



Feeling an Itch: A Systematic Review of Games for Mental Health on Itch.io

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Abstract. In this study, we systematically reviewed mental health-related games on the indie games platform itch.io. After initial screening and subsequent gameplay, we arrived at a dataset of 60 browser-playable games tagged with “mental health” on itch.io, which were reviewed and classified along a set of categories: targeted mental health topic, game type, player motivation type, method used, theoretical grounding, references to resources, itch.io genre, interaction style, single-player or multiplayer social presence, and playtime. Analyzing trends in this dataset, we found that anxiety and depression were the most commonly targeted issues, while the game experiences were commonly single-player interactive fictions and visual novels. Only 13.33% of the games mentioned a relevant theoretical grounding. In addition to these findings, the research produced a detailed dataset of classified games that assist game scholars and other individuals seeking accessible mental health-focused games. While, to our knowledge, these games have not been evaluated regarding their effects on mental health, this can be valuable for research and practice.

Keywords: Mental health · Serious games · Applied games · Games for health · Indie games · Itch.io · Gamification

1 Introduction

Serious games are increasingly recognized for their significance and effectiveness across a wide range of domains [5]. One particularly promising area of use for serious games is the healthcare domain, where their potential impact can be transformative. Indeed, mental health problems are widespread, with significant numbers of people experiencing anxiety and depressive disorders. In 2019, approximately 970 million people globally were living with a mental disorder, and this number significantly increased due to the COVID-19 pandemic [14]. While effective treatments exist, many individuals lack access to care [10], and stigma, discrimination, and human rights violations are also prevalent according to the World Health Organization (WHO) [14].

Potentially, some of these challenges can be alleviated with easily accessible *games for mental health*. That is, games that are specifically designed for therapeutic or emotional support goals may well serve as tools for increasing mental health awareness, offering support strategies, and training effective coping skills.

Itch.io is a platform dedicated to publishing independent games (i.e., indie games), which are games created and released without the backing of major publishers. The platform allows creators to release their work without the constraints of the traditional gatekeeping found on mainstream platforms, and has become the key platform for independent developers [4].

Despite its popularity, itch.io has received limited attention in academic research [13]. Yet, its collection of over 200,000 games provides a wealth of content that may reasonably be expected to benefit academic investigations and individuals alike. Itch.io's diverse content is organized through a tagging system that helps users discover games based on specific themes or topics. The presence of the tag "*mental health*" – at present yielding 1,551 results – reveals an openness to addressing mental health issues through gaming on this platform. We explore itch.io as a platform because of the large number of free, browser-playable games.

Although there is growing interest in games that address mental health, most existing studies focus on specific games or targeted interventions rather than offering a broader overview of publicly available mental health games. In particular, there is a lack of systematic analyses that examine the scope and diversity of mental health games found on open-access platforms like Itch.io, which serves as a rich but underexplored resource. As such, this study aimed to conduct a structured, taxonomy-informed analysis of games for mental health on itch.io.

2 Related Work

Games for Mental Health. Games have increasingly found their way into health-care and have been strategically used to affect a number of issues in health among patients. For example, Stapleton [12] illustrated that serious games can be used as a form of motivation and reward for patients undergoing some form of treatment, or as a means to help distract patients during certain procedures. Specifically in the context of mental health, serious games have successfully been applied for the treatment of phobias and anxieties [12], with participants generally indicating high levels of comfort in using video games as part of their treatment [2, 12]. Scholars noted that games are a good platform to provide the motivation needed to persevere through treatment challenges [6, 9], to serve as a distraction to ease the treatment experience, [5], and to address mental health challenges that are otherwise difficult to treat, such as impulsiveness, emotional regulation and frustration [2].

Indie Games. Most games for mental health are currently developed by large corporations, researchers or government entities [1]. However, small independent (i.e., indie) game developers are beginning to make their mark in creating these types of games as well, with their presence gradually growing in the field. **Itch.io** is a popular platform for indie developers, offering a diverse selection of games and a more accessible environment for smaller and beginner-friendly titles. The platform hosted over 1,000,000 products as of 2024, including over 200,000 games. Creators on itch.io can use specific tags and genres to categorize

their games and highlight their themes. Searching the “mental health” tag on itch.io yielded 1,551 results as of writing, highlighting its relevance for this topic.

Classification of Serious Games. In the present research, we use existing taxonomies to classify serious games available on itch.io, focusing on their potential to support mental health. Regarding categorizing the *method used* for achieving health outcomes, Knöll & Moar adapted the “Games for Health Taxonomy” proposed by Sawyer and Smith [11], to create a usage-based taxonomy. The Knöll & Moar taxonomy consists of six categories: (1) exergames, (2) stress relief games, (3) rehabilitation games, (4) disease management games, (5) pain distraction games, and (6) learning games [7].

Regarding categorizing the *game type*, we adopt the categorization by Lau et al. [8], distinguishing between (1) goal oriented games, (2) problem-solving games, (3) cognition training, and (4) exergames – this final category is excluded from the present study. Regarding categorizing the *targeted mental health topic*, a systematic review by Lau distinguished between games focusing on depression, post-traumatic stress disorder (PTSD), autism spectrum disorder (ASD), attention deficit hyperactivity disorder (ADHD), cognitive functioning, and alcohol use disorder [8]. In addition to these topics, Fernández-Aranda et al. [2] observed a focus on obsessive-compulsive disorder (OCD), schizophrenia, eating disorders, and anxiety disorders. As we expect various mental health topics in the dataset, we decided against deductive coding and instead intentionally coded these mental health topics inductively.

Regarding connecting to certain *player motivation types*, the influential meta-synthesis by Hamari and Tuunanen [3] is leveraged, categorizing player motivations into the categories (1) achievement, (2) exploration, (3) sociability, (4) domination, and (5) immersion. Further, we coded games for *interaction style*, *modality*, and as *single-player or multiplayer* (see Subsect. 3.2).

3 Methods

This study aimed to conduct a structured, taxonomy-informed analysis of games for mental health on itch.io. For that purpose, we conducted a systematic review of free browser-based games tagged with mental health on the platform. The overall review process was derived from systematic literature review methodologies and consisted of the following steps:

Data scraping Extraction of game metadata (title, description, link) for all browser-based games tagged with “mental health” on Itch.io.

Screening Title and description screening with predefined inclusion criteria.

Gameplay review Full gameplay of the remaining games to confirm inclusion criteria and collect classification data.

Classification Systematic coding of each game’s characteristics using a structured framework.

Content analysis Examination of frequencies and patterns across the dataset.

3.1 Data Collection, Screening, and Review

As of March 1st, 2025, Itch.io listed 1,551 games tagged with “mental health”. To narrow the scope and ensure accessibility for users, this study focused exclusively on games that are playable directly in the browser without download or additional software necessary to play the game. This reduced the pool to 742 games, which formed the initial dataset for screening. Each game underwent an initial systematic screening based on its title and description. To facilitate this, the Itch.io website was scraped using a Python script to collect key metadata, including the title, link, and description of each game. Games were included in the next phase of the study only if they met the following inclusion criteria:

1. Relevance to the theme of mental health (e.g., explicitly addressing mental health topics, such as depression, PTSD, or ADHD)
2. Availability to play for free in the browser
3. Relevance as a serious game (i.e., focus on mental health and excluding purely entertainment-focused games with minor mental health references)

After initial screening of titles and descriptions, we had 112 games remaining for gameplay review, in which the first author played the complete game. Before playing each game, the description was read to gain a general understanding of the game’s premise. The descriptions were also checked for practical information, such as control instructions. We further check user comments in cases where inclusion was unclear based on the title and description alone.

Each game was played in full-screen mode and approached with the same intent: to experience its content as an ordinary player would. Observations were recorded after gameplay to minimize distraction during play. Before starting each game, a timer was set to record the duration of play. Every game was played in full until its end. When there was no clear ending, a single full session ended when the main idea of the game was clear. During the gameplay review, we excluded 52 games that did not meet the inclusion criteria after playing, despite passing the initial screening based on title and description alone, because they required a download that was not mentioned in the description, or technical issues that made the game unplayable. After this, we had a final list of 60 games included in the review.

3.2 Coding and Analysis

We coded the games both inductively for the targeted mental health topic (e.g., depression, PTSD, and ADHD) and deductively along a number of existing taxonomies, including (1) the game type (goal-oriented, problem-solving, cognition training), (2) method used (stress management games, rehabilitation games, pain distraction games, learning games), (3) player motivation type (achievement, sociability, exploration, domination, immersion), (4) Itch.io genre (e.g., action, interactive fiction, or platformer), (5) Itch.io tags (i.e., keywords chosen by developers to describe their game’s themes, style and features), (6) interaction style (keyboard, mouse, gamepad, touchscreen, and point-and-click), (7)

modality (visual, auditory, haptic), (8) single-player or multiplayer, (9) game-play duration, (10) theoretical grounding (i.e., does the game mention relevant theoretical background), and (11) resources (does it refer players to resources that help them).

After initial coding, codes were reviewed and aligned for the inductive codes. This means that terms with similar meanings were standardized for the targeted mental health topic, e.g., combining ‘low self-esteem’ and ‘low self-worth’ into one label. Beyond this, we tallied up codes along categories to identify trends in the data. For some classifications, the games allowed for multiple codes (e.g., in the itch.io genres) that were kept separate.

4 Results

The results of this work are twofold. First, we created an extensive dataset of mental health games on itch.io (see project on osf.io) that serves as a valuable source for people looking for mental health-focused games, including researchers, students, and practitioners (see Sect. 5 for more details). Second, we examined the data set along a subset (due to space constraints) of coded categories to identify trends and gaps in the current state of mental health games on itch.io.

Table 1. List of the categories by the games.

Topic	<i>n</i>	Multiple topics	<i>n</i>	Genre	<i>n</i>
Anxiety	22	Anxiety and Depression	4	Interactive fiction	17
Depression	21	Depression and Loneliness	4	Visual Novel	11
Loneliness	5	Anxiety and Stress	1	No Genre	10
General mental health themes	3	Paranoia and Anxiety	1	Educational	9
Autism	2			Adventure	6
Feeling down	2	Method used	<i>n</i>	Simulation	4
Trauma	2	Learning games	35	Puzzle	3
Low self-worth	2	Stress relief games	20	Role playing	3
Emotional literacy	2	Rehabilitation games	5	Action	2
ADHD	1	Pain distraction games	0	Rhythm	2
Procrastination	1	Disease management	0		
Verbalizing feelings	1	Exergames	0	Playtime	<i>n</i>
Self-care	1			5 min or less	25
Anger issues	1	Mental Health Resources	<i>n</i>	6–10 min	18
Paranoia	1	Yes	6	11–20 min	11
“Something on your mind”	1	No	54	21–50 min	6
Academic pressure	1	Theoretical Grounding	<i>n</i>		
Exhaustion	1	Yes	8		
Burn-out	1	No	52		

4.1 Mental Health Topic

The first classification focused on the mental health topic targeted by the games. Table 1 provides an overview of the results. The most targeted topics were anxiety (36.07% of the dataset), depression (34.43%), and loneliness (8.20%). Beyond those, there is a wide range of different topics addressed by the games, for example, including ADHD or burnout. Some games targeted multiple mental health issues, such as anxiety and depression (n=4) and depression and loneliness (n=4).

4.2 Game for Health Type

We coded games based on Knöll & Moar's usage-based health game taxonomy [7]. Learning games were the most common, with over half of the games falling in this category. Learning games focus on educating users on topics like emotional intelligence, skill development, and coping mechanisms. An example of this method can be seen in the game *Rainy Day*¹ which is a short game about a family's struggle with and recovery from depression. By allowing the player to walk around the house and observe different interactions, the game shows how a family might deal with a member experiencing depression. This game highlights the primary objective of learning games, which is to provide players with meaningful insights and knowledge through interactive experiences. Stress relief games were also frequently used. These games' main objective is to support emotional regulation and relaxation. An example can be found in the game *Mind-OS*² which, through multiple rooms in the game, features breathing exercises and meditation methods as a means to reduce stress or anxiety. The rehabilitation games were not very common. These games aim to assist in cognitive or emotional rehabilitation, such as from trauma or depression. An example can be found in the game *Regain*³ which is a clicker game centred on overcoming the darkness of depression. Players must muster their energy to have the courage to expand their surroundings. Although rehabilitation games share similarities with learning games in conveying important messages, their primary focus is on supporting players who are actively dealing with mental health challenges and aiding them in their recovery process. Regain is a small game, but it is designed to support players as they work on rehabilitation. Pain distraction games were not found in the mental health tagged games on itch.io, and neither were disease management and exergames.

4.3 Genres, Interaction, Gametime, and Number of Players

On itch.io, developers are encouraged to specify at least one genre for their games, making it easier for users to browse by broad game types. The data for game genres shows that the majority of games belong to interactive fiction and

¹ Rainy Day on itch.io: <https://bee-tea.itch.io/rainyday>.

² MindOS on itch.io: <https://kirafarron.itch.io/mind-os>.

³ Regain on itch.io: <https://sunie.itch.io/regain>.

visual novels, which both fall in the same category of storytelling. These two genres together form almost half of all the games. Storytelling games seem to be useful in mental health aid because they allow players to engage at their own pace and encourage immersion and engagement. For some games, it would be even debatable if they qualify as games. For example, *Everything Is Awful and I'm Not Okay*⁴ was a checklist people could go through before giving up, but contained no game elements beyond this static content.

The interaction style and modality are the most relevant classifications regarding accessibility. They can provide useful information for players who may want to know what input devices are needed, or those with hearing impairments who need to know whether sound is required. For the interaction style, 18 games could be played using only the keyboard, 28 required only the mouse, and 14 games required both.

We recorded the playtime for each game, as this is relevant for accessibility, appeal, and practical application (e.g., how it would be embedded in a therapy session or a class). As playtime may vary drastically between players, we used the playtime of our playthroughs as an estimate of the duration of each game. We assigned playtime into four categories. The games in the dataset varied considerably in length, ranging from just a few minutes to over half an hour. The longest game had playtime of 50 min. And the shortest playtime was under a minute per session, but encouraged daily check-ins over an extended period. Overall, the majority of games can be considered very short, with 71.77% of the dataset having a playtime under 10 min. Finally, we were interested in exploring whether games were singleplayer experiences or if there are multiplayer games. All games in our dataset were singleplayer games.

4.4 Theoretical Grounding and Mental Health Resources

Finally, we assessed the grounding of the games. Only 13.3% mentioned relevant theoretical background. For example, the game *Sword Of Meaning*⁵ directly mentions a therapeutic method used in their game: “*This game was made to teach and celebrate CBT (Cognitive Behavioral Therapy).*” In the game, the player travels into their own mind to slay the demons that disturb their peace. This is done by answering three questions, of which the answers create a ‘panel of hope’ used to deal with difficult situations, illustrating core CBT principles. The description also mentions that the game was made in collaboration with an established psychologist, helping with the concept and science behind the game. In contrast, 10.0% of games referred players to resources. For example, *Hiraya*⁶ is a game that offers access to mental health resources. The game explores unhealthy family traits, and in its description provides an extensive list titled “*Where to find mental help in the Philippines*”.

⁴ Everything is awful and I'm not okay on itch.io: <https://skal-ton.itch.io/everything-is-awful-and-im-not-okay-questions-to-ask-before-giving-up>.

⁵ Sword of Meaning on itch.io: <https://magicdylen.itch.io/swordofmeaning>.

⁶ Hiraya on itch.io: <https://unhappycats.itch.io/hiraya>.

5 Discussion

The results of this study provide an overview of the mental health-focused games on itch.io. This offers insights into the specific issues they target and how they are designed. We discuss findings, implications, limitations, and future work.

5.1 Trends in Games for Mental Health on Itch.io

The results show depression and anxiety as the most targeted mental health issues on itch.io. This aligns with broader mental health research, which consistently identifies depression and anxiety as highly prevalent among young people today [14]. The attention these issues receive on itch.io suggests that many independent developers are similarly interested in the same topics and potentially even contributing to solving these global mental health challenges. While loneliness is less commonly targeted, it still appears as a notable theme.

Regarding the methods used, most games were categorized as learning games or stress relief games. Rehabilitation games were rare, and pain distraction games were not present in our dataset. This is not too surprising considering that pain distraction may more commonly focus on physical health rather than mental health. The largest portion of games were learning games, accounting for over half of all the games in the dataset. As previously defined, these games focus primarily on educating players about emotional intelligence, skill development, or coping strategies for conditions like anxiety or depression. Rather than aiming to directly change emotional states, learning games aim to inform and to build understanding. Considering that most developers are independent developers who may not have training in mental health practice, it is interesting to see that there are rehabilitation games on itch.io. In the few games that were categorized under this label, the developers made a clear attempt to have a positive direct impact on the players' mental health. While these games and their effectiveness are (to our knowledge) not evaluated, their intention to support mental well-being is evident. Stress relief games are also common in the dataset. These games usually focus on straightforward techniques, such as breathing exercises, rather than complex theories, making them more accessible for both developers and players.

Beyond the specific mental health categorization, we also coded the games based on game-related characteristics. First, all games were singleplayer experiences with an overwhelmingly short duration. This is not too surprising considering that these are indie games. Second, the majority of games were games from the interactive fiction, visual novel, and educational genres. These make intuitive sense for games focused on mental health that facilitate learning with empathy and immersion. However, this also points to a gap in the context of games for mental health. Not every player may enjoy such narrative-heavy games. There is potential for other types of genres for different players, like puzzles or action games, which are rare in our dataset.

5.2 A Dataset of Games for Mental Health on Itch.io

The created dataset (see osf.io) is valuable for people looking for mental health-focused games. Importantly, we do not recommend games to mental health professionals like therapists or individuals who are affected by mental health concerns themselves, because there is a lack of theoretical foundation and empirical validation of these games. However, the dataset can serve as a starting point for future efforts on research and validation of such games and thus be valuable for researchers, students, and practitioners who look for specific types of games. In the future, it would be valuable to have a comprehensive dataset with games for mental health, including itch.io but also other platforms, with detailed insights on their approaches and effectiveness. E.g., this would allow therapists interested in using games for mental health to quickly identify relevant games to use in their practice. It may also help individual users find games if they want to learn about specific mental health topics in a game-based approach. Future research that provides personalized recommendations could be a valuable direction.

5.3 Limitations

This research has limitations. First, while protocol and findings were discussed with multiple authors, the review and coding were conducted by a single coder. This means that there is some degree of subjectivity to the findings, and potential biases may have influenced how certain games were categorized. Second, constraints on paper length did not leave room to provide detailed explanations for individual classification decisions and why certain games were placed in one category rather than another. Third, some games used relevant theories in their games but we could not find any data on empirical evaluation of their effectiveness. While this is understandable considering that they may not even be developed for this purpose, this means that we cannot recommend these games as part of mental health support without further validation. Fourth, the quality of the games varied significantly. This research did not focus on assessing the quality or usability of the games, which are important factors when considering the potential impact they should have on users. Some games were aesthetically pleasing and thoughtfully designed, while others were clearly more experimental or earlier prototypes. Fifth, we focused only on a single platform and specifically on free browser-based games with a mental health tag. Due to this focus, we will have missed other relevant games on itch.io (e.g., without relevant tags) or other platforms. Future work with other search criteria or on other platforms would be valuable for comparison and extension of these results.

6 Conclusion

In this paper, we presented a systematic review of browser-based indie games on itch.io tagged with mental health. We categorized games based on their mental health focus and strategies and their game characteristics. Analyzing trends in

the data, we found that anxiety, depression, and loneliness are the most common targeted mental health issues in the games, reflecting global trends in mental health prevalence, while their strategies commonly focused on learning and stress relief approaches. Considering their game characteristics, the majority of games are short singleplayer games, often from interactive fiction and visual novel genres. These findings provide an important overview of the state of mental health games on itch.io while also highlighting relevant gaps. Further, the dataset created through this review is available so that it can benefit people interested in such games, e.g., serious games instructors, researchers, or students interested in games for mental health. We hope that our study can help improve mental health games and make them more available so that they can help people.

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