety Commissioner of the Australian Government [14], with participants required to accept the terms of use of KHL Circles, which included clauses regarding their privacy, online bullying or harassment, and the use of offensive comments. Participants were informed that failure to comply with guidelines may result in temporary or permanent removal from the service. In accordance with international standards for the legal age of having a social media account, only those 13 years of age and over were permitted into the study. Moreover, in accordance with The University of Sydney HREC and the ANZCTR, those aged 13-15 years needed to provide personal assent, while those 16 years of age and over

needed to provide personal consent. All participants under the age of 18 years were informed that they had the option to gain parental consent for the study.

## Measures

The following psychometric tests were included as part of each survey (ie, the baseline survey; *check-in* surveys at weeks 2, 4, and 6; and the final survey at week 8): (1) the Multidimensional Scale of Perceived Social Support [15], (2) the Centre for Epidemiological Studies—Depression Scale for Children [16], (3) the Revised Children's Manifest Anxiety Scale [17], and (4) the Rosenberg Self-Esteem Scale [18].

The baseline survey asked participants what they hoped to gain from KHL Circles (open response). Each *check-in* survey and the final survey asked participants whether they felt that KHL Circles had helped them feel supported in coping with their problems (yes/no) and, if so, what made them want to return to communicate with their Circle (open response). The final survey also asked participants to indicate how helpful they found KHL Circles (4-point scale), if they would return to KHL Circles for any future issues (yes/no), and what sorts of issues they would be comfortable discussing in KHL Circles (from a list of nine options or specify *other*). Participants were also asked to indicate the most helpful and least helpful aspects of KHL Circles (from a list of four options for each or specify *other*) and what they considered to be the most important features of a social media peer-support site (from a list of eight options or specify *other*). Each survey concluded with the opportunity for participants to provide any other comments or feedback (open response).

Safety was assessed using the following a priori indicators: (1) any instances of adverse events, (2) any instances of breaching guidelines of use, and (3) qualitative feedback from participants.

## Results

### Participants

As recorded in the baseline survey, most participants were female (86/105, 81.9%) and aged between 13 and 15 years

(43/105, 41.0%). A total of 105 participants responded to the baseline survey; however, over the course of the study, the number of participants who completed the *check-in* surveys and the final survey (week 8) reduced significantly (see Table 2).

**Table 2.** Participant demographics and response count.

Questionnaire	Participants (N=105), n (%)
Baseline survey	105 (100)
Week 2 survey	48 (45.7)
Week 4 survey	12 (11.4)
Week 6 survey	13 (12.4)
Final survey (week 8)	8 (7.6)

### Qualitative Data Analysis

A simple content analysis of responses to the qualitative questions was conducted. Each response was read and assigned an open code that summarized the key idea in their initial response [19,20]. For example, “to see if some other people are in my situation so I don’t feel like my problems only apply to me and my family” was assigned an open code of *Relate with others*. Similar codes were grouped together under axial codes, which were given a descriptive heading. For example, *Relate with others* was grouped with *Not to feel alone* under *Connect with others*. Similar axial codes were then grouped together under main categories and provided with a descriptive title. For example, *Connect with others* was grouped with *Receive support* under the category *Engage with others for support*. KA reviewed all coding and BR provided a second review: each was a research associate covered under HREC approval for the study analysis. Disagreements were resolved by consensus [21].

As part of the baseline survey, participants were asked, “What do you hope to gain from joining Kids Help Line Circles?” Content analysis of the 105 participant responses to this question produced six categories: (1) *Engage with others for support* (76/105, 72.4%; eg, “I hope to gain support through meeting people going through similar experiences and not feeling as alone”); (2) *Receive information* (26/105, 24.8%; eg, “An insight into how others deal with similar circumstances”); (3) *Positive self-outcome* (22/105, 21.0%; eg, “Something that can make me feel happy and worthy of myself”); (4) *Provide support* (11/105, 10.5%; eg, “I hope to gain a better mindset and help others that are in trouble”); (5) *Miscellaneous* (3/105, 2.9%; eg, “I hope that it’s worth joining”); and (6) *Unsure* (8/105, 7.6%).

As part of the *check-in* surveys, participants were asked, “Do you feel that being a member of the KHL Social Network ‘Circles’ has helped you feel supported in coping with your problems?” to which 41 out of 68 (60%) responses were *yes*. Participants were further asked, “If being part of Kids Helpline Circles has helped you, what makes you want to return to talk to people when you feel like it?” Content analysis of 22

participants’ open responses revealed four categories: (1) *Sense of community* (15/22, 68%); eg, “I feel like others understand what I am going through, and that I am not alone in my feelings and struggles”); (2) *Safe environment* (6/22, 27%; eg, “Knowing that it’s a safe environment to help others and to get help”); (3) *Helpful environment* (5/22, 23%); eg, “All the people I have talked to is [sic] really nice and I feel like we all really make an effort to help and support each other in any way we can”); and (4) *Miscellaneous* (2/22, 2%; eg, “I don’t use it much but I will try to more”).

The final survey also asked participants, “Do you feel that being a member of the KHL Social Network ‘Circles’ has helped you feel supported in coping with your problems?” to which there were 5 responses, 3 (60%) of which were *yes*. Only one participant provided a response to the follow-up open-response question “If being part of Kids Helpline Circles has helped you, what makes you want to return to talk to people when you feel like it?” so qualitative analysis was not possible.

### User Experience

As part of the final survey, participants were asked questions about their experiences using KHL Circles. Of the 8 participants who responded to the final survey, 5 (63%) provided responses to the user experience questions. The topics participants felt most comfortable discussing were peer relationships (3/5, 60%), family relationships (3/5, 60%), depression (3/5, 60%), and anxiety (3/5, 60%). Other responses included well-being, motivation, sexuality, romantic relationships, gender and identity, and image. When asked, “What did you find the most helpful aspect of KHL Circles?” responses included “connecting with people who understood my concerns” and “learning a lot about the topic discussed.” The only unhelpful aspect identified was “focusing on just the topic” (ie, family discord). When asked about what they thought the most important features of a social media peer-support service were, the most common response was *emojis* (4/5, 80%), followed by *games* (3/5, 60%), *anonymity* (3/5, 60%), *mobile phone app integration* (3/5, 60%) and *easy navigation* (3/5, 60%).



## Weekly Summary Reports by Counselor Facilitators

In addition to the questionnaires completed by participants, the counselor facilitators submitted weekly summaries to report on participant activity and user experiences. In each Circle, activity was highest in week 1, with 207 posts or comments and 532 *likes* in total across all groups. Activity generally started to drop off by week 2 (170 posts or comments and 326 *likes*), with the biggest drop during week 3 (73 posts or comments and 128 *likes*). Engagement typically continued to reduce over the remaining weeks, reaching a low of 11 posts or comments and 69 *likes* in week 8. Counselors reported a pattern where many participants were logging on and participating earlier in the week but not returning during the remainder of the week.

The most frequent comments made about the experience using the platform were about the navigation challenges. These included clunky scrolling mechanics, inability to resize images, manual linking of images and videos, and inability to archive posts for better flow. Frequent mention was also made about the need to include an automated time stamp to orient users about when posts were made.

Simple technical issues raised by participants involved issues uploading images and videos and the changing of passwords, which were guided or corrected by the counselors directly. Issues that needed immediate attention included counselors not being able to see groups due to log-in or log-out errors and an inability to directly message participants via Elgg, unless participants had directly messaged them first. One participant also suggested to counselors that mobile app notifications were needed, which was a function that was unfortunately not available within the Elgg platform.

## Psychometric Tests Analysis

An intention of this exploratory study was to conduct repeated-measures quantitative analyses of the psychometric tests administered to participants; however, due to the drop-off in response rates between the baseline survey (105/105, 100%) and final survey (8/105, 7.6%), data quality was too low to conduct meaningful analysis.

## Discussion

### Principal Findings

This exploratory, mixed-methods, PAR study aimed to assess the user experience and potential benefits of a purpose-built social networking platform, KHL Circles, for online group counseling of young people experiencing family discord. Results showed that the main benefit participants hoped to gain from KHL Circles prior to joining was engaging with others with similar lived experiences. This was the most common theme identified in relation to engaging with others for support. Other themes identified included gaining new information and positive self-outcomes. While low response numbers precluded any significant findings from the psychometric measures used in the study, the majority of participants reported that the overall experience of being a member of KHL Circles helped them in being supported in coping with their problems with family discord. Of those who reported that the service did not help them, it was found that comorbid problems not specific to family

discord may have been a factor (eg, school bullying, romantic relationship problems, and specific mental health concerns). While the response rate to the final survey was very low, the majority of those who did remain engaged through the full 8 weeks reported they would continue to use the purpose-built social network if it was made available, which qualitative responses indicated was largely due to obtaining a sense of community about a specific issue they all shared.

As reported by the counselor facilitators of KHL Circles, the least helpful aspect of KHL Circles was reported to be the Elgg platform itself, given that it was not easy to navigate or find threaded responses for counselor engagement with each group. Many users reported that the platform would have been more engaging if it was like existing, popular social networks that they were familiar with (eg, Facebook) and provided a better quality of standard tools (eg, emojis, games, and better mobile phone operability).

### Limitations

While providing proof of concept for the KHL Circle model, results from this study are limited by low retention rates across the 8-week cycle of each group. User experience feedback should, therefore, be interpreted with caution as it only reflects the experiences of participants who completed the entire 8-week cycle. Completion rates of all psychometric surveys were poor beyond initial baseline collection (see Table 2), so no inferences could be drawn regarding any impact on mental health and emotional well-being. Low engagement with these surveys is not surprising given the age group studied and their primary motivation to be part of the study (ie, to connect with others the same age with lived experience of family discord). The length and clinical focus of the surveys—those not focused on family discord issues—may also have led to refusal to complete the surveys due to self-perceived lack of relevance, disinterest, or disengagement from the study. Phase 2 of KHL Circles will seek to significantly reduce the number and length of mental health surveys provided, as well as to make changes to the platform to increase engagement and activity within the groups in order to encourage higher retention across the 8-week program.

The recruitment for this study was restricted to those with mild-to-moderate levels of depression, anxiety, or stress, in order to abide by the strict ethics protocol provided for this exploratory research. As such, through careful ethical consideration of online safety of minors, this study may have inadvertently denied access to those who are in significant need of such an innovation to aid their distress around family discord and provide relatable online community support and expert counselor facilitation. Phase 2 will seek the inclusion of all young people who wish to access the KHL Circles service, given that Kids Helpline's services already attract a high level of distressed young people that would not fit the category of mild-to-moderate levels of depression and anxiety.

Of importance to note was the very high rate of female participants in this study. While not unusual to see more females than males engage in seeking help [22]—historically, yourtown Kids Helpline's client data over two decades supports this trend—ways in which to attract males to online services needs

to be further explored. This could include the introduction of more *project-oriented* group counseling set around a focus activity such as gaming, for example [23].

From a technical perspective, the Elgg platform was reported by users and counselors to be too rigid to use in comparison to popular platforms such as Facebook. Given this, at the conclusion of the Phase 1 study, the researchers sourced a new platform called HumHub [24], which will undergo customization by Kids Helpline for Phase 2. It includes high-level server security features and functions requested by users (ie, emojis, better integration with linked images and videos, and notifications), with an interface like publicly available SNS's such as Facebook. Of notable importance for this research progressing into Phase 2 will be the continuous monitoring of user experience of the social network service platform in order to incorporate iterative design changes to meet the needs of both the end user (ie, client) and the counselor facilitator.

## Conclusions

Social network uptake and sustained use by young people, not only for leisure but for community support or nonexpert counseling and advice-seeking, has been documented over many years [4,5,25-27]. The risk of utilizing nonexpert, nonsecure, social network support groups via such platforms as Facebook is problematic at best and dangerous at worst for the well-being and safety of young people [25,28]. Kids Helpline's innovation in developing a custom-built, social network platform focused on the two most common topics young people contact their services around: family discord and mental well-being. Phase

1 is the first phase of a series of PAR studies to refine such a resource to address typical youth issues. Thus, the findings from this study support proof of concept and user interest for its evolution as a service delivery model. The potential significance of the proposed research is the provision of greater access to online support for clients of Kids Helpline and other online mental health services globally; lack of access is highly problematic, given that young people often do not know how to access mental health services as first-time users, find the services on offer costly and invasive to their needs, or simply do not trust what is available, whether it is online or offline [3-5,9,11,22,25,27,29].

As determined by Ridout and Campbell's [6] systematic review, this research is the first of its kind in determining an innovative online model for cost-effective provision of short-to-long-term psychosocial support, with potential for ongoing group counseling support of Australian youth with mental illness. The applied research approach between academic experts, clinical expertise, and a not-for-profit group—yourtown Kids Helpline—demonstrates clearly the recommendations of utilizing a partnership model in innovating and developing mental health services for hard-to-reach populations (eg, youth) [29]. This research has moved on to Phase 2, where data collection began in 2018 and will continue through 2020, during which the implementation of the revised platform will be evaluated with the inclusion of a larger and more diverse user group, inclusive of young people experiencing greater-than-moderate levels of distress.

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## Conflicts of Interest

None declared.

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## Abbreviations

**ANZCTR:** Australian New Zealand Clinical Trials Registry  
**FGX:** Future Generation Investment Fund  
**HREC:** Human Research Ethics Committee  
**HTTPS:** HTTP Secure  
**KHL Circles:** Kids Helpline Circles  
**PAR:** participatory action research  
**SNS:** social networking site  
**SSL:** Secure Socket Layer

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## APPENDIX B

### PHASE 2 JOURNAL PUBLICATION

Amon\* K, Ridout\* B, Forsyth R, Campbell A. Online group counseling for young people through a customized social networking platform: Phase 2 of Kids Helpline Circles. *Cyberpsychology, Behavior, and Social Networking*. 2022 Sep 1;25(9):580-8.

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# Online Group Counseling for Young People Through a Customized Social Networking Platform: Phase 2 of Kids Helpline Circles

Krestina Amon, PhD,\* Brad Ridout, PhD,\* Rowena Forsyth, PhD, and Andrew Campbell, PhD

## Abstract

There is a growing need for high-quality evidence to support the efficacy of online counseling and peer support via social networking sites (SNSs) as an intervention to reduce mental health symptoms in young people. This article presents Phase 2 of Kids Helpline (KHL) Circles, which used mixed methods to assess the acceptability, safety, user experience, and mental health benefits of a purpose-built, counselor-facilitated SNS. Young people aged 13–25 years ( $n=552$ ) were recruited to participate in one of six 8-week “Circles.” Of those, 154 participants completed study surveys at three timepoints (baseline, midpoint, endpoint). Significant reductions in depression, anxiety, stress, and general distress symptoms were reported at the midpoint of the intervention, with further significant reductions in depression and stress symptoms by the endpoint. More than half said that their mental health improved as a direct result of KHL Circles, and most felt less mental health stigma and would be more willing to seek help for mental health issues in the future. These results contribute to increasing the evidence base for SNS interventions to reduce mental health symptoms. Adjustments are necessary for the ongoing evolution of this service to ensure it is user-centered and scientifically rigorous.

**Keywords:** social media, social networking, online counseling, family discord, well-being, Facebook

## Introduction

PSYCHOLOGICAL DISTRESS AMONG young people continues to rise.<sup>1–3</sup> However, young people often face barriers to accessing mental health treatment due to cost, stigma, confidentiality concerns, and unavailability or lack of knowledge of resources.<sup>4</sup> Given these barriers and the ubiquitous use of digital devices among young people,<sup>5,6</sup> it is not surprising that young people are increasingly seeking support for mental health concerns online.<sup>7</sup> Although social networking sites (SNSs) have been the predominant context for communication and social support-seeking behaviors online among young people for some time,<sup>8</sup> only recently have there been trials on the use of SNS as the basis for online youth mental health interventions.<sup>9–11</sup>

With young people already turning to SNSs to seek information and peer-to-peer support for mental health concerns, SNS-based interventions that include online counseling can provide an opportunity to address some of the barriers that young people face in accessing qualified mental health support and information.<sup>12</sup> Online counseling services can also ease pressures on face-to-face services, and avoid the stigma associated with seeking treatment for mental illness.<sup>13</sup> There is the risk, however, that such services may be developed and made available without the scientific rigor to run as evidenced-based practice.<sup>14</sup>

A recent review into the use of SNS in mental health interventions suggested that young people find them highly usable, engaging, and supportive.<sup>12</sup> The review also identified a lack of high-quality evidence for the efficacy of SNS

Cyberpsychology Research Group, School of Medical Sciences, Faculty of Medicine and Health, The University of Sydney, Camperdown, New South Wales, Australia.

\*These authors contributed equally to this article.

interventions for reducing mental health symptoms. Growing the evidence in this area will establish clear practice guidelines on how to conduct such online interventions in a safe and effective manner, as well as informing the development of policies for their administration and use.

In 2017, Kids Helpline (KHL) began a pilot of KHL Circles—a purpose-built, secure, private, and counselor-controlled mental health-focused SNS for supporting children and young adults with online counseling and peer-to-peer support. Each “Circle” is a private online social network where qualified KHL counselors clinically guide young people and provide online group mental health counseling. This includes posting evidence-based psychoeducation content to stimulate discussion and assist young people to develop self-help strategies and tools. This psychoeducation content to date has focused on family discord and associated impacts on emotional well-being, as these are the two most common topics for which young people contact KHL for support.<sup>15</sup>

Phase 1 evaluation of KHL Circles saw users and counselors reporting value in the model and innovation of the online counseling service delivery and peer-to-peer support environment.<sup>10</sup> Following the results of the Phase 1 study,<sup>10</sup> project amendments were made to improve KHL Circles for Phase 2. In this publication, we present the KHL Circles Phase 2 results, including the impact of the SNS intervention on young people’s mental health symptomology, evaluation of safety and usability data, and qualitative data from participants and counselors.

## Methods

### Sample and design

We recruited 558 participants via the KHL website ( $n=383$ , 69.5 percent) and referrals from KHL counselors ( $n=71$ , 12.9 percent). Other recruitment methods included

through school (i.e., school counselors, health lessons;  $n=38$ , 6.8 percent) and KHL social media channels (Facebook, Instagram, and Snapchat;  $n=24$ , 4.3 percent).

Inclusion criteria for the study were: (1) aged 13–25 years; (2) seeking support for issues related to family discord and associated impacts on emotional well-being; (3) not participated in a KHL Circle previously; and (4) able to speak and write in English. Six young people recruited into the study had previously participated in a KHL Circle and were, therefore, removed from analysis, resulting in a total sample of 552 participants.

A mixed-methods exploratory study was conducted to assess the acceptability, safety, user experience, and potential mental health benefits of KHL Circles. The research protocol was approved by The University of Sydney Human Research Ethics Committee (HREC) (Project #2016/132) and registered with the Australian New Zealand Clinical Trials Registry (ANZCTR) (ACTRN12616000518460). Phase 2 involved six “Circles” conducted over a 15-month period from October 2018 to January 2020. Each Circle ran for 8 weeks. Although Phase 1 assigned participants to smaller Circles (based on their age cohort) of no more than 36 participants, to encourage higher engagement and activity in Phase 2, Circle sizes were set at a minimum of 100 participants. As such, splitting by age cohort was not possible due to a low number of participants in the 18–25 age range.

### KHL Circles platform

The creation of KHL Circles is explained in Campbell et al.<sup>10</sup> Platform issues raised in Phase 1 were addressed by moving KHL Circles to the open-source HumHub<sup>16</sup> platform, which has an interface and functionality closely aligned with popular SNSs, and it is customizable to suit the requirements of KHL Circles (e.g., turn off private

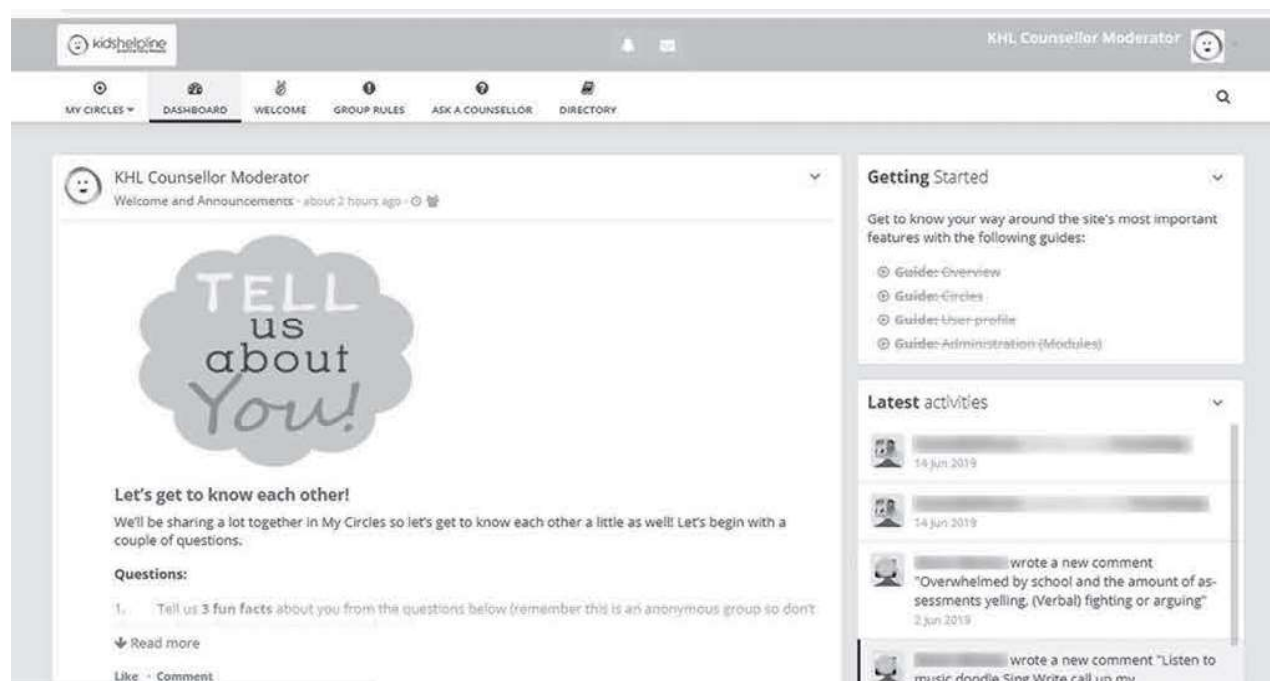


FIG. 1. KHL Circles desktop version. KHL, Kids Helpline.

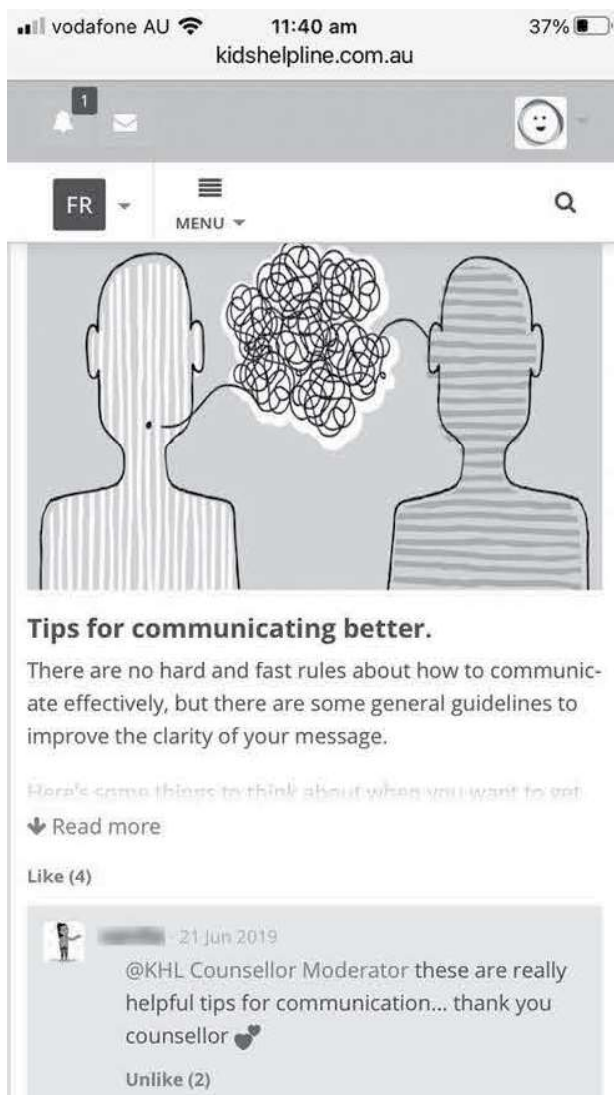


FIG. 2. KHL Circles mobile version.

messaging between participants). Figures 1 and 2 show example posts from the desktop and mobile versions of the platform.

The platform was run on KHL's own private servers and monitored by KHL counselors. Participants could access the platform on any Internet-enabled computer or mobile device, and they could log in to KHL Circles anytime throughout the study to take part in asynchronous communication by commenting on psychoeducational posts by counselors, posting their own content, or commenting on other participant-generated posts. Trigger warnings were applied to participant-generated posts (by either the participant or a counselor) if the post contained something that could be potentially distressing to others.

Participants provided a pseudonym to be known by in their Circle, which was reviewed by the site administrator to ensure that it did not reveal their identity. In the days leading up to the 1st week of the program, participants were assigned to a Circle and received their unique log-in details via e-mail. Participants were asked to log into the site and set up their profiles (i.e., identify their gender, hobbies, and to choose a non-identifying

profile picture). On the 1st day of week 1, a KHL counselor posted a welcome message explaining how the Circle would run and provided ground rules (e.g., respecting others, no offensive material, keeping their identity private).

For each Circle, KHL Counselors posted three new topics per week—every Monday, Wednesday, and Friday—consisting of age-appropriate psychoeducational material related to dealing with family discord, including conversational text, images, and videos (Figs. 1 and 2). Topics also consisted of reflection and discussion activities to encourage engagement and interaction between participants. Each week focused on a different topic: (1) Family conflict; (2) Managing emotions; (3) Improving communication skills; (4) Serious family conflict and abuse; (5) Negotiation; (6) Dealing with setbacks; (7) Invalidity; and (8) Closure. Participants could also create their own posts (not restricted to a particular topic) at any time.

#### Safety protocols

Only participants aged 13 years and older were permitted to enroll in the study, to abide by the international standards of the legal age to register for a social media account. As per the University of Sydney's Human Research Ethics Committee (HREC No. 2016/132) and the Australian New Zealand Clinical Trials Registry (ANZCTR No. 12616000518460), participants aged between 13 and 15 years were required to provide personal assent. Participants aged 16 years and older needed to provide personal consent. All participants younger than 18 years were informed that parental consent was optional.

Hosted on the KHL private server, KHL Circles used a URL secured with HTTP over Socket Layer (HTTPS) conformed to industry best practice.<sup>17</sup> Participant privacy and online safety were managed in accordance with recommendations by the Australian eSafety Commissioner.<sup>18</sup> Further, existing safety protocols of the KHL phone and web counseling service (including policies for mandatory reporting) were in place. The monitoring of KHL Circles by KHL counselors, and having access to contact details via participants' KHL files, allowed any potential risks to the safety or mental health of a participant to be addressed proactively by direct contact via e-mail and private message in KHL Circles.

During Phase 2, 106 private messages were sent by the counselors to participants whose posts indicated that they may potentially be at risk (e.g., experiencing self-harm, suicidal thoughts, or an abusive family situation), encouraging them to contact the KHL phone counseling service or WebChat for individual support. These were well received by participants, with no adverse incidents reported.

#### Procedure and measures

Participants were asked to complete three online surveys throughout the study: 1 week before commencing KHL Circles (baseline), after week 4 (midpoint), and at the end of week 8 (endpoint). Based on results from Phase 1, the number of psychometric measures included in Phase 2 was reduced to lessen the burden on participants and encourage a higher response rate.

Two psychometric tests were included in all three surveys: the Depression, Anxiety, and Stress Scale (DASS-21)<sup>19</sup>; and the Clinical Outcomes in Routine Evaluation (CORE-10).<sup>20</sup> The DASS-21 is a set of three self-report scales designed



to measure the emotional states of depression, anxiety, and stress using seven 4-point Likert-type items each, with higher scores indicating more severe and intense symptoms. The CORE-10 contains ten 5-point Likert-type items measuring presentations of psychological distress related to well-being, functioning, symptoms, and risk. Higher scores indicate higher levels of general psychological distress.

Additional questions in the baseline survey asked participants for their demographic information (age, gender, postcode, language/s spoken), if they were undertaking any mental health treatments (e.g., medication and/or external counselling), and their goals from participation in KHL Circles. The midpoint survey consisted only of the two psychometric tests. The endpoint survey also contained 14 Likert-type items (rated on a scale from 1 = “strongly disagree” to 4 = “strongly agree”) asking participants about their subjective experience of KHL Circles, to assess its safety and perceived benefits, and whether they would recommend it (adapted from a study of an SNS intervention for young people at risk of depression<sup>21</sup>).

Participants were then asked two yes/no questions regarding help-seeking, followed by two open-response questions asking what they thought were the best aspects of KHL Circles, and whether there was anything they thought needed improvement. The surveys at each timepoint concluded with the opportunity for participants to provide additional comments.

## Results

Of the 552 eligible participants who completed the baseline survey, the majority ( $n = 398$ ; 72.1 percent) were lost to follow-up and did not complete the midpoint and/or endpoint surveys. The number of participants who completed all three surveys and were, therefore, available for analysis was 154 for the DASS-21 and 118 for the CORE-10 (Table 1). Statistical analysis was conducted using SPSS Version 27.

Table 2 presents demographic breakdowns of participants in the initial and final samples. There were no significant differences between the initial and final samples on any of the demographic variables. The majority of the final sample identified themselves as female ( $n = 134$ , 87.0 percent), and more than half were in the 13–15 years age bracket ( $n = 91$ , 59.1 percent). There were participants from every Australian state and territory, with differences between states roughly reflecting population sizes. Most participants ( $n = 116$ , 75.3 percent) lived in major cities according to an assignment of Australian Statistical Geographical Classification based on postcode.

Around 1 in 5 (19.5 percent) reported that they were taking medication for mental health problems, and 44.8 percent were currently receiving counseling other than through

TABLE 2. PARTICIPANT DEMOGRAPHIC DATA

Demographic	Initial sample (N = 552), n (percent)	Final sample (N = 154), n (percent)
Age (years old)		
13–15	327 (59.2)	91 (59.1)
16–17	154 (27.9)	42 (27.3)
18–25	71 (12.9)	21 (13.6)
Gender		
Female	445 (82.1)	134 (87.0)
Male	47 (8.7)	6 (3.9)
Transgender female	2 (.4)	0 (0.0)
Transgender male	12 (2.2)	2 (1.3)
Non-binary	14 (2.6)	4 (2.6)
Prefer not to say	7 (1.3)	3 (1.9)
Not listed	15 (2.8)	5 (3.2)
Location		
Australian Capital Territory	11 (2.0)	2 (1.3)
New South Wales	182 (33.0)	56 (36.4)
Northern Territory	2 (0.4)	0 (0.0)
Queensland	111 (20.1)	28 (18.2)
South Australia	34 (6.2)	7 (4.5)
Tasmania	11 (2.0)	5 (3.2)
Victoria	155 (28.1)	44 (28.6)
Western Australia	45 (8.2)	12 (7.8)
Missing	1 (0.2)	0 (0.0)
Remoteness		
Major cities	421 (76.0)	116 (75.3)
Inner regional	77 (13.9)	27 (17.5)
Outer regional	27 (4.9)	7 (4.5)
Remote	5 (0.9)	1 (0.6)
Very remote	2 (0.4)	1 (0.6)
Missing	22 (4.0)	2 (1.3)
Taking medication for mental health		
Yes	126 (22.7)	30 (19.5)
No	349 (63.0)	92 (59.7)
Missing	79 (14.3)	32 (20.8)
Receiving other counseling		
Yes	241 (43.5)	69 (44.8)
No	237 (42.8)	54 (35.1)
Missing	76 (13.7)	31 (20.1)

KHL; however, around 20 percent of participants failed to respond to each of these questions. As such, these factors were not included in the main analyses. Preliminary analyses that included only participants who did respond to these questions revealed that neither taking medication nor receiving other counseling significantly impacted the results of the psychometric test outcomes.

## Psychometric test analyses

**DASS-21:** depression subscale. Repeated-measures Analyses of Variances (ANOVAs) were conducted to determine whether DASS-21 subscale scores differed across the three timepoints. For the depression sub-scale, the condition of sphericity was not met [ $\chi^2(2) = 30.67$ ,  $p < 0.001$ ], so degrees of freedom were adjusted using the Greenhouse–Geisser correction ( $\epsilon = 0.85$ ). Mean depression scores differed significantly across the three timepoints [ $F(1.691, 258.72) = 14.59$ ,  $p < 0.001$ ]. *A priori* pairwise comparisons

TABLE 1. COMPLETED QUESTIONNAIRES BY TIMEPOINT

	DASS-21	CORE-10
Time 1: Baseline	552	388
Time 2: Midpoint	186	150
Time 3: Endpoint	158	122
All 3 timepoints completed	154	118

CORE-10, Clinical Outcomes in Routine Evaluation; DASS-21, Depression, Anxiety, and Stress Scale.

showed a significant decrease from time 1 ( $M=12.05$ ,  $SD=5.45$ ) to time 2 ( $M=10.88$ ,  $SD=5.82$ ;  $p<0.001$ ), and from time 2 to time 3 ( $M=10.38$ ,  $SD=5.82$ ;  $p=0.045$ ).

**DASS-21: anxiety subscale.** The condition of sphericity was not met for the anxiety subscale [ $\chi^2(2)=25.80$ ,  $p<0.001$ ], so degrees of freedom were adjusted using the Greenhouse–Geisser correction ( $\epsilon=0.87$ ). Mean anxiety scores differed significantly across the three timepoints [ $F(1.73, 264.68)=8.79$ ,  $p<0.001$ ]. *A priori* pairwise comparisons showed a significant decrease from time 1 ( $M=10.11$ ,  $SD=5.12$ ) to time 2 ( $M=9.31$ ,  $SD=5.20$ ;  $p=0.025$ ); however, the decrease from time 2 to time 3 ( $M=8.95$ ,  $SD=5.18$ ) failed to reach significance ( $p=0.104$ ).

**DASS-21: stress subscale.** The condition of sphericity was not met for the stress subscale [ $\chi^2(2)=30.20$ ,  $p<0.001$ ], so degrees of freedom were adjusted using the Greenhouse–Geisser correction ( $\epsilon=0.85$ ). Mean stress scores differed significantly across the three timepoints [ $F(1.70, 259.28)=8.51$ ,  $p=0.001$ ]. *A priori* pairwise comparisons showed a significant decrease from time 1 ( $M=11.75$ ,  $SD=4.55$ ) to time 2 ( $M=10.95$ ,  $SD=4.90$ ;  $p=0.019$ ), and from time 2 to time 3 ( $M=8.95$ ,  $SD=5.18$ ;  $p=0.031$ ).

**CORE-10.** A repeated-measures ANOVA was conducted to determine whether CORE-10 scores differed across the three timepoints. The condition of sphericity was not met [ $\chi^2(2)=14.55$ ,  $p=0.001$ ], so degrees of freedom were adjusted using the Greenhouse–Geisser correction ( $\epsilon=0.90$ ). Mean CORE-10 scores differed significantly across the three timepoints [ $F(1.79, 209.32)=8.34$ ,  $p=0.001$ ]. *A priori* pairwise comparisons showed a significant decrease from time 1 ( $M=23.34$ ,  $SD=8.26$ ) to time 2 ( $M=21.94$ ,  $SD=8.46$ ;  $p=0.002$ ); however, there was no significant decrease from time 2 to time 3 ( $M=21.55$ ,  $SD=8.48$ ;  $p=0.336$ ).

### Evaluation questions

Participant responses about their subjective experience of KHL Circles were positive (Table 3). Notably, respondents felt safe using KHL Circles (99 percent) and felt their activity was private and confidential (93 percent). The majority felt accepted by counselors (94 percent) and agreed that counselors encouraged open discussion (91 percent) and contributed to the safety of KHL Circles (95 percent). Most participants indicated that KHL Circles helped them feel more socially connected (79 percent) and empowered to tackle challenges (69 percent), and more than half felt their mental health had improved (57 percent).

Perceptions of support were high, from both counselors (88 percent) and other KHL Circle users (90 percent). Most also reported learning new coping skills from counselors (72 percent) and other users (75 percent). Ninety-one percent of participants said that it was a positive experience, and 89 percent would recommend KHL Circles to others.

Results from the yes/no questions regarding the impact of KHL Circles on help-seeking revealed that participant feelings of stigma around seeking help for mental health issues had reduced (63 percent), and they would now be more willing to seek help if they experienced mental health issues in the future (87 percent).

TABLE 3. DESCRIPTIVE STATISTICS OF PARTICIPANT RESPONSES TO THE EVALUATION QUESTIONS

	n (percent) <sup>a</sup>	M	SD	Range
I felt safe on KHL Circles	98 (99.0)	3.4	0.51	2–4
I felt my activity on KHL Circles was private and confidential	92 (92.9)	3.3	0.63	1–4
KHL Circles helped me feel more socially connected	77 (78.6)	3.0	0.80	1–4
KHL Circles helped me feel more empowered to tackle my challenges	68 (68.7)	2.8	0.86	1–4
I felt supported by the KHL counselors	87 (87.9)	3.2	0.70	1–4
I felt supported by other users of KHL Circles	88 (89.8)	3.2	0.69	1–4
I learned new coping skills from KHL counselors	71 (72.4)	2.9	0.82	1–4
I learned new coping skills from other users of KHL Circles	74 (74.7)	2.8	0.80	1–4
I feel like my overall mental health has improved as a result of KHL Circles	56 (57.1)	2.6	0.80	1–4
The KHL counselors encouraged open discussion	89 (90.8)	3.2	0.69	1–4
The KHL counselors contributed to the safety of KHL Circles	95 (95.0)	3.3	0.60	1–4
I felt that the KHL counselors accepted me	93 (93.9)	3.3	0.62	1–4
KHL Circles was a positive experience	89 (90.8)	3.3	0.69	1–4
I would recommend KHL Circles to others	87 (88.8)	3.3	0.70	1–4

Notes: Items rated from 1 = strongly disagree; 4 = strongly agree.

<sup>a</sup>Number of cases responding in the positive range based on complete responses; denominator of percent varies from 98 to 99. KHL, Kids Helpline.

### Qualitative data analysis

A simple content analysis of responses to the open-ended questions was conducted. Responses were assigned open codes that summarized key idea(s), and then similar codes were grouped together under axial codes.<sup>22,23</sup> K.A. conducted all coding, B.R. provided a second review and inter-coder reliability was high (Krippendorff's  $\alpha=0.96$ ). Disagreements were resolved by consensus.<sup>24</sup>

In the baseline survey, participants were asked “What do you hope to gain in support from joining KHL Circles?” Analysis of 552 responses to this question produced five categories: (1) Engage with others for support ( $n=241$ ); (2) Be part of a network ( $n=210$ ); (3) Receive information ( $n=155$ ); (4) Positive self-outcomes ( $n=57$ ); (5) Be part of the study ( $n=5$ ). There were also 21 miscellaneous responses (generally looking for help, just wanting to “give it a go”), and 39 participants indicated that they were unsure.

In the final survey, participants were asked “What was the best thing about KHL Circles?” Analysis of the 73 responses produced 3 categories: (1) Supportive environment

( $n=30$ )—participants liked receiving support from both counselors and other members in a safe space, as well as supporting other members; (2) Being part of a network ( $n=48$ )—participants enjoyed connecting with others with similar issues and feeling like they were not alone; (3) Online characteristics ( $n=4$ )—having constant access to support whenever they needed it, and being anonymous. There were also 2 miscellaneous responses (“the activities provided” and “all of it”), and some who were unsure ( $n=5$ ).

Sixty-eight participants provided a written response to “Is there anything about KHL Circles you would like to improve?” Almost half of those who responded indicated they either felt there was nothing to improve or were unsure ( $n=32$ ). Analysis revealed four categories of suggested improvements: (1) Structure of the program ( $n=11$ )—including extending program length, reducing age-range, having more structured discussions with more involvement from counselors, more interactive activities, and arranging scheduled chat sessions for synchronous interactions between participants; (2) Private messaging ( $n=10$ )—participants wanted to be able to message other members privately and keep in touch after the intervention ended; (3) Broader topic selection ( $n=6$ )—running more Circles on more topics at the same time; and (4) User experience ( $n=12$ )—including turning KHL Circles into a standalone app, improving notifications (without risk of alerting parents), and improving the overall experience of the platform.

#### Weekly summary reports

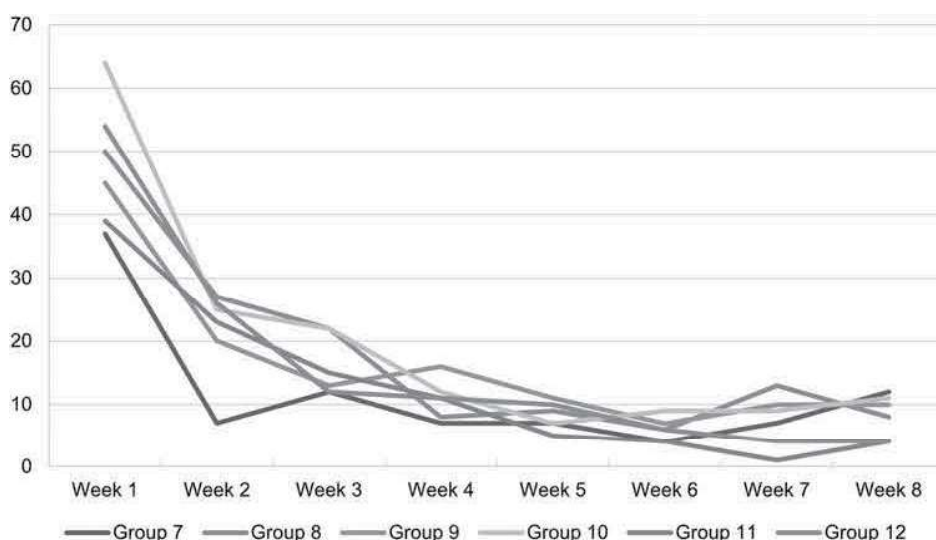
The KHL Circles counselors provided weekly summaries of participant engagement data and a qualitative commentary of activity on the platform. Six Circles were run in Phase 2 (Groups 7–12, Groups 1–6 were run and reported in Phase 1<sup>10</sup>). The number of participants who completed the baseline survey and were therefore enrolled in each Circle varied from 71 to 110; however, the number who logged in when week 1 commenced ranged from 37 to 64 (on average a 61.9 percent conversion from enrollment to participation). All groups then experienced a steep decline in the number of participants who logged in during week 2, before stabilizing at an average of 10 participants per week after week 3 (Fig. 3).

Engagement with counselor posts during week 1 was high, with an average across the six groups of 23 comments and 27 likes in response to 7 counselor posts (Fig. 4). Although the number of counselor posts each week remained between 4 and 6, there was a decline in engagement with counselor posts that reflected the decline in the number of participants who logged in from week 2 onward, especially for the number of comments that averaged 3 per week between weeks 5 and 8.

Engagement with participant-generated posts was higher compared with counselor posts, with an average across groups of 165 likes and 137 comments on 24 participant-generated posts during week 1 (Fig. 5). Counselors observed that in the 1st week, participants were already sharing stories about their family situation and interacting with other participants, indicating familiarity with the platform and its functions. Although engagement with participant posts also experienced a decline from week 2 onward, engagement remained substantially higher than for counselor posts, especially for the number of comments.

Across weeks 1–7, just more than half (55 percent) of the participant posts were classified as being “on topic,” (week 8 was focused on “closure” and did not have a set topic). Counselors observed a pattern of engagement in participant-generated posts reminiscent of “forum-style post-and-forget interactions, with a high-degree of peer-to-peer problem-solving and validation activities.” One counselor reported a “pattern of posting about a topic once and then moving on, rather than processing a topic. This may suggest more of a desire for debriefing, catharsis, validation, normalization, and general experience of being heard and listened to—rather than ‘working through a program.’”

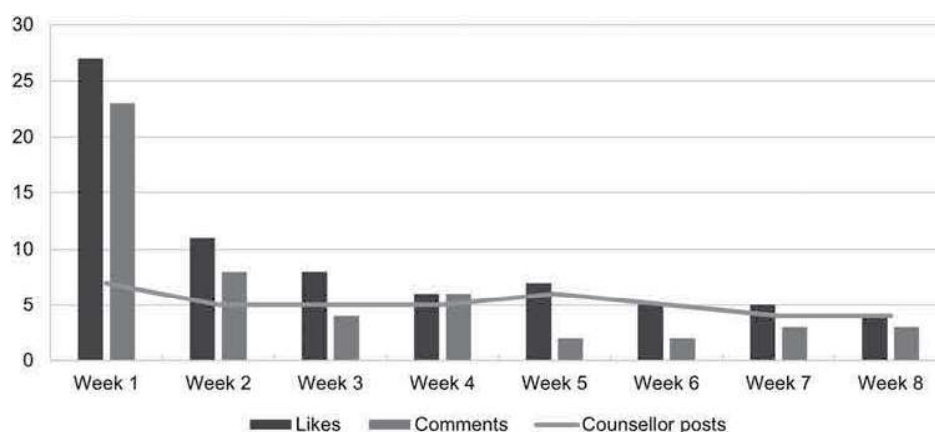
Although engagement waned across weeks 3–7, there was a slight increase in the number of participants who logged in and engaged during week 8 (“closure”), which was attributed to the intervention coming to an end and participants making the most of their final opportunities to connect. One counselor reported that “there were several attempts made by more committed members of the group to exchange identifying information; as well as coordinate their signing up to the next intake. This suggests that within this group there was a greater desire for continuity in contact, which could be met by having an open-ended forum-style group.”



**FIG. 3.** Number of participant logins for each group each week.



**FIG. 4.** Mean participant engagements on counselor posts.



The counselor reports also mentioned minor technological issues with the platform. Most of these issues were reported in week 1 of earlier groups (e.g., inactive tags as a result of changes to usernames, inaccurate timestamps of posts and comments, and the desire for “Facebook-style” notifications). Some were fixed immediately (e.g., inaccurate timestamps), whereas others were raised again in later groups (e.g., notifications), as they had not been able to be addressed due to limitations of the platform.

## Discussion

### Principal findings

Phase 2 of KHL Circles using the Humhub platform was found to be safe, usable, and meet the needs of young people who engaged with it over their 8-week intervention period. Participants reported significantly reduced symptoms of depression, anxiety, stress, and general distress at the midpoint of the 8-week intervention, with further significant reductions in depression and stress symptoms at the conclusion of the intervention. These results contribute to increasing the evidence base for SNS interventions to reduce mental health symptomology, which has been identified as a challenge for SNS-based interventions<sup>12</sup> and digital mental health tools in general.<sup>13</sup>

Further, qualitative feedback presented here expands the knowledge needed to ensure that SNS-based interventions are both engaging and beneficial for young people seeking counselor-led peer-to-peer support online.

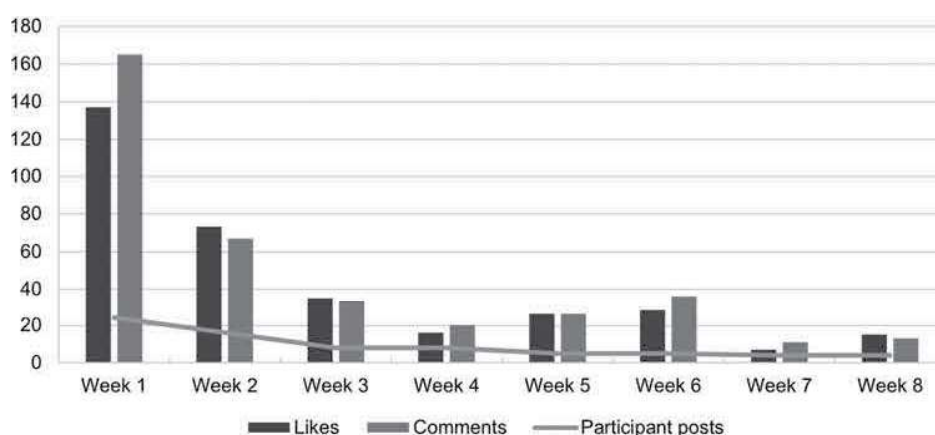
It should be noted that 46 percent of the sample were also receiving other counseling and 20 percent were currently taking medication for mental health problems, so it is not possible to isolate the effects of the KHL Circles intervention in reducing mental health symptomology. However, more than half of the participants felt that their mental health had improved as a direct result of KHL Circles, and most said they now felt less mental health stigma and would be more willing to seek help if they experienced future mental health issues.

Overall, most users said that KHL Circles was a positive experience and would recommend it to others. No adverse incidents were reported, and nearly all participants reported feeling safe and that their activity was private and confidential. Feedback emphasized the important role of the KHL counselors in moderating and facilitating interactions between participants, which is consistent with a recent systematic review that found that moderation by clinical experts was vital for successful SNS interventions.<sup>12</sup>

When asked what the best aspect of KHL Circles was, most participants focused on the opportunity to connect with a network of peers experiencing similar issues, in a safe, supportive, and anonymous environment. Both quantitative and qualitative results indicated that KHL Circles helped participants learn new coping skills and feel more socially connected and empowered to tackle their challenges.

Participant interaction was very high in the 1st week of each Circle, but the number of logins and, consequently, interactions dropped in weeks 2–3. Counselors reported that

**FIG. 5.** Mean participant engagements on participant posts.







We recognise and pay respect to the Elders and communities – past, present, and emerging – of the lands that the University of Sydney's campuses stand on. For thousands of years they have shared and exchanged knowledges across innumerable generations for the benefit of all.