Darkness and Haven

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Table of Contents

Abstract

Despite being a common illness, the stigma against depression is still widespread and a common barrier for people to receive appropriate medical help. This is not helped by the representation of depression in popular media (as with other mental illnesses in general) being either non-existent, unrealistic, or even harmful. This project aims at using a video game to portray multiple narratives of depression based on real-life experiences in an effort reduce the stigma. The stories being told also center people from marginalized backgrounds, demonstrating the capacity that video games have to not only to tell engaging stories but also to facilitate empathy and understanding.

Darkness and Haven can be downloaded using this link: https://namtran-105.itch.io/darkness-haven

Once the file "Darkness and Haven.zip" has finished downloading, you can follow the below instructions to unzip the file and start playing:

- On Windows 10:
    1. Right-click the compressed (zipped) folder.
    2. Select Extract All from the context menu.
    3. By default, the compressed files will extract in the same location as the zipped folder, but you can click the Browse button to select an alternative location.
    4. Check the Show extracted files when complete option.
    5. Click Extract.
    6. After that's done, you can begin playing by double-clicking on the executable file named [Game.exe] (or [Game]) found in the game data folder.
- On Mac OS:
    1. Find the .zip file and double-click on it.
    2. After several seconds, the file or the folder will decompress in the same folder.
    3. After that's done, you can begin playing by double-clicking on the executable file named [Game.app] (or [Game]) found in the game data folder.

Below are the controls:

- Use arrow keys to move.
- Press "Z" or "Enter" to select, talk to people, or interact with objects.
- Press "Esc" to open up the main menu.

Further below is a brief explanation on the in-game menu:

- Title Menu: The title screen will appear when you run your game. Select from the below options to run.
- New Game: Start a new game from the beginning.
- Continue: Start from a previous save. Select Save Data.
- Options: Adjust all settings related to the overall game such as BGM volume.

Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Signed,

Nam Duc Tran

11 February 2021

Acknowledgements

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1. Introduction

"Darkness and Haven" is a role-playing game created with the RPG Maker engine, featuring three fictional stories that are heavily inspired by real life experiences of people suffering from depression. The project was inspired by Actual Sunlight (WZOGI, 2014), a slice of life game also made with RPG Maker, with its story focusing on the life of a cisgender heterosexual white man in his 30s, who is struggling with feelings of unfulfillment and the depression that comes with it. "Darkness and Haven" follows the same central conceit, but with three narratives instead of one, and with more emphasis on people of diverse backgrounds. Overall, the project's main goal is to explore the creative process behind creating a game aimed at reducing stigma around an important issue – specifically depression – with a strong focus on community feedback and see what can be learned from it. Furthermore, because of the intricate relationship between public stigma and self-stigma (detailed in section 2.2.1), the project does not aim to target specifically either those who suffer from depression and its stigma or those who do not and/or perpetuate such stigma. To reiterate, "Darkness and Haven" was conceptualized as a spiritual successor to Actual Sunlight (WZOGI, 2014), a game that I have found helpful in dealing with the sense of insecurity and shame around my depression but felt that could be improved by appealing more to those from marginalized backgrounds. The actual effects the game may have on others will not be covered by this paper but could potentially serve as a future topic for research.

Before the game was made, an anonymous survey was sent out, asking people to share their personal stories and struggles with depression as well as how they would want those stories to be portrayed in a video game. This exegesis was made to illustrate the reasoning for the creation of this game as well as exploring the creative process behind making it. Academic theories involving stigma and methods of reducing it are discussed in great detail. The importance of representation and diversity and how to represent diverse groups in media are in focus as well

2. Literature Review

2.1. Depression and its stigma

Depression — also called "clinical depression" or a "depressive disorder" — is a mood disorder that causes distressing symptoms that affect how you feel, think, and handle daily activities,

such as sleeping, eating, or working (National Institute of Mental Health, 2016). It has long been a pervasive mental disorder worldwide, with a 2017 report showing over 300 million people are estimated to suffer from depression, equivalent to 4.4% of the world's population. (World Health Organization. 2017). The presence of COVID-19 pandemic has certainly worsened the problem, with a recent study from the Boston University School of Public Health finds 27.8% of U.S. adults had depression symptoms as of mid-April, compared to 8.5% before the COVID-19 pandemic, meaning that the rate has in fact *tripled*. (Ettman et al., 2020). In a paper titled "Depression – A Global Public Health Concern" released in 2012, the World Health Organization has called depression "the leading cause of disability worldwide in terms of total years lost due to disability" and urged people on an individual, community, and national level to educate ourselves about depression and support those who are suffering from this condition.

Despite the seriousness of the condition, stigma against depression is still alive and well. In 2015, *beyondblue* – a mental health organisation in Australia – published an informational paper looking at statistics involving stigma against mental disorders – depression being one of the main ones – as well as the discrimination that comes with it. A study in the paper by Reavley and Jorm (2012) monitored the levels of stigma over eight years (2003/04 – 2011), with a community-based sample of over 6,000 Australians aged 15 years and over. The data revealed that while most participants said they were unlikely to avoid someone with mental problems, around 1 in 5 still believed that people can "snap out of the problems" (p.1037) which include depression, psychosis/schizophrenia, social phobia, and post-traumatic stress disorder (PTSD). It is much worse when it comes to the question of what the students thought others believed in, with many assume the worst when it comes to public perception of mental illnesses. More than half believed that most people think that mental disorders are "a sign of personal weakness", and that depression and social phobia are "not real medical illnesses". And these types of beliefs result in real, devastating consequences in the form of discrimination. According to an international cross-sectional survey by Lasalvia et al. (2013) with more than 1,000 adults attending specialist mental health services across 35 countries, discrimination found is extremely common – 79% of people attending specialist mental health services reported experiencing discrimination, with the most common sources being family members and employers. Furthermore, between 20% and 37% of survey respondents also suffer from "anticipated discrimination", as in when they reported stopping themselves from doing something important (for example, applying for a job, participating in social activities), because they are afraid of potential prejudice. *beyondblue* (2015) also notes that this research only

included people who had been diagnosed with depression and attended specialist mental health services, therefore the findings may not be applicable to the broader community of people with depression and/or anxiety, as those who do not seek specialist healthcare have much worse outcomes than those who do. All of this serves to illustrate the seriousness of the stigma against depression – as well as mental illnesses in general. And a key goal of this research is hopefully finding a way to lessen said stigma.

2.2. An overview of stigma

2.2.1. The anatomy of stigma

At its core, stigma is a mark of shame, disgrace or disapproval which results in an individual being rejected, discriminated against, and excluded from participating in a number of different areas of society. (World Health Organization, 2001). Corrigan et al. (2005) divided stigma into two categories. The first is public stigma, meaning the phenomenon of large social groups endorsing stereotypes about and acting against a stigmatized group. The second is self-stigma, meaning the loss of self-esteem and self-efficacy that occurs when people internalize the public stigma. There are also three components making up stigma: stereotype, prejudice, and discrimination, outlined below (Corrigan & Watson, 2006):

- Public Stigma:
    - Stereotype: Negative belief about a group (e.g., lazy, weak, malicious).
    - Prejudice: Agreement with belief and/or negative emotional reaction (e.g., disgust, fear, anger)
    - Discrimination: Behaviour response to prejudice. (e.g., shunning, refuse employment, mass incarceration).
- Self-stigma:
    - Stereotype: Negative belief about self. (e.g., lazy, weak, self-destructive).
    - Prejudice: Agreement with belief and/or negative emotional reaction. (e.g., low self-esteem, self-disgust).
    - Discrimination: Behaviour response to prejudice. (e.g., social avoidance, failure to pursue opportunities).

When discussing stigma, another important societal factor to keep in mind is the relationship between minority groups and dominant (usually majority) groups. A minority group can be defined as any group with a subordinate position in society and with less than its share of power

and/or social status. Frequently, minority groups are the targets of prejudicial beliefs and discriminatory behaviours. Opposite of that, a majority/dominant group is a group that enjoys greater privilege and more than its proportional share of power and/or social status, and it is this group that is in the position to exercise power over other groups in society. Later parts will focus more on the representation of minority groups, as well as the fluctuation of individuals between the two groups, especially concerning the concept of "privilege".

2.2.2. The internal workings of stigma

It is worth remarking that while the above model is logically sound, research on these three elements have demonstrated that the links between them are much more complex. To quote *Social psychology of prejudice* (Jones, 2002):

> "Attitudes researchers have long known the difficulties of predicting behaviour form attitudes. Quite frankly, researchers have not always found consistent relations between beliefs, attitudes, and behaviour, prompting them to try to understand why and how such inconsistencies arise." (p.10)

In her book, Jones (2002) cited multiple real-life experiments, measuring how the three components – stereotype, prejudice, and discrimination – manifest themselves in real life. According to her, stereotypes and prejudice appear to be positively associated – meaning the more positively stereotypes are viewed, the more favourable attitudes towards groups are and vice versa. A study by Esses et al. (1993, cited by Jones, 2002) supports this theory, wherein a group of students at the University of Waterloo were asked to rate their attitudes toward their group (English Canadian) and four others (French Canadians, Aboriginals/Native Indians, Pakistanis, and Homosexuals). Afterwards, they were asked to list the characteristics they though most associated with members of that group and rate them. Unsurprisingly, the group rated the lowest (Homosexuals) scored the highest on the negative traits, with the reverse being true for the group with the highest score (English Canadian, meaning themselves). Schneider (2004) put this succinctly:

> "We know that stereotypes and prejudice are related. It is easy to assume that the former cause the latter, but the casual direction may be reversed. It is only possible but likely that we employ stereotypes to justify prejudices, as well as the reverse. This makes the prejudice story complex." (p.268)

Meanwhile, the relationship between stereotype and discrimination is somewhat unclear due to a lack of research (Jones, 2002, pp.11). Stereotypes may be a consequence, rather than a cause of discrimination due to "system justification", meaning stereotypes are created to justify social positions of marginalized group. (Jost & Banaji, 1994, cited by Jones, 2002) – e.g. black people being stereotyped as "lazy" to justify their social status. Likewise, prejudice does not always result in discriminatory behaviour. For instance, LaPiere (1934, cited by Jones, 2002), a white man – decided to investigate the anti-Asian sentiment in the early 1930s by travelling with a Chinese couple 10,000 miles around the USA, visiting 66 hotels and 184 restaurants. They were only refused service once. He later sent a letter to each establishment 6 months later, asking if they would serve Chinese patrons. Only half of them answered, and 92% of those who did stated that they would not accept Chinese as guests. This discrepancy was further studied by DeFleur & Westie (1958, cited by Jones, 2002) through asking "prejudiced and non-prejudiced" white students to have their photograph taken with a black person of an opposite sex and have those photos be used for a campaign advocating racial integration. A substantial number of "non-prejudiced" students, however, refused to sign the release form, whereas a similar number of 'prejudiced" students agreed. Clearly, it is not simple economic reasons that motivate people into discriminatory (or non-discriminatory) behaviour. And similar to stereotypes, discriminatory behaviours may actually cause prejudiced attitudes. Stacey Gaines and Edward Reed (1995, cited by Jones, 2002) speculated that the exploitation of people, especially black people, is the cause for prejudiced thinking and not simply generalizations compounded by negative feelings. The reverse may also hold true, as John Farley (1995, cited by Jones, 2002) pointed out, after World War II, federal legislation prohibiting the over discrimination has led to changing attitudes consistent with behaviour, meaning that reduce in discrimination can cause a reduction in prejudice.

In conclusion, while stereotype can be seen as a cause for – and is caused by – prejudice, the connection between each of these elements to discrimination seems a little hazier. One can deduce that stereotype and prejudice can lead to discrimination and vice versa, but that link may not always manifest itself in real life, or manifest in a more sophisticated way than a simple model can accounted for. For this current project, I will be focusing on the reduction of prejudice (and to some extent stereotype), the reasons for which are closely related to the 'parasocial contact hypothesis', explained in section 2.3.2.

2.3. Methods of combating stigma

While there are many ways to fight against stigma, I would like to draw attention to two in particular:

2.3.1. The ‘mental health literacy’ approach

One method that has been tried is to spread awareness on the science behind mental disorders, meaning raising ‘mental health literacy’ for people. A study was done by Schomerus et al. in 2012 on 16 studies, aggregating data worldwide (from United States, United Kingdom, Austria, the Netherlands, Poland, Germany, New Zealand, and Australia) to explore whether the increase in knowledge about the biological correlates of mental disorders has translated into improved public understanding of mental illness, increased readiness to seek mental health care and more tolerant attitudes towards mentally ill persons. Here, “biological correlates” denotes a shift in understanding, from mental illnesses being seen purely as “mental problems” under voluntary control to being “brain diseases” that can be treated with medical assistance. This all began as part of a widely recognized effort by the US Congress and President George H.W. Bush to enhance public awareness of the benefits gained from brain research, shifting towards neuroscience as a way to deal with mental health issues. In the end, the result was not great. There was indeed a coherent trend to greater mental health literacy, in particular towards a biological model of mental illness, and greater acceptance of professional help for mental health problems. In contrast, however, no change or even change for the worse was observed regarding attitudes towards people with mental illness.

The study above is not a lone example. Before it, a study was done by Mehta et al. in 2009 to assess the ongoing severity of stigma and evaluation of anti-stigma campaigns in Scotland and England between 1993 and 2003. The result was mixed. There were early positive effects from anti-stigma campaigns, notably the ‘Changing Minds’ campaign in England (from 1998 to 2003) and the ‘see me’ campaign in Scotland (2002 to 2009). In the same period however, due to an intensification of media linking mental illness and violence, as well as a controversial Mental Health Bill by the Department of Health in England, the public support gradually eroded. In the end, while there was more awareness of how common mental illnesses is, many people still expressed disapproval of those suffering from it. While public knowledge increased, prejudice and discrimination remained the same, if not higher.

The two examples above indicate while the science behind mental disorders is indeed important, it is not enough when it comes to swaying the public opinion. Corrigan et al. (2005)

stated that the main use of mass media is to dispel myths about mental illness and replace them with facts. Yet the second study showed that even with a government campaign focusing on doing just that, a corporate campaign playing on people's fear can outdo that and increase stigma. And while there have been successful stories, such as a campaign in Australia to increase knowledge about depression and its treatment (Jorm et al., 2005), it required an intensive, coordinated programme that only some territories got while others did not. And this brings me to my next point, which is instead of focusing on improving 'mental health literacy with medical facts about depression and mental health, my project aims at reducing stigma through the use of the parasocial contact hypothesis.

2.3.2. The 'parasocial contact hypothesis' approach

In his 1954 book *The Nature of Prejudice*, Gordon Allport developed a principle known as the contact, which states that contact between members of different groups with the right conditions – cooperation, equal status, acquaintance potential and institutional support – will improve relations between them. But with the rise of mass media, especially now in the 21st century, perhaps such contact can even be one-sided. "Parasocial interaction" (PSI) was a phrase coined by Horton and Wohl (1956) to suggest that communication media can provide viewers with "an apparently intimate, face-to-face association with a performer". This sort of relationship can be just as strong as an interpersonal relationship, argued Schiappa et al. (2005). To quote their study:

> "When we experience a televised character, we form impressions, make judgments about their personality, and develop beliefs about them. As Rubin and Rubin (2001) note, PSI is "grounded in interpersonal notions of attraction, perceived similarity or homophily, and empathy" (p. 326). (…) Just as people form positive or negative attitudes toward other people in "real life," television viewers develop positive or negative attitudes about the characters they watch on television (Conway & Rubin, 1991). And, just as interpersonal interaction can lead to various sorts of interpersonal responses and relationships, parasocial interaction can lead to various sorts of parasocial responses and (one-sided) relationships." (p.96)

In their study, Schiappa et al. (2005) researched the Parasocial Contact Hypothesis (PCH) in three studies, two involving parasocial contact with gay men (Six Feet Under and Queer Eye for the Straight Guy) and one involving parasocial contact with comedian and male transvestite

Eddie Izzard[1]. In all three studies, parasocial contact was associated with lower levels of prejudice. Similar studies have been done involving PCH and shown similar results: one study showed that by having participants (who are mostly students of young age) read Harry Potter, they have lowered stigma against immigrants and refugees (Vezzali et al., 2014); another showed that people who watched Will & Grace was having reduced stigma towards gay men (Schiappa, Gregg & Hewes, 2006); and finally, an experiment was run in India where showing students a video of a transgender speaker was able to lower the students' stigma towards transgender people (Rani & Samuel, 2019).

Of course, this approach is not without flaw. Because of how individualized it is, one common concern raised among these studies is how truly effective this method is when in real life, people can freely choose which types of media to consume, which includes isolating themselves from media which can challenge their beliefs. In the Harry Potter studies, Vezzali et al. (2014) found that the destigmatization depends how much readers identify with the main character Harry, though the result was still promising with a high percentage of students viewing immigrants and refugees more positively. In the other study involving Will & Grace, Schiappa, Gregg & Hewes (2006) has noted that viewers with strongly held negative attitudes about homosexuals are unlikely to watch Will & Grace, just as they are unlikely to seek out interpersonal contact with homosexuals. Thus, Schiappa, Gregg & Hewes (2006) saw PCH as more of a reciprocal relationship between parasocial contact and reduced prejudice than a "one-way" model that attempts to explain all of the variance implied with either viewing or pre-existing attitudes by themselves. But even then, as Schiappa, Gregg & Hewes (2006) have noted in a previous section that 60% of viewers agreed with the statement that Will & Grace "has encouraged me to think positively about homosexuals" (p.25), which correlates with their growing parasocial relationship and viewing frequency of Will & Grace. Overall, while the results may vary based on individual's own ingrained beliefs, this approach is still very much useful, especially considering how mass media has involved.

Circling back to mental health, recent studies have also shown the positive impact PCH had on easing mental illness stigma. Peculiarly, all the studies I could find focused on celebrities and their coming struggles with mental disorders instead of fictional characters, presumably because mainstream fiction had not had a good track record of depicting mental problems (Pirkis, 2006). One study was done on the impact Demi Lovato had by coming out as suffering

[1] At the time of writing (February 2021), Eddie Izzard identifies as gender-fluid and uses she/her pronouns.

from bipolar disorder, with the result showing that social distance and negative stereotypes toward people with bipolar disorder reduced significantly following exposure to Demi Lovato's disclosure about the disease via either TV or magazine interview (Wong, Lookadoo & Nisbett, 2017). Another study was conducted on the true crime/comedy podcast My Favorite Murder and their community their fans built (Pavelko & Myrick, 2019). In the podcast, co-hosts Karen Kilgariff and Georgia Hardstark openly discuss their own battles with addiction, anxiety, depression, and disordered eating, sharing their respective experiences with different types of therapy and medication while encouraging listeners to also seek treatment (Marks, 2017, as cited by Pavelko & Myrick, 2019). And while the community was first built around the parasocial relationship between the fans and the creators, the former was able to connect with each other through a Facebook group, that became a positive space for supporting others with mental illness. It is a fascinating study that shows the power of new media, not only capable of reducing stigma for individuals but also driving them together and create a wonderful community.

In essence, throughout all of the above studies, PCH has been shown to have had positive effects in reducing stigma (and prejudice in particular). It is important to note that this project does not focus on discerning the effectiveness of PCH via measuring the audience's reaction, but rather, aiming only to create a work with PCH as one of its fundamental design principles. In order to apply this theory to depression, the representation of people with mental health problems in mainstream media will be explored in the next section.

2.4. Representation

Simply put, in mainstream media, fiction or nonfiction, representation of minority groups often leaves much to be desired, and the same holds true for depictions of mental health. As Jo Cassey wrote in *Understanding Representation* (2005):

> "It is extremely rare that an audience can applaud the realistic portrayal of mental illness within a television or film text, so it is a little wonder that there is a lot of stigma attached to this area. When a character is suffering from a mental disorder such as depression, schizophrenia, or suicidal tendencies, then ten to fall into one of two opposite extremes: the violent sociopath or the quaint and down-at-heel." (p.99)

Cassey also noted that the violent angle is often far more represented in movies because it makes for an easy plot device as the audience does not need to dwell upon too deeply about the

character's motivation (Helsby et al., 2005). This, in turn, means that disorders such as depression and anxiety (which are not often seen as capable of inducing violence) simply do not exist in popular media. This is, first and foremost, harmful to people suffering from stereotypically "violent" disorders such as schizophrenia and contradicts the reality that people with schizophrenia are at increased risk of becoming victims of violence in the community setting, with a study in America showing up to 14 times the rate of being victimized compared with being arrested as a perpetrator (Brekke, Prindle, Bae & Long, 2001). Not only that, but people can also get the impression that depression and anxiety are not "real" or "serious" because they do not lead to violence. This effect can be seen in a previously mentioned study by Reavley and Jorm (2012), wherein around 22% of participants believe that people can simply "snap out" of depression and social phobia. Another popular pervasive myth about depression is that it is simply caused by "chemical imbalance". This misconception has been called into questions several times (Castrén, 2005; Florida State University, 2008; Goldcare, 2008) and is said to be caused by drugs advertisement, said Cheryl K. Olson, co-director of the Center for Mental Health and Media at Massachusetts General Hospital Department of Psychiatry ("Media's Damaging Depictions of Mental Illness", n.d). Olson clarified that while neurotransmitters are significant in contributing to depression, they are part of an intricate interplay of causes that includes biology, genetics, and the environment, not to mention that "many people with depression are not helped by the first drug they try, and some never find a drug that helps." ("Media's Damaging Depictions of Mental Illness", n.d). This ties into a previous point I made, that simply educating people on the science behind depression is not enough, especially when the science is still developing every day. Furthermore, representing depression with such a simple story leaves people vulnerable to exploitation by bad faith actors – in this case, drug companies promising a "magical cure".

All of the above points towards a greater need for positive media representation of mental illnesses. Thus, this begs the question of how to create positive portrayals. Unfortunately, positive depictions of mental illness in general are often quite hard to find in popular media, especially with depression. Thankfully, we can look instead at the development of transgender representation over the years and learn from it. The reason I chose transgender people as the group to follow is because of the parallel between transgender representation and mental illnesses representation in media. Norman Bates from the movie Psycho (1960) by Alfred Hitchcock is probably the most well-known depiction of a mentally ill killer in American movie history; and a sign of his insanity is him cross-dressing in order to emulate his mother. While

the movie does not make any explicit reference to him being transgender, the idea that “people who cross-dress are mentally ill and dangerous” was codified and only became more popular as time went on, with the most notable examples in movies being Dr. Frank N. Furter in The Rocky Horror Picture Show (Sharman, 1975) and Buffalo Bill in The Silence of the Lambs (Demme, 1991). Even in more recent works, people with trans identity being seen as dangerous is still prevalent, with a study in 2012 by GLAAD showing that in American television series since 2002, transgender characters were cast as killers or villains in at least 21% of the catalogued episodes and storylines ("Victims or Villains: Examining Ten Years of Transgender Images on Television", 2012). This depiction, that being transgender and/or gender-nonconforming is somehow inherently dangerous directly mirrors how people with mental illness are portrayed as inherently violent. The former also contradicts real-life statistics, as a report in 2016 in America shows that nearly half (46%) of respondents were verbally harassed in 2015 because of being transgender, while nearly one in ten (9%) respondents were physically attacked in 2015 for being transgender (James et al., 2016).

Fortunately, positive depictions of trans people have begun to appear more over the years, with some of the most well-known examples being Sophia Burset in Orange is the New Black (Kohan et al., 2013), Lili Elbe in The Danish Girl (Hooper, 2015) and Nomi Marks in Sense8 (Hill et al., 2015). And what these depictions manage to get right, in my opinion, is not only avoiding the previously mentioned violent stereotype, but depicting the trans characters as “normal” people, with their own agency, capable of choosing their own identity. The reason why so many depictions of both transgender identities and mental illnesses fail is not only because they contradict reality but also because the characters with these identities seem to not possess any humanity. Therefore, they come across as inhuman, as an unknowable “other” whom the main audience can only be afraid of or express pity for. Whereas with characters such as Nomi Marks, the film makers treat them not as spectacles, but as people whose shoes you get to be in, whose perspectives you are invited to relate to. And this is also my goal with this project, to create a video game wherein the characters with depression are not mere stereotypes but are everyday life people whom you might walk by on the street.

A final point regarding representation I wish to bring up is the need for multiple perspective on when it comes to representation. In her talk, Chimamanda Adichie (TED, 2009) talked at length about the importance of multiple stories. She remembered as a child feeling pity for her house boy name Fidi, because she was told his family was very poor. She was later surprised to see that his family was able to make beautifully woven baskets. The reason for her surprise

was that, in her own words: “Their poverty was my single story of them.”. She later recounted her happy experiences, of living in a loving, close-knit memories, as well as her negative experiences, of her loved ones dying and of her family becoming poorer and poorer due to the repressive military regimes that dominated her country. She then rejects the notion that only the negative stories can represent her life, because that would mean flattening her experience, and to overlook the many other stories that formed her life. To quote:

> “The single story creates stereotypes. And the problem with stereotypes is not that they are untrue, but that they are incomplete. They make one story become the only story. Of course, Africa is a continent full of catastrophes. There are immense ones, such as the horrific rapes in Congo. And depressing ones, such as the fact that 5,000 people apply for one job vacancy in Nigeria. But there are other stories that are not about catastrophe. And it is very important, it is just as important, to talk about them.” (Adiche, 2009)

Jen Richards also made the same point in Disclosure (Feder, 2020) – a Netflix documentary on transgender representation in media:

> “There is a one-word solution to almost all the problems in trans media. We just need more. And that way, the occasional clumsy representation would not matter as much, because it wouldn't be all that there is.” (Feder, 2020)

This is a philosophy that I take took with my current project as well. I do did not only intend to write only about my own experience, but also to collect to other people’s stories and use that as my inspiration. That way, I could be sure to avoid seeing from only from my own point of view, but from others’ as well. Instead of telling a single story, I aimed to write multiple of stories them, with contrasting experiences that will combine into a beautiful tapestry.

2.5. Using video game to combat depression and its stigma

Previously, I have explored the effectiveness of PCH and the power of mass media as a tool to combat stigma. In this section, I want to take a look at video games in particular and their power for building empathy. Despite being stereotyped as “murder simulators” for a long time, and being believed to promote aggressive behaviour, there have been multiple studies that have showed the opposite, that video games can be used to teach social behaviours and improve mental health. (Johnson et al., 2013; Papoutsi & Drigas, 2016). In an article on video games and empathy, Campbell (2020) found that while there might be evidence pointing towards

declining rates of empathy among American college students (Konrath et al., 2011), a team of researchers was able to program a video game called “Crystals of Kaydor” that improved empathy-related brain function in middle schoolers in as little as two weeks (Kral et al., 2018,). To quote Davidson, one of the researchers interviewed by Campell (2020): “The problem isn’t the medium, the problem is the message.” (paragraph 10).

When used in medical research to help depressed patients, video games have proven to be quite effective. One study shows that the game Plants vs. Zombies (PopCap Games, 2009) was able to reduce treatment-resistant depression symptoms and improve heart rate variability of depressed patients (Russoniello, Fish & O'Brien, 2019). Furthermore, a similar study was done on a group of thirty-five breast cancer patients, with the result being that their depressive mood was improved by playing a game called “Hit the Cancer” (Kim et al., 2018). Finally, a study by Hoffman (2017) was done on two high-profile games that deal directly with depression, Depression Quest (The Quinnspiracy, 2013) and Actual Sunlight (WZOGI, 2014). This study looks not at the games themselves, but at discussions by players of these games on internet message boards. The results show players reporting or demonstrating that these two games led to them gaining understanding and empathy, self-evaluating, learning lessons, having clinical discussions about depression, encouraging others, feeling a sense of community, and opening dialogue with friends and family about depression. All of the above studies combined point towards the potential of video games to alleviate the weight that depression has put, both on each individual and our community as a whole.

While there currently has been little research on the specific strengths of video games in combating depression and stigma, one theory I have regarding this is that video games excel at immersion more than other medium. While not every game can make the player feel immersed, i.e. making the player feel as if they are living within its world (and the elements that can do so will be discussed in later sections), “immersion” itself has been seen as a defining attribute of the medium, with studies promoting its use for learning purposes (Ahmed and Sutton, 2017; Quintana et al., 2014; Collins et al., 2019), as well as exploring the potential of virtual reality in enhancing empathy (Shashkevich, 2018; Rueda & Lara, 2020). Immersion, also known as spatial presence, can be understood as when "media contents are perceived as ‘real' in the sense that media users experience a sensation of being spatially located in the mediated environment” (Madigan, 2010). The process of immersion starts with the players forming a mental model of the game's make-believe space by looking at various cues (images, movement, sounds, and so forth) as well as assumptions about the world that they may bring to the table. Once that model

is created, the player must decide, either consciously or unconsciously, whether they feel if the world is believable or not (Madigan, 2010). But this sensation is not unique to games. In fact, one can make the same argument just as strongly about other media such as books or movies. The main difference, I believe, is interaction: the fact that you do not simply watch the characters do the act, but you perform the act yourself via the player character. The simple task of pushing a button to move from one dialog to the next can make you feel as if you are in control of the conversation, that you are the one doing the thinking or the talking. As Danskin (2016) discussed when talking about the player's emotional reaction to choosing to save a fallen friend in the game Bastion (Supergiant Games, 2011):

> "By and large in books, films, plays, characters feel things like guilt and shame or pride and bravery; audiences feel sympathy. Batman does something clever and you feel impressed. Superman's heart is breaking, and you feel bad. Spider-man does something self-sacrificing, and you feel proud of him. In most media, a storyteller has access to an audience's sympathetic emotions, things that you feel in response to other people's feelings.
>
> But here, you're not proud of someone else's accomplishment, you're the one acting like a hero, and the other characters become your audience. By having the player be the protagonist, suddenly you can feel clever, or get your own heart broken, or act like a hero. Now, obviously, you're not actually doing anything brave, you're sitting on your butt in front of a computer, but, in the same way that you can empathize with a fictional character, you can take pride in a fictional act of heroism." (Danskin, 2016)

This is why I choose a video game as the means to tell my stories, not only to invoke PCH but also to allow for an immersive environment that the player cannot help but find themselves deeply engaged in.

3. Methodology

This study uses a practice-based approach, developing a video game while also utilising an anonymous survey to collect data. The two aspects will be explored in depth below.

3.1. Anonymous survey

A survey was first developed and used to collect the real-life personal experiences and struggles of people with depression. The anonymity of the survey was discussed with AUTEC and questions were changed from when the study was first pitched. At first, the survey was meant

to collect some personal information from the participants, including genders, sexuality, occupations, ethnicities, etc. There was also a plan to ask some if participants were willing to do a one-on-one interview. The goal of this is to help with the representation in the game and not falling into the trap of telling "a single story", as discussed in the literature review. In the end, however, only the survey was deployed, and it was completely anonymous, meaning the above personal information was not collected and there could be no way for even the researcher to know which answers belong to which participants. Part of the reason this change was made was due to feedback from the ethics committee, specifically concerns about the researcher – me – potentially overstepping my boundaries and taking on the role of a counsellor or clinical mental health researcher. Another concern was whether if I could collect too much data to be analysed and sufficiently put in the game.

In the end, the use of an anonymous survey was beneficial in a number of ways. Firstly, because the survey was anonymous even to the researcher, participants were given utmost freedom to describe their own experiences without fear of discovery. Secondly, removing the obligation to disclose personal information meant that when the participants did give it out, that info can be considered to be unique and important to them (this results in interesting responses that will be discussed in the result sections). And finally, the anonymity gives me more creative freedom in crafting the stories. This work is not meant to be biographical and is focused on letting the audience see themselves in the characters, while also preserving their most interesting traits.

3.2. Design goals

In the interval between the survey release and the analysis of data, a game prototype was developed, serving as an "empty container" for the stories developed later on. My design process started with looking at games that have been previously used to combat depression. Currently, there seems to be two contrasting design styles, "abstract" and "specific". Games that fall into the "abstract camps", such as Elude (GAMBIT Game Lab, 2010), and Sym (Atrax Games, 2015), have simple or ambiguous storylines with characters with little to no distinguishing traits. The world itself tends to be highly stylized and divorced from the realm of reality, with a focus on strong imagery to invoke the feelings of living with depression. On the other hand, there are games that fall into the "specific" camp such as Depression Quest (The Quinnspiracy, 2013) and Actual Sunlight (WZOGI, 2014). They tell highly specific stories, distinctly set in the real world with a focus on invoking emotions through detailed events that may be considered traumatic. From my perspective, there are pros and cons to both

these approaches, with the games in the "abstract" camps potentially being more relatable to people of different backgrounds, but at the risk of not making players passionate about the stories, and vice versa.

Taking inspiration from the above games while keeping in mind the lessons in representation from the literature review, the game was created with a "balanced" approach in mind. While the number of stories were dependant on the responses – three in the final product – each story was designed to focus on one character, with an emphasis on representation of minority groups. Each character was given a living space as well as fantastical planes that represent their thoughts and feelings. This is my attempt at merging the "abstract" and the "specific", illustrating the relatable, even universal feelings that most depressed people have while not shying away from the unique experiences that each individual with depression has.

Another design goal was to incorporate factors that can enhance immersion, or "spatial presence", for players. According to Madigan (2010), those factors can be divided into two general categories: those that create a rich mental model of the game environment and those that create consistency between the things in that environment. Figure 1 below shows a non-exhaustive list of those factors.

Richness	**Consistency**
• Multiple channels of sensory information: elements that players can perceive with senses other than sight, e.g., audio cues. • Completeness of sensory information: the presence of in-game models that make the world feels less "empty". • Cognitively demanding environments: the abundance of in-game elements that require mental resources. • A strong and interesting narrative, plot, or story.	• Lack of incongruous visual cues in the game world: absence of elements such as tutorial messages, achievement notifications, friends list notifications, etc. • Consistent behaviour from things in the game world. • An unbroken presentation of the game world: a game world is "broken" when it disappears such as during a loading screen, a tutorial, or a game menu, etc. • Interactivity with items in the game world.

Figure 1. Richness and consistency in game immersion

Finally, the game was developed on the RPG Maker engine (version MV) due to two reasons. One, the engine has a low learning curve which helped immensely in completing the project

within the allotted time. And two, the engine's default control scheme is simple and easy to understand (this is in part because the engine was first released in 1992 and has remained immensely popular ever since). This removes barriers gameplay can have to people seeing the story as well as making the game easy to access even for people new to video games, which is a trait that that all four aforementioned games share.

4. Results

The survey was able to gather a total of 88 responses within the span of two weeks, all from people suffering from depression. The final game is titled "Darkness and Haven". The game features three stories, completely fictional but also heavily inspired by the responses from the survey. With the three stories, each of them centers around one character who an apartment building that the player can freely explore. They can also access two opposite "imaginary spaces". One is titled "Darkness" and represents their depressed mind; the other is titled "Haven" and represents what helps them overcome their emotional hurdles.

4.1. Accomplishments

The first main accomplishment for this project is the representation aspect. All three characters in the game are people of colour with unique backgrounds:

- Juan is a dyslexic Mexican man working as a doctor in America before he was laid off during the COVID-19 pandemic. He is also dealing with recent traumatic experiences, one being a close friend of his recently committing suicide.
- Ahmed is an Iraqi refugee living in Europe who suffers guilt from seeing family members die as a child. Despite being well-off and in a loving relationship, he feels lonely and disconnected from his life, which is only worsened by the pandemic.
- Amaal is an Indian woman who is studying abroad. Though she was raised Muslim, due to watching a lot of western media in her youth, she has a developed a particular fascination for the Christmas holiday. She is also transgender and suffers discrimination from both family members and doctors.

All of their characters were based on answers received via the survey. Below is a couple of examples:

> "Before... I'd just kind of try my best to cope with it [depression] and it was extremely difficult. After a friend of mine killed herself and for months I just couldn't escape the

guilt spiral that resulted from that; it was enough to finally get me to see a doctor and try medication."

"I am an Iraqi refugee living somewhere in Europe. It took me years to understand this, but I believe that my depression had a lot to do with what I lived and what I saw, and it also stems from this feeling of guilt that I escaped while thousands had to die."

"I'm an Arab Muslim woman who is a second-generation immigrant (living in the US). (…) It's actually shocking at how much of my past with therapists has been them writing fanfiction about my life in front of my face."

It is worth noting that that in the entire survey results, the two people mentioned above – the Iraqi refugee and the Arab Muslim woman – are the only ones who talked about their ethnicities. Reading their responses, it was quite clear how important their identities are to them, how fundamentally they tie back to their struggles with depression, and it can be somewhat painful to think about how we rarely see those stories in media. And it felt prudent to base two characters – Ahmed and Amaal – largely on them, while also changing and adding more details.

Also related to the representation aspect, the second main accomplishment is the multifacetedness of the characters and breaking away from stereotypes. Juan is a Mexican immigrant, but he is not uneducated: instead, his story reflects the mistreatment of healthcare workers in America – such as how Filipinos make up about 18% of registered nurses in California according to a 2016 survey, but they have had to beg for personal protective equipment and coronavirus tests during the pandemic (Shyong, 2020). Ahmed is an Iraqi refugee who has managed to make a comfortable living for himself. Amaal is a transwoman whose life is plagued by discrimination, but she also has a creative spirit that is shown on the walls of her apartment. Each of them has their own ups and downs, each has something the others lack – Juan has a loving family back in Mexico, Ahmed has financial security and Amaal has her artistic drive, just to name a few. All of these details add up to one of the game's main themes, that depression can happen to anyone regardless of background, especially considering the pandemic.

Finally, with regards to immersion, the game succeeds the most in the consistency aspect. First, there are no intrusive text boxes such as tutorial messages that appear without the player's input. The most disruptive break is possibly the transition screen between the areas, which is unavoidable and only last a few seconds at most. The tutorial is delivered via a side character

at the beginning of the game and is completely optional. Furthermore, while the interactivity in the game is somewhat limited, in-game objects react consistently to the player's responses. To a lesser extent, the game also succeeds in the richness aspect. The design is meant to invoke a more realistic setting than most RPG Maker games. And while there is no plot to speak of, the characters themselves with their rich backstories should prove sufficient in getting the player engaged in the game.

4.2. Limitations

Because of the game's small scope (due to time constraints), there are a couple of elements that could have been added in to flesh out Darkness and Haven better. The first of those would be the presence of a minigame to illustrate the difficulty of depression, as imposing a challenge to perform a simple task such as waking up or making toast can prove to be quite effective at illustrating the experience of living with depression. This idea was scrapped early on, however, as programming it into the game proved quite troublesome.

Another limitation for this project is the use of RPG Maker engine. While the engine proved easy to work with, the drawback is that available assets are limited. This means that the most time-consuming part of development was finding usable sprites and character models. Most of the assets designed for science fiction or medieval fantasy settings and not many can be used in a more realistic, contemporary work. An intriguing example is the lack of sprites for any types of smartphones, which meant I had to replace it with a landline phone (and had the character comment on it).

Finally, while I tried to recreate the environment as realistically as possible, RPG Maker has a unique cute art style that some audiences may find immersion breaking. I see this as an acceptable trade-off, looking at the success of the game Actual Sunlight (WZOGI, 2014), a game also built on the RPG Maker engine while telling a story about depression.

Coming back to immersion, the game could have done better in terms of richness. In particular, there could have been more audio cues to show off the emptiness or business of the environment the player is currently in. In addition, due to the aforementioned problems with collecting sprites, the environment may come off as empty or repetitive as there were limited sprites available. In early development, Unity engine was considered instead, as it would allow for a more realistic 3D environment and there is a larger set of 3D models (objects, spaces,

people) available. This idea was quickly scrapped because of the higher learning curve, the slow development speed for Unity games and the high potential cost of usable 3D assets.

5. Conclusion

This exegesis is an attempt to give details on the creation of "Darkness and Haven", which includes laying out the sociological reasoning for making the game, and the fundamental ideas that the game was built on – namely, Parasocial Contact Hypothesis and need for more diverse stories – as well as what the final product did and did not manage to achieve. Previous studies have shown that treating mental health as a purely clinical issue is insufficient at best and manipulative at worst. To combat the stigma against depression and mental health issues in general, the focus should be on the people suffering from those illnesses, on amplifying their voices and listening to their concerns, and this game is but a small attempt at that. Further research could be made into the audience's reception of the game, similar to studies by Hoffman (2017) on Depression Quest and Actual Sunlight. Similar practice-based studies could also be conducted based on this project, perhaps with an expanded scope or more in-depth analyses.

Appendix A

Research survey

Date Produced: 07/10/2020

Project title

Representing real-life experiences of depression through the lens of video games

An Invitation
My name is Nam Tran and I'm currently creating a video game aimed at depicting real-life experiences of depression. This project is the culmination of my master's degree in English and New Media Studies. I invite you to participate in this survey and contribute your ideas that will be presented via the game characters, preferably based on your own experiences with depressions.

What is the purpose of this research?
This project aims at creating a video game which portray narratives of depression of people coming from different backgrounds. My goal is to demonstrate the capacity of video games to not only to tell engaging stories but also to facilitate empathy and understanding. The final product will be available for everyone to play.

How was I identified and why am I being invited to participate in this research?
The survey has been widely distributed online, through various social media platforms. You have received this Information sheet because you've decided to participate in the survey by clicking the link.

How do I agree to participate in this research?
Should you agree to take part in the research, you can continue by completing the rest of the survey. Because this is an anonymous survey, you will not have to complete a Consent Form: by completing and submitting the survey, you give consent for your data to be used. The data will only be collected once you've finished answering all the questions in the survey.
Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. You are able to withdraw from the study at any time prior to submitting the survey. If you choose to withdraw from the study, then you will be offered the choice between having any data that you have entered removed or allowing it to be used. Once the survey is submitted, removal of your data may not be possible.

What will happen in this research?
I will be responsible for programming and writing a game based largely on the input of the people who participate in this survey. You will only need to answer the given questions to the best of your ability.

What are the discomforts and risks?
Because the survey involves the sensitive subject of depression, some of the questions may cause discomfort or even be "triggering," despite precautions taken to minimize this risk.

How will these discomforts and risks be alleviated?
The questions are specifically designed to be as minimally intrusive as possible and to let you decide how much detail to give. You can also stop at any point and may choose to either submit partial or no information. In event of adverse impact, from discomfort to emergency, I have provided some services and hotlines below:

1. If you are currently in New Zealand, AUT Health Counselling and Wellbeing is able to offer three free sessions of confidential counselling support for adult participants in an AUT research project. These sessions are only available for issues that have arisen directly as a result of participation in the research and are not for other general counselling needs. To access these services, you will need to:
- drop into our centres at WB219 or AS104 or phone 921 9992 City Campus or 921 9998 North Shore campus to make an appointment. Appointments for South Campus can be made by calling 921 9992
- let the receptionist know that you are a research participant and provide the title of my research and my name and contact details as given in this Information Sheet
You can find out more information about AUT counsellors and counselling on http://www.aut.ac.nz/being-a-student/current-postgraduates/your-health-and-wellbeing/counselling.
For those in New Zealand that cannot travel to Auckland, here are some numbers and website you can reach for help
- The Lowdown:
  - Website: https://thelowdown.co.nz/
  - Phone: 0800 111 757 or Text: 5626
- Youthline:
  - Website: https://www.youthline.co.nz/contact.html
  - Phone: 0800 376 633 or Text: 234

2. If you live outside of New Zealand, here are some numbers and website you can reach for help:
a. Worldwide:
 - Befrienders - http://www.befrienders.org
 b. United States:
  - National Suicide Prevention Lifeline:
   - Website: http://www.suicidepreventionlifeline.org
   - Phone: 1 800 273 TALK (8255)
  - The Trevor Project (for LGBT youth, friends and family members)
   - Website: http://www.thetrevorproject.org
   - Phone: 1 866 488 73865
c. Australia:
  - Lifeline Australia:
   - Website: http://www.lifeline.org.au
   - Phone: 13 11 14
d. Germany:
  - Telefonseelsorge:
   - Website: http://www.telefonseelsorge.de
   - Phone: 0800 111 0 111/ 0800 111 0 222

What are the benefits?
For me, this project is my final dissertation and goes towards my master's degree in English

and New Media Studies. As for you, firstly. you will get to enter a drawing for a 20 NZD gift card (with a total of ten cards) in recognition of your time and contribution. Secondly, you will get the opportunity to tell your own stories, experiences and struggles with depression anonymously through the lens of video games. When the final product is released, you may be able to find comfort in seeing others with similar stories also being told in the game and can share the game freely (creative commons license) if you find it helpful.

How will my privacy be protected?
Because the survey is designed to be anonymous, meaning that you are not required to give out any identifiable information such as name, age, gender, etc. unless you choose to, your privacy is guaranteed to be protected. You will only need to provide an email address, unrelated to the other survey questions, to enter the gift cards giveaway. I will also take great care to not incorporate any identifiable information in the game, should you choose to include it. If you feel there are any info you would like to retract after completing the survey, you can contact me via phone number or email address provided at the end of the page.

What are the cost of participating in this research?
The survey will likely take 20-40 minutes to complete.

What opportunity do I have to consider this invitation?
You will have until December 13th, 2020 to consider completing this survey before it is closed.

Will I receive feedback on the results of this research?
Yes, you can. The game will be uploaded onto itch.io where everyone can access and play it. You will be provided a link upon completing the survey.

What do I do if I have concerns about this research?
Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Tof Eklund. Their email is [redacted], and their work number is [redacted],
Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, ethics@aut.ac.nz, (+649) 921 9999 ext 6038.

Whom do I contact for further information about this research?
You are able to contact the research team as follows:
Researcher Contact Details:
Primary researcher's full name is Nam Duc Tran. My contact is my email address: [redacted].
Project Supervisor Contact Details:
Project Supervisor is Tof Eklund. Their email is [redacted], and work number is [redacted],
Approved by the Auckland University of Technology Ethics Committee on November 11th, 2020, AUTEC Reference number 20/361.

1. Would you describe yourself as having experienced/currently experiencing depression?
o Yes
o No

2. Are there any kinds of symbolic languages (images, events, objects, etc.) that you can use to describe your feelings of depression? If yes, please elaborate.

_____

_____

3. Are there any forms of media (movies, TV, games, social media, etc.) that you turn to for escapism or relief? If yes, please elaborate (titles, genres, etc.)

_____
_____

4. What kind of activities do you perform to lessen the impact of depression in your everyday life?

_____
_____

5. The above activities will be presented in-game through physical objects. Feel free to give your ideas on what object(s) you associate with the above activity and what makes them significant.

_____
_____

6 When you're feeling low, what kind of places would you like to go, whether in reality or in imagination? (Feel free to elaborate on the details, such as location, decor, atmosphere, reasons forgoing there, etc.).

_____
_____

7. Are there any other details pertaining to depression, ranging from specific events to general life experiences, that you would you like to see represented in the game? Feel free to draw upon your own experience.

_____
_____

8. To enter the giveaway, please complete the Google doc linked here: [redacted]

Thank you for participating in this research.
If you would like to play the finished product, please visit: [redacted]

Appendix B

Ethics Approval Letter

Auckland University of Technology Ethics Committee (AUTEC)

Auckland University of Technology
D-88, Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999 ext. 8316
E: ethics@aut.ac.nz
www.aut.ac.nz/researchethics

30 November 2020

Tof Eklund
Faculty of Business Economics and Law

Dear Tof

Re Ethics Application: **20/361 Representing real-life experiences of depression through the lens of video games**

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC).

Your ethics application has been approved for three years until 27 November 2023.

Standard Conditions of Approval

1. The research is to be undertaken in accordance with the Auckland University of Technology Code of Conduct for Research and as approved by AUTEC in this application.
2. A progress report is due annually on the anniversary of the approval date, using the EA2 form.
3. A final report is due at the expiration of the approval period, or, upon completion of project, using the EA3 form.
4. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form.
5. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
6. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.
7. It is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard and that all the dates on the documents are updated.

AUTEC grants ethical approval only. You are responsible for obtaining management approval for access for your research from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

Please quote the application number and title on all future correspondence related to this project.

For any enquiries, please contact ethics@aut.ac.nz. The forms mentioned above are available online through http://www.aut.ac.nz/research/researchethics

(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat
Auckland University of Technology Ethics Committee

Bibliography

Ahmed, A. and Sutton, M.J.D. (2017), "Gamification, serious games, simulations, and immersive learning environments in knowledge management initiatives", World Journal of Science, Technology and Sustainable Development, Vol. 14 No. 2/3, pp. 78-83. https://doi.org/10.1108/WJSTSD-02-2017-0005

Allport, G. W. (1954). The nature of prejudice. Cambridge, MA: Perseus Books

American Psychiatric Association. (2013). Gender Dysphoria. In Diagnostic and statistical manual of mental disorders (5th ed.) https://doi.org/10.1176/appi.books.9780890425596.dsm14

Atrax Games. (2015). Sym [Steam]. Mastertronic

beyondblue. (2015). Information Paper: Stigma and discrimination associated with depression and anxiety. Retrieved from: https://www.beyondblue.org.au/docs/default-source/policy-submissions/stigma-and-discrimination-associated-with-depression-and-anxiety.pdf

Brekke, J., Prindle, C., Bae, S., & Long, J. (2001). Risks for Individuals with Schizophrenia Who Are Living in the Community. Psychiatric Services, 52(10), 1358-1366. doi: 10.1176/appi.ps.52.10.1358

Campbell, L. (2020). Children, Video Games and Empathy. Retrieved 20 August 2020, from https://www.healthline.com/health-news/can-video-games-actually-teach-kids-empathy#1

Castrén, E. (2005). Is mood chemistry? Nat Rev Neurosci 6, 241–246. https://doi.org/10.1038/nrn1629

Collins Naoise & Vaughan, Brian & Cullen, Charlie & Gardiner, Keith. (2019). GaeltechVR: Measuring the Impact of an Immersive Virtual Environment to Promote Situated Identity in Irish Language Learning. Journal of Virtual Worlds Research. 12. 10.4101/jvwr.v12i3.7356.

Conway, J. C., & Rubin, A. M. (1991). Psychological predictors of television viewing motivation. Communication Research, 18, 443–464.

Corrigan, P. W., Kerr, A., & Knudsen, L. (2005). The stigma of mental illness: Explanatory models and methods for change. Applied and Preventive Psychology, 11, 179–190. http://doi.org/dtd2p3

Corrigan, P., & Watson, A. (2006). The Paradox of Self-Stigma and Mental Illness. Clinical Psychology: Science and Practice, 9(1), 35-53. doi: 10.1093/clipsy.9.1.35

Danskin, I. (2016). Story Beats: Bastion [Video]. Youtube. https://www.youtube.com/watch?v=IyhrKPLDCyY&ab_channel=InnuendoStudios

Defleur, M. L., & Westie, F. R. (1963). Attitude as a scientific concept. Social Forces, 42(1), 17–31. https://doi.org/10.2307/2574941

Demme, J. (Director). (1991). The Silence of the Lambs [Film]. Orion Pictures.

Esses, V. M., Haddock, G., & Zanna, M. P. (1993). Values, stereotypes, and emotions as determinants of intergroup attitudes. In D. M. Mackie & D. L. Hamilton (Eds.), Affect, cognition, and stereotyping: Interactive processes in group perception (p. 137–166). Academic Press.

Ettman, C., Abdalla, S., Cohen, G., Sampson, L., Vivier, P., & Galea, S. (2020). Prevalence of Depression Symptoms in US Adults Before and During the COVID-19 Pandemic. JAMA Network Open, 3(9), e2019686. doi: 10.1001/jamanetworkopen.2020.19686

Farley, J. E. (1995). Majority-minority relations. Englewood Cliffs, NJ: Prentice Hall.

Feder, S. (Director). (2020). Disclosure: Trans Lives on Screen. [Film]. Netflix

Florida State University. (2008), Media Perpetuates Unsubstantiated Chemical Imbalance Theory Of Depression, Study Shows. ScienceDaily. Retrieved from: www.sciencedaily.com/releases/2008/03/080303164507.htm

GAMBIT Game Lab. (2010). Elude [Adobe Flash (Windows / Macintosh)]. GAMBIT Game Lab

Gaines, S. O., Jr., & Reed, E. S. (1995). Prejudice: From Allport to DuBois. American Psychologist, 50(2), 96–103. https://doi.org/10.1037/0003-066X.50.2.96

Goldcare, B. (2008). Bad science: Depression - the facts and the fables. Retrieved from: https://www.theguardian.com/commentisfree/2008/jan/26/badscience

Helsby, W. (2005). Understanding representation. London: BFI Pub.

Hill, G., Wachowski, L., Wachowski, L., Straczynski, J. M., Holland, C., Friedlander, P., Duncan, T., Nayar, D., Clarance, L., Rosen, L., Toll, J., Delahaye, L., (Executive Producers). (2015-2018). Sense8 [TV series]. Netflix.

Hitchcock, A., (Director). (1960). Psycho [Film]. Shamley Productions.

Hoffman, K. (2017). Social and Cognitive Affordances of Two Depression-Themed Games. Games and Culture, 14(7-8), 875-895. doi: 10.1177/1555412017742307

Hooper, T. (Director). (2016). The Danish Girl. [Film]. Universal Studios Home Entertainment.

Horton, D., & Richard Wohl, R. (1956). Mass Communication and Para-Social Interaction. Psychiatry, 19(3), 215-229. doi: 10.1080/00332747.1956.11023049

James, Sandy E., Herman, Jody L., Rankin, Susan., Keisling, Mara., Mottet, Lisa., Anaf, Ma'ayan., (2016). The Report of the 2015 U.S. Transgender Survey. Retrieved from: https://www.transequality.org/sites/default/files/docs/usts/USTS%20Full%20Report%20-%20FINAL%201.6.17.pdf

Johnson, Daniel & Jones, Christian & Scholes, Laura & Colder Carras, Michelle. (2013). Videogames and Wellbeing: A Comprehensive Review.

Jones, M. (2002). Social psychology of prejudice. Prentice-Hall, Inc.

Jorm, A. F., Christensen, H. & Griffiths, K. M. (2005) The impact of beyondblue: the national depression initiative on the Australian public's recognition of depression and beliefs about treatments. Australian and New Zealand Journal of Psychiatry, 39, 248–254.CrossRefGoogle ScholarPubMed

Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. British Journal of Social Psychology, 33(1), 1–27. https://doi.org/10.1111/j.2044-8309.1994.tb01008.

Kohan, J., Friedman, L., Hess, S., Herrmann, T., Vinnecour, L., Tannenbaum, N. K., Burley, M. A., (Executive Producers). (2013-2019). Orange Is the New Black [TV series]. Tilted Productions; Lionsgate Television

Kim, S., Kim, H., Hwang, H., Hong, J., Bae, S., Min, K., & Han, D. (2018). The Effects of a Serious Game on Depressive Symptoms and Anxiety in Breast Cancer Patients with Depression: A Pilot Study Using Functional Magnetic Resonance Imaging. Games for Health Journal, 7(6), 409-417. doi: 10.1089/g4h.2017.0183

Kotliar, D. (2015). Depression Narratives in Blogs. Qualitative Health Research, 26(9), 1203-1215. doi: 10.1177/1049732315612715

Kral, T.R.A., Stodola, D.E., Birn, R.M. et al. Neural correlates of video game empathy training in adolescents: a randomized trial. npj Science Learn 3, 13 (2018). https://doi.org/10.1038/s41539-018-0029-6

LaPiere, R. T. (1934). Attitudes vs. Actions, Social Forces, 13, 230–237, https://doi.org/10.2307/2570339

Madigan, J., 2010. Analysis: The Psychology of Immersion in Video Games. [online] Gamasutra.com. Retrieved from: https://www.gamasutra.com/view/news/120720/Analysis_The_Psychology_of_Immersion_in_Video_Games.php

Marks, A. (2017). How a true-crime podcast became a mental health support group. The Atlantic. Retrieved from https://www.theatlantic.com/health/archive/2017/02/the-true-crime-podcast-turned-mental-health-support-group/517200/

Media's Damaging Depictions of Mental Illness. (n.d). Retrieved from https://psychcentral.com/lib/medias-damaging-depictions-of-mental-illness#3

Mehta, N., Kassam, A., Leese, M., Butler, G., & Thornicroft, G. (2009). Public attitudes towards people with mental illness in England and Scotland, 1994–2003. British Journal of Psychiatry, 194(3), 278-284. doi:10.1192/bjp.bp.108.052654

National Institute of Mental Health (2016). Depression Basics. Retrieved from: https://www.nimh.nih.gov/health/publications/depression/index.shtml

Papoutsi, C. and Drigas, A., 2016. Games for Empathy for Social Impact. International Journal of Engineering Pedagogy (iJEP), 6(4), p.36.

Pavelko, R., & Myrick, J. (2019). Muderinos and Media Effects: How the My Favorite Murder Podcast and its Social Media Community May Promote Well-being in Audiences with Mental Illness. Journal Of Radio & Audio Media, 27(1), 151-169. doi: 10.1080/19376529.2019.1638925

Pew Research Center. (2016). “Where the Public Stands on Religious Liberty vs. Nondiscrimination”. Retrieved from: https://www.pewforum.org/2016/09/28/where-the-public-stands-on-religious-liberty-vs-nondiscrimination/

Pirkis, J., Blood, R. W., Francis, C., & McCallum, K. (2006). On-Screen Portrayals of Mental Illness: Extent, Nature, and Impacts. Journal of Health Communication, 11(5), 523–541. https://doi.org/10.1080/10810730600755889

Quintana, Maria & Prats Fernandez, Miquel Àngel & Marcelo, Careaga & Gacitua, Juan & Carillo, Cecilia. (2014). Technological Readiness for Teaching Practices in Immersive Learning Environments Open Sim. JOURNAL OF UNIVERSAL COMPUTER SCIENCE. 20. 2024-2031.

Rani, N., & Samuel, A. (2019). Reducing transphobia: comparing the efficacy of direct and indirect contact. Industrial and Commercial Training, 51(7/8), 445-460. doi: 10.1108/ict-12-2018-0102

Reavley, N. J., & Jorm, A. F. (2011). Young people's stigmatizing attitudes towards people with mental disorders: findings from an Australian national survey. Australian & New Zealand Journal of Psychiatry, 45(12), 1033–1039. Retrieved from: https://doi-org.ezproxy.aut.ac.nz/10.3109/00048674.2011.614216

Rubin, L. (2012). Mental illness in popular media. Jefferson, N.C.: McFarland & Co.

Rubin, R. B., & Rubin, A. M. (2001). Attribution in social and parasocial relationships. In V. Manusov & J. H. Harvey (Eds.), Attribution, communication behaviour, and close relationships (pp. 320–337). Cambridge, UK: Cambridge University Press

Rueda J and Lara F (2020) Virtual Reality and Empathy Enhancement: Ethical Aspects. Front. Robot. AI 7:506984. doi: 10.3389/frobt.2020.506984

Russoniello, C., Fish, M., & O'Brien, K. (2019). The Efficacy of Playing Videogames Compared with Antidepressants in Reducing Treatment-Resistant Symptoms of Depression. Games for Health Journal, 8(5), 332-338. doi: 10.1089/g4h.2019.0032

Schiappa, E., Gregg, P. B., & Hewes, D. E. (2005). The Parasocial Contact Hypothesis. Communication Monographs, 72(1), 92–115. https://doi.org/10.1080/0363775052000342544

Schiappa, E., Gregg, P., & Hewes, D. (2006). Can One TV Show Make a Difference? Will & Grace and the Parasocial Contact Hypothesis. Journal Of Homosexuality, 51(4), 15-37. doi: 10.1300/j082v51n04_02

Schneider, D. J. (2004). Distinguished contributions in psychology. The psychology of stereotyping. Guilford Press.

Schomerus, G., Schwahn, C., Holzinger, A., Corrigan, P.W., Grabe, H.J., Carta, M.G. & Angermeyer, M.C. (2012). Evolution of public attitudes about mental illness. A systematic review and meta-analysis. Acta Psychiatrica Scandinaica, 125 (6), 440 - 452

Sharman, J. (Director). (1975). The Rocky Horror Picture Show [Film]. Twentieth Century Fox Home Entertainment.

Shashkevich, A. (2018). Virtual reality can help make people more empathetic. Stanford News. Retrieved from https://news.stanford.edu/2018/10/17/virtual-reality-can-help-make-people-empathetic/

Shyong, F. (2020). Column: Filipino nurses battled discrimination to work in American hospitals. Now they fight for PPE. Retrieved from https://www.latimes.com/california/story/2020-05-18/filipino-nurses-in-socal

Supergiant Games. (2011). Bastion. [Computer video game]. San Francisco: Warner Bros. Interactive Entertainment, Supergiant Games

TED. (2009). The danger of a single story | Chimamanda Ngozi Adichie [Video]. YouTube. https://www.youtube.com/watch?v=D9Ihs241zeg

The Quinnspiracy. (2013). Depression Quest [Steam]. The Quinnspiracy

Thornicroft, G., Rose, D., Kassam, A., & Sartorius, N. (2007). Stigma: Ignorance, prejudice, or discrimination? British Journal of Psychiatry, 190(3), 192-193. doi:10.1192/bjp.bp.106.025791

Vezzali, L., Stathi, S., Giovannini, D., Capozza, D., & Trifiletti, E. (2014). The greatest magic of Harry Potter: Reducing prejudice. Journal Of Applied Social Psychology, 45(2), 105-121. doi: 10.1111/jasp.12279

Victims or Villains: Examining Ten Years of Transgender Images on Television. (2012). Retrieved from https://www.glaad.org/publications/victims-or-villains-examining-ten-years-transgender-images-television

Wong, N., Lookadoo, K., & Nisbett, G. (2017). “I’m Demi and I Have Bipolar Disorder”: Effect of Parasocial Contact on Reducing Stigma Toward People With Bipolar Disorder. Communication Studies, 68(3), 314-333. doi: 10.1080/10510974.2017.1331928

World Health Organization. (2017). Depression and Other Common Mental Disorders: Global Health Estimates. Geneva. Licence: CC BY-NC-SA 3.0 IGO. Retrieved from: https://apps.who.int/iris/bitstream/handle/10665/254610/WHO-MSD-MER-2017.2-eng.pdf.

WZOGI. (2014) Actual Sunlight [Steam]. WZOGI.

Xia Wang, Huang Li, Yunshi Peng, & Shun Peng. (2015). How Depression Stigma Affects Attitude toward Help Seeking: The Mediating Effect of Depression Somatization. Social Behaviour & Personality: An International Journal, 43(6), 945–953. https://doi-org.ezproxy.aut.ac.nz/10.2224/sbp.2015.43.6.945