Effects of Trailer Framing, Familiarity and Narrative Mental Health Game on Stigma

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PSB3E-BT15: Bachelor Thesis
Group 20

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03 March 2026

Dedication

This thesis is dedicated to the memory of James.

A thesis is an aptitude test for students. The approval of the thesis is proof that the student has sufficient research and reporting skills to graduate, but does not guarantee the quality of the research and the results of the research as such, and the thesis is therefore not necessarily suitable to be used as an academic source to refer to. If you would like to know more about the research discussed in this thesis and any publications based on it, to which you could refer, please contact the supervisor mentioned.

Declaration of AI use

2. AI used for background/self-study only

"I acknowledge the use of ChatGPT to generate materials for background research and self-study in the drafting of this assessment."

Abstract

Mental illness remains highly stigmatised, and media portrayals may contribute to the persistence of negative stereotypes. While video games have the potential both to reinforce and reduce stigma, little is known about how promotional framing influences audience attitudes. The present study examined whether trailer messaging (mental health versus entertainment) affects stigma toward mental illness following gameplay, and whether familiarity with mental illness moderates this effect. In a between-subjects experimental design, 129 participants were randomly assigned to view one of two trailers for Fractured Minds, a short narrative-driven game depicting psychological struggles, followed by gameplay. Mental health stigma was measured before and after exposure. Results showed no significant differences in post-gameplay stigma between framing conditions. However, stigma significantly decreased from pre- to post-exposure, with a large effect size ($\eta^2p = 0.43$). Familiarity with mental illness was neither a significant predictor of post-gameplay stigma nor a moderator. These findings suggest that immersive gameplay may reduce stigmatising attitudes regardless of promotional framing or prior familiarity. Interactive digital experiences may therefore hold promise for fostering empathy and improving public attitudes toward mental illness.

Effects of Trailer Framing, Familiarity and Narrative Mental Health Game on Stigma

One of the most stigmatised conditions in society is mental illness (Stout, Villegas, & Jennings, 2004). Prevailing stereotypes suggest that people with mental illness are dangerous, violent and unpredictable (Crisp et al., 2000; Byrne, 2001; Vezzoli et al., 2001; Link et al., 1999). Furthermore, Pescosolido et al. (2019) observed an increase in the use of these stereotypes over time, despite earlier research indicating a weak relationship between violence and mental illness (Varshney et al., 2015).

The experience of stigma can be as harmful as mental illness itself (Corrigan & Penn, 2015). Various studies have shown that people with mental illness are less likely to be hired (Bjørnshagen, 2021), landlords are less likely to rent a flat to a person with mental disability (Flago & Gallo, 2023), and they risk being falsely accused of violent crimes (Van Es et al., 2021). Unfortunately, mental health stigma is a significant barrier to individuals seeking and receiving effective care (Corrigan, 2004; Corrigan et al., 2001). Despite extensive research on the impact of stigma and the recognised role of media in its perpetuation, the specific mechanism by which interactive media, such as video games, shape or reinforce these attitudes remains largely unexplored. Specifically, there is a gap in understanding how audiences form impressions before engaging with a game, for example, through exposure to promotional materials such as trailers.

Corrigan et al. (2001) modified a social psychological model, based on Weiner's attribution theory (1995), to describe components of stigma that affect people with mental illness. Specifically, the public with stigmatising attitudes about mental illness will react emotionally as a result of those attitudes. For example, "People with mental illness are unpredictable, and that makes me anxious". This emotional reaction will potentially lead to a behavioural response such as "Because I am anxious around them, I would prefer not to work with someone with mental illness".

This attitude-emotion-behaviour provides a lens for understanding how media may shape stigma. Media portrayals can not only activate pre-existing stereotypes, but may also

reinforce the development of attributional beliefs about mental illness. When mental illness is depicted in ways that emphasise danger or unpredictability, such representations may strengthen perceptions of dangerousness or blame. These attributions can elicit emotional reactions, such as fear or anxiety, which, in turn, increase behavioural intentions, such as social distancing or avoidance. In the context of video game trailers, promotional messaging may shape viewers' expectations and initial interpretations of the game's themes before playing. This framework suggests how pre-exposure messaging could influence the processing of subsequent gameplay content, thereby contributing to stigma outcomes.

Negative stereotypes are often reinforced by the media. For example, Wahl (1992) found that television shows, films and magazines frequently depict mental illness in a negative light. Among modern media forms, video games stand out. With over 3 billion players worldwide, gaming is among the most widely consumed media (Kasdorf & Voß, 2023; Morris & Forrest, 2013). Unlike passive media formats, video games require active participation and immersive engagement, which may intensify their psychological impact. On one hand, previous research suggests that depending on their design and content, games can reinforce harmful stereotypes about mental health. For example, Shapiro and Rotter (2016) found that 29 of 42 mentally ill characters were labelled as "homicidal maniacs". On the other hand, they can also foster empathy and understanding (Ferrari et al., 2019; Greitemeyer et al., 2010). Given their widespread reach and interactive nature, video games may play a particularly important role in shaping attitudes toward mental illness.

Research on media framing shows that how the media presents information to audiences influences their interpretations and emotional responses (Zaklama, 2025). According to framing theory, the media do not simply report information; they structure it in ways that promote particular interpretations by emphasising certain aspects while downplaying others (Entman, 1993; Valkenburg et al., 2016). When it comes to games with mental health themes, promotional messaging may shape viewers' expectations before gameplay begins. A trailer that frames the game as educational and explicitly focused on

mental health may encourage reflective processing and empathy, potentially reducing stigma attributions such as dangerousness or blame. On the other hand, a trailer with entertainment messaging may guide players towards excitement and gameplay mechanics, potentially reducing attention to the mental health narrative. Thus, examining these contrasting framing strategies is necessary to determine whether pre-exposure messaging amplifies or attenuates stigma outcomes.

Although previous studies have demonstrated that game-based interventions can reduce mental health stigma (Cangas et al., 2017; Tuijnman et al., 2022), most have concentrated on in-game content rather than on pre-exposure messaging. Little attention has been paid to how promotional materials, such as trailers, shape audience expectations before gameplay begins. Because trailers serve as the first point of contact with a game, they may influence how subsequent experiences are interpreted and integrated. Investigating whether such framing amplifies or attenuates stigma-related outcomes therefore addresses an important gap in the literature.

This gap is particularly relevant given the growing evidence that video games can influence attitudes toward mental health through mechanisms such as simulated contact and narrative empathy. They are the most common form of entertainment among young people (Entertainment Software Association, 2015). There are a few games that specifically focus on stigma. For example, Cangas et al. (2017) developed the Stigma-Stop, which showed promising results. Specifically, it proved to be an effective tool for raising awareness about mental health and educating youth about mental disorders, which could potentially fight stereotypes and misconceptions. Furthermore, video games can help treat mental disorders (Stellard et al., 2010). Often, they simulate indirect contact with individuals who have mental illnesses, which can produce outcomes similar to real-life interactions that can help reduce stigma (Corrigan, 2004). Additionally, narrative-driven, interactive gameplay could foster fantasy empathy. Davis (1980) explained that fantasy empathy enables people to

imaginatively experience the emotions of fictional characters. Thus, games can promote empathy and understanding towards people with mental illnesses when carefully designed.

Another variable in this study is familiarity, which is defined as an individual's knowledge and experience with mental illness (Corrigan et al., 2001). It can stem from personal experience, interactions with friends or family, or even media exposure. Much of the existing literature suggests an inverse relationship between familiarity and stigma, with individuals who report personal or indirect experience of mental illness generally demonstrating lower prejudice and reduced social distancing. However, studies also showed a different trend: greater familiarity was positively correlated with greater stigma (e.g., Batastini, Bolanos & Morgan, 2014). Also, some studies did not show any significant relationship between familiarity and stigma (e.g, Ayazi et al., 2014).

Building on this literature, familiarity may not only relate directly to stigma but could also shape how individuals interpret media messages. As an example, individuals with higher familiarity may hold more stable and elaborated beliefs about mental illness, making them less susceptible to external framing cues. In contrast, individuals with lower familiarity may rely more heavily on contextual cues when forming judgements, including the way a game is presented. Thus, familiarity may moderate the relationship between trailer framing and stigma, such that framing effects are stronger among those with lower familiarity. It is important to note that existing research on game-based stigma reduction has rarely examined such individual differences.

Taken together, the current literature suggests that both media framing and individual familiarity may shape stigma, yet little research has examined these factors simultaneously in the context of the promotion of commercial video games. To address this gap, the present study examined the effects of trailer framing in the commercial game Fractured Minds, a narrative-driven game designed to simulate the lived experience of mental health struggles through immersive gameplay and symbolic challenges. By placing players in the perspective of a character experiencing psychological distress, the game encourages reflection and

perspective-taking. Participants were first exposed to either a mental health messaging or an entertainment messaging prior to gameplay, and stigma was assessed before and after exposure. Finally, familiarity with mental illness was also measured to examine its potential moderating role after the gameplay. Through this, the study aims to clarify how message framing and personal experience jointly shape changes in mental health stigma.

Thus, this study proposes four hypotheses:

Hypothesis 1: Participants will show a greater reduction in mental health stigma from before exposure to the trailer to after the gameplay, regardless of the trailer condition.

Hypothesis 2: The participants exposed to the mental health messaging will report lower mental health stigma after gameplay compared to those exposed to entertainment messaging.

Hypothesis 3: Participants with personal or by-proxy experience with mental illness are expected to report lower stigma overall after the gameplay, regardless of the messaging condition.

Hypothesis 4: Familiarity with mental illness will moderate the effect of trailer framing on post-gameplay stigma, such that the impact of framing will be stronger among participants with lower familiarity compared to those with higher familiarity.

Methods

Participants

Psychology students of the University of Groningen (n = 144) took part in the study in exchange for course credit. Fifteen participants were excluded from the analyses for guessing the study's aim during the manipulation check, leaving 129 participants in the final sample (mental health condition n = 64; entertainment condition n = 65). The majority of participants identified themselves as female (72.1%), with 24.8% identifying as male and four participants as non-binary. Finally, about half of the participants played games 1 or fewer times a month (51.9%), while others played more regularly.

Procedure

Participants were recruited using the University of Groningen's online research participation system (SONA). Data collection took place from November to December 2025 at the university's research lab. Participants were seated at individual computer stations, ensuring privacy. Participants were then given both verbal and written information about the study and the opportunity to provide consent. Afterwards, they were asked to complete short questions about their gender, first language, how frequently they play video games and the pre-test mental health stigma questionnaire. Then, by randomisation, one of the two trailers of the same video "Fractured Minds" would appear on the screen. Depending on the condition, participants viewed a trailer that either highlighted the game's mental health themes or emphasised its entertainment appeal.

After they finished watching the trailers, participants were asked whether they had played the game before. Then the researchers explained the game instructions and set it up, ready to play. Participants were asked to play all six levels of the game, which would take on average 30 minutes to complete. If participants finished the game earlier or wanted to withdraw from the study, they were instructed to notify the researcher. Otherwise, if half an hour had passed, the researcher stepped in to notify the participant that their time was up and to begin the final questions. Additionally, participants received a paper with common issues and help with game controls, and researchers were available for any questions. After the gameplay, participants filled out the same pre-test questionnaire about mental health stigma, and they were asked to rate how familiar they are with mental illness.

At the end, all participants received a comprehensive debriefing that explained the study aims, the trailer manipulation, and the collection of mental health data. Next, they were asked to provide consent for the use of their data, again taking into account the deception used. Finally, every participant received course credits for their participation. The ethical committee of the Faculty of Behavioural and Social Sciences approved this research (PSY-2526-S-0074). Finally, this study was part of a larger experiment conducted by six researchers

with different questionnaires and research questions. For this paper, only relevant information to the research question and hypotheses was used.

Fractured Minds

The video game Fractured Minds (Mitchell, 2017) is a short immersive game about mental health experiences. It is a relatively simple game that could be played with or without prior gaming experience. In 2017, Fractured Minds won the British Academy of Film and Television Arts (BAFTA) award. BAFTA praised the game for its relatable content to the experiences of people struggling with mental health (Stuart, 2017). In the game, the player progresses through six chapters. Each chapter represents a different psychological challenge (e.g., isolation, paranoia, self-doubt). Gameplay involves exploring limited environments, solving simple puzzles and interacting with visual and auditory elements that metaphorically reflect the character's internal struggles. In this way, the participant had a chance to put themselves in the shoes of someone with a mental illness.

We created two trailers for Fractured Minds in order to manipulate participants' expectations before the game. Both trailers were around one minute long and used the same game footage. This was to ensure that any differences in participants' expectations could be due to the trailer messaging rather than to visual or narrative differences. In one condition, participants viewed a mental health trailer, which framed the game about mental health (e.g., "rated 9/10 by psychologists" and "a must try for self-reflection"). In the other condition, participants saw a trailer framing the game as a regular commercial game without any mention of mental health (e.g., "Nintendo Switch Game of the Year" and "Stunning visuals with captivating puzzles"). Table 1 provides the full overview of all messaging included in each condition.

Table 1

Differences Between Framing Conditions

Mental Health	Entertainment

Rated 9/10 by psychologists	9/10 on Steam
Incredible visuals with engaging puzzles	Stunning Visuals with captivating puzzles
A must-try for self-reflection	A must play game
Psychology Today Game of the Year	Nintendo Switch Game of the Year
Both educational and inspiring	Endless thrills at every level

Mental Health Stigma

The attribution questionnaire (AQ-9; Corrigan et al., 2003) measured the participants' stigma towards mental health at pre-test and post-test. Firstly, participants read a brief vignette describing an individual suffering from severe mental illness. This vignette was slightly modified in the post-test. Specifically, the vignette's name changed from Harry to Willem. Furthermore, their disorder changed from Harry having schizophrenia to Willem having bipolar disorder. Otherwise, the text describing them stayed the same. This was done to reduce familiarity and the chance of repetition, in case participants wanted their answers to remain consistent. After reading the vignette, participants read nine statements and indicated their agreement with each item using a 9-point Likert scale. The domains of stigma included one item each: blame, anger, pity, dangerousness, fear, avoidance, segregation, and coercion (Corrigan et al., 2001; Corrigan et al., 2004). Both versions of the questionnaire were translated into Dutch by two fellow researchers, and any inconsistencies were discussed between them.

Responses to the nine items were summed to create a total stigma score, with a possible range of 9 to 81. Higher scores indicate stronger endorsement of stigmatising attitudes toward individuals with mental illness. Internal consistency in the present sample was modest at the pre-test ($\alpha = 0.61$) and post-test ($\alpha = 0.65$), suggesting moderate reliability of the scale. Finally, the AQ-9 has been used in prior research and has demonstrated acceptable reliability and construct validity (e.g., Corrigan et al., 2003).

Familiarity with mental illness

The level of familiarity (LOF; Holmes et al., 1999) measured the degree of personal contact participants have had with mental illness. Following the gameplay, they completed 11 items describing various levels of exposure, ranging from no prior contact to having mental illness themselves. An example item was “I have a relative who has a mental illness”. Participants responded “yes” or “no” to each statement. In line with the original scoring procedure, the highest level endorsed was used as the participant’s familiarity score, with higher values indicating closer or more direct contact with mental illness. The translation procedure was the same as with AQ-9. Finally, the LOF has been widely used in stigma research (e.g., Martinaki et al., 2024).

Statistical analyses

All statistical analyses were conducted using IBM SPSS Statistics version 31 (IBM Corp., 2025). The internal consistency of AQ-9 was assessed with Cronbach’s alpha. Before testing hypotheses, assumptions for linear regression and mixed Analysis of Variance (ANOVA) were evaluated.

A mixed ANOVA was used to test hypotheses 1 and 2. Time (pre-test versus post-test AQ-9 scores) was the within-subjects factor, while trailer condition (mental health messaging versus entertainment messaging) was the between-subjects factor. This analysis examined the main effect of time, testing whether stigma changed from before exposure to after gameplay (Hypothesis 1), and the main effect of condition, indicating whether post-test stigma differed between the mental health and entertainment trailer groups (Hypothesis 2). Additionally, the time × condition interaction was examined to determine whether changes in stigma over time differed depending on trailer framing.

Furthermore, to examine whether participants with a higher level of contact with mental illness had lower mental health stigma, regardless of the trailer watched, compared to those with lower familiarity, a multiple linear regression was conducted. Post-test AQ-9 scores served as the dependent variable, familiarity was the predictor, and pre-test AQ-9 scores were included as a covariate to control for baseline stigma. Finally, to test Hypothesis

4, which proposed that familiarity with mental illness moderates the relationship between trailer condition and post-gameplay stigma, a hierarchical multiple regression analysis was conducted. Baseline stigma was entered into the regression in the first step as a covariate to control for initial differences in stigma levels. In the second step, trailer condition and familiarity were entered as predictors. In the third step, an interaction term between trailer condition and familiarity was added to examine whether the effect of trailer framing on post-gameplay stigma varied depending on participants' level of familiarity with mental illness. Additionally, continuous predictors were centred prior to computing the interaction term to reduce multicollinearity.

For all analyses, the significance level was set at a = 0.05 (two-tailed). Effect sizes and 95% confidence intervals were reported for all analyses. For ANOVA, partial eta squared (ηp^2) was reported as a measure of effect size. For regression analyses, standardised β coefficients and R^2 values were reported, and changes in explained variance (ΔR^2) were examined in the hierarchical model. Effect sizes were interpreted according to Cohen's (1988) guidelines: ηp^2 = 0.01 small, 0.06 medium, and 0.14 large.

Results

Descriptive statistics

The baseline stigma score was somewhat at the lower end of the scale (M = 37.44, SD = 7.42). After exposure to both the trailer and the game, the stigma score appeared to be even lower than before exposure (M = 32.66, SD = 7.43). Additionally, participants showed a moderate level of contact with mental illness (M = 7.68, SD = 2.63). Finally, Pearson correlations were computed to examine associations among baseline stigma, post-test stigma, and familiarity. Baseline and post-test stigma were strongly positively correlated, $r(127) = 0.72$, $p < 0.001$, indicating that participants with higher initial stigma also tended to report higher stigma after gameplay. Familiarity with mental illness was not significantly correlated with baseline stigma, $r(127) = 0.05$, $p = 0.573$, nor with post-test stigma, $r(127) = -0.03$, $p = 0.746$.

Assumption Check

For the mixed ANOVA, normality of the difference scores was assessed using the Shapiro-Wilk test and visual inspection of the histogram. Although the Shapiro-Wilk test was significant ($p = 0.046$), the histogram showed that the distribution was approximately normal. Additionally, given that the sample was large ($n = 129$), normality was considered met. Furthermore, homogeneity of variance was assessed using Levene's test, which indicated that the assumption was met for both pre-test AQ-9 ($p = 0.46$) and post-test AQ-9 ($p = 0.49$) scores. Sphericity was not applicable because of only two levels in the within-subjects factors, and independence of observations was also met. Next, for multiple linear regression, the assumptions of linearity and homoscedasticity were assessed by inspecting scatterplots of standardised residuals against standardised predicted values. For both, there seemed to be no violations. Normality of residuals was evaluated using histograms, and also indicated no violation. Finally, there was no evidence of either multicollinearity or outliers (Table 2).

Table 2

Multicollinearity coefficients

		Collinearity Statistics	
Model		Tolerance	VIF
1	Pre-test AQ-9	.967	1.034
	Familiarity	.530	1.885
	Interaction	.530	1.887
	Framing	.986	1.014

Note: The dependent variable is: Post-test AQ9. Interaction term is the interaction between familiarity and framing.

Hypotheses testing

Hypothesis 1 predicted that participants would show a reduction in mental health stigma from pre-test to post-test, regardless of trailer condition. A mixed ANOVA supported this, revealing a significant main effect of time, $F(1,128) = 96.08$, $p < 0.001$, $\eta^2p = 0.43$. This indicates that stigma scores significantly decreased from pre-test ($M = 37.44$, $SD = 7.42$) to post-test ($M = 32.66$, $SD = 7.43$). Furthermore, the effect size was large, suggesting that

gameplay was associated with a substantial reduction in stigmatising attitudes, independent of the trailer framing condition.

Hypothesis 2 predicted that participants exposed to the mental health trailer would report lower levels of stigma after gameplay than those exposed to the entertainment trailer. This was not supported by a mixed ANOVA, which revealed no significant main effect of trailer condition on stigma scores, $F(1,127) = 0.93$, $p = 0.336$, $\eta^2p = 0.007$. Participants in the mental health condition ($M = 32.98$, $SD = 6.40$) reported similar levels of post-test stigma as those in the entertainment condition ($M = 32.34$, $SD = 8.36$), the mean difference between groups was 0.64, 95% CI [-1.29, 2.57]. The effect size was negligible, showing that trailer framing explained less than 1% of the variance in post-test stigma.

Furthermore, hypothesis 3 proposed that participants with higher familiarity with mental illness would report lower stigma after gameplay, regardless of trailer condition. A multiple linear regression showed that the overall model was significant, $F(2,126) = 69.58$, $p < 0.001$, $R^2 = 0.525$, which means that it explains 52.5% of the variance in post-test stigma. Baseline stigma was a strong predictor of post-test stigma, $\beta = 0.73$, $p < 0.001$. However, contrary to the hypothesis, familiarity was not a significant predictor when controlling for baseline stigma, $\beta = -0.07$, 95% CI [-0.53, 0.16], $p = 0.292$.

Finally, hypothesis 4 proposed that familiarity with mental illness would moderate the relationship between trailer condition and post-test stigma, such that the effect of framing would be stronger among participants with lower familiarity. A hierarchical multiple regression analysis did not support this. The interaction effect was not significant, $B = 0.08$, $\beta = 0.02$, $p = 0.812$, 95% CI [-0.62, 0.78], and did not explain additional variance in post-test stigma ($\Delta R^2 < 0.001$). Thus, there is no evidence for this hypothesis.

Discussion

The current study examined whether trailer framing (mental health messaging versus entertainment messaging) influenced mental health stigma following exposure to the game Fractured Minds, and whether familiarity with mental illness moderated this relationship.

Consistent with hypothesis 1, stigma significantly decreased from pre-test to post-test. This is in line with the previous research showing that, if carefully designed, narrative-driven and immersive video games may foster empathy and reduce stigma (e.g, Ferchaud et al., 2020; Mullor et al., 2019). However, contrary to Hypothesis 2, the difference in the trailer framing did not influence the stigma outcome. Furthermore, the familiarity with mental illness did not independently predict post-test stigma (hypothesis 3, nor did it moderate the relationship between trailer framing and stigma reduction (hypothesis 4).

Hypothesis 2 was grounded in framing theory, which proposes that the media shapes interpretation by emphasising specific aspects of the content while downplaying others (Entman, 1993). Although no significant differences were found between the trailer framing conditions, a meaningful reduction in stigma was observed from pre-test to post-test. This pattern suggests that factors beyond initial framing may have influenced attitude change. One possible explanation is narrative transportation. Green and Brock (2000) defined transportation as a psychological state in which individuals become immersed in a story, temporarily disengaging from the real world and using cognitive abilities to engage with the narrative. Furthermore, Chung and Slater (2013) argue that using transportation's ability to absorb audience can encourage them to rethink their current beliefs, and it may also motivate them to positively reformulate their understanding of the stigmatised ones. Given that Fractured Minds is a narrative-driven game to simulate the struggles of people with mental disorders, it is possible that participants' immersion in the gameplay overrode the brief exposure to differently framed trailers.

Familiarity was neither a significant predictor (Hypothesis 3) of post-test stigma nor a moderator of the relationship between framing and stigma (Hypothesis 4). Although these findings contradict the study's hypotheses, similar null findings have been reported in previous research (e.g, Theriot, 2013). One possible explanation is that younger generations are increasingly more exposed to mental health topics. For example, the widespread use of social media platforms has increased the visibility of mental health experiences (Bucci et al.,

2019; Plackett et al., 2025), and online environments may facilitate more open discussion and self-disclosure (Zhang et al., 2025). In the current sample, nearly all participants reported some form of prior exposure to mental illness, suggesting limited variability in familiarity. These findings may reflect a ceiling effect in a digitally connected student population where exposure to mental health discussions is already widespread.

Practical implications

The results of this study show promise for the use of video games in anti-stigma campaigns. In line with research suggesting that narrative transportation and identification can influence through emotional engagement and perspective-taking (e.g., Green & Brock, 2000; Slater & Rouner, 2002), participants in Fractured Minds interacted with a character who suffered from mental illness. Ferchaud et al. (2020) found similar results: a reduction in stigma following exposure to the game Hellblade: Senua's Sacrifice, in which participants controlled Senua's character, who suffers from psychosis, and this effect was partly explained by narrative transportation. Although transportation was not directly measured in the present study, it is plausible that immersion in Fractured Minds may have contributed to the observed reduction in stigma. These findings suggest that immersive gameplay experiences could complement traditional anti-stigma initiatives. However, it remains unclear whether such effects would generalise to more diverse populations or to games with different narrative structures and genres.

The absence of significant framing effects suggests that brief promotional cues may exert less influence on attitudes than experiential engagement. Research comparing active and passive media formats indicates that interactivity can enhance psychological engagement and influence social outcomes (Bachen, Hernández-Ramos, & Raphael, 2012). From a public health communication perspective, this may imply that embedding mental health narratives within interactive entertainment media could encourage deeper processing than traditional informational campaigns alone. However, broader application requires replication to determine the scalability and durability of such effects.

Strengths, limitations and future directions

The present study has several strengths. First, the sample size was sufficient to ensure adequate statistical power, reducing the likelihood of Type II errors and strengthening confidence in both the significant and non-significant findings. Furthermore, the study followed strict ethical procedures (e.g., informed consent and debriefing), ensuring the responsible handling of sensitive mental health topics.

Nevertheless, several limitations should be considered. The study sample was entirely drawn from psychology students at the University of Groningen. As highly educated psychology students with prior academic exposure to mental health topics, they may hold relatively low levels of stigma and higher familiarity compared to the general population. This may have resulted in reduced variability in both stigma and familiarity scores, reducing the probability of a significant association between familiarity and stigma. In other words, if participants already endorsed accepting attitudes, familiarity may have had limited additional predictive value. Future research should aim for more diverse samples. Including different age groups and educational levels would determine whether the observed results are specific to the student population or represent broader beliefs about mental health.

Another limitation is the use of a single commercial game, Fractured Minds. Although the game was selected due to its explicit focus on mental health, the findings may be specific to its narrative style and emotional tone. In this single-player game, participants experience the internal struggles of someone with mental illness, which may elicit empathy differently than other genres (e.g., action, multiplayer, or shooting games). Future research should replicate the design using different types of games to determine whether the effects are robust across different genres or whether they are dependent on the specific context of Fractured Minds.

Finally, the present study examined only the short-term effects of brief exposure to gameplay and framing. Even though stigma significantly reduced following gameplay, it remains unclear whether this change reflects a temporary shift in mood or perspective or a

more durable attitudinal change. Future research should incorporate longitudinal follow-ups to determine whether reductions in stigma persist over time. If the current study's results are maintained, this could suggest that immersive gameplay can produce meaningful and lasting changes in social attitudes. Furthermore, it would indicate deeper cognitive or emotional restructuring (e.g., increased empathy), rather than short-term demand effects.

Conclusion

This study examined the role of media framing, gameplay and familiarity with mental illness in shaping stigma following exposure to the commercial game Fractured Minds. The findings show that while trailer with mental health messaging did not significantly influence stigma, playing the game itself was associated with a meaningful reduction in stigmatising attitudes. These results suggest that the immersive and experiential qualities of this narrative-driven game may play a more important role in attitude change than initial framing cues or individual differences in prior familiarity. Although the findings are specific to the context of Fractured Minds and the present sample, they contribute to a growing body of research emphasising the potential of games as tools for engaging with and challenging mental health stigma.

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Appendix A: AI use summary

- AI system(s) used: ChatGPT.
- Final prompts used: What does this SPSS output show?
- Use case: I used ChatGPT to help me understand statistics and perform analyses in SPSS.
- Modifications: I only used AI for software help with statistics. Everything was written by me.