index•comunicación
Revista científica de comunicación aplicada
nº 15(2) 2025 | Pages 129-162
e-ISSN: 2174-1859 | ISSN: 2444-3239

Analysis of Apps as Digital Tools for Mental Health Promotion

ANÁLISIS DE LAS APPS COMO HERRAMIENTAS DIGITALES PARA LA PROMOCIÓN DE LA SALUD MENTAL

Received on 05/01/2025 | Accepted on 02/06/2025 | Published on 15/07/2025
https://doi.org/10.33732/ixc/15/02Analis

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Abstract: The digital environment has favored the creation of new ways of promoting emotional well-being, especially after the worsening of the mental health of citizens as a result of COVID-19. This research analyzes the main mental health apps available for iOS and Android smartphones in the Spanish market, which are free and have the best user ratings. Through the quantitative technique of content analysis, twenty applications have been analyzed with the "Model of analysis of educational-communicative apps for emotional well-being", designed specifically for this research. The main conclusions are the need to ensure the lasting free access to mental health apps for users to promote their emotional wellbeing and to offer them direct connection with mental health specialists within the apps themselves.

Keywords: Apps; Mental Health; Educommunication for Health; Emotional Wellbeing; Digital Environment; COVID-19 Pandemic.

Resumen: El entorno digital ha favorecido la creación de nuevas formas de promoción del bienestar emocional, especialmente, tras el empeoramiento de la salud mental de la ciudadanía como consecuencia del COVID-19. En esta investigación se analizan las principales *apps* sobre salud mental disponibles para *smartphones iOS* y *Android* en el mercado español, gratuitas y con las mejores valoraciones de los usuarios. A través de la técnica cuantitativa del análisis de contenido, se han analizado veinte aplicaciones con el 'Modelo de análisis de *apps* educomunicativas para el bienestar emocional', diseñado específicamente para esta investigación. Como principales conclusiones, se comprueba la necesidad de asegurar la gratuidad duradera de acceso a los usuarios a las *apps* de salud mental para promover su bienestar emocional y ofrecerles conexión directa con especialistas en salud mental dentro de las propias aplicaciones.

Palabras clave: *apps*; salud mental; educomunicación para la salud; bienestar emocional; entorno digital; pandemia COVID-19.

To quote this work: Blasco-Navarro, M. & Marta-Lazo, C. (2025). Analysis of Apps as Digital Tools for Mental Health Promotion. *index.comunicación, 15*(2), 129-162. https://doi.org/10.62008/ixc/15/02Analis

1. Introduction

Mental health issues are projected to become the leading cause of disability worldwide by 2030, a situation that has been exacerbated by the global crisis caused by the COVID-19 pandemic. Mental health prevention is emerging as a key factor in attempting to curb the current rates of anxiety and depression. From the perspective of health educommunication, the aim is to analyze technological tools or applications that promote emotional well-being among the population, in order to support people who are currently experiencing—or may experience in the future—symptoms of anxiety or depression (Marta-Lazo & Gabelas, 2016; Blasco-Navarro, 2025).

In 2022, after two years of living through the COVID-19 pandemic and its effects, nearly 40% of Spaniards rated their emotional state negatively, and almost 6 out of 10 people reported experiencing fear, worry, and sadness, stating that they felt depressed. In fact, nearly 75% of the Spanish population believes that their mental health has worsened in recent years, mainly due to economic difficulties, job-related problems, and the pressures and stress of daily life, besides the consequences of the pandemic. In response to this situaon, nearly 15% of the population has had suicidal thoughts or attempted sui-cide, with young people aged 18 to 24 being the demographic with the highest number of suicidal ideation and attempts, as well as the highest incidence of self-harm (Confederación Salud Mental España & Fundación Mutua Madrile-ña, 2023). López-Ibor (2022) also pointed out that in recent years, cases of anxiety disorders and depression have increased in the Spanish population. Between 2020 and 2022, there was a reported 20% to 30% rise in the consumption of anxiolytics and antidepressants to cope with issues such as sleep disorders or post-traumatic stress resulting from the pandemic.

During the COVID-19 pandemic in 2020, people spent an average of almost 7 hours per day connected to the internet, and the smartphone was the most widely used digital device, with nearly 5.45 billion users—representing around 70% of the global population (We Are Social, 2023).

In today's society—driven by rapid social and technological transformations and influenced by the high rates of anxiety and depressive disorders—mental health education and communication play an essential role. Their goal is to create individuals and communities that are well-informed about mental health, enabling them to recognize early symptoms of mental illnesses such as anxiety and depression, express their feelings and emotions, and seek professional help as soon as possible (Thompson & Furman, 2018; Lavatelli & Vidal, 2021; Pinzón-Espinosa, 2022).

One out of four people will experience a mental health disorder at some point in their lives, which amounts to 450 million individuals (WHO, 2022a). It is there-fore not surprising that ongoing research aims to prevent these types of illnesses. The World Health Organization (WHO, 2022b) defines mental disorders as disturbances in an individual's thinking, emotional regulation, or behaviour. The challenge in treating mental health conditions lies in the complexity of their symptoms, the overlapping signs among different disorders—such as anxiety and depression—and the unique characteristics of each person, which make every case a distinct process requiring timely and tailored treatment. Mental health promotion is one of the most effective approaches, serving as a preventive method to help avoid the onset of such conditions. The WHO (2022c), considering the high rates of anxiety and depressive disorders, updates the need to consider mental health treatments as «any type of local or external support aimed at protecting or promoting psychosocial well-being and/or preventing or treating mental health disorders».

Mental health should be understood and addressed as a more specific concept within public health, along with the need to establish clear policies for action and prevention (Restrepo & Jaramillo, 2012). In this regard, it is important to highlight aspects such as «balance», «harmony», and «emotional self-regulation» (Galderisi, Heinz, Kastrup, Beezhold & Sartorius, 2015). This pursuit of a balanced mental state is closely related to the Life Skills (LS) outlined by the WHO (1993), which are essential psychosocial competencies for coping with the demands and challenges of daily life in various areas, such as self-awareness, stress and tension management, and problem-solving and conflict resolution, among others.

Considering the importance to approach mental health from multiple perspectives—and to tailor treatments to each individual's needs—edu-communication for mental health emerges as an important and innovative concept (Blasco-Navarro, 2025). Through Relationship, Information, and Communication Technologies (R-TICs) and Life Skills (LS), we can understand and communicate health within a Relational environment[1], with the goal of achieving both individual and social well-being (Gabelas, 2010; Gabelas et al., 2012; Gabelas et al., 2015; Marta-Lazo & Gabelas, 2016; Gabelas-Barroso et al., 2023).

In this global context of worsening mental health and increased use of technology, the aim of this research is to analyze the twenty most highly rated

[1] Relational Factor includes the relational capacity in technologies, mediating to create a humanized technological world.

free mental health apps available on the Spanish market for iOS and Android. The objective is to determine whether these apps can serve as complementary tools for promoting mental health among the population (Blasco-Navarro, 2025).

2. Methodology

This research aims to analyze how to promote mental health through R-TICs (Relationship, Information, and Communication Technologies), with a particular focus on apps, as they represent an educommunicative tool that offers content designed to help citizens improve their emotional well-being. Based on this, we propose the following hypotheses:

1. H1: The content of mental health applications includes self-care resources, such as mood tracking or emotional monitoring, which promote the mental well-being of users.
2. H2: The existing apps specialized in mental health show certain limitations in the coverage and depth of their content from an educommunicative perspective.
3. H3: Mental health applications designed with elements related to the Life Skills (LS) proposed by the WHO and RICT tools tend to incorporate resources based on greater usability, free access, and the collaboration of experts in the development of their content.

For the analysis of the main mental health apps—free and top-rated by users—available for smartphones in the Spanish market, the quantitative technique of content analysis was chosen. According to Krippendorff (1990), this method allows for the examination of real-life situations and lends them a predictive purpose. Moreover, it contributes to obtaining results that are clearly grounded in the reality we live in (Ugalde Binda & Balbastre-Benavent, 2022).

The sample of free mental health apps for smartphones, available in the Spanish market and rated highest by users (close to five stars), is presented in Table 1:

Table 1. *Mental health analysis sample*

Android Apps	Rating (out of 5 stars)	iOS Apps	Rating (out of 5 stars)
«Yana: your emotional companion»	4,9	«Balance»	4,9

«Lojong: meditation and mindfulness»	4,9	«Wysa: Sleep Depression Support»	4,9
«Cíngulo: guided therapy»	4,9	«Meditopia: meditation, sleep, relaxation»	4,8
«MindDiary: mood journal»	4,7	«Insight Timer»	4,8
«Meditate with Petit Bambou»	4,7	«Feel- Mindfulness»	4,7
«Meyo: anxiety, self-esteem and emotional well-being»	4,7	«Daylio Journal»	4,6
«Bearable: Mood and symptoms tracker»	4,7	«Moodnotes: mood journal»	4,5
«Headspace: Meditation and sleep»	4,6	«Replika: My AI Friend»	4,5
«The Inner Hour App»	4,6	«Breethe: Meditation and Sleep»	4,5
«My Oasis: Relaxation and stress relief game»	4,6	«Calm»	4,5

Source: own elaboration.

In order to analyze whether the applications included in the sample meet the objectives of this research, the «Analysis Model of Educommunicative Apps for Emotional Well-being» was developed. This model includes forty-four dimensions divided into seven categories, allowing us to approach the object of study by defining each unit within its context, thereby enabling the collection of valid and comprehensive results (Piñuel, 2002; Bardin, 2002).

In this way, the following analysis variables are proposed to help assess whether these mobile applications can be considered an educommunicative practice that promotes mental health and could be integrated as part of the

InteRmethodology[2] of life skills learning in the context of the WHO's Life Skills framework (Blasco-Navarro, 2025).

The following analysis model is proposed, based on the six InteRmethodological competency dimensions integrated into the Life Skills framework, as outlined by Marta-Lazo and Gabelas (2016), Gabelas-Barroso and Marta-Lazo (2020), and Marta-Lazo and Gabelas-Barroso (2023): Instrumental, Cognitive, Attitudinal, Axiological, Entrepreneurial, and Holistic. Additionally, the study includes the analysis of the R-elational Factor in apps within the context of educommunication for learning and teaching, according to Villalonga Gómez (2017). Moreover, to analyze the potential values conveyed to users by the applications, the Eva Protocol by Montoya Vilar et al. (2022) has been used. This protocol examines 26 variables that help determine the number, quantity, and intensity of values transmitted to users of the studied apps. Lastly, to assess the degree of entrepreneurship present in the analyzed applications, the Model of Entrepreneurship and Analysis of Determinant Factors for its Sustainability by Borja, Carvajal, and Vite (2020) has been used as a reference.

Below, Table 2 presents the seven dimensions and forty-four indicators that make up the «Analysis Model of Educommunicative Apps for Emotional Well-being»:

Table 2. ***Analysis Model of Educommunicative Apps for Emotional Well-being***

Analysis dimension	App indicators
Instrumental Life Skills in Ubiquitous and Mobile Technology: App Interface	Logo and brief synopsis, typology, operating system, connectivity, user registration, premium availability and/or trial period, age rating, user rating, number of downloads, accessibility and usability, and aesthetics and design.
Cognitive Life Skills in App Language	Language, authorship, suitability of creators and collaborators to the content, ease of learning through the app, correlation between content and activities, dynamic and integrated learning.
Attitudinal Life Skills in App	Interactivity, directionality of the communication flow within the app, communication model with the user, target user, R-elationship between users and

[2] Relational Factor is key in the InteRmethodology, where the competency dimensions are mediated by the relational capacity of the individuals.

Interaction Processes	the app, app's collaborative competence, diversity of content, users, and opinions, respect and empathy.
Axiological Life Skills in the Ideology and Values of Apps	Analysis of values transmitted to the user through the Eva Protocol, according to Montoya Vilar et al. (2022); app stereotypes and user digital identity.
Entrepreneurial Life Skills in App Production and Distribution Processes	Analysis of entrepreneurship factors and their sustainability, according to Borja, Carvajal, and Vite (2020); actors within the app ecosystem; content publication and distribution; innovation and creativity; and user-generated content.
Holistic Life Skills in Mobile and Ubiquitous Learning through Apps	Learning and holistic aspects of the app
Control and Analysis of the User's Emotional Well-being in Apps	App category, type, suitability for mental disorders, tools for emotional management, control of values for the user's emotional well-being and method of measurement, support and/or connection with healthcare professionals, app guidelines on mental health treatments, and recommendations for mental health experts.

Source: own elaboration.

Once the coding was completed (see codebook in Appendix 1), several expert researchers in educommunication were consulted. They reviewed and validated the criteria used in order to ensure greater reliability and to avoid potential bias.

3. Results

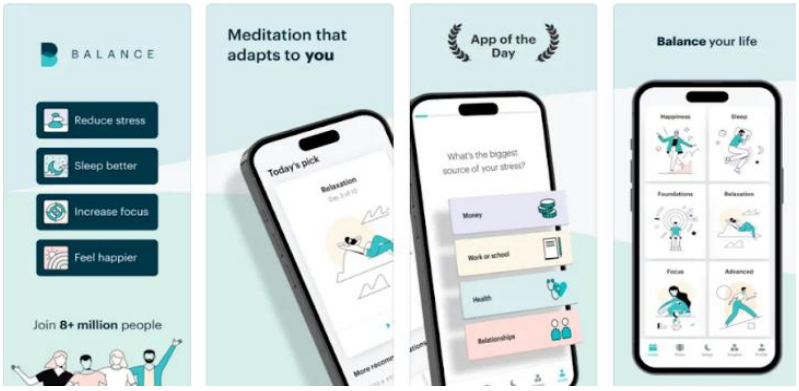
Following the analysis conducted using the «Analysis Model of Educommunicative Apps for Emotional Well-being» (Blasco-Navarro, 2025), which consists of seven dimensions and forty-four specified indicators, it was found that none of the twenty apps analyzed met all the indicators across the seven dimensions. However, some of the highest-rated apps on Google Play and the App Store—those with five and four stars—did fulfill a significant portion of the criteria evaluated in the study.

It is worth highlighting the app «Yana: your emotional companion»—rated 4.9 stars on Google Play—as the best app analyzed, as it meets the majority of the criteria outlined in the analysis and is considered a model to follow for the design of the mental health app prototype presented in later sections. Additionally, other apps such as «Balance», «Meditopia: meditation, sleep,

relaxation» and «Insight Timer» have received multiple recognitions and meet most of the analysis indicators, though they do not reach the level of effectiveness shown by «Yana: your emotional companion».

Figures 1, 2 and 3 show the main features of the apps «Balance», «Meditopia: meditation, sleep, relaxation» and «Insight Timer»:

Figure 1. *Balance* App

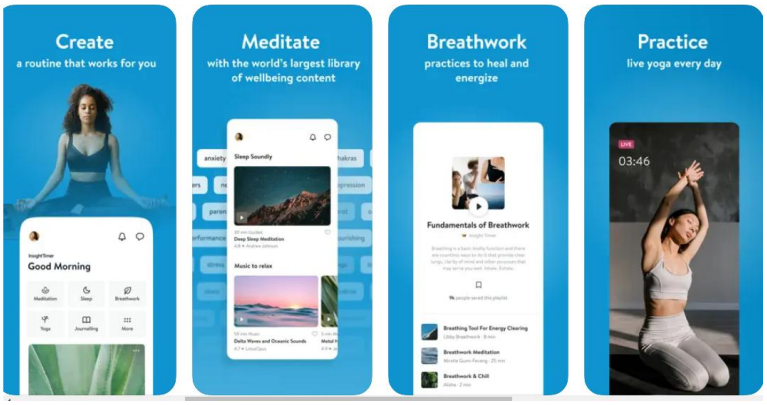


Source: Balance

Figure 2. Meditopia App

Source: Meditopia

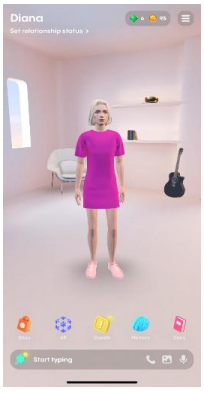
Figure 3. Insight Timer App



Source: Insight Timer

To explain more accurately the strengths and areas for improvement of the analyzed applications, we outline the Life Skills (LS) that were considered in their evaluation. Regarding the Instrumental Life Skill in ubiquitous and mobile technology and design—specifically the app interface—we positively assessed that most of the analyzed applications are multi-device, meaning they can be used on smartphones, tablets, computers, smartwatches, and even with Oculus glasses in the case of «Replika: My AI Friend», allowing for a more immersive user experience. Figure 4 shows the immersive experience of the user within the app «Replika: My AI Friend»:

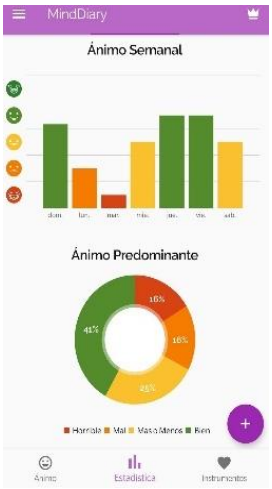
Figure 4. Immersive experience of the user in Replika: My IA Friend



Source: Replika: My IA Friend

On the other hand, few of the analyzed apps allow users to access them without an internet connection—such as MindDiary: Mood Journal or «My Oasis: Relaxation and stress relief game»—which forces users to remain constantly connected. Figure 5 shows an example of the mood tracking graphs provided to users by «MindDiary: mood journal»:

Figure 5. User mood charts in MindDiary: Mood journal



Source: MindDiary: Mood journal

Figure 6 depicts a gameplay scene from «My Oasis: Relaxation and stress relief game»:

Figure 6. Gameplay My Oasis

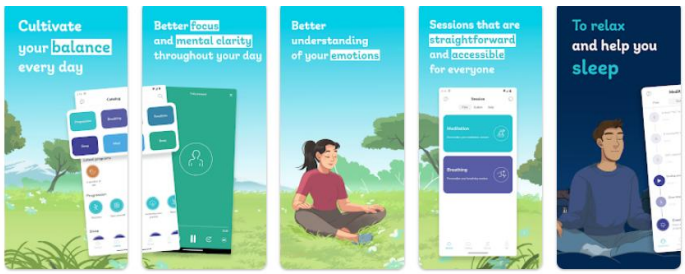
Source: My Oasis

In addition, most apps require users to register and track their activity within the application in order to send them reminders, offers, and promotions for this and other products offered by the company. Notably, «Cíngulo: guided therapy» and «MindDiary: mood journal» stand out as examples of apps that do not require user registration.

The vast majority of apps only allow free access to their content for very short periods—typically one week or at most one month—or require users to subscribe to a premium trial period, after which they must subscribe to continue using the content. As a result, users are not given sufficient time to truly assess whether these tools are effectively helping improve their well-being. «Lojong: meditation and mindfulness», «Bearable: Mood and symptoms tracker» and «Headspace: Meditation and sleep» only offer a seven-day free trial; Siente allows users to complete seven sessions for free with no time limit; and «Breethe: Meditation and Sleep» offers a fourteen-day trial. Meanwhile, «Meditopia: meditation, sleep, relaxation», «Insight Timer», «Daylio Journal», «Calm» and «Moodnotes: mood journal» require users to subscribe to the premium trial to access acceptable content within the app.

In fact, the only analyzed app that offers a substantial free trial period for its premium content—despite being designed as a paid app—is «Balance», which allows users to access it free of charge for an entire year. On the other hand, some apps are available for free, such as «Meditate with Petit Bambou»—which can also be accessed via its website and provides expanded content through its premium version—«Meyo: anxiety, self-esteem and emotional well-being» (which includes ads in its free version), Amaha, «My Oasis: Relaxation and stress relief game», «Replika: My AI Friend», «Cíngulo: guided therapy», and «Yana: your emotional companion» (which also offers a premium version). Figures 7 and 8 show the main emotional management tools these apps offer to their users:

Figure 7. Free tools for the emotional management of the user in Petit Bambou



Source: Petit Bambou

Figure 8. Free tools for the emotional management of the user in Meyo: Emotional Wellness

Source: Meyo: Emotional wellness

However, the following apps stand out for having the most refined and visually appealing designs: «Yana: your emotional companion», «Headspace: Meditation and sleep», «My Oasis: Relaxation and stress relief game», «Replika: My AI Friend» and «Balance». On the other hand, we also find examples of simple yet effective design in apps such as «Lojong: meditation and mindfulness», «Cíngulo: guided therapy» and «MindDiary: mood journal».

Additionally, some applications include particularly complex menus—such as «My Oasis: Relaxation and stress relief game»—which offer a wide range of options organized into various sections. Figure 9 is an example of the complex menu of the app «My Oasis: Relaxation and stress relief game»:

Figure 9. Menu complexity of My Oasis

Source: My Oasis

According to the Cognitive Life Skill, in relation to the language used in the apps, we found that many applications are available in only one or two languages, which limits global accessibility. Some examples include: «Balance» — English only; «Wysa: Sleep Depression Support»— English and learning Spanish; Siente — Spanish only; «Replika: My AI Friend» — English and Japanese; «MindDiary: mood journal» — English and Spanish; «Bearable: Mood and symptoms tracker»— English; Amaha — English; and «Cíngulo: guided therapy» — Portuguese.

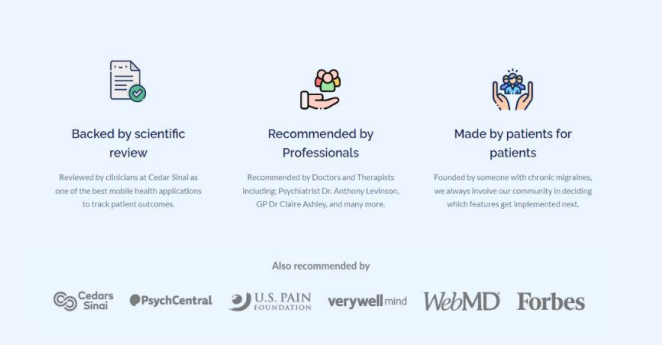
In contrast, other apps are translated into a wide range of languages, enhancing accessibility: «Daylio Journal»— 29 languages; «My Oasis: Relaxation and stress relief game»— 14 languages; «Meditopia: meditation, sleep, relaxation»— 12 languages; «Insight Timer» — 11 languages; «Meyo: anxiety, self-esteem and emotional well-being» — 9 languages; «Moodnotes: mood journal» — 8 languages; and «Lojong: meditation and mindfulness» — 5 languages.

On another note, it is essential that applications involve collaboration with mental health professionals in the development of their content and/or validation of the topics they address. This is the case for «Headspace: Meditation and sleep», «Bearable: Mood and symptoms tracker», «Cíngulo: guided therapy», «Lojong: meditation and mindfulness», «Yana: your emotional companion», «Moodnotes: mood journal» and «Insight Timer». However, «Daylio Journal» and «My Oasis: Relaxation and stress relief game» were developed by app creators without input from mental health experts.

In most of the apps analyzed, authorship could be identified, although sometimes with difficulty due to the complexity of finding this information. In the case of «MindDiary: mood journal», however, it was not possible to determine the authorship of the app. Figure 10 shows how «Bearable: Mood and symptoms tracker» collaborated with mental health professionals in the development of the app.

As already mentioned, although none of the applications succeeded in meeting all the dimensions and indicators of the «Analysis Model of Educommunicative Apps for Emotional Well-being», and given that a detailed analysis of each would be too extensive, we will carry out a case study of the app that proved to be the most comprehensive in terms of indicators: Yana: Your Emotional Companion.

Figure 10. Expert recommendations in Bearable



Source: Bearable

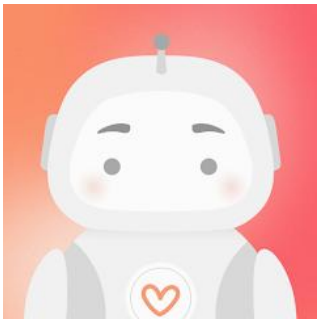
3.1. Yana: your Emotional Companion

«Yana: your emotional companion» is an application for Android and iOS that was launched in 2020, born from the idea of Andrea Campos, who had spent four years developing a tool to help manage the anxiety and depressive disorders she had suffered from since childhood.

This application is based on tools derived from cognitive-behavioural therapy, with its core feature being the chatbot Yana (You Are Not Alone), which aims—through Artificial Intelligence—to help users improve their emotional well-being, without replacing or interfering with any treatment recommended by mental health professionals.

Figure 11 shows the logo of the app «Yana: your emotional companion»:

Figure 11. *Yana logo: your emotional companion*



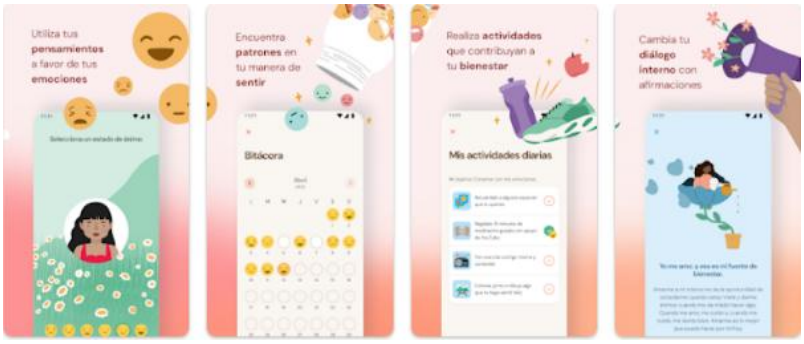
Source: Yana: your emotional companion.

«Yana: your emotional companion» has reached over 12 million users despite being available in only one language: Spanish. Additionally, it holds a rating of 4.9 out of 5 stars, making it one of the highest-rated apps. It is a multi-device application that offers a wide range of tools for free, allowing users to manage their mental health effectively. Figures 12 and 13 present the main tools offered by «Yana: your emotional companion» to its users:

Figure 12. *App Yana presentation: my emotional companion*

Source: Yana: your emotional companion

Figure 13. *Summary of emotional management tools in Yana: your emotional companion*



Source: Yana: your emotional companion

The app's aesthetics and design are very well-crafted, contributing to a simple and intuitive user experience. Users can also learn a great deal about mental health through conversations with the chatbot, as well as through the exercises and programs offered within the app. Figures 14 and 15 show examples of guided exercises and the relaxation space that «Yana: your emotional companion» offers its users:

Figure 14. *Guided exercise Yana: your emotional companion*

Source: Yana: your emotional companion

Figure 15. *Relaxation space in Yana: your emotional companion*

Source: Yana: your emotional companion

Figure 16 shows an example of the thematic activity program that is included in «Yana: your emotional companion».

Figure 16. *Activity program about self-esteem in Yana: your emotional companion*

Source: Yana: your emotional companion

The user does not have the option to interact with other users or create communities within the app, in order to establish the most personal relationship possible between «Yana: your emotional companion» and the user. No mental health stereotypes are promoted, and the app shows respect and empathy toward all types of opinions and situations users may experience. «Yana: your emotional companion» is available 24/7 to listen and offer help—within its capabilities—without judgment. Figure 17 displays all the preset topics users can discuss with the «Yana: your emotional companion» chatbot:

Figure 17. *Topics to discuss with the Yana chatbot: your emotional companion*

Source: Yana: your emotional companion

Figure 18 shows the «My Safe Place» section in «Yana: your emotional companion», where users can access the emotion log, relaxation space, daily affirmations, and/or gratitude journal:

Figure 18. *My safe place space for the user in Yana: your emotional companion*

Source: Yana: your emotional companion

Figure 19 illustrates a conversation with the chatbot in Yana: My Emotional Companion:

Figure 19. *Conversation with the Yana chatbot: your emotional companion*

Source: Yana: your emotional companion

As previously analyzed, «Yana: your emotional companion» offers a wide range of tools to help users assess and manage their mental health. However, as the app itself states, it does not replace treatment prescribed by a specialist at any point. Figure 20 shows how «Yana: your emotional companion» offers support to the user in the event of a crisis:

Figure 20. *Crisis contact support in Yana: your emotional companion*

Source: Yana: your emotional companion

This app also features a help button and allows users to connect with healthcare professionals and/or call emergency hotlines—which can be crucial in preventing situations such as self-harm or suicide attempts. Additionally, it informs users of the importance of consulting a mental health expert if necessary and repeatedly emphasizes that «Yana: your emotional companion» is merely a tool intended to support the emotional well-being of individuals seeking to improve their daily lives. It is not recommended for people who have been diagnosed with a mental health disorder.

It is important to highlight how «Yana: your emotional companion» supports the monitoring of users' emotional well-being. The app does this through two main tools: mood tracking and emotional monitoring. «Yana: your emotional companion» prompts users to complete both as soon as they open the app, but they can be repeated at any time—users can even set up notifications to track their mood on a daily basis.

Once the user logs in «Yana: your emotional companion», the app applies the questionnaire «PHQ-4» (Patient Health Questionnaire), in order to value the person's levels of anxiety and depression.

Figures 21, 22 and 23 show some of the questions that are included in the questionnaire «PHQ-4»:

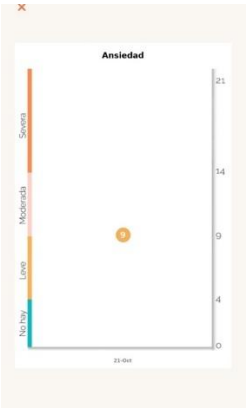
Figure 21. *Starting of the PHQ-4 questionnaire in Yana: your emotional companion*

Source: Yana: your emotional companion

Figure 22. *Explanation of PHQ-4 Questionnaire Results in Yana: your emotional companion*

Source: Yana: your emotional companion

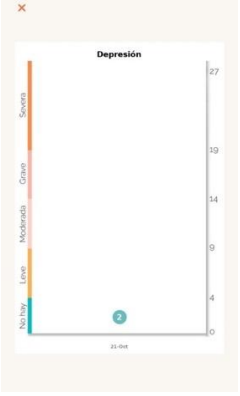
Figure 23. *User anxiety results from the PHQ-4 questionnaire in Yana: your emotional companion*



Source: Yana: your emotional companion

Figure 24 shows the results of a user's depression from the PHQ-4 questionnaire within «Yana: your emotional companion»:

Figure 24. *Results of a user's depression from the PHQ-4 of Yana: your emotional companion*



Source: Yana: your emotional companion

On the other hand, this application does not encourage users to share their progress or completed content on social media. Additionally, it allows

users to create their own content within the existing activities, aiming to foster their innovation and creativity. Figure 25 shows an example of a user's mood tracking entry within «Yana: your emotional companion»:

Figure 25. *Mood tracking in Yana: your emotional companion*

Source: Yana: your emotional companion

Figure 26 illustrates how the user has the opportunity to create content within «Yana: your emotional companion»:

Figure 26. *Content creation by the user in Yana: your emotional companion*

Source: Yana: your emotional companion

Based on all the points mentioned above, we consider «Yana: your emotional companion» to be an application that meets all the previously analyzed

indicators from an educommunicative perspective, making it a valuable tool to help users improve their emotional well-being.

4. Discussion

As outlined throughout this research, recent years have seen a continuous rise in the number of mental health apps entering the market. These applications aim to help users monitor and manage their emotional well-being. The main emotional management tools they offer include relaxation exercises, meditation and mindfulness practices, journaling, mood tracking and evaluation, and guided activities designed to promote self-awareness and emotional self-regulation.

The mental health of the population has deteriorated significantly, as shown by data from the Spanish Mental Health Confederation and Mutua Madrileña (2023). In a context where anxiety and depressive disorders have increased markedly (López-Ibor, 2022), these apps can serve as complementary tools to support emotional well-being. For this reason, it would be essential for all such applications to offer a free version that allows users open access. Many of these apps were developed in response to the pandemic, as a means of supporting public well-being through technology, and most have continued to update their content to better meet users' evolving needs.

In fact, it is worth highlighting that the spread of Artificial Intelligence tools has enabled apps such as «Replika: My AI Friend» and «Yana: your emotional companion» to incorporate conversational chatbots that offer constant support to users.

The smartphone is the most widely used digital device worldwide, with nearly 70% global reach (We Are Social, 2023). However, apps should serve as complementary tools that contribute to users' emotional well-being, rather than forcing them to remain constantly connected (Thompson & Furman, 2018; Lavatelli & Vidal, 2021; Pinzón-Espinosa, 2022). Therefore, we reiterate the need to reduce the level of control over app users and to prioritize their mental health.

According to the indicators analyzed, in order to consider an app educommunicative for emotional well-being, the following aspects should be regarded as key: from the instrumental dimension, accessibility and usability; from the cognitive dimension, dynamic and integrated learning; from the attitudinal dimension, the user–app relationship, and respect and empathy; from the axiological dimension, the values transmitted and the presence or absence of stereotypes; from the entrepreneurial dimension, innovation, creativity, and

user-generated content; from the holistic dimension, learning and global aspects; and from the user emotional well-being dimension, emotional well-being monitoring and connection with mental health professionals—these last two being especially relevant.

Moreover, as previously mentioned, not all applications have been developed with the collaboration of mental health professionals. In order to create a digital tool that truly supports the population, it would be essential to bring together experts from different fields. On one hand, technology experts would contribute to the design and conceptualization of content that mental health professionals consider suitable for users. At the same time, mental health communication professionals would provide strategies to communicate expert information in a truthful, engaging, and effective manner for users.

For all these reasons, the creation of multidisciplinary teams would enhance the usability and effectiveness of these apps, bringing them as close as possible to meeting the emotional well-being needs of the population.

5. Conclusions

Mental health apps are not fully comprehensive in terms of meeting the indicators outlined in the «Analysis Model of Educommunicative Apps for Emotional Well-being». Among them, «Yana: your emotional companion» stands out as the best-rated example of a well-rounded app of this kind. However, other applications such as «Balance», «Meditopia: meditation, sleep, relaxation» and «Insight Timer» have also received recognition and meet the majority of the indicators.

Regarding the parameters of Instrumental Life Skills, with a focus on the ubiquitous and mobile design and technology of the apps, we positively evaluated that most are multi-device, meaning they can be used across various platforms. However, only a few apps allow users to access content without an internet connection, which limits their usability in areas without coverage—a particularly sensitive issue for apps dealing with mental health, where ongoing support and monitoring are essential. Another access limitation is the restricted period of free use. After a short trial period, most apps become premium, which is not affordable for everyone. Added to this weakness is the user interface, which is not always user-friendly or easy to navigate, as in the case of «My Oasis: Relaxation and stress relief game». Additionally, language accessibility presents another barrier, since not all apps are available in multiple languages.

In line with the core principles of educommunication for mental health (Marta-Lazo & Gabelas, 2016; Gabelas-Barroso et al., 2023), the collaboration of mental health professionals in the development of specialized content for this

type of app is essential, especially given the sensitive nature of topics such as mental states, personal concerns, and their possible consequences and effects.

A permanently accessible SOS help button should be included in all applications and a connection to mental health professionals, allowing users to press it at any time they feel they are experiencing a crisis. This way, mental health apps would always be available to support users and could help prevent situations such as anxiety attacks, self-harm attempts, or suicidal ideation, among other critical cases.

Mood tracking, vital sign monitoring, and journaling features provided by these apps could be very valuable for mental health professionals in reviewing data from individuals with mental disorders who are in need of ongoing supervision. In this way, mental health apps could serve as complementary tools that help to collect and track data on patients' progress over time—supporting the management and control of their mental health conditions.

For all the reasons mentioned, acceptance of apps as complementary tools to treat anxious-depressive problems could be beneficial, and they should be established as a key concept in the treatment, prevention and promotion within the field of health (Restrepo y Jaramillo, 2012). The WHO (1993) already stated the need to look for balanced mental state to reach emotional wellness. So, it would be essential to promote accessible tools for all citizens like apps, as a proposal to help in the search for integral well-being.

Ethics and Transparency

Acknowledgements
The authors would like to thank Eva Bun-bury for the English translation of this article.

Conflict of Interest
There is no conflict of interest in the present text.

Funding
This article has been funded by the Research Group on Digital Communication and Information (GICID) of the University of Zaragoza, recognized by the Government of Aragon with the code S29_23R (No. 62 of the Official Gazette of Aragon, dated 28/04/2023), within the area of Social Sciences and financed by the European Social Fund for Regional Development, ERDF “Building Europe from Aragon”.

Author Contributions

Contribution	Author 1	Author 2	Author 3	Author 4
Conceptualization	X			
Data curation		X		
Formal Analysis	X			
Funding acquisition	X			
Investigation	X			
Methodology	X			
Project administration		X		
Resources		X		
Software	X			
Supervision		X		
Validation		X		
Visualization		X		
Writing – original draft	X			
Writing – review & editing		X		

Data Availability Statement

Appendix 1 is included after the bibliography and contains the code book for the present research.

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Appendix 1: Codebook

Dimension 1: Instrumental Life Skills in ubiquitous and Mobile Technology Design: App interface

Indicator	Definition	Variable Type	Scale of possible values
Logo y synopsis	Logo identification and brief description	Binary	0: Absent / 1: Present
Typology	Type of app (informative, interactive, tracking, etc.)	Categorical nominal	1: Informational / 2: Interactive / 3: Mixt / 4: Other
Operating system	Available platforms	Categorical nominal	1: Android / 2: iOS / 3: Both/ 4: Others
Conectivity	Needs internet conection	Binary	0: Offline / 1: Online / 2: Mixt
User registration	Requires user registration to access functions	Binary	0: No / 1: Yes
Premium availability / trial	There is a free version, paid version, or trial period	Categónominal	1: Free / 2: Freemium / 3: Paid only
Age rating	Recommended age range	Categorical ordinal	1: <7 / 2: 7+ / 3: 12+ / 4: 18+
User rating	Average rating	Continuous	Number (ej. 4.3)
Number of downloads	Estimate based on the platform	Ordinal	1: <10k / 2: 10k–100k / 3: 100k–1M / 4: >1M
Accesibility and usability	Level of ease of access, navigation, and text readability	Ordinal	1: Low / 2: Medum / 3: High
Aesthetics and design	Assessment of visual appeal and graphic coherence	Ordinal	1: Poor / 2: Acceptable / 3: Good / 4: Excelent

Dimension 2: Cognitive Life Skills in App Language

Indicator	Definition	Type of variable	Scale of possible values
Language	Languages offered	Categorical nominal	1: Spanish / 2: English / 3: Bilingual/ 4: Other
Author	Información sobre los autores	Categorical nominal	0: No visible / 1: Visible
Suitability of creators / collaborators	Suitability of creators/collaborators in relatin to the app's content	Ordinal	1: Low/ 2: Medium / 3: High
Content understanding	Clarity in the instructions	Binary	1: Difficult / 2: Moderate / 3: Easy
Correlation between content and activities	Coherence between what is taught and what is proposed to be done	Binary	1: Low/ 2: Medium / 3: High
Dynamic and integrated learning	Contains interactive elements that integrate theory and practice	Ordinal	1: No / 2: Partially / 3: Yes

Dimension 3: Attitudinal Life Skills in App Interaction Processes

Indicator	Definition	Type of variable	Scale of possible values
Interactivity	Degree of user participation	Ordinal	1: None/ 2: Basic / 3: Moderate / 4: High
Communicative directionality	Type of communication flow	Categorical nominal	1: Unidirectional / 2: Bidirectionall / 3: Multidirectional
Communication flow	Manner in which the information is presented	Categorical nominal	1: Informative / 2: Formative/ 3: Participative

Target user	Main intended audience	Categorical nominal	1: Childhood / 2: Adolescence / 3: Adulthood / 4: General
User-app relatioship	Degree of connection with the user	Ordinal	1: Low / 2: Medium / 3: HIgh
Collaborative competence	Allows collaborative work between users	Binary	0: No / 1: Yes
Content diversity	Thematic variety	Ordinal	1: Low/ 2: Medium / 3: High
User diversity	Audience diversity (age, gender, etc.)	Ordinal	1: Low / 2: Moderate / 3: High
Respect and empathy	Respectful language, supportive messages	Ordinal	1: Absent / 2: Partial/ 3: Present

Dimension 4: Axiological Life Skills in the ideology and Values of Apps

Indicator	Definition	Type of variable	Scale of possible values
Values conveyed (EVA Protocol)	Axiological evaluation of the content	Cualitative (coded)	0: Negative / 1: Neutral / 2: Positive
Stereotypes	Analysis of gender, roles, and social representation	Categorical nominal	0: Reproduces stereotpyes/ 1: Does not reproduce them
Digital identity	Allows the user to create their own identity within the app	Binary	0: No / 1: Yes

Dimension 5: Entrepreneurial Life Skills in the Production and Distribution Processes of Apps

Indicator	Definition	Type of variable	Scale of possible values
Entrepreneurial factors	Entrepreneurial model characteristics	Ordinal	1: Not identifiable / 2: Partial / 3: Solid

Ecosystem actors	Diversity of collaborators, sponsors, etc.	Categorical nominal	1: Individual / 2: Institutional / 3: Multiple
Publication and dissemination	Update frequency, social media dissemination	Ordinal	1: Infrequent / 2: Regular / 3: Frequent
Innovation and creativity	Original resources	Ordinal	1: Low/ 2: Medium / 3: High
User-generated content	Possibility to generate content	Binary	0: No / 1: Yes

Dimension 6: Holistic Life Skills in Mobile and Ubiquitous Learning through Apps

Indicator	Definition	Type of variable	Scale of possible values
Learning through the app	Type of content learned in the app (Integration of body, mind, emotions)	Coded qualitative	0: No / 1: Parctial / 2: Integrated
Holistic aspects of the app	The app allows the user to learn mental health content in a clear, organized manner with a holistic approach	Binary	0: No / 1: Yes

Dimension 7: Control and Analysis of the User's Emotional Well-being in Apps

Indicator	Definition	Type of variable	Scale of possible values
App category	Classification by main function	Categorical nominal	1: Self-help / 2: Psychotherapy/ 3: Mindfulness / 4: Others

Type of app	Classification based on content	Categorical nominal	1: Game / 2: Emotion journal / 3: Relaxation app/ 4: Other
Suitability for mental disorders	Relationship between content and types of conditions	Ordinal	1: General / 2: Specific / 3: Individualized
Emotional management tools	Practical techniques (exercises, tests, meditations)	Categorical multiple	1: Journal / 2: Mindfulness / 3: Breathing / 4: Oher
Emotional well-being monitoring	Self-assessment, feedback, internal tests	Binary	0: Not included / 1: Included
Conection with experts	Channels for contact or professional referral	Binary	0: No / 1: Yes
Guidelines for mental health treatment and app usage	It is specified that this app is only a complementary tool to support users' emotional well-being	Binary	0: No / 1: Yes
Recommendations on emotional well-being	Well-being tips	Ordinal	1: Generic / 2: Personalized / 3: Interactive