



Spontaneous use of ChatGPT for mental health support: an exploratory study

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Received: 8 September 2025 / Accepted: 12 December 2025
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Abstract

Aim ChatGPT is increasingly used as an informal tool for mental health support, despite limited empirical evidence.

Subject and methods This mixed-methods study explored ChatGPT use for mental-health purposes, examining perceived benefits and barriers, and age-related differences. In phase 1, semi-structured interviews with 12 university students informed the development of a 19-item online survey, administered to Catalan-speaking individuals aged 16 and older.

Results Interviews revealed diverse usage patterns. Between January and June 2025, 500 participants (age range 16–90 years, M 41.15, SD 17.7) completed the survey. Overall, 74.6% ($n = 373$) reported using ChatGPT, but only 17.2% ($n = 86$) had consulted it for mental health support and typically did so infrequently (\leq monthly). Most queries concerned stress or anxiety (64%) and interpersonal problems (53.5%). Main motivations were access to coping strategies (73.3%), obtaining alternative perspectives (61.6%) and organising thoughts (53.5%). Among those who consulted ChatGPT for mental health reasons, 55.8% rated its helpfulness as moderate to high. ChatGPT use decreased significantly with age, from 39.5% among adolescents to 3.6% among adults aged 50–64 years ($\chi^2_{(5)} = 21.4, p < 0.001$).

Conclusion ChatGPT may serve as an easily accessible, complementary resource for everyday mental-health concerns, particularly for younger users. Initiatives to foster informed and responsible use may be especially relevant for adolescents and young adults. However, given the exploratory nature of this study, it is still premature to derive any public-health recommendation. More research is needed to examine the efficacy, safety and real-world impact of using ChatGPT for mental-health purposes.

Keywords ChatGPT · Artificial intelligence · Mental health · Digital support · Age differences

Introduction

Mental health has emerged as one of the most pressing global public health challenges, with major implications for population well-being and health systems. A recent meta-analysis of 157,336 adults from 29 countries found that nearly half will experience a mental disorder by age 75, most commonly anxiety, depression or substance disorders. These conditions often emerge in adolescence and disproportionately affect

women and young people (McGrath et al. 2023). Moreover, the absolute number of mental health cases has grown significantly worldwide in recent decades, driven by global population growth and increasing social pressures, and is projected to continue escalating (Wu et al. 2023). Importantly, while mental health disorders constitute a substantial component of the global burden, mental health challenges extend beyond clinically diagnosed disorders. Contemporary public health frameworks increasingly emphasize that mental health extends beyond clinical diagnoses, encompassing a broader continuum that includes psychological distress, everyday functioning, and positive well-being—an approach essential for better understanding population needs since these domains also shape quality of life and influence help-seeking behaviour, even in the absence of a formal disorder (World Health Organization 2022).

In parallel to this growing burden, the demand for mental health services has risen steadily. Data from the National

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Health and Nutrition Examination Survey (NHANES) show that the proportion of US adults who reported consulting a mental health professional in the previous 12 months rose from 7.0% in 1999 to 11.3% in 2018 (Wang et al. 2023). Despite this growing demand, a substantial treatment gap persists. For instance, approximately 70% of people with a mental disorder do not receive any formal treatment (Wang et al. 2023), underscoring a major public health inequity. This gap does not only affect individuals with a mental disorder, but also people experiencing subclinical distress or seeking support to enhance emotional well-being. This gap is driven by a combination of limited resources, long waiting times, and the stigma associated with mental health challenges (Blease and Torous 2023). Addressing these unmet needs requires innovative, scalable strategies to expand coverage and accessibility of mental health interventions (World Health Organization 2022).

Digital interventions—particularly therapeutic chatbots—have attracted considerable interest as cost-effective tools. Platforms such as Woebot and Wysa, which incorporate cognitive-behavioural principles, show promise for reducing anxiety and depression (Fitzpatrick et al. 2017; Inkster et al. 2018; Boucher et al. 2021). However, these first-generation chatbots, which rely on rule-based systems and scripted dialogues, have significant limitations, including generating generic responses, demonstrating limited flexibility, struggling to handle unanticipated user inputs, and lacking the ability to establish meaningful, lasting therapeutic connections (Inkster et al. 2018; Siddals et al. 2024).

The emergence of generative artificial intelligence (AI), such as ChatGPT (OpenAI), may offer new opportunities (Alanezi 2024) not only to support individuals experiencing psychological difficulties but also to promote emotional well-being more broadly. Its capacity to simulate human-like dialogue with coherence and, at times, perceived empathy (Blease and Torous 2023), combined with its immediacy and unrestricted access, has led many to use it informally for emotional support. This positions ChatGPT as a potential—though unvalidated—public mental health resource (Siddals et al. 2024). Early evidence indicates users perceive interactions comforting, non-judgmental, and helpful for coping with stress, trauma or grief (Siddals et al. 2024). However, the lack of clinical validation and professional oversight in platforms like ChatGPT raises concerns about safety, reliability, and appropriateness as mental health resources (Tavory 2024).

Usage patterns are likely influenced by sociodemographic factors, particularly age. Younger individuals, accustomed to digital technologies, value immediacy, accessibility, and anonymity, whereas older adults may approach such tools more cautiously (Boucher et al. 2021). However, evidence on age-related differences remains scarce.

This study examines the spontaneous use of ChatGPT for mental health support among Catalan-speaking individuals aged 16 years or older residing in Catalonia (Spain). It explores perceived therapeutic value, associated benefits and risks, and age-related differences. A broad conceptualization of mental health, consistent with contemporary public health models (World Health Organization 2022), was adopted. Rather than focusing solely on clinical disorders, mental health was defined as encompassing both psychological distress (e.g. anxiety, interpersonal conflict) and emotional well-being (e.g. self-esteem, personal growth, emotional regulation) (Coronel-Santos and Rodríguez-Macías 2022; Magalhães 2024). Through this study, we aim to generate preliminary insights that can guide future research on its potential role in mental health promotion, prevention and equitable access to care.

Methods

Study overview

This study followed a two-phase design. The first phase was a qualitative study consisting of interviews that served as a foundation for generating a broad range of items across key topics. These items were further examined in a second phase through a cross-sectional study conducted with a sample of Catalan-speaking individuals residing in Catalonia.

Ethical approval was obtained from Comissió Ètica d'Investigació en Persones, Societat i Medi Ambient at the Universitat Rovira i Virgili (Ref. CEIPSA-2025-PR-0014).

Procedure

Phase 1: interviews

Because very little is known about this area, we first conducted an exploratory phase involving semi-structured individual face-to-face interviews with young university students. Personalised invitations were sent out, and interviews, which lasted approximately 20–30 min each, were audio recorded, transcribed verbatim and analysed using an inductive approach (Thomas 2006). Once all the data files were cleaned and converted into a common Word format, two independent researchers familiarised themselves with and coded five transcripts to identify preliminary themes and sub-themes. The coders then met to discuss and compare their coding, resolving discrepancies through discussion and reaching full consensus before proceeding with the remaining transcripts. Throughout the analytic process, the coding framework was iteratively refined—codes were renamed, merged, and split as new insights emerged—and previously

coded transcripts were revisited and updated accordingly to ensure analytic consistency and transparency.

Although data saturation was not formally assessed, the investigators felt that a sufficiently diverse range of views and experiences had been captured to address the exploratory objectives of the study.

Insights gained from this qualitative phase informed the development of the subsequent questionnaire, which was pilot tested with a sample of 10 participants, leading to minor adjustments before wider administration.

Phase 2: cross-sectional descriptive study

We performed a cross-sectional study with a sample of the general population. Participants were recruited over a 3-month period using social media (i.e. Instagram, Facebook, Twitter, TikTok, LinkedIn, and Reddit) and snowball sampling. Those interested were directed to a website containing detailed study information and were asked to provide informed consent via the internet before participating. No additional parental consent was required for 16–17-year-old participants, as the study was approved by the research ethics committee on the basis that it posed minimal risk. The questionnaire was fully anonymous, collected no sensitive or personally identifiable data, and participation was entirely voluntary, with the option to withdraw at any time. Moreover, contact information for the research team was provided so that interested individuals or participants could reach out with any questions or concerns. Upon providing consent, participants were automatically redirected to the online questionnaire, which required approximately 5 min to complete. No incentives were offered for participation.

Data collection was conducted using Microsoft Forms (Microsoft Corporation 2023). Quantitative data were analysed using IBM SPSS Statistics for Windows, version 29.0 (IBM Corp. 2023).

Participants and sample

Phase 1: interviews

Twelve participants were recruited for the interviews using a combination of purposive and convenience sampling. Participants were eligible to participate if they were currently enrolled in a university programme and fluent in either Catalan or Spanish, allowing them to provide informed consent and actively participate in the interviews. Participants were selected to ensure representation of both sexes and were drawn from students accessible to the research team. This population was deemed suitable for exploring the potential uses of ChatGPT in the context of mental health due to participants' age, educational level, high digital literacy, and frequent engagement with digital platforms for

psychological information and support (Montagni et al. 2016).

We aimed to recruit 12 participants—a sample size within the range reported in qualitative research as sufficient to achieve thematic sufficiency or data adequacy in exploratory studies (Guest et al. 2006; Vasileiou et al. 2018; Hennink and Kaiser 2022).

Phase 2: cross-sectional descriptive study

A convenience sample of 500 participants participated. The inclusion criteria were an age of 16 or older, residence in Catalonia, proficiency in Catalan, and provision of informed consent.

Data collection instruments

Phase 1: interviews

We developed a semi-structured interview guide comprising six open-ended questions about: (1) commonly used resources for mental health management; (2) use of ChatGPT (for any purpose and for mental health support); (3) specific patterns of use when ChatGPT was employed as a mental health support tool; (4) perceived facilitators and barriers associated with such use.

Phase 2: cross-sectional descriptive study

A structured 19-item questionnaire was administered via the internet. The questionnaire was divided into two sections. Section one, consisting of 5 items, collected sociodemographic data (i.e. age, gender, primary occupation, and academic or professional field). Section two, consisting of 14 items, focused on the use of AI in the context of mental health. Items assessed frequency of ChatGPT use, specific mental health-related topics for which ChatGPT was consulted, motivations for use, perceived effectiveness, perceived risks and benefits, and usage of other specialised mental health chatbots. See Appendix A.

Results

Phase 1: questionnaire development

Interviews

Participant characteristics A total of 12 individuals participated (7 women, 58.3%; and 5 men, 41.7%) with ages ranging from 19 to 35 years (M24.25, SD4.37). The majority were students in the field of psychology ($n=6$), while

the rest were enrolled in diverse academic programmes (e.g. engineering [$n=2$], criminology [$n=1$], history of art [$n=1$], pedagogy [$n=1$] and primary education [$n=1$]).

Emerging themes and sub-themes Eight *themes* emerged from the analysis of interviews. Table 1 presents these themes along with their sub-themes accompanied by illustrative quotes.

Eight sub-themes for *resources for managing mental health* were identified, of which talking with trusted individuals ($n=8$) and engaging in physical activity ($n=5$) were the most commonly mentioned. As for the theme *usage of ChatGPT*, all participants ($n=12$) had used it at least once, primarily for academic, informational or organisational purposes. *The usage frequency* ranged from occasional to daily. Of these, five participants (41.7%) reported *using ChatGPT specifically to support their mental health*. A total of nine sub-themes emerged for *the potential purposes* of their usage, which was another theme identified. Their usage was primarily oriented towards seeking strategies ($n=6$), gaining perspective ($n=5$), and feeling understood ($n=4$), particularly in relation to interpersonal problems ($n=4$) and personal concerns ($n=3$), which were the most frequently mentioned sub-themes for the theme *potential thematic area*. The remaining seven participants (58.3%) indicated that they had not used ChatGPT for mental health purposes, citing a preference for human interaction or concerns about data privacy.

The themes *facilitators* and *barriers* were identified with 11 and eight sub-themes each, respectively. The most frequently mentioned facilitators included immediacy ($n=7$), access to a large volume of information ($n=5$) and constant availability ($n=4$). The most frequently mentioned barriers were the impersonal nature of the tool ($n=10$) and its limited ability to be personalised ($n=6$).

The Supplementary table presents the questionnaire used in phase 2 and indicates the items that were developed on the basis of information derived from the interviews.

Phase 2: cross-sectional study

Sociodemographic characteristics of the sample

The final sample consisted of 500 participants with a mean age of 41.15 years (SD 17.7; range 16–90). The majority of the participants (68.6%, $n=343$) identified as women. Most participants (58.8%, $n=294$) were employed at the time of participation. The participants reported a wide range of educational and professional backgrounds (see Table 2 for further details).

Use of ChatGPT

A total of 74.6% of participants ($n=373$) reported having used ChatGPT at least once. Among these users, the frequency of use varied as follows: 26.8% ($n=100$) reported occasional use, 19.6% ($n=73$) used it once or twice a week, 24.9% ($n=93$) used it three to five times per week, 13.4% ($n=50$) used it daily, and 15.3% ($n=57$) reported using it multiple times per day.

Among those who had never used ChatGPT ($n=127$), the reasons ordered by popularity included insufficient knowledge about the technology (41.7%, $n=53$), a preference for solving problems independently or with help from trusted individuals (32.3%, $n=41$), and a lack of interest in the tool (13.4%, $n=17$).

Characterisation of ChatGPT as a mental health management tool

Eighty-six participants (17.2% of the total sample or 23.1% of ChatGPT users) reported having used ChatGPT as a resource for managing their mental health. Among these users, the majority described using it infrequently. In fact, the number of participants reporting use decreased as frequency increased. The majority (58.1%, $n=50$) used it once a month or less, while 15.1% ($n=13$) used it 1–2 times per week, 11.6% ($n=10$) used it 3–5 times per week, and smaller percentages reported using it every day (10.5%, $n=9$) or several times a day (4.7%, $n=4$).

In comparison to other commonly used strategies for mental health management, the use of ChatGPT was clearly minor. Participants more frequently relied on self-care and social support from friends or family members (Fig. 1).

Of the 86 participants who reported using ChatGPT to support their mental health, the most commonly addressed topics were stress, anxiety or general worries (64%, $n=55$), followed by interpersonal problems (53.5%, $n=46$) and personal growth (51.26%, $n=44$) (Table 3).

Most participants reported using ChatGPT to obtain advice or strategies for emotional regulation (73.3%, $n=63$), to gain a new perspective on their concerns (61.6%, $n=53$) and to organise their thoughts (53.5%, $n=46$). Less frequently reported purposes of use are detailed in Table 4.

The perceived effectiveness of ChatGPT was mixed and almost split, with roughly half reporting moderate to high benefit (i.e. 36% ($n=31$) stated that ChatGPT had helped them moderately, and 19.8% ($n=17$) reported that it had helped them greatly), and the other half describing it as only occasionally or not at all helpful (i.e. 38.4% ($n=33$) indicated it had helped them only occasionally, and 5.8% ($n=5$) stated that it had not helped them at all).

Although the most frequent response was that ChatGPT had no impact on participants' likelihood of seeking

Table 1 Emerging themes and subthemes from the interview data, with representative participant quotes

Theme (sub-theme)	<i>n</i>	Quote
Potential resources used for mental health		
(Talking to a trusted person)	8	<i>When I experience emotional distress, the first thing I usually do is pick up the phone and call my close friends.</i> (participant 1, female)
(Psychological therapy)	3	<i>I attend weekly sessions with my psychologist, where I can process and manage these emotions.</i> (participant 7, male)
(Physical activity)	5	<i>I maintain a daily physical exercise routine of approximately one hour, which greatly helps me cope with emotional discomfort.</i> (participant 7, male)
(Artistic expression (e.g. writing, painting))	4	<i>I usually write down what I feel in a notebook, as it helps me organise my thoughts.</i> (participant 6, female)
(Relaxation (e.g. meditation, breathing...))	4	<i>I engage in meditation sessions of around 30 min and often listen to biographies on YouTube or Spotify.</i> (participant 7, male)
(Contact with nature)	2	<i>Another strategy I use is going for walks in the woods or through the vineyards near my home to disconnect and connect with nature.</i> (participant 3, female)
(Technology use (e.g. internet))	1	<i>I also use the internet and ChatGPT.</i> (participant 1, female)
(Distraction)	1	<i>My first impulse is often to seek distraction.</i> (participant 4, male)
(Internal reflection/rationalisation)	4	<i>I look for moments of silence to reflect on what I'm going through.</i> (participant 11, male)
(Self-care)	1	<i>I try to relax, for example, by taking a shower or simply being in contact with water.</i> (participant 10, female)
(Substance use)	1	<i>Sometimes I smoke marijuana.</i> (participant 10, female)
Use of ChatGPT		
(Yes)	12	<i>Yes, I have used it</i> (participant 1, female)
Frequency of ChatGPT use		
(Daily use)	6	<i>I use it every day like a search engine.</i> (participant 9, female)
(Frequent use (3–4 times/week))	4	<i>I use it about four times a week.</i> (participant 2, female)
(Occasional or minimal use)	1	<i>Since I'm not at university, I hardly use it. I barely use it these days.</i> (participant 3, female)
Use of ChatGPT for mental health support		
(Yes)	5	<i>Yes, I have done it more than once.</i> (participant 7, male)
(No)	7	<i>No, I haven't used it to talk about emotional problems.</i> (participant 5, female)
Potential purposes		
(Organising thoughts)	2	<i>Honestly, it helped because it structured my thoughts a bit.</i> (participant 10, female)
(Gaining perspective)	5	<i>When I've had conflicts, I've used ChatGPT to explain the problem and see if it offered a different perspective.</i> (participant 1, female)
(Seeking practical advice and strategies)	6	<i>I ask for advice to be more empathetic and consider other points of view.</i> (participant 8, male)
(Feeling heard/understood)	4	<i>I've also used it to feel heard and understood.</i> (participant 1, female)
(Substitute for human support)	3	<i>I've had long and deep conversations, almost as if I were talking to a real person.</i> (participant 8, male)
(Use as a diagnostic tool)	1	<i>I used ChatGPT as a diagnostic tool to help figure out what might be going on or what possible comorbidity, I might have given the symptoms I was experiencing.</i> (participant 7, male)
(Externalising the problem)	2	<i>I also use it to get the problem off my chest and see if what it says matches what people close to me have already told me.</i> (participant 2, female)
(Emotional self-exploration and reflection)	3	<i>Above all, it helps me reflect on how I could improve something about myself.</i> (participant 2, female)
Potential thematic areas		
(Stress, anxiety or personal worries)	1	<i>To help me understand a bit more about the physiological basis of these processes, such as anxiety.</i> (participant 7, female)
(Cognitive flexibility/mental rigidity)	1	<i>The topic of cognitive flexibility came up, because I'm often very rigid in my thinking.</i> (participant 10, female)
(Emotion regulation)	1	<i>He had sometimes asked for advice on how to manage emotions.</i> (participant 6, female)
(Interpersonal problems)	4	<i>Yes, I've done it more than once, especially regarding conflicts with my family.</i> (participant 7, male)

Table 1 (continued)

Theme (sub-theme)	<i>n</i>	Quote
(Conversation analysis)	1	<i>Sharing a WhatsApp conversation with a guy and analysing the interaction.</i> (participant 1, female)
(Traumatic experiences (e.g. grief, accidents...))	1	<i>Looking for information about grief and finding answers to their concerns about the process.</i> (participant 4, male)
(Self-knowledge and personal growth)	1	<i>I think I've used it more from this perspective, as a tool to promote well-being and personal development.</i> (participant 6, female)
(Personal concerns (e.g. existential doubts))	3	<i>When I have existential doubts or want to talk deeply about something.</i> (participant 8, male)
(Procrastination)	1	<i>This emotional discomfort not only led to anxiety but also to procrastination.</i> (participant 7, male)
Potential facilitators of use		
(Immediacy)	7	<i>It can be useful when you need immediate responses without having to wait to talk to someone.</i> (participant 6, female)
(Availability)	4	<i>It is a tool that is available 24 h a day.</i> (participant 3, female)
(Accessibility)	3	<i>You can access it at any time.</i> (participant 8, male)
(Neutrality or impersonality)	3	<i>You have the freedom of knowing that you are completely alone.</i> (participant 10, female)
(Non-stigmatising)	3	<i>It doesn't judge; it has no prejudices.</i> (participant 8, male)
(Free or low cost)	1	<i>It is practically free.</i> (participant 12, female)
(Ease of use)	1	<i>It is easy to use.</i> (participant 8, male)
(Huge source of information)	5	<i>I think it can be a very broad source of information.</i> (participant 12, female)
(Ability to learn and adapt to the individual)	2	<i>One of the most interesting things is that it has the ability to learn from you.</i> (participant 4, male)
(Fighting loneliness)	2	<i>I think it can be very useful for people who feel lonely.</i> (participant 3, female)
(Objectivity)	4	<i>The opinion it gives you is very objective.</i> (participant 5, female)
Potential barriers of use		
(Lack of clinical expertise)	2	<i>It does not have the level of experience of a truly specialised professional.</i> (participant 8, male)
(Risk of overvaluation)	2	<i>We might take what AI says too seriously, and the answer it gives might not be the best for us.</i> (participant 6, female)
(Uncertain privacy)	3	<i>A drawback is privacy, because you never really know who is on the other side.</i> (participant 1, female)
(Impersonal)	10	<i>It will never be a person and will never have feelings.</i> (participant 3, female)
(Excessive agreeableness)	2	<i>A limitation is that it might always agree with you.</i> (participant 1, female)
(Not personalized)	6	<i>The main issue is that it may not fully adjust to a person's emotional reality.</i> (participant 6, female)
(Risk of social isolation)	2	<i>A negative aspect for the future is that people might stop sharing with each other and only use the chat.</i> (participant 1, female)
(Limited access to advanced features)	1	<i>The paid version does offer more support, but not everyone can afford it. In the end, it's like going to therapy not everyone has access to it.</i> (participant 7, male)

professional help (34.9%, $n=30$), over half indicated some degree of influence: 30.2% ($n=26$) reported a slight influence, another 29.1% ($n=25$) a moderate influence and 5.8% ($n=5$) a strong influence.

Perceived facilitators and barriers in the use of ChatGPT for mental health support

The most frequently reported facilitators, each endorsed by the majority of participants, included the speed of response (75.6%, $n=65$), the general accessibility of ChatGPT (68.6%, $n=59$), 24/7 availability (67.4%, $n=58$) and ease of

use (53.5%, $n=46$). The most frequently reported barrier—also identified by the majority—was uncertainty regarding the reliability of the information provided (60.5%, $n=52$). Overall, facilitators were more typically identified than barriers (Figs. 2 and 3).

Use of mental health-specific chatbots

Only nine participants (2.4% of the total sample) reported having used a virtual assistant specifically designed for psychological or emotional support. Among these, Woebot and Wysa were each mentioned by one participant.

Table 2 Demographic characteristics of the participants

Characteristics	<i>n</i>	%
Age group		
Adolescents (16–19)	44	8.8
Youth (20–24)	78	15.6
Youth adults (25–34)	84	16.8
Middle-aged adults (35–49)	140	28
Older adults (50–64)	95	19
Seniors (65+)	59	11.8
Gender identity		
Woman	343	68.6
Man	146	29.2
Other	5	1
Prefer not to say	6	1.2
Main occupational status		
Studying	122	24.4
Working	294	58.8
Retired	66	13.2
Unemployed	18	3.6
Field of study ^a		
Education	20	16.4
Arts and humanities	28	23
Social sciences	31	25.4
Business and law	17	13.9
Natural sciences	3	2.5
ICT	4	3.3
Engineering/construction	7	5.7
Agriculture	1	0.8
Health	10	8.2
Services	1	0.8
Area of employment ^b		
Education	71	24.1
Arts and humanities	8	2.7
Social sciences	30	10.2
Business and law	46	15.6
Science and research	11	3.7
ICT	13	4.4
Engineering/construction	20	6.8
Agriculture	11	3.7
Health	40	13.6
Services	39	13.3
Security forces and emergency services	5	1.7

^aOnly those whose main occupation was studying were asked for field of study (*n* = 110)

^bOnly those whose main occupation was working were asked for area of employment (*n* = 253)

Use of ChatGPT by age group

A clear trend emerged indicating that younger participants were more likely to report having used ChatGPT (Fig. 4).

Statistically significant differences were observed between age groups ($\chi^2_{(5)} = 154.6, p < 0.001$). Similarly, with the exception of the group aged over 65, younger participants were more likely to report having used ChatGPT for mental health management (Fig. 4), with statistically significant differences again observed ($\chi^2_{(5)} = 21.4, p < 0.001$).

Age-related differences in the perceived helpfulness of ChatGPT and its influence on professional help-seeking were assessed with Fisher's exact test after excluding the two oldest age brackets (≥ 50 years) due to their small subgroup sizes (*n* < 5). No significant differences were detected ($F = 4.5, p = 0.9$, and $F = 7.9, p = 0.5$, respectively). See Figs. 5 and 6 for the distribution of responses across age groups.

Usage facilitators and barriers by age group

Applying the same statistical procedure described in the previous section—Fisher's exact test with prior exclusion of the two oldest age groups (*n* < 5)—no significant age-group differences were observed for any facilitator or barrier (all $p > 0.05$).

Discussion

In the context of the growing use of artificial intelligence (AI) in mental-health care (Cruz-Gonzalez et al. 2025), this study explored the spontaneous use of ChatGPT as an informal support resource, its perceived effectiveness, facilitators and barriers, and age-related differences in a sample of Catalan-speaking individuals aged 16 years or older. Findings indicate notable adoption; however, its use for purposes directly related to mental-health management remains limited overall. Participants primarily rely on personal coping strategies and support from close social contacts, turning to ChatGPT as a secondary resource—mostly to organise thoughts or resolve initial doubts. This aligns with preliminary evidence (Alanezi 2024) characterizing ChatGPT as an easily accessible, complementary tool that provides an initial layer of emotional support without formal requirements or access barriers.

Despite the overall low rate of ChatGPT use for mental-health purposes, age-stratified analysis revealed a marked digital divide. ChatGPT use is nearly universal among adolescents (16–19) and young adults (20–34), with very few non-users in these groups. Similarly, these younger cohorts were more likely to consult ChatGPT for mental health issues: nearly one in two adolescents, about one in three participating individuals aged 20–24, and approximately one in four aged 25–34 report using it for that purpose. In contrast, from age 50 onwards, both general and mental-health-specific ChatGPT use declines. This pattern may be associated

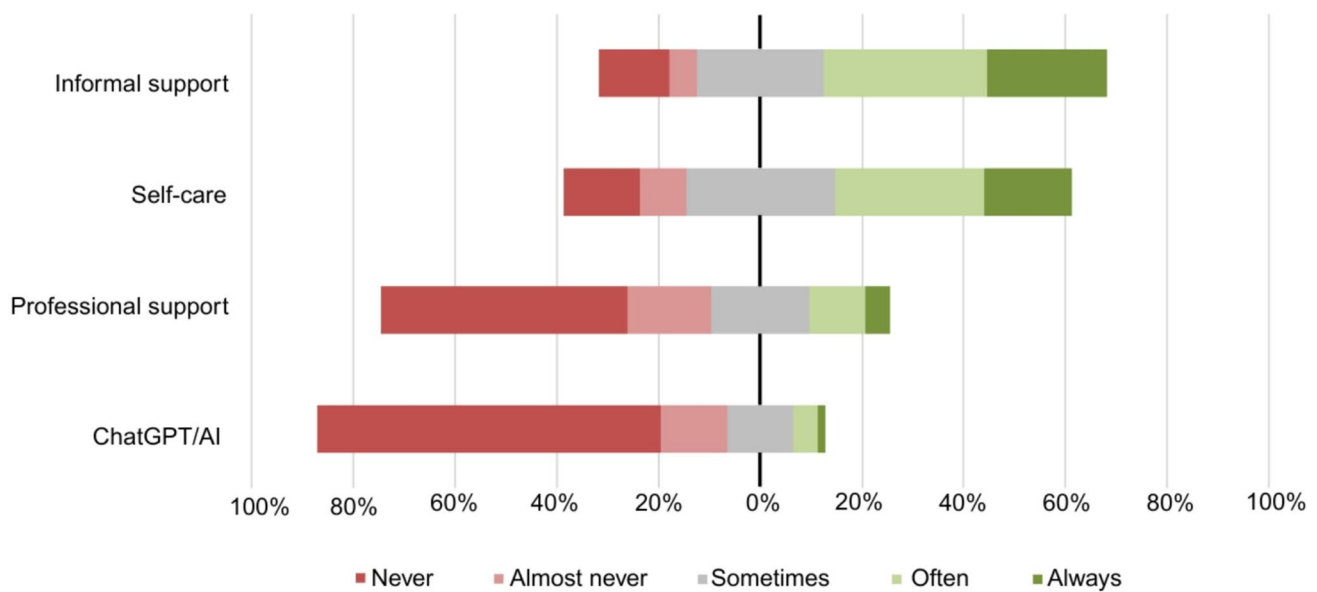


Fig. 1 Percentage distribution of the frequency of use of different resources for managing mental health

Table 3 Mental health–related topics discussed with ChatGPT

Topic	<i>n</i>	%
Stress, anxiety or worries	55	64
Personal relationship problems	46	53.5
Personal growth	44	51.2
Sadness or low mood	28	32.6
Insomnia or sleep difficulties	16	18.6
Neurodevelopmental disorder symptoms	16	18.6
Traumatic experiences	11	12.8
Addictions	11	12.8
Loneliness	10	11.6
Self-harming behaviours	3	3.5
Others (i.e. neurolinguistics)	6	7

Table 4 Purposes of using ChatGPT for mental health support

Purpose	<i>n</i>	%
To receive advice or emotion regulation strategies	63	73.3
To gain a new perspective on the problem	53	61.6
To organise thoughts	46	53.5
To make personal decisions	21	24.4
To feel heard or emotionally validated	17	19.8
As a substitute for human or professional support	13	15.1
To seek a potential diagnosis	10	11.6
To access information about professional services	9	10.5
Other (i.e. curiosity)	6	7

with usability difficulties and low perceived utility (Seifert et al. 2021). One exception appears in the subgroup over 65 years, which shows some use of ChatGPT for mental health; however, this result should be interpreted cautiously due to the small sample size. This pattern aligns with other research (Wolfe et al. 2025), which describes restricted chatbot uptake among older adults.

Stress, anxiety and interpersonal conflicts are highly prevalent in the general population (Piao et al. 2024), corresponding with digital guidance demands in these domains (Haque and Rubya 2023). Immediacy, 24/7 availability and accessibility were commonly reported as reasons for using ChatGPT, whereas uncertain reliability, lack of empathy, and privacy concerns were the most frequently cited obstacles, replicating the pattern described by Haque and Rubya (2023). Taken together, these indications are consistent with a complementary public health model in which ChatGPT may serve as an easily accessible gateway, while human professional intervention remains essential to ensure therapeutic rigour, personalisation and user protection. The near-absence use of specialised platforms such as Woebot or Wysa contrasts with evidence of their efficacy in reducing anxiety and depressive symptoms (Fitzpatrick et al. 2017) and with positive evaluations of their empathetic and safe environment (Malik et al. 2022), which may indicate that renown and ease of access still outweigh scientific endorsement.

A major strength of this study is its mixed-methods design, which provided a rich, comprehensive view of the phenomenon. In-depth interviews supplied context and concrete examples of user–AI interaction, while the

Fig. 2 Facilitating factors for the use of ChatGPT in mental health management according to participants who have used it for that purpose (%)

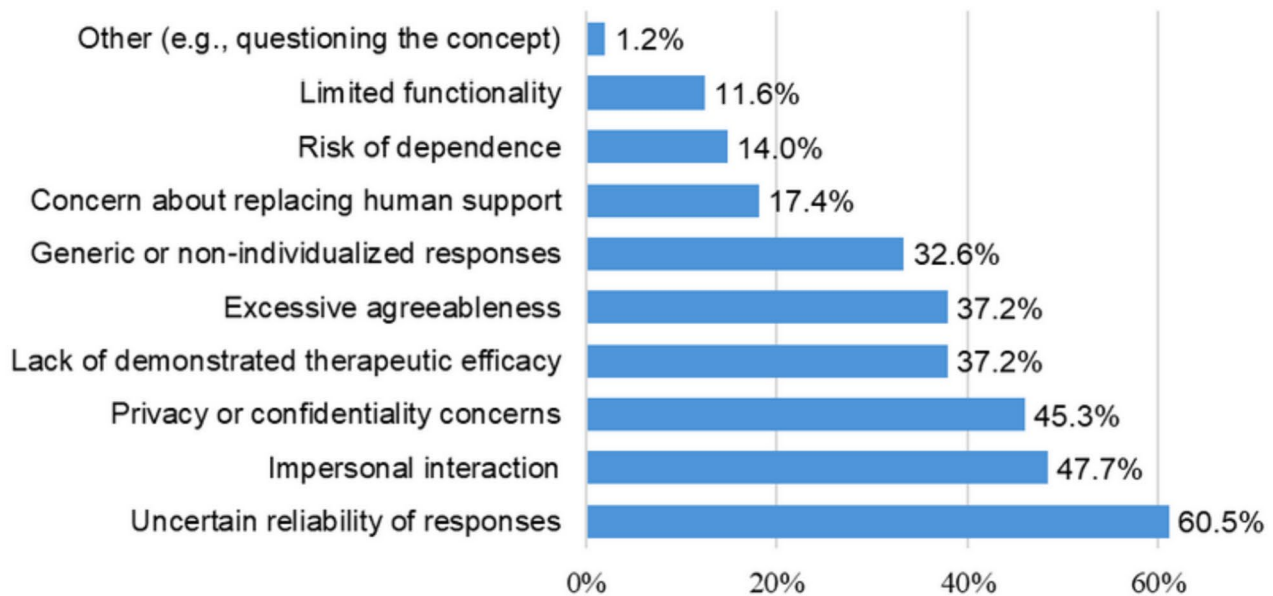
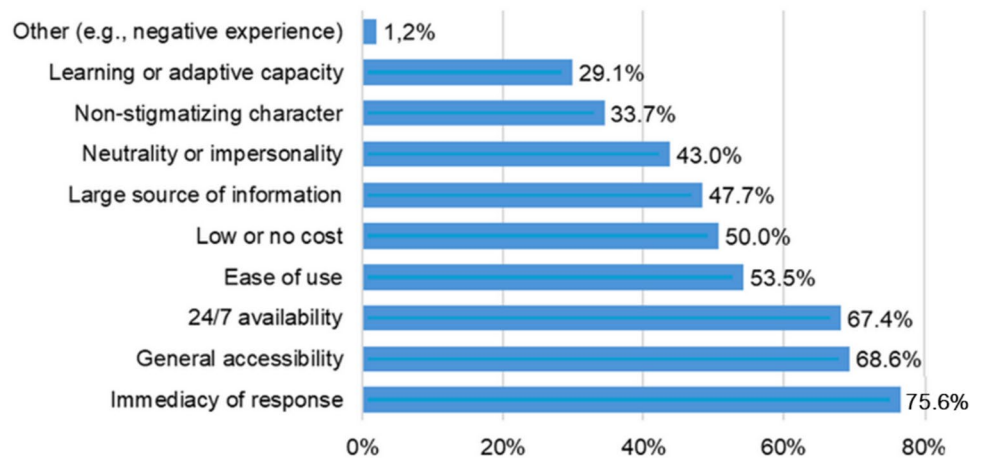


Fig. 3 Factors perceived as barriers to the use of ChatGPT in mental health management according to participants who have used it for that purpose (%)

questionnaire administered to 500 participants quantified scope and overall use patterns.

This study also has limitations. First, data were collected entirely online using convenience and snowball sampling, which restricts participation to individuals with internet access, digital skills, and exposure to study invitation. As a result—and consistent with the methodological constraints of non-probabilistic sampling (Andrade 2020)—the sample cannot be considered representative of the Catalan-speaking general population residing in Catalonia. Second, the low number of ChatGPT users for mental-health support in the older age groups (i.e. adults aged 50–64 and > 65) limited our ability to draw robust

conclusions about age-related differences and constrained the statistical power to detect associations between age and other variables such as perceived helpfulness, influence on professional help-seeking, and perceived facilitators and barriers. Therefore, the generational differences identified in the present findings should be interpreted with caution. Third, the cross-sectional design and rapid pace of technological change must be considered: data were collected during a specific period (January–June 2025), and the features and popular uses of ChatGPT are likely to evolve over time with platform updates and/or the emergence of new competitors. Therefore, the present results

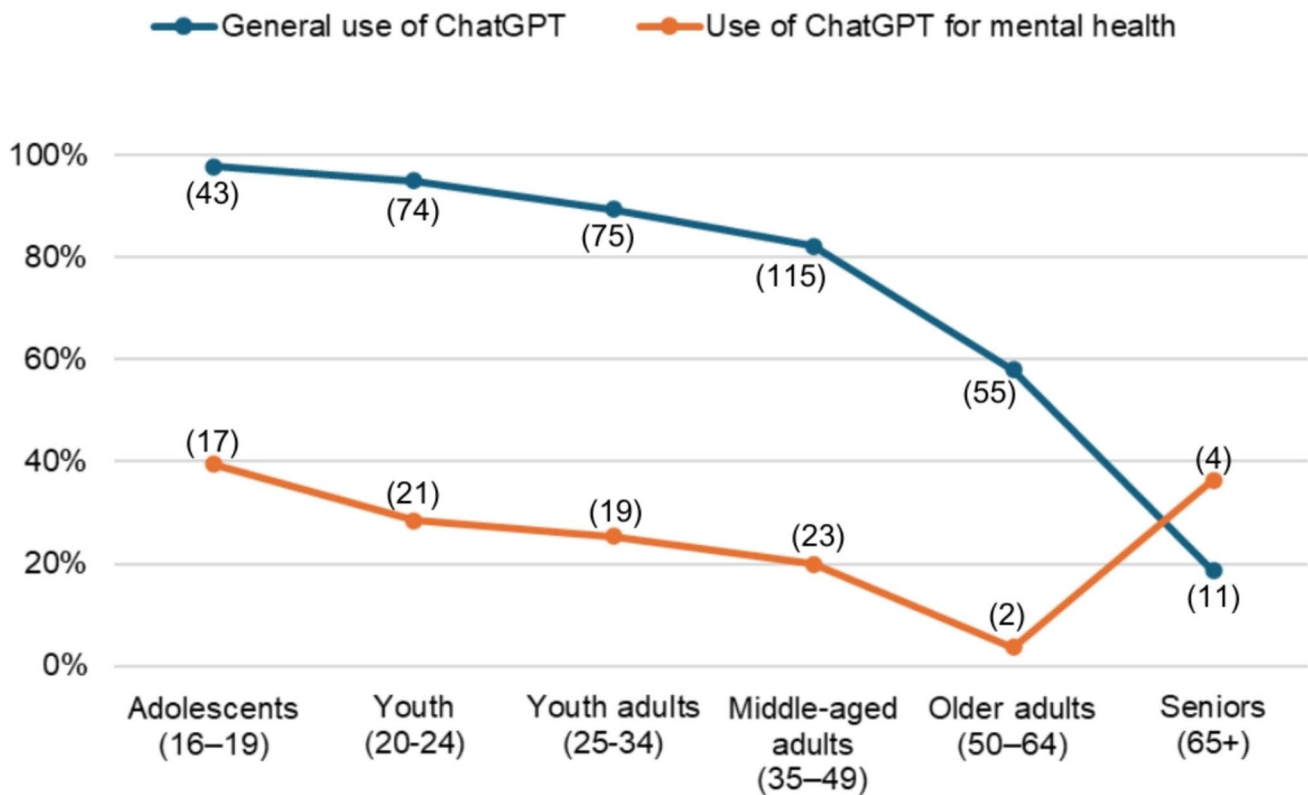
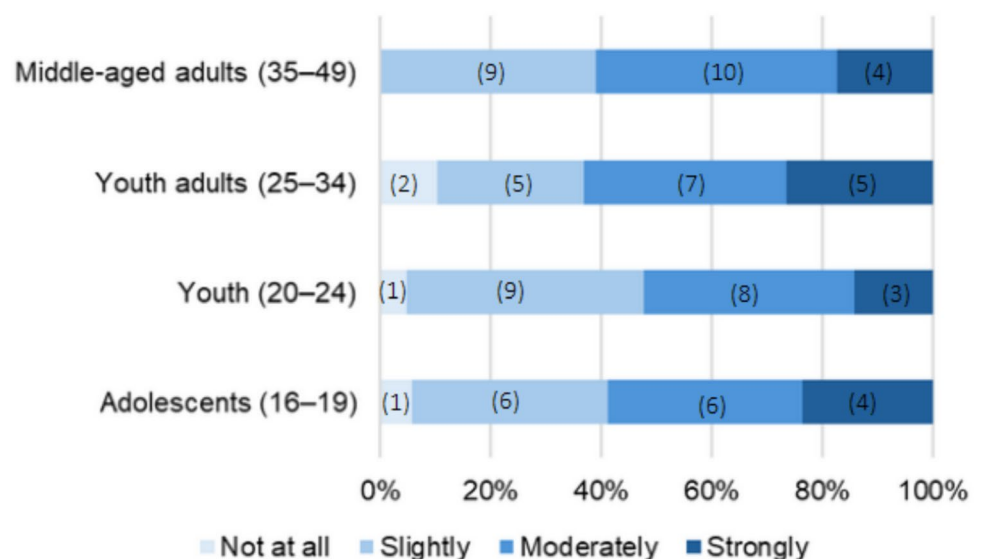


Fig. 4 General and mental-health-related use of ChatGPT across age groups

Fig. 5 Perceived helpfulness of ChatGPT for mental-health support, by age group (%)

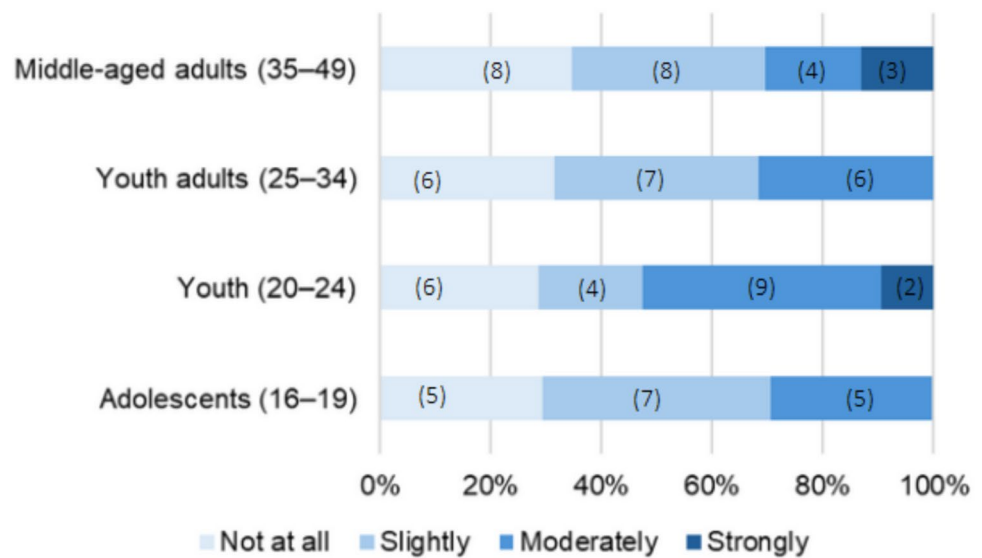


are exploratory and should be interpreted as an initial approximation of a shifting trend.

While these results point to potential public-health implications, they should be interpreted with caution due to the exploratory nature of the study. The substantial proportion of young people—nearly one in three under the age of 25 and

almost one in two adolescents—resorting to unsupervised tools such as ChatGPT to manage their mental health, may reflect significant unmet needs in traditional service provision. These gaps may reflect barriers related to accessibility, cost or social stigma. Should future research confirm this trend, educational and healthcare institutions could consider

Fig. 6 Perceived influence of ChatGPT on professional help-seeking behaviour, by age group (%)



developing informational campaigns and safe-use guidelines that clearly communicate both the benefits and limitations of these tools, specify appropriate contexts of use, and flag situations where professional help may be warranted. Overall, the results underscore the need for more robust evidence before drawing firm public-health conclusions.

These findings if confirmed in further studies could also offer valuable insights for developers and technology companies. Users demand greater personalisation and reliability; future iterations of AI chatbots could incorporate adaptive algorithms better tailored to individual user profiles and needs, robust privacy protections, and content validation mechanisms that could help reduce the risk of harmful advice. Collaboration between chatbot developers and mental-health professionals may be particularly valuable for training models with evidence-based clinical knowledge, for integrating safety protocols—including, for example, the identification of severe cases requiring referral to emergency services—and for potentially enhancing positive impacts on population mental health.

Future research could control for relevant variables (e.g. prior mental-health diagnosis and previous psychological or psychiatric treatment) when examining the association between age and ChatGPT, and explore related constructs more in-depth using standardized and validated instruments (e.g. scales assessing perceived usefulness and ease of use (Davis 1989)). Further studies should also assess ChatGPT's effectiveness as both a standalone and complementary support tool, investigate potential adverse effects (e.g. intensive use of ChatGPT could foster psychological dependence or delay help-seeking), and explore cross-cultural differences.

Spontaneous use of ChatGPT may reflect an emerging public health trend: a tool that is accessible and convenient

yet warrants careful guidance to ensure that any potential contribution to population mental health is positive and safe.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s10389-025-02668-x>.

Authors' contributions Conceptualization: Llorenç Díaz, Anna Huguet; Methodology: Llorenç Díaz, Anna Huguet; Investigation: Llorenç Díaz; Formal analysis: Llorenç Díaz; Writing—original draft: Llorenç Díaz; Writing—review and editing: Anna Huguet; Supervision: Anna Huguet.

Funding Open Access funding provided thanks to the CRUE-CSIC agreement with Springer Nature.

Data availability The datasets generated and/or analysed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethics approval Ethical approval was obtained from Comissió Ètica d'Investigació en Persones, Societat i Medi Ambient at the Univeritat Rovira i Virgili (Ref. CEIPSA-2025-PR-0014). This study has been performed in accordance with the ethical standards and the principles of the 1964 Declaration of Helsinki and its later amendments.

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

Conflict of interest The authors have no relevant financial or non-financial interests to disclose.

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