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A thematic analysis of users' experience of an AI-enabled mental health intervention for generalised anxiety symptoms

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ABSTRACT

Anxiety disorders are highly prevalent, yet access to effective psychological treatments remains limited. Artificial intelligence (AI)-enabled mental health applications offer a scalable and accessible means to bridge treatment gaps. This study qualitatively explored the experiences of adults with anxiety symptoms using PATH, an AI-enabled mental health intervention. Participants ($N = 100$) with moderate-to-severe anxiety were recruited via Prolific and engaged with PATH before providing feedback. A total of 67 participants completed the qualitative questions at the 2-week timepoint, and 51 participants completed a further questionnaire at the 8-week timepoint. Participants had a mean age of 39.84 ($SD = 11.19$). Most were born in the UK (89.6%), and reported their ethnicity as White (92.5%), Asian (3.0%), mixed (3.0%) and Black (1.5%). Many worked full-time (53.7%) or part-time (20.9%), and a minority (14.9%) were students. Data were analysed using Qualitative Descriptive Analysis. Four overarching themes emerged: (1) *Key Reasons for Use*; (2) *Usability and Functionality*; (3) *Preferred In-App Interventions*; and (4) *Facilitators and Barriers to Sustained Engagement*. Findings underscore the value of empathetic, personalised and readily available AI-enabled interventions for anxiety management, while also highlighting design challenges requiring refinement.

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Introduction

Globally, half the population will experience a mental disorder before age 75 years (McGrath et al. 2023), with anxiety and depression related disorders being among the most common. Despite the availability of effective treatments for emotional disorders such as Cognitive Behavioural Therapy (CBT), access to such interventions remains low (Wolitzky-Taylor et al. 2018). Fully automated mental health applications (i.e. apps) offer a promising solution to access barriers (Mehta et al. 2021). Artificial intelligence (AI)-enabled therapeutic apps represent a transformative shift in digital mental health interventions by enhancing accessibility, scalability and personalisation. Emerging evidence suggests that AI-enabled apps such as Woebot, Wysa and Youper, deliver clinically validated benefits,

including reduced anxiety and depressive symptoms, through tailored interventions, responsive interaction, adaptive feedback and continuous monitoring with high user satisfaction and engagement (Malik, Ambrose, and Sinha 2022; Mehta et al. 2021; Yeh et al. 2025). Recent systematic reviews further highlight the effectiveness of such apps across several mental health conditions (e.g. anxiety, depression, stress and burnout; Farzan et al. 2025; Limpanopparat, Gibson, and Harris 2024).

Background

While existing studies are promising, evidence on self-guided digital mental health treatments remains limited, often relying on small samples from Randomised Controlled Trials (RCTs) (Mehta et al. 2021). While RCTs

are the gold standard for assessing efficacy, real-world evidence, including qualitative data, is also essential for understanding how interventions are experienced in practice by end users (hereafter referred to as users). Existing qualitative research highlights several thematic factors that influence user engagement and perceived effectiveness of AI mental health apps. Users consistently value empathetic chatbot interactions, personalised mindfulness content and intuitive interfaces (Chaundhry and Debi 2024; Malik, Ambrose, and Sinha 2022). Themes such as instant accessibility, privacy, nonjudgmental tone and self-monitoring features have been linked to enhanced therapeutic experiences and sustained use (Chaundhry and Debi 2024; Kang and Hong 2024). These studies emphasise the importance of adaptive, interactive engagement, with real-time emotional support fostering trust and reliability (Chaundhry and Debi 2024; Farzan et al. 2025; Kang and Hong 2024; Valentine et al. 2024; Yeh et al. 2025). Nonetheless, challenges remain, including reduced motivation during depressive and high-anxiety episodes, technical issues and limited conversational depth, collectively inhibiting long-term user retention (Valentine et al. 2024; Yeh et al. 2025).

Qualitative evaluations are also essential for understanding how users interact with digital mental health apps, offering insights that quantitative data (e.g. symptom measures) may overlook. Studies analysing feedback on AI-enabled apps consistently identify key themes such as the importance of a trusting therapeutic environment, the value of immediate and around-the-clock access, and the benefits of self-guided therapy formats (Chaundhry and Debi 2024; Kang and Hong 2024). For example, users of Youper responded positively to its CBT-based features, highlighting the self-guided format as a driver of both engagement and symptom improvement (Mehta et al. 2021). Similarly, Wysa users appreciated its interactive exercises, structured journaling and cognitive restructuring tools, which were particularly helpful for managing stress and anxiety (Malik, Ambrose, and Sinha 2022). The value of personalised and adaptive engagement has also been emphasised. Just-in-Time Adaptive Interventions, which respond to user input and contextual factors in real time, have shown promise in improving outcomes (Mehta et al. 2021; Valentine et al. 2024). For instance, the Mello app, designed to reduce repetitive negative thinking in young adults, allowed users to tailor their therapy experience, highlighting the importance of self-directed and responsive support. These findings align with broader evidence suggesting that AI-enabled tools can enhance self-regulation, cognitive flexibility and emotional resilience through

features such as digitally guided mindfulness and behavioural activation (Mitsea, Drigas, and Skianis 2023; Rathnayaka et al. 2022). However, despite this useful and informative research examining how users interact with digital mental health apps, there remains a need for further research examining user experiences of AI-enabled mental health tools (Chaundhry and Debi 2024). Particularly relevant to the aim of this investigation, limitations to previous research include a lack of qualitative data focussing on users with higher levels of anxiety and how users' experience adaptive AI designs over time.

Current study

In response to the saliency of AI-enabled mental health therapeutic apps in the context of current anxiety and depression incidence rates, reported barriers to intervention, coupled with contemporary limitations in understanding of user experiences, this study explored participants' qualitative experiences of PATH (i.e. Personalised Artificial Intelligence Therapy); an AI-enabled mental health app designed to address anxiety in adults. This study extends prior work by examining engagement among adult intervention participants with elevated levels of anxiety, focusing on their perspectives regarding what aspects of the app were most helpful, how they interacted with different therapeutic features, and which contextual factors influenced their use.

The PATH app

The specific app used for this investigation, PATH, is a generative AI-enabled mental health app developed by Dr Jay SAS (Société par actions simplifiée, France), designed to deliver evidence-based support for anxiety and related emotional difficulties. Available in three languages (i.e. English, French, and Italian), PATH integrates validated psychological approaches and strategies (e.g. cognitive behaviour therapy, mindfulness, meta-cognitive strategies) and was developed with input and expertise from clinical psychologists, lived experience experts and independent specialists to ensure a user-centric, therapeutic experience.

PATH is available 24/7, and users can select an AI persona (companion) that provides well-being support. Users interact with the AI companion via text or voice-to-text. PATH utilises an internal retrieval-augmented generation (RAG) system that draws its responses from a fixed library of reviewed material so that AI companions' replies to the user are evidence-based. PATH's AI companions are engineered to navigate users' various emotional and individual circumstances, with the aim of offering empathetic, evidence-based support.

Users can focus on anxiety, mood, or general well-being, with the AI companion supporting the user to explore behavioural patterns, thoughts and emotions. When needed, evidence-based tools such as breathing or mindfulness exercises are integrated into the chat. By leveraging insights from previous interactions with the user, the AI companion can offer responsive engagement from brief chats to longer conversations.

Importantly, PATH uses safety controls, so that conversations and user text are reviewed for crisis or risk-related language. When identified, PATH stops conversations and provides clear guidance to the user to seek support. The controlled, evidence-based library aims to ensure that fidelity with CBT is maintained. In addition, during PATH's development, conversation samples and pilot users' dialogues were reviewed and critiqued by PATH's developers, including a clinical psychologist, to evaluate safety, adherence to evidence-based CBT, and ensure AI companion's responses were clear, empathic and reflective of therapeutic dialogue.

Quantitative results from a recent randomised controlled clinical trial (see Allen et al. 2026) report that PATH notably reduced symptoms of anxiety and depression at two and eight weeks, with continued use leading to greater improvements. Whilst published trial data support the app's effectiveness in reducing anxiety and depressive symptoms (see Allen et al. 2026), the present qualitative study focuses on participant experiences of PATH in regard to its therapeutic exercises, identifying which features were perceived as most impactful, and contextualising scenarios where participants found the app most beneficial. Understanding these participant perspectives is essential for guiding and informing revisions and improvements to the PATH app and shaping evidence-based design and enhancement of current and future AI-enabled interventions striving to provide accessible and effective amelioration of mental health conditions.

Methods

Procedure

Ethics approval was granted by the Human Ethics Committee of the University of the Sunshine Coast, Australia (No. E24012). Participants were recruited through Prolific. All collected data were anonymous. After providing informed consent via a consent form, participants completed the study questionnaires.

The present qualitative study was part of a larger study (see Allen et al. 2026), which used a custom filter to screen 774 participants aged 18 and older who

were based in the United Kingdom (UK) and reported generalised anxiety symptoms. Inclusion criteria at screening required that participants' generalised anxiety score on the GAD-7 was ≥ 10 . The cutoff was based on the validated, clinical severity range for moderate symptoms severity and indicates probable generalised anxiety disorder; this was consistent with the cutoff used in similar research (see Bell et al. 2023; Spitzer et al. 2006). Screening exclusion criteria included participants who had made changes in their medication for anxiety or depression in the past four weeks or had a planned medication change in the next four weeks, and those who were currently undergoing psychotherapy. Participants needed to have a compatible device to install the app. Participants were compensated at a rate of \$12 per hour for 1 minute of their time.

Participants who were assigned to use PATH ($N = 100$) were provided with a link to install the app and were instructed to use it at least five times a week over a two-week period. PATH usage was set to total a minimum of one hour, divided into multiple sessions lasting 5–15 min. After two weeks of app use, participants were asked to respond to several qualitative questions about the usability of the app. Eight weeks after commencing use of the app, participants were invited to complete a further follow-up assessment, which included qualitative questions about their sustained use of the app and perceived benefits and/or challenges.

Qualitative questions

Participants completed the following qualitative questions at the two-week timepoint: 'Which exercise(s), (if any) did you like the most on the app?'; 'How has using the app impacted your mental well-being?'; 'Can you share any specific ways it has helped you or any improvements you have noticed in your mental well-being?'; 'Please describe the moments when the app was the most useful for you' and 'What did you like most about the app?'.

At the eight-week timepoint, participants responded to the following additional questions; 'Why did you, or didn't you, continue using the app?'; 'Could this app potentially replace or reduce your need for in-person psychologist visits?' and 'Did using the app during the study help you manage your anxiety symptoms after the study ended (for example, through learned techniques or skills)?'

Participants

Participants who trialled the PATH app were 61 women and 39 men living in the UK ($N = 100$), aged 19–67. Of

the 100 participants, 67 (43 women and 24 men) completed the 2-week timepoint qualitative questions. The participants had a mean age of 39.84 ($SD = 11.19$). Most were born in the UK (89.6%). The majority reported White ethnicity (92.5%), with the remainder of participants identifying as Asian (3.0%), mixed race (3.0%) and Black (1.5%). Many worked full-time (53.7%) or part-time (20.9%) and a minority (14.9%) were students. Of those who participated at the two-week timepoint, 51 participants (76.1%) also completed the qualitative assessment at the eight-week timepoint, with similar demographics (34 women and 17 men aged 19–67, $M_{age} = 39.73$, $SD_{age} = 11.61$).

Analysis

Qualitative Descriptive Analysis was employed to analyse participants' responses. Analysis involved initial

coding, whereby two independent researchers (ZP & CD) systematically reviewed the data, noting recurring words and phrases that were relevant to the research question (Nicmanis 2024). NVivo 16 software was used to facilitate the coding process. Codes were further grouped into categories, before being refined into key themes (See Figure 1).

Rigour

To manage potential bias in data analysis and reporting of findings, the PATH developers, Dr Jay, engaged independent researchers (ZP and CD) to complete the analyses, with the remainder of the research team granted view-only access to anonymised data to prevent any interference with the data or analysis. Engaging researchers with no connection to, or investment in, the evaluation of PATH strengthened the

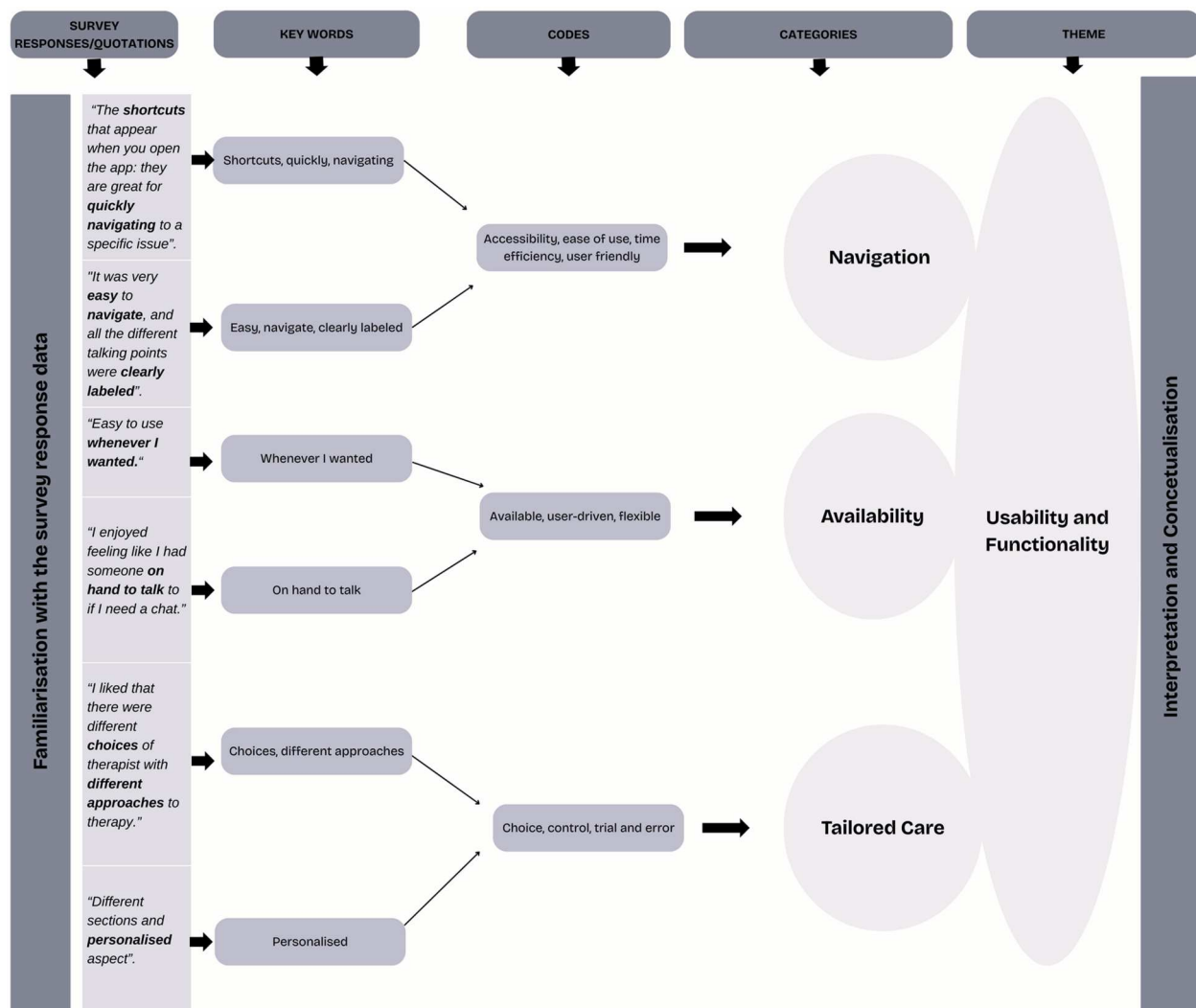


Figure 1. Thematic analysis approach. Figure adapted from Naeem et al. (2023).

trustworthiness of the analysis and findings. Credibility and confirmability were further supported by the reporting of a wide range of direct participant quotes to evidence the study findings and researcher triangulation, whereby researchers (ZP and CD) carried out analysis independently, before collaborating to refine themes, to ensure that diverse insights and interpretation of the data were developed (Nicmanis 2024). Transferability was strengthened by providing detailed accounts of the study design, data collected and analysis undertaken to ensure contextual clarity and demonstrate dependability that could allow for the study to be replicated in other settings (Drisko 2024).

Findings

The four key themes identified were: key reason for use; usability and functionality; preferred in-app interventions; and facilitators and barriers to sustained engagement (See Figure 2).

Key reason for use

When describing patterns of app use, participants noted a range of situations and emotional states that prompted their engagement with the app.

Situation

Participants described the primary situations for prompting app use to be needing assistance to fall asleep, coping with work stressors, or when feeling alone.

Sleep. Many participants reported that they would use the app ‘... to relax before going to sleep’ (P31), as this participant explained, ‘The app was most useful for me just before bedtime when I would use it for the relaxing techniques to de-stress before sleep’ (P57). Participants reported that the app could be beneficial as a ‘calming’ (P58) and ‘relaxation’ (P5) technique to aid in sleep, as this participant described, ‘I liked the

relaxation exercises and will continue to use these as I think I got off to sleep better after doing them.’ (P20).

Work. For some participants, work-related stressors could prompt use of the app, for example, ‘... during my working day when I felt really anxious ... I took my lunch break and used the AI chat’ (P19), and, ‘[during] highly stressful times at work I was able to open [Dr Jay] up and find some mindfulness to relax me’ (P26). For other participants, use of the app was pro-active and aimed at preventing further work-related stressors as they engaged with the app to learn ‘... about burnout prior to heading to work’ (P36) or ‘in the mornings before work’ (P47).

Loneliness. Participants described seeking support through the app when they felt alone or had no one else to talk to. When asked about the moments when the app was most useful, participants described, ‘I needed just an ear to talk to’ (P34) and, ‘when I was feeling lonely’ (P50) and some noted that their feelings of loneliness were lessened when engaging with the app, as these participants shared, ‘... feeling like I had someone to talk to made me feel less lonely’ (P28) and, ‘I felt I instantly had someone to understand me when I was feeling lonely’ (P50).

Emotional state

Three key emotional states were noted to prompt engagement with the app, namely crisis/stress, low mood and anxiety.

Crisis/stress. Situational crises or feelings of intense stress were described as key times for when participants would engage with the app for support. Participants explained that ‘the app has been most useful when I’ve been in a state of anxiety or panic as it helped me calm down and be rational’ (P28) and that it could be useful in times of ‘... crisis when I couldn’t stop crying and calm down’ (P29). Heightened emotional states during acute stress or panic could be effectively

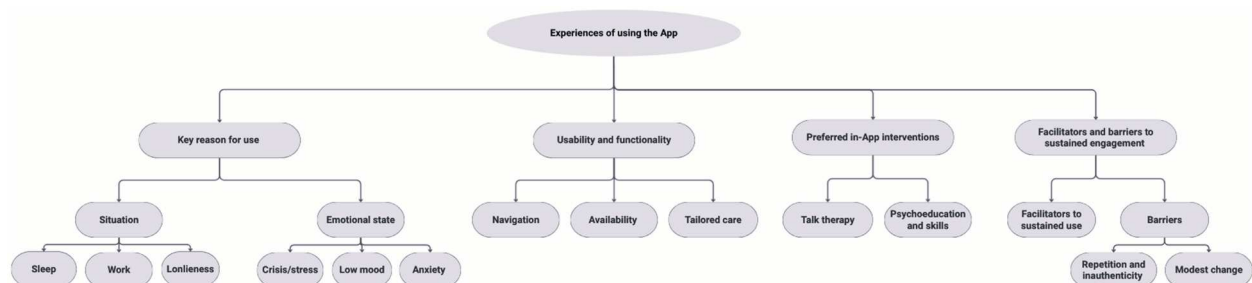


Figure 2. Themes and subthemes.

addressed by the app, as these participants explained, 'It was most useful when I suddenly had anxious thoughts, I didn't have to sit there myself I could tell the app' (P14), and, 'When my mental health was at its worse ... I felt I had somewhere to go to and help me with my mental health.' (P6).

Low mood. Participants described the app as a support when they were experiencing low mood, describing that they would engage with the app 'When I was feeling low ...' (P7), and, 'when I was feeling down and needed someone to talk to' (P58). For some participants, using the app was found to increase motivation and replace unhealthy coping strategies, 'when feeling demotivated I would speak to [AI companion]. They had a way of providing a little good advice on what to do so I can cheer myself up' (P71), and, 'when I've been feeling depressed, I have used the app instead of scrolling Facebook in an attempt to distract myself' (P72). For some participants, use of the app when experiencing low mood could result in a behavioural change, for example, 'I woke one morning feeling very apathetic and the helped motivate me to go for a short run' (P66).

Anxiety. Anxiety was another key prompt for engaging with the app. Some participants noted that anxiousness could trigger their use of the app and that this was considered effective, 'I have used the exercises when on the bus to meet friends. This has resulted in lessening my social anxiety and meaning I arrive feeling less anxious' (P72). One participant described accessing the app in a proactive manner to avoid escalation of emotional state, explaining that they used the app '... when I could feel my anxiety building up. I didn't want to wait until I was in crisis before I used the app as I find I'm too far gone to take advice by that point.' (P25).

Usability and functionality

Almost all participants noted that the app was either 'very' or 'mostly' simple and intuitive to navigate with no, or very few, difficulties in using or understanding the features. Feedback from participants indicated that usability and functionality were essential to the effectiveness of the app, specifically noting app navigation, availability of support, and benefits of tailored care as useful facets of the app.

Navigation

Navigation of the app was important for participants, who appreciated its 'ease of use [and] simplicity' (P3) and were satisfied with the 'well laid out' (P12) interface and 'clear, easy to use, and not too long' (P18) training

exercises. Clear labelling of app sections aided in ease of use for participants, who suggested that the app was 'easy to use' (P23). For a small number of participants, navigation and use of the app was hindered by technical issues such as lack of phone data, as these participants expressed, 'I uninstalled [the app] because the issues and problems and lack of memory of the app were more frustrating than the benefit I got' (P54), and, 'I wanted to wait for a final version came out as the app crashed a lot on my phone during testing which would mean I frequently lost conversations' (P33).

Availability

A key factor for many participants was the availability of support offered by the app. The flexibility of being able to seek out 'instant help' (P29) and guidance when it was needed most was appreciated by participants who stated, 'It's been helpful to have a resource that I can access quickly and in the moment that I've needed some extra support rather than ... having to wait for a therapy session' (P40). Accessing psychological support in a time efficient and spontaneous manner was noted as a benefit of the app, with this participant describing use of the app as 'on the go ... it's been useful to check in with the AI therapist ... when I've got limited time and want to quickly check in or try a quick mindfulness exercise' (P41). Participants also appreciated timely responses from the AI companion, explaining, 'it answered questions with little delay' (P20), and was, 'easy to use whenever I wanted' (P50). Ease of use was further strengthened by the 'ability to keep track of the conversations across multiple sessions' (P64). This ease of access and availability of support resulted in participants being able to access intervention 'whenever I wanted night or day' (P58) valuing the convenience of engaging '... the app at any time and be able to discuss any problems I have.' (P63).

Tailored care

Ability to shape and tailor the type of therapy, activities and level, and frequency, of engagement was a benefit of the app. Participants valued the range of therapeutic topics that they could choose from on the app, highlighting that this resulted in a 'personalised aspect' (P7) to engagement and offered a '... variety of self-help [sic] options' (P4). This range of options for psychoeducation, support and intervention meant that participants could explore a variety of options, as this participant described, 'I enjoyed trying the range of exercises even if some of them didn't work for me. At least I had something to try' (P58). This trial-and-error approach to therapy was useful for participants, who could explore their preferences in a safe

environment, leading to a clearer understanding of therapeutic fit, ‘I managed [to] understand pretty quickly why I had not benefited from certain therapy previously. It was great to be able to try out different styles without commitment of worry of causing offence.’ (P72).

In the tailored care approach, participants particularly valued being able to choose between a range of AI companions and therapeutic styles. This allowed participants to ‘... change therapists depending on what I was looking for’ (P61) and find an approach that aligned with ‘... how [I] like to be helped.’ (P26).

Preferred in-app interventions

Participants primarily engaged in, and reported effectiveness of, talk therapy intervention, psychoeducation and skills development.

Talk therapy

Talk therapy was frequently reported as a preferred intervention provided by the app, with participants noting the authenticity of the AI companion as a driver for use, ‘It felt like a real person typing back and didn’t feel like a generalised response. It felt personal’ (P19), ‘... the AI did make it [seem] like they cared’ (P68), ‘[the] therapist felt human’ (P59), and, ‘Sometimes I forgot I was chatting to an AI therapist because her responses were so contextual to what I had previously said.’ (P15). For some, speaking about their concerns and experiences was a useful opportunity to talk through challenges and gain a sense of connection, ‘It felt like having someone to talk to which was nice’ (P8), ‘I like that I felt heard and listened to ... when I was feeling bad I had somewhere on hand to go and diffuse the feelings and emotions’ (P32), and, ‘[it] was nice to have someone to talk, vent and get advice from ... think it helped me cope with some things that I otherwise wouldn’t have been able to get through.’ (P34).

For some participants, engaging in talk therapy with an AI companion provided a sense of anonymity and reduced shame or embarrassment when discussing difficult topics, ‘I feel a bit better being able to talk to someone even if ... that person maybe just be an AI. I said things I would never say to anyone else ... I think that helped my well-being.’ (P58). This perspective was reflected by another participant who explained that they would use the talk therapy intervention ‘When I had a particular worry [that] I didn’t feel like I could talk to someone about.’ (P52).

Psychoeducation and skills

Learning about mental health was another key driver for app use with some participants noting the benefits of understanding their symptoms, ‘It has helped me realise a few more ways in which my trauma affects me, which has been helpful.’ (P10), and ‘It [has] helped me work out some of my thinking processes.’ (P24). With this increased understanding of their psychological state, participants developed skills to more effectively manage symptoms and stressors. ‘... Deep breathing exercises, body scans and mindfulness exercises’ (P28) were particularly useful, with participants describing these skills as effective for relaxation, stress and anxiety reduction, and improved sleep quality, ‘the breathing [exercises] did help calm and distract me’ (P35), ‘some of the relaxation and anxiety techniques were very helpful ... the body/muscle relaxing one to help sleep’ (P34), and, ‘the relaxing sounds ... closing my eyes and having this playing really calmed me.’ (P70). Interestingly, psychoeducation could include a greater understanding of how to engage in therapy for beneficial outcomes, as this participant explained, ‘It felt like I was learning how to actually use therapy to positive effect.’ (P8).

Facilitators and barriers to sustained engagement

When considering the impact of the app on longer term participant mental health and well-being, facilitators to sustained use and barriers to engagement were noted.

Facilitators to sustained use

For participants who were planning to see a psychologist in the future, the majority noted that the app could reduce the frequency of visits to a psychologist and a small number of participants stated that the app could completely replace their need for a future psychologist visit. Sustained use of the app was driven largely by participants’ desire for ‘instant help’ (P29), for example, as one participant explained ‘I found it helpful to have someone to talk to when I was struggling and having a bad day.’ (P37). Many of those who planned to continue engaging with app-based support did so due to the appeal of building coping strategies to improve mood; for example, ‘I found the exercises really good and useful’ (P30), ‘I have tried to use the techniques I learnt [on the app] in everyday life to manage my anxiety’ (P42) and ‘I found the consistency of using the app helpful for my mental health.’ (P4).

Barriers

Repetition, inauthenticity and limited perceived change to mental health state were key reasons for discontinuing app use or seeking alternative support.

Repetition and inauthenticity. When providing feedback on the app, a small number of participants noted frustration with repetition when engaging in talk therapy with the AI companion, as these participants shared, ‘I felt I had experienced most of what it could offer and that it was starting to get repetitive.’ (P20) and, ‘I felt that the [AI companion] was very repetitive and said the same thing over again.’ (P40). Another key barrier for beneficial therapeutic engagement was a perception of inauthenticity of the AI companion, with participants describing that, ‘I felt frustrated with the AI responses and did not [feel] “seen”’ (P37) and ‘It did not particularly help ... the chats almost never felt personal or genuine. It was always very clear the AI assistant was guiding you towards a handful of different talking points’, (P36) and ‘I didn’t feel it helped much as the AI wasn’t very pragmatic.’ (P11).

Some participants described a preference for a human therapist, explaining they would still need to see their psychologist the same amount of time despite having used the app, ‘I use my own therapy to manage my symptoms so didn’t think [the app] was necessary’ (P43), ‘I didn’t find [the app] particularly helpful for the issues that I was experiencing compared to my counsellor.’ (P34), and, ‘I have my own therapist, so I didn’t really see the point in chatting with an AI that pretends to understand me.’ (P48). For those who would not use the app for support in the future, this was largely due to a perception of the AI companion as less authentic or helpful than a human therapist.

Modest change. A few participants noted that they perceived limited change to their mental health and therefore would not continue the use of the app, for example, ‘It has made no difference’ (P17), and, ‘I didn’t feel much improvement with levels of anxiety or mood.’ (P14). Some participants noticed initial changes in their mood with use of the app, but when they perceived this benefit to stop, they decided not to engage further, for example, ‘At first it seems to help quite a lot. After a few sessions ... it didn’t really help as before’ (P71). For those who did not continue using the app, or found little benefit from its use, perceived severity and complexity of mental health concerns were identified as a key reason, as these participants described, ‘... could be helpful for some [people] who have the ability to relax. Those with serious mental health issues like myself it was a bit useless’ (P71) and ‘for someone

with slight anxiety it may help however for someone with complex medical issues it doesn’t work.’ (P39).

Discussion

The findings of this study provide valuable insights into the user experience of an AI-enabled mental health intervention for generalised anxiety symptoms. Analysis revealed several key themes regarding this AI-enabled mental health intervention, including accessibility, personalisation, and effectiveness in reducing anxiety symptoms. These findings align with existing literature on the benefits of AI-enabled mental health apps, such as Wysa, Youper, and Woebot (Malik, Ambrose, and Sinha 2022; Mehta et al. 2021; Yeh et al. 2025), which have shown clinical efficacy in similar contexts using CBT approaches. Participants in the current study valued the flexibility and immediate accessibility offered by the app, confirming existing literature that describes AI-enabled mental health interventions as providing support to patients in between therapy sessions; a commonly preferred option to counter the typical three to four month waiting period for psychologists and psychiatrists (Subotic-Kerry et al. 2025).

A key contribution of this study is its focus on user perspectives, which highlights the importance of tailoring AI interventions to meet individual needs (Farzan et al. 2025; Limpanopparat, Gibson, and Harris 2024). In this study, participants reported high levels of satisfaction with the app’s adaptive feedback and continuous monitoring features. These were perceived as critical to participants’ therapeutic progress primarily related to sleep, work and loneliness. Effectiveness in talk therapy, psychoeducation and skills development were the key interventions preferred by participants who appreciated empathetic and authentic AI interactions; a finding that reflects that of prior research (Chaundhry and Debi 2024; Malik, Ambrose, and Sinha 2022). In line with findings on Woebot and Happify (Kang and Hong 2024), PATH’s usability and functionality were noted as user-friendly for navigation and providing instant availability and tailored care. In this study, the sustained use of an AI-enabled mental health intervention positively impacted help-seeking and was mostly perceived as an assistive tool to complement face-to-face therapy, supporting previous systematic review findings by Farzan et al. (2025). The flexible, tailored range of PATH’s AI companion, therapeutic styles and activities were reported as key benefits. In particular, human-like AI companions were deemed to be authentic in listening and providing advice on building positive coping strategies and improving mood. In line with findings on Wysa (Malik, Ambrose, and Sinha 2022) and broader

trends (Mitsea, Drigas, and Skianis 2023; Rathnayaka et al. 2022), participants in the present research evidenced that an AI-enabled mental health intervention helped to better self-regulate their emotions through relaxation and anxiety reduction exercises and conversational engagement.

Whilst benefits were found, repetition and rigidity were reported by some participants in this study, which is a common challenge for mental health chatbots (Siddals, Torous, and Coxon 2024). This finding has implications for the future design and refinement of digital mental health technologies, where repetitiveness can be addressed using strategies such as state tracking and template diversification (Yeasmin et al. 2025). While PATH allows for conversations to be tracked over multiple sessions, there were some reports of lost conversations when the app ‘crashed’. Such technical issues have been noted in previous studies (Valentine et al. 2024; Yeh et al. 2025) and are a barrier to effective AI-enabled mental health interventions. These challenges could be addressed through features such as autosave functions, save prompts and tailored messaging for crash events; however, further refinement of AI-assisted technologies such as PATH is needed to ensure scalable and resilient technologies that reduce the risk of user disengagement and frustration (Shi et al. 2024).

A diminishing value effect for the app’s benefits was reported by a small number of participants in the current study. There was also mention of the app serving common disorders better than severe mental ill-health. There is a lack of definitive conclusions on the mental health conditions that chatbots best serve due to the diverse range of devices and apps, as well as inconsistencies in both the metrics used and the manner in which findings are reported (Vaidyam et al. 2019). However, the present qualitative findings extend on quantitative results (see Allen et al. 2026), contributing to the evidence-base for effectiveness in generative AI therapy technologies.

Limitations and future research

This study has several limitations. Although the sample for this study is large for qualitative research, analyses were restricted to intervention participants only, introducing selection bias. Quantitative data collected at two and eight weeks were not integrated with themes presented here, and it is acknowledged that a mixed-methods approach would strengthen inferences. Additionally, question framing emphasised positive experiences, potentially under-capturing negative or null outcomes. Future research should include

participants who use the AI-enabled mental health app, those who discontinue, and participants assigned to a control or comparison condition, as well as, integrating quantitative engagement indicators, and adding specific negative-experience probes. Importantly, the current sample was UK-based and participants were predominantly White. Thus, given that AI-enabled mental health interventions must be culturally responsive to be effective; future evaluation across diverse populations and developing nations is needed. This is essential given that AI-enabled mental health apps hold the potential to overcome traditional barriers to care, including long waitlists and prohibitive costs, offering scalable and accessible support to underserved populations worldwide. Ensuring such tools are culturally adapted and rigorously evaluated across diverse contexts is therefore critical, particularly in light of the UN Sustainable Development Goals’ commitment to good health and well-being (SDG 3) and reducing inequalities (SDG 10).

Conclusion

This study addresses the existing qualitative gap in AI-enabled mental health treatment research by highlighting user experience that can shape effective treatment design. Understanding ‘real world’ engagement with AI-enabled psychological interventions reveals perceived effectiveness and identifies areas for adaptation and improvement. The present findings represent a promising advancement in human-like AI-enabled psychological interventions, through providing accessibility, personalisation and real-time mental health support. This research supports leveraging AI technology with evidenced-based psychological tools as a scalable and personalised solution for managing generalised anxiety. Whilst these findings are promising, evidence on self-guided digital mental health treatments remains limited, often relying on small samples from RCTs and overlooking how interventions are experienced in practice by users. Future qualitative studies could evaluate the effectiveness of interventions like PATH in multiple languages and for diverse populations to further deepen understanding of user experience and the impact of AI-enabled psychological interventions.

Author contributions

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AV, EI, NB and LKD are employed by Dr Jay. However, to maintain objectivity, access to the collected data was initially secured exclusively for the independent statistician (FJ), who maintained full control over the data throughout the study. ZP, CD, FJ and AA (non-Dr Jay researchers) were provided with read-only data specifically involved in the thematic analyses. The remaining authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Ethics approval

Ethics approval was granted by the Human Ethics Committee of the University of the Sunshine Coast, Australia (No. E24012).

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