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BENEFITS OF COMMERCIAL VIDEO GAMES FOR WELL-BEING

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Abstract		
<p>The purpose of this thesis was to find out if video games could possibly improve one's well-being. Some people will never seek help from the professionals because of the cost of the treatment and medication and because of the stigma around mental disorders. Video games are mostly affordable and accessible. Video games could be used as a form of therapy by using game mechanics and storyline. This thesis studied the attitudes towards well-being and mental health in video games and which forms of video games are the most helpful.</p> <p>This thesis had both qualitative and quantitative research. The information was gathered by doing literary reviews and game analysis to see how video games could possibly improve well-being. Surveys were made to see people's gaming habits and thoughts about video games that had topics of well-being and mental health.</p> <p>The study showed that video games could be therapeutically useful. Video games have potential to teach coping skills and new outlooks on life. Having a relatable video game character may reduce the stigma around mental disorders, spread awareness and encourage to seek professional help.</p>		
Keywords		
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1 INTRODUCTION

Mental disorders are one of the leading causes of ill-health and disability around the world. Even though there are different treatments available, for example psychotherapy, the majority of people will not seek help for a mental disorder. The reason for this could be the cost of the treatment and medication or just the stigma around these illnesses. (World Health Organization 2001.) That is why it is important to study new methods to improve one's well-being.

Video games can be found in most households and they are usually affordable. They are the most interactive media since the player does not passively follow the storyline but instead actively engages. Video games entertain us while teaching us teamwork, cooperation and sometimes let us compete. In 2020, 80 percent of the players said they play video games for mental stimulation and 79 percent for relaxation (Entertainment Software Association n.d.). Video games as an art form could ease the stigma around mental disorders so that people could feel more comfortable to seek professional help. Video games have immense potential to teach us about mental disorders and possibly improve one's well-being.

In the media, video games are sometimes portrayed as a negative thing that causes violence and aggression (American Psychological Association 2000). The author wanted to challenge this thought and find ways how video games could be useful. It is true that playing video games too much could cause issues such as social disconnection and reduction in motivation (Lal 2020a). Video game addiction can lead to several issues, but video games are not principally evil. The author believes that talking about mental health openly could reduce the stigma around different illnesses and possibly encourage people who are suffering from a mental disorder to seek help. Video games can have the potential to therapeutically help a person suffering by teaching new methods of how to deal with different issues and give a new outlook on life.

This thesis was commissioned by South-Eastern Finland University of Applied Sciences, project 'The Clan of Games'. The project's goal is to mitigate education

and working life gender segregation. They also drive for an equal working environment by creating a multidisciplinary, sociocultural operating model for encounters of different groups of people. (South-Eastern Finland University of Applied Sciences n.d.)

2 RESEARCH METHODS

The purpose of this study was to examine if commercial video games could be used as a form of therapy by using game mechanics and a storyline. The attitudes towards mental health in video games were studied and which aspects of game mechanics could be useful. The goal of this thesis is to gather more information since the topic of well-being and video games is an under-researched topic. This thesis used both quantitative and qualitative data.

Can video games spread awareness? Do video games show potential as a treatment tool for mental health? Which game mechanics can be used to improve one's well-being? What is the attitude towards mental health in commercial video games? This research tries to answer all of these questions.

Qualitative research was made by doing secondary research where existing data was collected and different video games were analysed. Quantitative research was done by analysing numerical data that came from making different surveys related to the playtested video games.

The research was started by gathering a group of individuals that would playtest video games that had aspects that could possibly improve one's well-being. The group of playtesters was small, and most of them were very familiar with video games. The goal of the playtesting was to have over ten people participating in playtesting but because of the coronavirus situation, the group size was reduced due to restriction on meetings (Finnish Institute for Health and Welfare 2021).

Four different video games were chosen. These video games were 'Hellblade: Senua's Sacrifice' (Ninja Theory 2017), 'The Cat Lady' (Harvester Games 2012), 'Celeste' (Matt Makes Games 2018), and 'Gris' (Nomada Studio 2018). All these video games have different genres and settings. The testing was started by playing 'Hellblade: Senua's Sacrifice' on the Playstation 4. This video game was chosen because it contains representations of psychosis and it was made in assistance by professionals in psychiatry and people with experience of psychosis. 'Hellblade: Senua's Sacrifice' uses its puzzle mechanics and sound design to portray schizophrenia.

The second game, 'The Cat Lady', was chosen because it portrays different mental illnesses with respect and sympathy. It uses its puzzle and game mechanics to tell a story. 'The Cat Lady' has topics of suicide and depression. Depression is one of the most common mental disorders and it affects more than 264 million people globally (World Health Organization 2020).

The third game, 'Celeste', is a great example of how to make a difficult game uplifting. It uses its storyline to teach the player about anxiety and learning to handle difficult situations. Even though 'Celeste' is a difficult game, it manages to encourage the player. The last game, 'Gris', was chosen because it has a very strong visual art style and it talks about the five stages of grief. It is a very beginner-friendly video game and that is why it may gather a different type of audience from the other video games.

After the playtesting was finished, the test group answered to surveys. The surveys were held online on Webropol which is a tool for surveys and reporting. These surveys were made anonymous so that the people would not feel any pressure to answer in a certain way. Quantitative research was done to analyse the surveys by rating scales. Once the data was collected, it was transformed to numbers and statistics.

The research was continued by doing deeper analysis on video games. These video games were 'The Cat Lady', 'Hellblade: Senua's Sacrifice', 'Celeste', 'Gris',

'That Dragon, Cancer' (Numinous Games 2016), and 'Night in the Woods' (Infinite Fall 2017). These video games were analysed to learn about their attitudes towards mental health and well-being. Most of these video games used their game mechanics to tell a story and to spread awareness of different mental disorders. They may have the potential to improve a person's well-being by teaching them different ways to tackle difficulties in life.

The research went well but it lacks in certain areas. The collected data can be subjective, and it allows the author to decide what is important by analysing and interpreting data. The test group was small which limits the possibility of generalization. The test group also did not have much variety since most of the test subjects had experience playing video games for most parts of their lives. The research still gives us some reference what kind of commercial video games could be used to improve one's well-being. Analyzing these in more detail, however, requires understanding what causes ill health and how to improve it.

3 WELL-BEING AND CAUSES FOR ILL HEALTH

Well-being comes from a person's experience of happiness and health. Having good mental health, prosperity, and ability to manage stress have an effect on well-being. Figuring out how to improve well-being is not always simple and usually requires help from professionals. Well-being is related to your thoughts, actions, and experiences. There are emotional and physical parts related to well-being. Someone may feel physically well but lacks in emotional well-being. To build overall well-being, a person must have both types functioning to an extent. If everything else in your life seems to be in order, but your physical health is lacking, it is harder to stay content. (Davis 2019.)

Everyone has to tackle difficult situations sometimes but there are certain factors that influence our mental health and well-being, for example upbringing, environment, life experiences and genes. The challenges we usually face in life are often related to relationships, money, work, health issues and traumatic

events. Some of us may be more sensitive and react to them more deeply than others. (National Health Service n.d.)

Can video games improve a person's well-being? Studies have found that playing video games increases the regions of the brain responsible for memory, motor skills, spatial orientation, and strategic planning. A study conducted at Max Planck Institute for Human Development and Charité University Medicine St. Hedwig-Krankenhaus says that video games can also be used therapeutically towards psychiatric disorders. To test this scientist selected two groups of adults. The first group played platformer 'Super Mario 64' (Nintendo EAD 1996) for 30 minutes a day, for two months. The second group of individuals did not play video games at all. Magnetic resonance imaging (MRI) was used to measure the size of the brain at the start and at the end of the study. The control group that played 'Super Mario 64' showed increases of grey matter which regions are involved with spatial orientation, memory formation, strategic planning, and fine motor skills. The study leader Simone Kühn, senior scientist at the Center for Lifespan Psychology at the Max Planck Institute for Human Development claims: "*While previous studies have shown differences in brain structure of video gamers, the present study can demonstrate the direct causal link between video gaming and a volumetric brain increase. This proves that specific brain regions can be trained by means of video games. It can be assumed that patients with mental disorders in which brain regions are altered or reduced in size, for example schizophrenia, post-traumatic stress disorder or neurodegenerative diseases such as Alzheimer's dementia could therapeutically benefit from playing video games.*" (Max-Planck-Gesellschaft 2013.)

Video games can also teach problem solving skills and strategy. Fast-paced video games like 'Call of Duty' (Infinity Ward 2003) require you to think fast and make decisions quickly. This type of video games trains you to make decisions faster, according to a study made in University of Rochester (2010). The scientists found that video game players become more aware of what is going on around them and it can improve skills that can help with everyday activities like trying to do multiple things at once, driving a vehicle, reading a small print,

keeping track of friends in a crowd, and navigating around town. To test this, the researchers hand-picked 18 to 25-year-olds who were not familiar with video games. The people were split into two groups and both of them played video games for 50 hours. The first test group played fast-paced action games like 'The Call of Duty 2' (Infinity Ward 2005) and the second group played slow-paced strategy games like 'The Sims 2' (Maxis 2004). At the end of the study, the subjects had to do several tasks designed by the researchers. In these tasks, the goal was to answer a simple question quickly by looking at a screen and analyzing what is going on. The subjects that played the fast-paced video game were up to 25 percent faster at making decisions. Video games can also improve long-term planning. Playing strategy games like 'Civilization' (MPS Labs 1991), train your brain to recognize potential outcomes to make the best choices. (University of Rochester 2010.)

Video games are also a great way to relax. A study made by American Psychological Association (2013), claims that: "*playing video games, including shooter games, improves children's learning, health, and social skills.*" They also found that video games that can be played quickly and are easily available, like 'Angry Birds' (Rovio Entertainment 2009), can improve players' moods, promote relaxation and reduce anxiety. Video games are also an effective tool to develop resilience in the face of failure. Playing video games and failing in them can build emotional resilience that can be used in everyday life. (American Psychological Association 2013.) This is an important skill to learn which may also improve well-being. An ability to adapt and bounce back from failures may relieve stress and help a person to move forward.

There are also social benefits from playing such as improving social skills and reducing anxiety, even though playing video games excessively may have a negative impact on social life. Playing as a video game character in a fictional world allows a player to experiment and learn social skills. Practicing social interactions in a game without consequences may be easier for someone with social anxiety. They can learn and get more confidence when they have to function in real life. Video games also provide a social network. More than 70

percent of gamers play video games with someone else. It teaches the player cooperation and communication. (Record Head 2020.)

Video games can also have a positive effect on a person's physical fitness. Video games like 'Wii Fit' (Nintendo EAD 2007) and 'Beat Saber' (Beat Games 2018) force the player to move and interact in the real world while exercising. These video games can improve health and well-being while making it fun. Exercising improves sleeping, reduces stress, impacts positively on mood and self-esteem, which improves overall well-being (Mental Health Foundation n.d.a). The biggest benefit of playing these games is that it could change a person's view on exercising. This type of games can make exercising fun and exciting.

4 MENTAL HEALTH

According to Mental Health Foundation (2016), mental health problems such as anxiety or depression are very common, 1 in 6 adults experiencing them every week and 1 in 5 adults has considered suicide at some point. Mental health is a combination of our emotional, psychological, and social well-being (Medline Plus 2021a). Traits of a mental disorder are usually abnormal and irrational thoughts, perceptions, emotions, behavior, and relationship with others (World Health Organization 2019a). These conditions will affect your thinking, feeling, mood and behavior. Some of them are long-lasting while others may be occasional, and they do have an effect on a person's ability to function each day (Medline Plus 2021a.)

Even though mental disorders are serious conditions, people with mental health problems can get better and many will recover completely with help. Recovery is a process where an individual improves their health and wellness. The person who wants to recover must make choices that support their physical and emotional well-being, have a stable environment, engage in meaningful daily activities, and build relationships and social networks that provide support. (U.S. Department of Health and Human Services 2019.)

Your physical health can be affected by your mental health. Good mental health can help a person to cope with stress, have good relationships, work productively, and be physically healthy. The risk of a stroke, type 2 diabetes, heart disease and other physical problems is higher when a person is also suffering from a mental disorder. (Medline Plus 2021a.)

Certain factors can increase a risk of developing a mental illness, such as, biological factors, life experiences and lifestyle. Mental health can change over time and difficult situations can worsen it. For example, while dealing with financial problems, the situation can overwhelm you and worsen your mental health (Medline Plus 2021a.) Getting therapy, meditation, and relaxation techniques such as mindfulness can improve mental health (Mayo Clinic 2019). Mindfulness is a moment-by-moment awareness of our thoughts, feelings, sensations, and surrounding environment. Practicing mindfulness lets us focus on what we are sensing in the present moment rather than thinking about the past or the future. We usually worry about the past and the future instead living in the present moment (Suomen Mielenterveys ry n.d.)

Each mental disorder is different and even though some of the symptoms may be the same for some of the disorders they can vary from person to person. Medline Plus (2021a), an online medical resource, suggests looking out for the following symptoms: “ a change in sleeping or eating habits, withdrawing from activities and people, having low energy, feeling numb and helpless, having severe mood swings, hearing voices and thinking of harming yourself or others”.

4.1 Why people do not seek for support

Mental disorders are one of the leading causes of disability around the world. With the proper treatment like therapy and medication, people suffering from mental disorders can live productive lives. 60 percent of the people with depression can recover with antidepressant drugs and psychotherapy, and 80 percent of the people with schizophrenia can be free of relapses with the right medication and family intervention. (World Health Organization 2001.)

If there are treatment options available and the success rate is high, why do not people seek help? It is believed that over half of the people with mental illness will not seek help. There is still an issue around the stigma against people with mental illness. Stigma comes from inaccurate and misleading representations of mental illness in media and a lack of understanding. There are different types of stigma. The Public stigma involves the negative attitudes towards people with mental disorders. Self-stigma refers to internalized shame when people are ashamed of their own condition. Institutional stigma involves government policies and private organizations limiting opportunities for people with mental illnesses. People suffering from a mental disorder can be seen as dangerous and unpredictable. Employers may not hire them, or they are offered a lower standard of care. The stigma around mental illnesses may worsen the symptoms or cause the person to not seek help because they feel too ashamed by it. Self-stigma can cause a person to lose hope, lower their self-esteem, cause difficulties with relationships and workplace or even increase psychiatric symptoms. The stigma may also cause other harm such as social isolation, lack of understanding by people and bullying. (American Psychiatric Association 2020a.)

Talking openly about mental health and educating others can help to reduce the stigma around mental illnesses. People are afraid of being judged if they admit they may need help from others. The stigma around mental illnesses can also make a person suffering to think that they do not need help. Sometimes a person may come up with a different reason why they do not need to seek help. Also not being aware of different disorders may cause a person to not be aware of what they are experiencing stems from a mental disorder. (High Watch 2019.)

Sometimes getting an appointment with a doctor or a therapist may seem too difficult. A person suffering from depression may have difficulties doing the most mundane tasks, like getting out of bed and showering. Social anxiety can make it intimidating to call a doctor or talk to people about what you are going through.

Medical health care is not always easily accessible. In certain regions, mental health care may not even be available, or the system may be too overworked.

Paying for treatment can be an issue too and therapy is usually fairly expensive. That is why video games could be more available. They are affordable and found in most households. Playing a video game may be an easier step to take than getting an appointment with a doctor. Video games may have the potential to spread awareness and reduce the stigma when they talk about the topics of mental health and well-being with respect.

5 MENTAL DISORDERS IN THE MEDIA

The media is one of the public's primary sources of information about mental disorders such as depression, schizophrenia, and bipolar disorder. Some portrayals of mental disorders in the media can be stereotypical, stigmatizing, and negative. This allows people to gain inaccurate views of those with mental disorders and how these disorders work. (Fawcett 2015.)

Mental disorders have inspired many different characters in our pop culture. For example, M. Night Shyamalan film, 'Split' (Universal Studios 2017), portrays a man (played by James McAvoy) who is suffering from Dissociative Identity Disorder (DID), causing him to have 23 different personalities (Figure 1). In the film, he kidnaps three teenage girls and holds them hostage. Split stigmatizes the disorder implying that a person with DID could be violent. It adds to the negative stereotype that people with mental disorders could be dangerous, scary, and unpredictable.



Figure 1. James McAvoy in the movie 'Split' (Universal Studios 2017).

Stigmatizing also happens in video games. There is a considerable number of video games that dehumanize sufferers of mental illness, for example 'Outlast' (Red Barrels 2013). 'Outlast' is a first-person survival psychological horror game, developed and published by Red Barrels. The video game tells the story of Miles Upshur, who decides to investigate a remote psychiatric hospital named Mount Massive Asylum which is owned by Murkoff Corporation. It portrays the mentally ill as unstable and dangerous. The residents of the Mount Massive Asylum look threatening and disfigured.

Even though the patients in Outlast can be seen to engage in torture and cannibalism, some of the patients are stable enough to not attack the main character. For example, a character known as 'Pyromaniac', seen in figure 2. He can be found in Outlast's hospital cafeteria, just sitting and saying: *"I had to burn it. All of it. Murkoff took so much from us. Used us. Turned us into these things because nobody cares about few forgotten lunatics. So, let it burn. Burn the whole god damned thing down. Get out. If you want to live, you can get through the kitchen."* Pyromaniac does not attack the player, but he also wants the main

character to get out safely. Even though Red Barrels' *Outlast* has the mentally ill portrayed as evil and malicious, it manages to include a few scenes where the mentally ill are portrayed in a respectful way. If the player films the scene in the game, the player will unlock a note from Miles which reads: "*I'm not the only victim here, not by long shot. I watch a man wait to burn to death, the most painful imaginable, rather than stay in this place.*" (The Dopefish 2019.)



Figure 2. 'Pyromaniac' in 'Outlast' (Red Barrels 2013).

Reinforcing the negative stereotypes of people with mental illnesses can cause harm. The stigma around mental illnesses prevents people from getting help and they are often discriminated against. People who suffer from a mental disorder may face bullying and harassment. (American Psychiatric Association 2020a.)

Over time, the media has become more conscious about how they portray people with psychological disorders. Screenwriters have written more humanized characterizations of individuals with mental disorders, for example, 'A Beautiful Mind' (Universal Pictures, DreamWorks, Imagine Entertainment 2001), a biographical drama film. It is based on a life of an American mathematician, John Nash, a Nobel Laureate in Economics and Abel prize winner. The story begins as

Nash studies at Princeton University and develops paranoid schizophrenia. Even though the movie may not describe John Nash's disability totally accurately, it does paint an accurate depiction of schizophrenia.

In cinema, mental disorders are usually written to be severe and the people suffering from them cannot recover. They teach us that psychiatric hospitals are scary and do more harm than good. There are many things that the media gets wrong about mental disorders, but usually, they are related to the way individuals look and act. People with psychological disorders are usually painted violent but in fact, studies show that individuals with mental illnesses are less likely to commit violent crimes, and they are more likely to be victimized (National Center for Biotechnology Information 2003).

'Alice: Madness Returns' (Spicy Horse 2011), is a psychological horror hack and slash action-adventure video game which follows Alice Liddell, a girl who suffers from trauma. She was discharged from a psychiatric clinic and then lives at an orphanage for mentally traumatized children. At the end of the game, Alice suffers from a hallucination of being back in the asylum. She can be seen wearing a straitjacket in a dirty padded cell seen in figure 3. In the media, individuals with mental disorders usually look threatening and unorganized, but in fact, most people with mental disorders look like everybody else.

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Figure 3. Alice in a padded cell in 'Alice: Madness Returns' (Spicy Horse 2011).

In this chapter, the goal is to look at different video games that discuss the topic of mental health, how they could help and how they have implemented that in the game. The video games that have represented mental health disorders properly are 'The Cat Lady', 'Hellblade: Senua's Sacrifice' and 'Celeste'.

5.1 The Cat Lady and its portrayal of mental illness

Harvester Games is a studio that approaches the topic of mental health. Their first title, 'The Cat Lady', made in 2012, is a psychological horror-adventure point and click game. 'The Cat Lady' tells mostly a linear story through its puzzle mechanics. The game tells the story of Susan Ashworth who is a woman in her mid-30s. She lives in an apartment complex and is known as "the cat lady" since her door is always open for the stray cats in the neighborhood. She struggles with clinical depression and eventually attempts suicide by swallowing a large number of sleeping pills, but she doesn't find peace, but instead finds herself in a surreal fever dream. She finds an old shack with an old woman waiting for her. The old woman introduces herself as "The Queen of Maggots", a characterization of Susan's fears and depression. The woman grants her immortality and sends her back to the living on a task to punish and kill "parasites". The parasites are evil people who live for the suffering of others.

Depression is a medical illness that affects the feelings, thoughts, and actions of a person. There is a sense of sadness and many lose enthusiasm for activities they previously enjoyed. These associated emotional and physical symptoms have a negative effect on a person's ability to work and manage everyday tasks. Depression affects one in 15 adults (6.7%), and one in six people (16.6%) will experience depression at some time in their life. Symptoms of depression vary from mild to severe. People often feel guilt and low self-worth. Depression is usually long-lasting, and for it to be diagnosed, symptoms need to be present for at least two weeks and must impair functioning. (American Psychiatric Association 2020b.)

There are several risk factors that may cause a person to have depression. Biochemistry may cause differences in certain chemicals, such as serotonin in the brain that may contribute to symptoms of depression. Genetics can also have an effect since depression can be hereditary. Other causes are personality and environmental factors. People with low self-esteem and who are generally pessimistic and get overwhelmed by stress and experience anxiety easily may be more likely to experience depression. Past experiences such as trauma and exposure to violence, neglect and abuse may also make someone more likely to have depression. (American Psychiatric Association 2020b.)

According to American Psychiatric Association (2020b), depression is very treatable. They state that: "*80 to 90 percent of people with depression respond well to treatment.*" Most commonly people with depression are treated with antidepressants. Psychotherapy has been found to be an effective treatment for depression. For example, cognitive behavioral therapy, which focuses on improving a client's problem-solving abilities in the present, helps a person to recognize their own distorted or negative thinking in a given situation. This awareness helps the client to process their thoughts and change their behavior helping them face different challenges in life in a more positive manner. (American Psychiatric Association (2020b.)

After the suicide attempt, Susan finds herself in a suicide ward. The hospital staff is overworked and condescending. In our society, the people who do or attempt to end their lives are seen as weak, but Susan tries to end her life as a conscious choice. She feels like it is her last option before she finds meaning in her life.

'The Cat Lady' does not approach the topic of mental health in a problematic or exploitative mindset. It is written with a genuine understanding of the topic and it treats it with empathy. The topics vary in suicide, depression, trauma, abuse, and social anxiety. Through-out the game, Susan tries to find ways to move on and handle her emotions. 'The Cat Lady' is a game about getting better and having hope for the future.

'The Cat Lady' tells its story through its puzzle mechanics. In the 3rd chapter, the puzzle mechanic is designed around the struggle of mental illness. It engages depression and anxiety as a mental condition through its gameplay. The player's goal is to avoid getting a panic attack or it will end up in Susan having a mental breakdown. It shows how difficult life can be trying to avoid getting anxious even by the small things in life. In this puzzle, the player will have two meters. The red one shows Susan's anxiety level and the green one rises when she feels contented (Figure 4). When the red one fills up all the way, she will suffer a panic attack. The puzzle is made to be almost impossible to finish. The player cannot anticipate the events and it takes almost nothing to push her over the edge. It shows how anxiety works. It gets worse when bad memories come to mind, and bad events happen. Everything can become an additional stressor and drastically lower a person's well-being. It shows how well-being can be chronically threatened by anxiety and stress. This gameplay mechanic works as a metaphor to illustrate how the panic disorder works. Experiencing this in a video game could possibly help a player that suffers from a panic disorder. The player will soon realize that they are not struggling with this issue alone, and they can and will get better. It teaches the player to understand how easily their well-being can be threatened and what could they do to prevent that in the future. 'The Cat Lady' manages to show the player the irrationality that a person's mind can go through

when their psyche is at its most vulnerable state. It can be hard to comprehend without having experienced it first-hand, so that is why experiencing this in a game where you can feel immersed, can be a great way to understand mental disorders better.



Figure 4. Anxiety Puzzle in the game 'The Cat Lady' (Harvester Games 2011).

In 'The Cat Lady', Susan comes across different people on her path. One of them is Mitzi Hunt, a woman in her late 20s. She is optimistic despite her illness, glioblastoma, a brain cancer. Thanks to Mitzi, Susan learn to trust people again and finds meaning in her life. Having good people around us is important. Friendships can uphold our mental health and well-being. Friends can keep us grounded and help us get new perspectives. Even though friendships can help someone recover or live with a mental health problem, people with these issues often try to isolate themselves from other people.

Friends can play an important role in a person getting help and taking care of someone's well-being. But we must remember that it needs to go both ways.

Friends can assess the risk of suicide or self-harm, they can offer to listen, give comfort and advice, encourage the person to get professional help and encourage self-help strategies. Sometimes people do not want to turn to their friends for help. This is when communities can be found helpful. There are local organizations and groups that offer help and support. People can share their experiences and get peer support. (Mental Health Foundation n.d.b.)

Hearing that you are not alone with the issue can give huge relief to a person. 'The Cat Lady' teaches us ways to cope with an illness by getting help from other people. Susan finds comfort from Mitzi and by talking to other people who are suffering from the same illness.

At the end of the game, Susan learns to live with her illness. 'The Cat Lady' can seem rough in the beginning but in the end, it has a positive message. Because of the difficult topics, some of the content in the game can be seen triggering and that is why the game starts with a trigger warning. Susan learns that she's not alone with her feelings because there are other people like her. She says: "*It turned out there were others who felt like I did. I talked to them. Tried to help.*" 'The Cat lady' points out that some days may be worse than others, but the next day will be better. She admits that she may never get rid of it, the illness, but even then, she just "*--needs to pick herself up and carry on.*" 'The Cat Lady' shows the importance of friendship and having people that care about you around. Susan gets better because she allows other people to help her.

5.2 Hellblade: Senua's Sacrifice and psychosis

'Hellblade: Senua's Sacrifice' is an action-adventure game published in 2017 by Ninja Theory. It tells a story of a Celtic warrior, Senua, who is on a quest to Helheim to rescue the soul of her loved one, Dillion, who was brutally murdered to a Norse god while the Vikings invaded. Meanwhile, Senua was away trying to conquer her illness, psychosis, what she calls "darkness". It refers to having a loss of contact with objective reality. It's characterized by two main symptoms: hallucinations and delusions (Ninja Theory 2018). Senua's psychosis is related to her having schizophrenia.

World Health Organization (2019b) defines schizophrenia as: “*a chronic and severe mental disorder that affects 20 million people worldwide, but it is not as common. Traits of schizophrenia are usually described as distortions in thinking, perception, emotions, language, sense of self and behavior.*” Schizophrenia can impair daily functioning. People with schizophrenia require lifelong treatment and diagnosis is important since early treatment may help get the symptoms in control before more serious complications may develop. (World Health Organization 2019b.)

Schizophrenia’s traits include hallucinations, delusions, abnormal behavior, disorganized speech, and disturbances of emotions. Delusions are false beliefs that are not based on reality. For example, a person with schizophrenia may think that they are being spied on. Hallucinations involve seeing and hearing things that do not exist. Hearing voices is the most common hallucination even though hallucinations can be in any of the senses. These symptoms can vary in type and severity (World Health Organization 2019b.) Symptoms can get worse or they can remain the same. In women, these symptoms usually begin in the late 20s but for men, they usually start in the late teens or early 20s (American Psychiatric Association 2020c.)

It is uncommon for children younger than 12 to be diagnosed and rare for people older than the age of 40 (National Alliance on Mental Illness n.d.). People with schizophrenia often do not know that their difficulties are related to a mental disorder, so usually the one to get help is a family member or a friend (Mayo Clinic 2020).

We do not know for certain what causes schizophrenia, but it is believed that it is a combination of genetics, brain chemistry and environmental causes. Schizophrenia is associated with changes in the brain structure and central nervous system. Researchers believe that brain chemicals, including neurotransmitters called dopamine and glutamate may contribute to schizophrenia. There are certain factors that seem to increase the risk of

developing schizophrenia, such as the family history of schizophrenia, pregnancy, and birth complications such as malnutrition or exposure to toxins or taking psychoactive or psychotropic drugs during teen years have been linked to the development of schizophrenia. (Mayo Clinic 2020.)

Mayo Clinic (2020) claims that: *“Leaving schizophrenia untreated can lead to several serious problems, these include, suicide or suicide attempts, anxiety disorders and obsessive-compulsive disorder (OCD), depression, abuse of drugs, inability to work or attend school, social isolation, and financial problems. We do not know how to prevent schizophrenia for sure but sticking to treatment can lessen the symptoms and early diagnosis is important.”*

Senua often has visual hallucinations, like the dark rot in her arm that’s killing her, or the secret runes of the gods that show and block her way to the Helheim. Some of these hallucinations are harmful while others guide her through her journey. She also has constant auditory hallucinations. The voices analyze what she’s doing, her mental state and her chances of survival, but she can never be sure of their intentions. This means that her senses cannot always be trusted. It creates tension for the player, illustrating the ways how disturbed perception of reality feels like and affects a person.

The closer to the Helheim Senua gets, the more the player gets to experience how her psychosis has shattered her life. Ninja Theory tells that if the player dies enough times in the game, Senua will succumb to the disease, the rot growing in her arm (Figure 5). It will set her back to the beginning of her journey. This means that the player will lose their save file. Ninja Theory is putting the player in the shoes of someone with irrational dread and fear, like someone experiencing psychosis where you can’t trust all of your senses. ‘Hellblade: Senua’s Sacrifice’ found a way to put the player into that position.



Figure 5. Rot mechanic in 'Hellblade: Senua's Sacrifice' (Ninja Theory 2017).

Ninja Theory never exploits Senua for shock value. Her mental illness influences the gameplay in ways it makes sense for her character. It allows the player to understand what she is going through. Senua's delusions allow her to see connections and signs in the world that others cannot see. She creates connections in her surroundings embracing her illness in a way that it guides her on her way. She never physically moves crates or jumps through different platforms, like usually in video games. All of the Hellblade's puzzles are visual but are also symptoms of her schizophrenia. She puts together patterns that are not there in the world, and she attaches meanings to them (Figure 6). These patterns, runes, open doors that may have not been there all along. But she does this because she believes that it is the only way for her to move forward.



Figure 6. Runes in 'Hellblade: Senua's Sacrifice' (Ninja Theory 2017).

The auditory hallucinations, the voices, Senua hears are usually negative and mean – trying to deceive and distract. But sometimes they also alert her to dodge enemies and help her to navigate the darkness. In Senua's world, the player never knows what's real and neither does she. Senua sees her psychosis as a curse. Her fellow tribe members put that idea into her head. Even though she sees it as something to get rid of, her illness helps her go through her grief and loss. It helps her cope with trauma when no one else can understand what she is feeling. Senua is a human being who happens to be battling mental illness. The journey she goes through is her personal journey to not only confront but also conquer her illness.

At the end of the game, Senua does not find a cure for her illness, but she learns to cope and come to terms with it. She is now better equipped to carry on, but most importantly she forgives herself. Mental health issues usually make the sufferer feel like they are at fault, but 'Hellblade: Senua's Sacrifice' challenges this idea by teaching the player that they can indeed forgive. The game helps the player to understand what having a psychosis could feel like. It teaches the player to empathize with a person having a psychosis, but it also allows a person with schizophrenia to forgive themselves.

5.3 Celeste and learning to live with anxiety

'Celeste' is a platformer made in 2018 by Matt Makes Games. It tells a story of a young woman named Madeline who wants to climb up the mount "Celeste" to show herself that she can succeed. 'Celeste' uses its storyline and gameplay mechanics to teach us how to cope with mental disorders. One part of the game includes Madeline and her friend Theo riding a gondola to get past a gap in the mountain. The gondola breaks down and stops moving. Soon the screen gets filled up with dark sky and spikes all around the corners. Madeline starts panicking but Theo does not understand why she is acting that way. The game is demonstrating that Madeline is having a panic attack and that Theo cannot see what is happening, but we, the players do. He tries to calm her down by asking her to focus on breathing to suspend a feather inside the gondola. The player gets to control the feather by using arrow keys or with voice controls saying "up" and "down" to move the feather (Figure 7). As Madeline keeps controlling her breathing, the atmosphere gets calmer and the environment gets back to normal. It's been proven that exercises where you must switch the focus away from the panic attack, helps a person to calm down. This is the game's way to teach the player how to handle a panic attack but most importantly, it shows that Madeline's experiences are real even though others cannot see them.

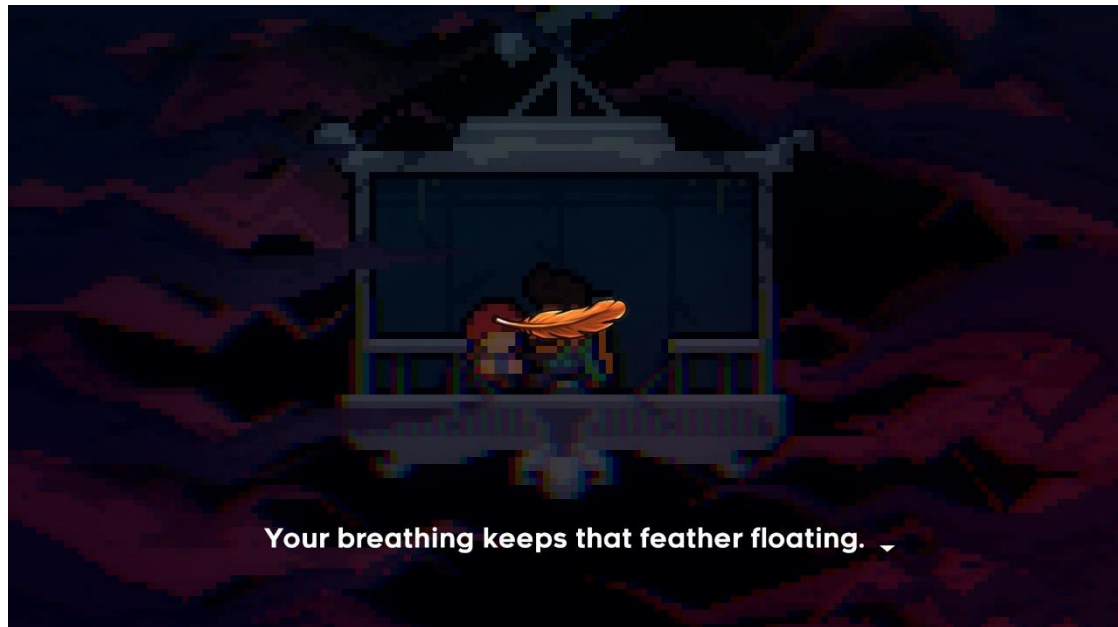


Figure 7. Feather puzzle mechanic in 'Celeste' (Matt Makes Games 2018).

Madeline suffers from anxiety and panic attacks. Anxiety is a natural reaction to stress. It alerts us about possible danger, heightens our attention, and releases “the fight or flight hormones” enabling us to act quickly. Anxiety disorders involve excessive fear and anxiety and they differ from normal nervousness. Anxiety disorders are very common mental disorders and affect almost 30 percent of adults during their lives. (American Psychiatric Association 2017.)

According to Mental Health Finland (n. d.): “*With generalized anxiety disorder, the anxiety is not triggered by a specific situation, as is the case with social phobias, nor does it come in attacks, as with panic disorder*”. Someone suffering from an anxiety disorder may try to avoid situations that may trigger their symptoms. This may have an effect on their job performance, schoolwork, and personal relationships. American Psychiatric Association (2017) lists: “*There are different types of anxiety disorders, for example, generalized anxiety disorder, panic disorder and social anxiety disorder.*” The feeling of anxiousness must last over 6 months to be considered a mental disorder (Mental Health Finland n.d.).

Generalized anxiety disorder involves excessive worry which may be accompanied by physical symptoms such as restlessness, fatigue, problems of sleeping and difficulty concentrating. The worries often are focused on everyday

things such as responsibilities at work or school, health, or minor things in daily life. Panic disorder's main symptom is recurrent panic attacks. These panic attacks cause overwhelming psychological and physical distress and their symptoms may occur in combination. The most common symptoms are rapid heart rate, palpitations, sweating, shaking, chest pain, shortness of breath, dizziness, numbness or tingling, chills, or hot flashes, feeling detached or fear of dying. Social anxiety disorder causes anxiety about being embarrassed, humiliated, or looked down on in social interactions. People with this disorder have issues functioning daily. (American Psychiatric Association 2017.)

We do not know what causes anxiety disorders, but they are most likely caused by a combination of genetic, environmental, and psychological factors. Even though professional help is also available, self-help is highly recommended. Stress management techniques and mediations are recommended (American Psychiatric Association 2017.) That is why "the feather mechanic" Celeste teaches the player, focusing on breathing, can be found helpful.

In 'Celeste', Madeline has a physical manifestation of negativity, depression, and anxiety. She calls that manifestation as "Part of her". She was brought to life by the mystical mountain of 'Celeste' and works as the game's main antagonist. She tells Madeline that she should just give up. When Madeline refuses, her dark side tries to chase after her. At this point, Madeline chooses to run away from her anxiety instead of facing it head-on.

Madeline meets a lot of different people on her journey. Some help her on the way, and some try to bring her down. She comes across a ghostly resort owner, Mr. Oshiro. He runs a hotel that has fallen into disrepair. Mr. Oshiro is a lonely, insecure man who shows how badly an anxiety disorder can affect a person. He is isolated and not capable to function in the world. Madeline is afraid that the same could happen to her, so she tries to help him. She cleans up the hotel and reassures him, but it does not help, and he lashes out on her after "Part of her" appears and puts him down. Mr. Oshiro cannot tell the difference between Madeline and her mental illness. Madeline's mental health caused her to lose a

friend. This is common for people who are suffering from an illness, but this is also Celeste's way to teach the player that you cannot force someone with mental health issues to recover. Madeline tried to help Mr. Oshiro and she failed. Sometimes you must let people heal on their own schedule and just be there for them and be patient.

As Madeline and Theo climb up further, Madeline decides to talk to Theo about her insecurities, anxiety, and depression. She then decides that she must destroy that part of herself before it destroys her completely. She finally faces her dark side with confidence and full of energy. Madeline tells her dark side that she wants to separate, that she's not abandoning her but setting her free. The dark side gets upset trying to put Madeline down. Madeline remembers Theo's trick and tries to imagine a feather but her dark side destroys it and throws Madeline into the bottom of the mountain literally and figuratively. It shows that you can try your best and be fully prepared but sometimes you can be thrown down for no reason.

As Madeline wakes up, she feels like a failure. She meets an old woman who tells her that maybe "the part of her" is just scared. Madeline decides that she must work together with her dark side. She faces her illness head-on (Figure 8). As she teams up with her dark side, she gets more powerful and finally reaches the top of the mountain Celeste. You cannot fully separate yourself from your problems, but you can work through and acknowledge them. Mental illnesses are long-term issues and you may have to deal with them for the rest of your life, but Celeste teaches the player that you can still achieve great things by accepting and coming to terms with them.



Figure 8. Madeline confronts her dark side in 'Celeste' (Matt Makes Games 2018).

'Celeste' has a lot of symbolism, for example, its comparison to dealing with mental disorders to climbing a mountain. Madeline learns to deal with her illness step by step. She fails multiple times, but she gets through it by not giving up. We start the game without knowing about Madeline's problems. It is hard to tell where people's well-being is by looking at their outer appearance. Someone can look happy on the outside but still be battling with a lot on the inside. In the first chapter, the player can find a gravestone at the end of the level, which says: "This memorial dedicated to those who perished on the climb." As the mountain of 'Celeste' works as a metaphor for dealing with anxiety and depression, it is meant for the people who did not make it out alive (Figure 9). According to World Health Organization (n.d.): "close to 800 000 people die due to suicide each year, which means one person dies every 40 seconds." National Institute of Mental Health (2021) defines it as: "death caused by self-directed injurious behavior with intent to die as a result of the behavior." It needs to be taken seriously and 'Celeste' acknowledges the issue.



Figure 9. Memorial in 'Celeste' (Matt Makes Games 2018).

Madeline has friends to help her on her journey. 'Celeste' tells the player that you will always have someone there for you. Everyone has problems but it is never too late to get better. 'Celeste' even tells the player: "*Be proud of your death count, the more you die, the more you are learning. Keep going!*" Failing in life sometimes is inevitable but it does not have to be a bad thing.

6 ADJUSTING TO CHANGES IN LIFE

Whether something is expected or comes completely out of the blue, changes in your life can have a huge impact on your life. Sometimes even something that is considered good can trigger an immense amount of stress. Challenging situations are part of life and cannot always be prevented. Events in life such as a relationship break-up, loss of a job and death of a loved one can result in emotional and psychological trauma and it will have an impact on all aspects of our well-being, even though you may not have control over these events.

Some events in life cannot be planned but even the ones you plan for can be hard to adjust to. Changes in your role, like retiring, becoming a parent, or starting at a new school can be surprisingly stressful. The difficulty and

challenges that comes along with these life changes can contribute to ill well-being, anxiety or even depression. It can induce anxiety and uncertainty about the future because it is a change from the routine. Unfortunate and positive changes in life may feel like a loss, as we let go of the past and begin a new path. This grief process may take time but after some time passes it will get easier. Self-care is extremely important, including maintaining routines, eating healthy, sleeping enough, and exercising. Often when something radical happens in our lives, self-care is easily forgotten. Positive changes take a lot of work and time, but they will be worth it in the end.

Most people would love to stay in their routines and being content, but change is inevitable. Even though we would like to prevent it, it can lead to amazing opportunities even if they come from great sadness. When we meet the unexpected and the unknown with self-care, support, and compassion for ourselves, we have a much higher chance of maintaining our well-being and mental health during major life changes. When we can face similar problems to ours in media, for example, in movies and video games, it can give us an immense amount of relief. Playing video games to escape real life and its responsibilities may be harmful which can lead to social isolation, anxiety, and depression. The more stressful your life gets, the more you play video games, but this kind of behaviour will just push these issues for later and in the worst-case scenario just builds them up more. With this “escapist” mindset, ignoring problems, avoiding stressful situations, and blocking unpleasant emotions, the more likely they are to suffer these negative effects. The more stressful the life gets, the more they will play video games for escapism. This will take time away from solving these problems and working through them and it allows them to build up even bigger. It is a never-ending cycle.

Video games do not have to be for escapism from real life. Playing video games with a purpose, such as developing creativity, learning problem-solving, strengthening relationships, or improving skills to perform better in stressful situations, can be a way to better yourself. Video games can also reduce stress.

They can be extremely engaging, immersive, and enjoyable, which reduces stress.

Playing video games also results in dopamine secretion. Neurotransmitter called dopamine is made in the brain and it is released when you get a reward.

Dopamine works with other neurotransmitters as well, such as serotonin and adrenaline. Many body functions involve dopamine, it increases blood flow, speeds digestion, elevates mood, and sharpens memory and focus. Dopamine is also a factor in pain processing, stress response and heart and kidneys.

Dopamine also contributes to feelings of alertness, happiness, motivation, and focus. (Pietrangelo 2019.) Because of stress reduction and dopamine secretion, video games could make a person feel more content and happier. Usually, when a player goes forward in the game, the game will give instant rewards, which could help a player to reduce the stress of achieving long-term goals. Video games are meant to be challenging and overcoming these challenges could lead to feelings of competence. (Lal 2020b.)

Seeing something that reminds you of your own experiences and thoughts can be found helpful in multiple ways. It teaches you that you are not alone with these experiences and you can practice self-compassion. In this chapter, I am going to analyse three different video games that have a positive attitude towards life.

These games are 'Gris', 'That Dragon, Cancer', and 'Night in the Woods'. 'Gris' and 'That Dragon, Cancer' are both video games about loss and working through the grieving process. 'Night in the Woods' is a video game about growing up and the difficulties of adolescence.

6.1 Grief process through video games

Grief is usually a result of a loss, for example, the death of a loved one. Everyone experiences grief differently and there is no wrong way to grief. A loss that may be minor to someone may cause an immense amount of grief and sadness for someone else. It is normal to experience sadness in a difficult situation and the grieving process may share some similar features of depression, but they are not the same. When grieving, the painful feelings come in waves when in major

depression, the mood is decreased for most of two weeks at least. A person's self-esteem also stays the same in grief but in major depression, the person may have feelings of worthlessness. A person who is grieving may also have thoughts of death but they are usually about "joining" the deceased loved one, when in depression they are about ending one's life due to being unable to cope with feelings the depression may cause.

Video games can help a person to get through difficult and complex feelings. It can offer escapism to reconnect with life when your mind is full of things. Video games have the potential to offer a healthy outlet to distract and ease the feelings of grief.

6.1.1 Gris and the five stages of grief

In 1969, Elizabeth Kübler-Ross introduced the five stages of grief in her book 'On Death and Dying'. This model is based on her work with terminally ill patients. They include denial, anger, bargaining, depression, and acceptance. These stages can appear in a different order, depending on a person. (Gregory 2020.)

'Gris', a platform-adventure game made by Nomada Studio in 2018, follows a girl on her journey. The girl is lost in a world while she deals with a painful experience in her life. The game follows the Kübler-Ross model since each stage represents one of the five stages of grief (Figure 10). The girl copes with each phase after having lost her mother.

Kübler-Ross Grief Cycle

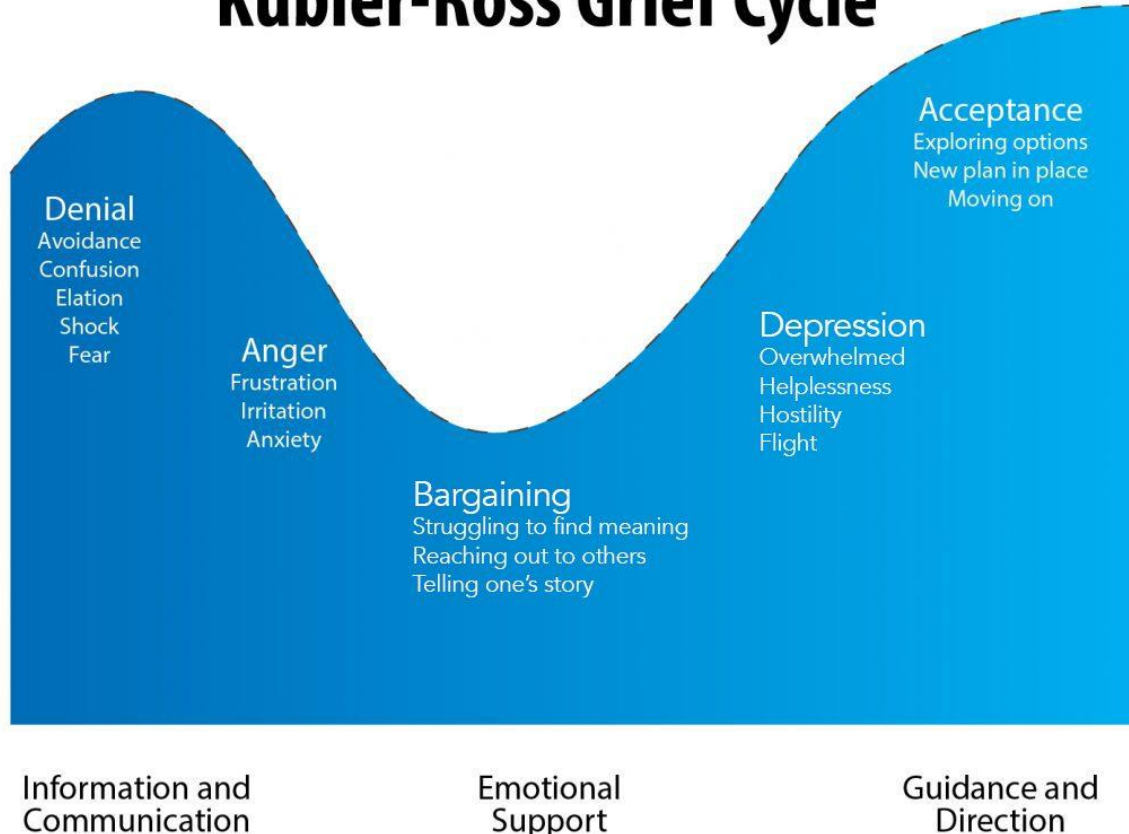


Figure 10. Kübler-Ross grief cycle (Gregory 2020).

'Gris' starts with the first stage, denial. The girl tries to sing but she has lost her voice. She rejects reality and creates her own world. The girl falls and tries to get up. She begins to walk slowly and soon she gains the ability to run. Her world is devoid of all color.

Expressing emotions can be hard while grieving and we often shut ourselves away from the world. This is when the girl loses her voice and safety net. The first stage, denial, helps us to minimize the overwhelming emotions. While we try to survive emotional pain, we may think that the reality is false. Instead of pushing the feelings away, we should bring awareness to the feelings we have.

Remembering that grief is not a constant feeling, it comes and goes, may help get through the deepest parts of sadness.

In 'Gris', the girl's world is empty, and she is alone. Sometimes when we are facing intense emotional pain, we may feel isolated. It can be helpful to

remember that there are other people that are going through the same. Having the recognition that others may experience the same suffering can help us to practice self-compassion. Grief is something that we will all go through eventually and reminding us of that, can give us some comfort.

In the game, the first area is filled with ruins and dust without any color but soon we get to the second stage, anger. She walks on a barren desert filled with rocks. Eventually, winds begin to pick up turning into a storm. The background colors change to red and the winds try to push her back, but she obtains a new ability to inflate her cloak, so it is weighted down. This prevents her from being pushed back by the winds. It's a physical manifestation of a person learning new skills to cope with loss and pushing forwards even though the depression is pushing you to go backward. The girl starts lashing out, breaking things, accidentally releasing a monster, the blackbird seen in figure 11. The monster, the depression she faces, tries to stop her from moving forward but she uses her new powers to proceed.



Figure 11. The enemy sprite in 'Gris' (Nomada Studio 2018).

In the third stage, bargaining, life begins to sprout up again. She comes across a forest. The girl's path is blocked by trees, but when she makes friends with a forest creature, her path opens (Figure 12). To move forward, a person may have

to look for support from other people. Having people around us is necessary to get better. Getting support helps us to heal faster and the game wants us to know this. The girl also obtains a new ability. Her cloak changes into wings and she's able to glide and double jump. With this ability, she's able to go even higher and get past different obstacles.



Figure 12. Forest creature in 'Gris' (Nomada Studio 2018).

The story of 'Gris' is familiar to us and we can find that comforting. It is like the game's way of telling us that everything is going to be okay. In the third stage, bargaining, we try to come up with different explanations of what we could have done differently. The bargaining process helps the person to accept the truth on an emotional and psychological level. Bargaining can be away for a person to get past the stage of anger to get closer towards acceptance.

The next stage is depression. The girl learns a new ability to swim. It makes her go deep below the water, where the light does not reach. During the fourth stage, the person comes to the realization. In this stage, it will seem like nothing could have been done to alter the inevitable outcome. It may feel like it will last forever. There is no set timetable for how long this stage lasts but it is a very appropriate response to loss.

After the depression comes acceptance. The girl learns to sing again. She walks in a colorful palace as the colors have returned to the world. She moves forward climbing her way back up giving the last farewell to her mother. In this stage, your emotions will start to stabilize and come to terms with the new reality. There can still be bad days, but the good days outnumber the bad days. You move forward and grow from it.

'Gris' uses its puzzle and game mechanics to symbolize the loss of a loved one, depression and the five stages of grief. Even though the game does not give straight answers on how to manage grief it still sends a message that the person suffering from loss will get past their grief, especially with help from other people. 'Gris' helps people to understand their emotions and gives them something to relate to. Stories like this help us to reflect on our emotions.

Even though the game follows the Kübler-Ross model, we must remember that the grief process is different for everyone. The grief process can come in a different order and it may not disappear once we have passed each stage. Sometimes a person may never experience closure. That is why you should seek help and do not try to conquer grief on your own. We must remember that there is no right or wrong way to grieve and it is not connected to a specific time limit. It is important to practice self-compassion, give yourself time and surround yourself with people that care about you.

6.1.2 That Dragon, Cancer, and loss of a child

'That Dragon, Cancer' is a video game developed by Numinous Games in 2016. The video game tells the story of raising a son, Joel, diagnosed with terminal cancer at twelve months old. The game is told from the developers' Amy and Ryan Green's point of view whose son passed away from terminal cancer. The player experiences the low and high moments of their lives in point and click style.

Cancer is when the body's cells begin to divide uncontrollably and spread into surrounding tissues. It is caused by the changes in the DNA (Deoxyribonucleic acid). Cancer can begin to develop almost anywhere in the body. (National Cancer Institute 2015.)

Usually when cancer develops there may be some early symptoms, but childhood cancers can occur suddenly. Leukemia is the most common children's cancer. Treatments include surgery, radiation therapy, chemotherapy, stem cell transplants and targeted therapy. Targeted therapy uses drugs and other substances to attack specific cancer cells. (Medline Plus 2021b.)

Every game mechanic in 'That Dragon, Cancer' is a metaphor and the player will soon realize that they can do nothing that would change the outcome for Joel. The story is told in small sections and the player's main goal is just to listen and witness what is happening. The player can witness the father, Ryan trying to comfort his son Joel while he is crying and screaming because he is in pain. The player cannot comfort him or even let him have anything to eat or drink because he will vomit it up which can be hard for the player to witness.

In 'That Dragon, Cancer', the landscape shifts from real-world locations to dreamscapes. The section of the game called "End of Treatment Party", starts in bright long corridors in a hospital and morphs into a go-karting game where the player collects fruits (Figure 13). The developers Amy and Ryan Green have commented on sharing their story of terminal cancer through a video game. It works as a metaphor for the real-life situation of letting a child ride their IV pole through hospital halls like it was a race car. As the developer Amy Green has said: "*--because when you have children, everything is a game. And when your young child experiences something traumatic, you work even harder to make sure that their life feels like a game because children naturally explore their worlds through play.*" (TED 2017.)

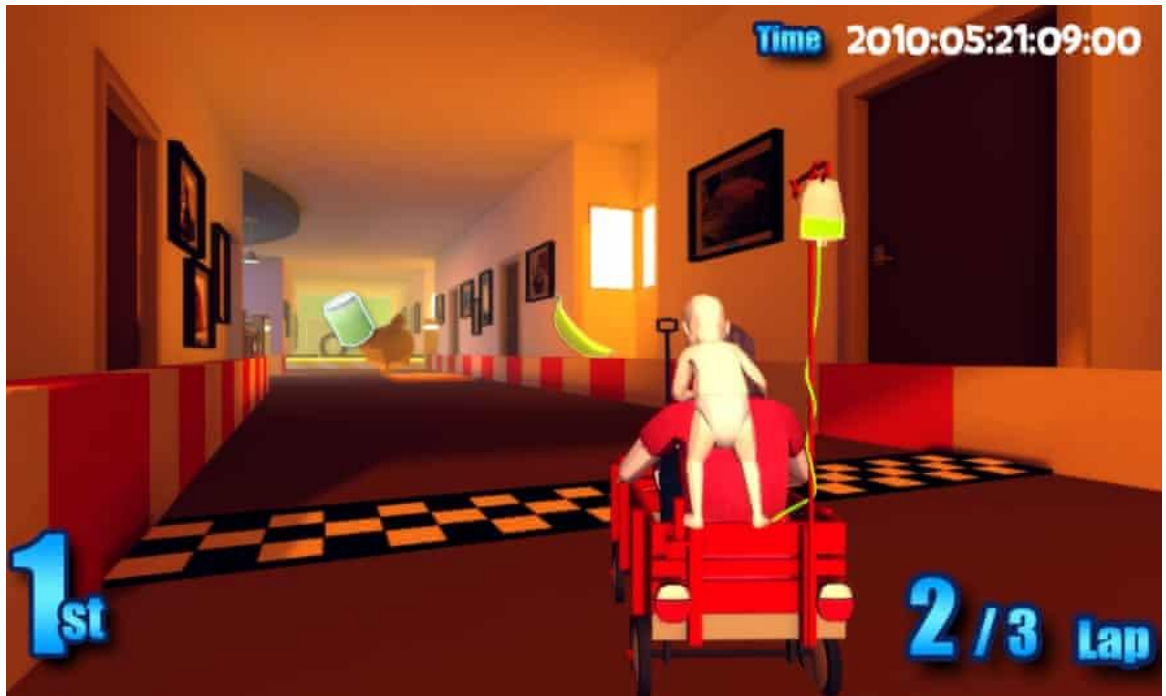


Figure 13. Go-kart level in 'That Dragon, Cancer' (Numinous Games 2016).

The characters in the game are polygonal 3D models with no facial features (Figure 14). They are humanized by voice acting and writing that feels real. In 'That Dragon, Cancer', the player gets to hear different people's perspectives. You get to listen to some of the doctors' views who have to give the bad news to the parents. The player gets to see the perspectives and thoughts of the parents, who try to cope with their own feelings and sadness.



Figure 14. Character design in 'That Dragon, Cancer' (Numinous Games 2016).

'That Dragon, Cancer' is a very linear experience but it allows the player to think about their own experiences. It shows how video games can create empathy by allowing the player to join in to experience something unfamiliar. There is no win screen. Cancer is a difficult topic and 'That Dragon, Cancer' works as a gateway to a hard topic. Sometimes the person grieving may want the process to be over quickly but the bigger the loss the longer the healing process can take. Going through the process in a video game can help to accept the reality of loss. It allows the player to give themselves space to experience their emotions. Experiencing something like grief in a video game allows the player to explore and manage real and complex emotions.

'That Dragon, Cancer' shows the player that grief should not stop you from living your life. It puts the focus on what you have learned, how it has changed you and what you can remember fondly without experiencing pain. 'That Dragon, Cancer' allows the player to go through their emotions. It does not only focus on death but how precious life is.

6.2 Night in the Woods and difficulties of adolescence

'Night in the Woods' is a single-player adventure game developed and published by Infinite Fall, released in 2017. It focuses on exploration, story and developing characters. The game tells a story of a young girl called Mae. She drops out of college and returns to her hometown, Possum Springs – a town populated by zoomorphic humans. Mae is a flawed and realistic character. She struggles with anger issues, low self-esteem and being delinquent. Her friends include a cynical crocodile named Bea and childhood friend Gregg, a hyperactive fox, and his boyfriend, a shy bear called Angus. The characters in 'Night in the Woods' struggle with relatable problems: education, career, finances, mental health, relationships and adulthood milestones. Bea and Mae were best friends until 7th grade. She worked hard on education until her mother died and she had to take her place at their family business. Mae's best friend Gregg is a talkative and friendly character, but he takes part in risky behavior doing small crimes. Gregg's boyfriend Angus keeps to himself because he was abused by his parents in his childhood. 'Night in the Woods' is a coming-of-age story about failing and dealing with other's opinions and finding purpose in life. People learn through relatable characters. It allows us to learn new ways to tackle similar difficult situations. 'Night in the Woods' teaches us about the importance of friendship and communication. It tells us that we are not alone with our anxiety. The video game shows us how normal these things are by seeing the characters go through them as well. It is an important realization for us so that we can practice self-compassion.

'Night in the Woods' shows the player how mental illness can show in our lives. Mae experiences intense episodes of panic attacks and disconnection. She describes her experiences with depersonalization, derealization disorder, as she loses associations for people and objects until they become "dead shapes".

Only two percent of the general population meets the criteria for having derealization disorder but at least half of us has had at least one experience with depersonalization or derealization in our lifetime. The disorder occurs in both men and women equally. Diagnoses usually occur during childhood since it is rare to

start after the age 25. Derealization disorder is often have experienced by people who have had severe stress in their life, such as being emotionally or physically abused or neglected during childhood, witnessed domestic abuse, have a severely mentally ill parent, or have experienced the death of a loved one unexpectedly. Derealization disorder has episodes that can be triggered by interpersonal, financial, or occupational stress. They can last from hours to weeks but in some patients, these symptoms are constantly present for years or decades. One symptom is the feeling of sensory detachment from one's body, mind, and feelings. People with this symptom may feel like they are an outside observer of their life, or that they feel unreal. Feeling detached from their surroundings, for example, people and objects are also common. The world may seem lifeless and as if they are in a dream. Derealization symptoms are distressing and intolerable when severe. Anxiety and depression are common with people who suffer from derealization disorder. Derealization disorder differs from the psychotic disorder so that the patients retain the knowledge that their experiences are not related to the real world but rather just how they feel. (Spiegel 2019.)

Mae experiences dissociation as if she would be observing herself from outside of her body and things around her would not be real. She mentions attacking a boy in high school while experiencing an episode and suffering with it in college. She returns home to heal while others see her as a college drop-out. Mae struggles with existential crisis and mental health issues and characters like this hardly get a spotlight.

Mae gets to spend time with her friends after she returns to Possum-Springs. She hears about her friends' own traumas and fears. The player learns how her friends have coped with their pain. The player helps Mae to have open communication about mental health and well-being by taking small steps in the right direction. Mae keeps a journal about her feelings and daily events, she talks to her loved ones, socializes, and engages in creative hobbies (Figure 15). Mae fears the future, but she learns how to accept the unknown. The player learns helpful tricks on how to deal with hard times in their life and more importantly,

how to accept who they are. By caring for Mae, we are practicing caring for ourselves or caring for those in our lives who remind us of Mae.

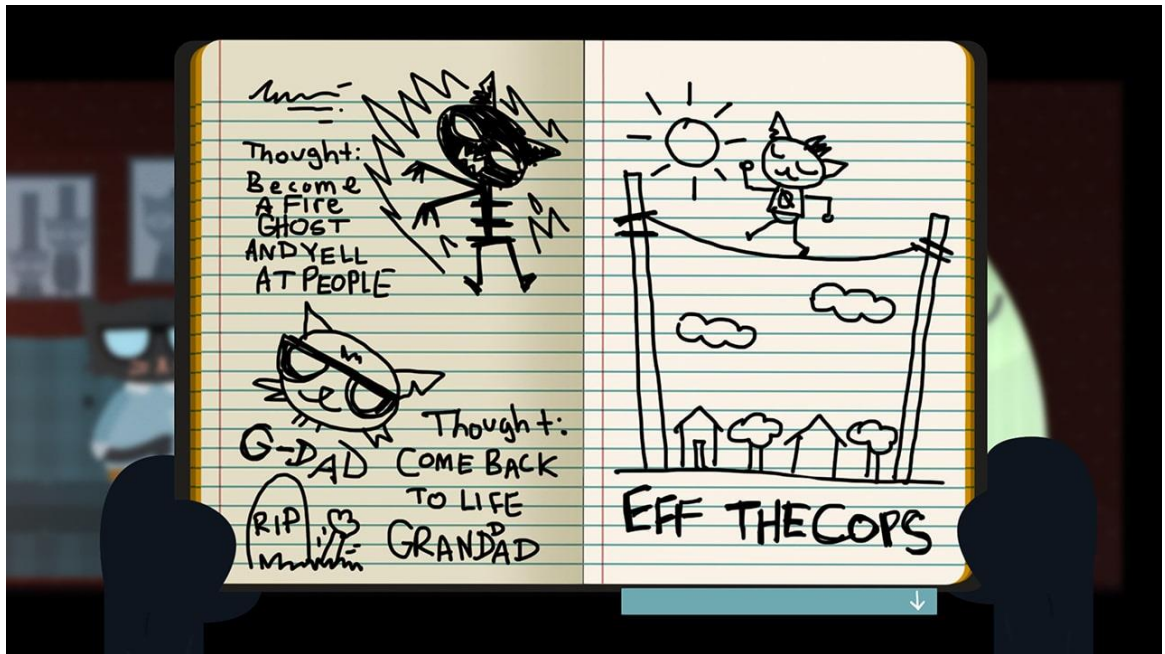


Figure 15. Journal in 'Night in the Woods' (Infinite Fall 2017).

'Night in the Woods' is a great balance of different themes. It helps the player to relax and relieve stress, but it is also psychologically complex and forces the player to think. 'Night in the Woods' is healing, it relaxes the player, but it also gives them important perspectives bolstering their emotional resilience in the future. Seeing Mae overcome these trials can work as great comfort and reassurance that we are not alone with our problems and we can only believe in ourselves. 'Night in the Woods' tells us that it is okay to not be okay. It teaches us self-compassion and that we can forgive ourselves. When we see characters in media that remind us of ourselves, it allows us to accept that our feelings and emotions are valid. In the game, Mae feels that everything has become meaningless and she is numb to the world around her. Bea tells Mae: "*What you are going through, it exists.*" (Figure 16). Hearing this validation, even if it comes from a video game character, can give the player immense relief. Sometimes we need to hear things out loud to give ourselves permission to feel a certain way.



Figure 16. Dialogue between Bea and Mae in 'Night in the Woods' (Infinite Fall 2016).

It is normal to compare yourself to other people and feel guilt for not reaching your goals. Growing up and trying to survive adulthood can be challenging. Society puts a lot of pressure on people how you should feel and how you should live your life. This has a huge effect on well-being. Playing 'Night in the Woods' can be escapism from real life, but it can also help you confront your problems. Seeing characters with relatable problems helps to normalize things that are often stigmatized. In the game, you live Mae's life day by day to proceed. She struggles with mental health issues, relationships and finding her place in the world. Sometimes we should remember that getting through your day is enough. When we are being rough on ourselves and put hard goals to achieve, we should remember that we shouldn't be too hard on ourselves when things do not go as planned.

7 SURVEY ABOUT VIDEO GAMES

It is important to find out what kind of gaming habits people have and what kind of benefits people get from playing so that we could create video games in the future that could be used to improve well-being. A survey was made to find out people's gaming habits. Surveys were also made for each video game that was playtested. The video games that were playtested were 'Hellblade: Senua's

'Sacrifice', 'Celeste', 'The Cat Lady' and 'Gris'. The surveys were held in Webropol. The group that took part in the surveys was small due to restrictions on meetings. Seven people were able to take part in playtesting and answering to surveys. The restrictions were caused by COVID-19, an infectious disease caused by a coronavirus (Finnish Institute for Health and Welfare 2021).

The first survey was made to figure out people's gaming habits. The most played video game genres were action, adventure, platformer, and puzzle games. This means that all four playtested video games have qualities from the most popular video game genres. This allows a bigger market for the games. 75 percent of all respondents said that they play more than five hours a week. All the respondents played video games for their entertainment value and to relieve some stress. 50 percent of the respondents played video games for their immersion and to socialize in the game world. The last question of the survey was made to question if video games could improve one's well-being. All the respondents agreed that video games could possibly improve a person's well-being.

'Hellblade: Senua's Sacrifice' split the respondents in two. Some felt that the game improved their moods and others thought that they felt worse afterward. The respondents found the game stressful, probably because of the game mechanics. 'Hellblade: Senua's Sacrifice' does not give the player tutorials on how to fight against the enemies. The game only gives the player hints on how to figure out the puzzles and how to defeat certain enemies. 'Hellblade: Senua's Sacrifice' also starts with a quote: "*The dark rot will grow each time you fail. If the rot reaches Senua's head, her quest is over, and all progress will be lost.*" This means that if the player fails too many times in the game, the game will start from the beginning and all progress will be lost. The respondents found this extremely stressful as if they are kept on their toes the whole time playing the game. This mechanic also worked in a way since the respondents also felt like it made Senua, the main character more relatable as if she was a real person with real issues.

Most respondents found the binaural audio overwhelming. Binaural audio means a recording technique where two microphones are used to simulate a three-dimensional space, so basically, two microphones capture the sound and their positions in three-dimensional space the same way your ears hear sounds in the real world. In 'Hellblade: Senua's Sacrifice' this technique is used to heighten the experience while having it tied to the game's plot. Even though binaural audio added to the players' stress levels it also made them feel more immersed in the game.

'Hellblade: Senua's Sacrifice' did not make the respondents feel accomplished but some of the players felt like the game could improve their cognitive skills such as problem-solving, learning and memory. The players felt that 'Hellblade: Senua's Sacrifice' manages to show psychosis well, especially the two main symptoms, hallucinations and delusions.

In general, the respondents enjoyed the game environment and it made them feel immersed. The dialogue and character design also got positive feedback because Senua felt like a real person to them. The combat was very disliked. It felt too repetitive and difficult. Some of the respondents felt like the game was more about giving a new perspective to psychosis rather than having a fun game. They felt that it does convey the story well, but the gameplay was not so good.

The second game playtested was 'Celeste'. All respondents felt like playing 'Celeste' improved their mood. Even though the game is difficult to play, its atmosphere helped the players to relieve stress and to feel immersed in the game world. All respondents felt very accomplished after playing the game. They also felt that the game improved their cognitive skills and the main character Madeline was relatable.

The respondents felt that 'Celeste' is educational, especially the scene where Madeline's friend Theo teaches Madeline to calm down from a panic attack. Some of the respondents felt that 'Celeste' might be a little bit too hard to play for

them to stay interested in the game, but most felt that it is challenging in a good way.

'The Cat Lady' made most of the respondents feel good after playing the game, especially the ending of the game was uplifting. The game did not relieve stress and it made players feel upset at some parts of the game since it brings up difficult topics such as suicide and depression. 'The Cat Lady's' main character was found the most relatable of all the games playtested since almost all the respondents felt like they could relate to the main character's feelings and experiences. The game made the respondents feel most accomplished and only 25 percent felt that the game would improve cognitive skills.

The 3rd chapter of the game introduces the anxiety puzzle mechanics where the player must prevent Susan, the main character, from having a panic attack by interacting with different objects. The meter fills up either red or green depending on how Susan is affected. When the whole meter fills up red, Susan has a panic attack. The respondents found this mechanic relatable and that it presents real life.

The gameplay made some of the respondents feel uncomfortable since it presents the character's feelings and thoughts so well it feels real. Some of the players said that they have had similar thoughts in the past and that is why it feels so vulnerable. The respondents also thought that the game is good for mental health awareness and it could shed some light on mental illnesses such as depression if people are not familiar with it.

The players liked the basic point and click gameplay, where the player just uses the mouse to navigate the environment and some logic to find and assemble clues to complete a quest, escape an area or uncover mysteries. 'The Cat Lady's' mechanics are a little bit different from a typical point and click game since the player uses the arrow keys to move and interact with the environment. The rustic art style, pixelated graphics put together with real images of things made some of

the respondents feel uneasy, but they thought that it is a good thing since it adds to the “horror aspects” of the game.

The last playtested game was ‘Gris’. The players felt generally better after playing the game. The game did not release a lot of stress and it upset some players. The storyline in the game is very objective, and the game does not focus on building the main character arc. Character arc would focus on the transformation or inner journey of a character, but ‘Gris’ does not tell the player a lot about the character they are playing as so people had difficulties relating to the character of ‘Gris’.

‘Gris’ did not make the players feel accomplished and they felt that ‘Gris’ did not really improve their cognitive skills. This could be due to the game being very beginner friendly video game with some very simple puzzle mechanics. The respondents were asked what ‘Gris’ is about and all the respondents agreed that it tells a story of healing, but 50 percent of the respondents also thought that the game is about five stages of grief, depression, and loss of a mother. ‘Gris’ is commonly thought to be about five stages of grief by following the Kübler-Ross model of grief. 75 percent of the respondents thought that ‘Gris’ follows the grief model fairly well and it allowed them to learn more of it and to be more aware about it.

The playtesters loved the simplistic art style, soundtrack, and animations. Some respondents found the game beautiful and wanting to see more of it while others thought that the game was too slow, and they could not stay interested in it for long.

In the end, it is hard to say what kind of video game would reach as many people as possible. Everyone has a different taste in video games. Some people enjoy slower pace games when others require a lot of action. Some people play video games for their art style and some for their plot. It would be hard to please everyone but that is why we have different types of video games. All playtested games have different genres and they have different approaches. Some of the

video games require you to be at a certain point in your life to get more from them. For example, 'Gris' would probably hit you harder if you are going through the grief process. Some of the games would also require you to have similar experiences that the characters have to be able to relate to them better.

8 CREDIBILITY

This study is based on game analysis, case studies and literature reviews. The thesis refers to three different studies. The first one was published by Max Planck Institute for Human Development in 2013. This study proves that video games can be therapeutically useful which means that video games could possibly improve well-being. The second study was published by the University of Rochester in 2003. It proves that video games teach problem-solving skills, strategy, and train to make the right decisions faster which could help to navigate real life better. This could be found useful in everyday life and it could have a chance to improve and overall quality of life. The third study has conducted by Radboud University Nijmegen and the article was published by American Psychological Association in 2013. The study says that playing video games boosts learning, health, social skills and also improves player's mood, promote relaxation and ward off anxiety. The researchers also pointed out that players exposed to multiple failures in games, may develop greater emotional strength in their everyday lives. These studies are supported by evidence. The information gathered from them is relevant and appropriate for the research because it proves that video games can be useful in many ways to improve overall well-being and quality of life.

The video game analysis in this thesis can be seen as subjective because the author decides what is seen as important and these video games can be interpreted differently depending on a person. But the factual information is provided with sources, for example, the quotes from Ninja Theory, the creators of Hellblade: Senua's Sacrifice. Since the information comes straight from the developers, it is more reliable. Even though video game analysis can be subjective, these studies show that video games could be beneficial for well-being. The ability to manage stress and the overall experience of happiness and

health will affect well-being. The game analysis can be biased since it is not based on factual information but more so based on the thoughts of the author.

The surveys were made to test different video games to see how people would react to them. The results of the surveys cannot be seen as factual information. The test group was too small, and the test subjects were mostly people in their 20s with a lot of experience with video games, so the results have poor generalizability. But the results give us some reference to what kind of video games people would most likely play.

The studies support the idea that video games can be used to improve well-being. The thesis still cannot say for sure what kind of commercial video games can be used in this manner, but it shows that a lot of video games want to take part in themes that are related to well-being and mental health.

9 CONCLUSION

Our mental health needs to be taken seriously. All forms of media have tried to take part in mental health in some capacity, but what is for certain is that video games are the most interactive media. Video games have you experience someone else's perspective and involve you actively in a world that functions with a different set of rules. Video games allow the audiences to engage with the medium that would not be possible in any other way. They have the potential to foster and encourage behavior that is positive and helpful. Video games can also promote social acceptance and friendship.

Well-being is a person's experience of happiness and health. There are multiple different things that affect your well-being such as good mental health, prosperity, and the ability to manage stress. Sometimes it is required to get help from professionals to improve well-being. To build overall well-being, the person must feel well both physically and emotionally.

Can video games help to improve well-being? The studies show that playing video games can improve memory, motor skills, spatial orientation, and strategic

planning. A study conducted at Max Planck Institute for Human Development and Charité University Medicine St. Hedwig-Krankenhaus proves that specific brain regions can be trained by means of video games. It can be assumed that video games could be therapeutically useful for people with different mental disorders such as schizophrenia.

Video games can also teach problem-solving skills and strategy. Fast-paced games like Call of Duty will train your decision-making. Video games are also a great way to relax, improve mood and ward off anxiety. Video games can be also used as an effective tool to learn resilience in the face of failure. This can be helpful in the everyday life since failure is sometimes inevitable. There are also social benefits to playing video games. Moderate video game play can improve social skills and reduce social anxiety. Playing as a character in a fictional world allows the player to experiment with social interactions without any consequences. It can teach the player about good social behavior and help people with social anxiety to practice different social interactions. Video games can also provide a social network. A lot of people play video games to socialize and to play with friends. Video games can also have a positive effect on a person's fitness since there are a lot of interactive games where the player must get up and be active. Some people find it hard to do sports or activities outside and playing a game that is easily accessible, could work as a substitute.

Could video games possibly teach us about mental disorders? The media is one of the public's primary sources of information about mental health disorders. They are mostly portrayed in a stereotypical way. It allows people to gain inaccurate views of those with mental disorders. This stigmatizing happens also in video games but over time, game developers have become more conscious of how they portray people with psychological disorders. Some game studios have approached the topic of mental health with empathy. These games are written with a genuine understanding of the topic. They try to teach the player how to tackle these difficulties. They tell the player that they are not alone with the issue. It is hard to understand what someone is going through without experiencing it firsthand. This is where video games can come in handy. Experiencing the same

situations in a video game where the player feels immersed, can help the player to understand what it is like.

Immersive video games put us in the shoes of someone else. 'Hellblade: Senua's Sacrifice' makes us experience what psychosis feels like by having the player immersed in the game world with good sound design and game mechanics that support her illness. The character's illness influences the gameplay in ways it makes sense for her illness. Video games like 'Hellblade: Senua's Sacrifice' allows the player to empathize with characters like Senua, who is struggling with a mental disorder.

Video games can also teach the player life lessons. They teach us ways how to tackle difficult situations by using their game mechanics in a way that allows the player to learn. Most importantly, these video games such as 'Celeste', teach us that you cannot fully separate yourself from your problems, but you can work through them by acknowledging them. For example, mental disorders are long-term issues, but you can still achieve great things by coming to terms with them. Main character of 'Celeste', Madeline, still managed to climb up the mountain while battling with her anxiety. Failing is okay and it does not always have to be a bad thing. Celeste teaches the player that failing means learning and it should be seen more as a positive thing than as a failure.

Changes in routine and challenging situations can have a huge impact on life. Stress can affect well-being and these situations cannot always be prevented. Seeing something that reminds you of your own experiences and thoughts can give relief to some players. Sometimes we need to be reminded that it is okay to not be okay. It is okay to not be certain about the future. Life will not be easy, and these things should be normalized. 'Night in the Woods' allows us to follow Mae's journey through adolescence. She is uncertain about her goals, life, and career but she gets through it with the support of family and friends. Normalizing these issues in a video game and showing the characters go through them as well, allows us to practice self-compassion. We should remember that sometimes

getting through your day is enough and we should not be too hard on ourselves if things do not go as planned.

In these video games, the characters learn to cope and come to terms with their problems. They are equipped to carry on when they learn to forgive themselves. It is difficult to say what kind of commercial video games would help the majority. People have different gaming preferences. Some people enjoy simple and beginner-friendly video games while others need a lot of action and high difficulty levels. But what is known for certain, is that having an immersive game helps the player to relate to different characters.

The video game should make the player feel accomplished for them to carry on playing. A video game that focuses too much on giving perspectives could possibly take away from the entertainment value. For example, some people felt that 'Hellblade: Senua's Sacrifice', focuses too much on giving perspectives to psychosis rather than having a fun game. Some video games would require the player to be at a certain point in their life or to have similar experiences as the characters to relate to the game better. A video game that has a great art style, good sound design and an immersive game world would probably gather most people's attention. The game should not come across too preachy but have puzzle mechanics around the struggles to tell a story of something people could relate to.

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