



Unlocking The Healing Power of Art: An Online Collaborative Canvas to Promote the Importance of Art and Community in Mental Well-Being

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ABSTRACT

Declining mental health as well as mental disorders like severe depression and anxiety continues to be the main risk factor of suicide all around the world, including Indonesia. Depression in Indonesia is prevalent in young adults, with 6% of them suffering from moderate depression. This moderate depression, if not dealt with correctly, will lead to further disorders and even taking of one's own life. Unfortunately, mental health care in the country is not as accessible as compared to other more developed countries. Complementary treatments such as making art, or art therapy, is an alternative that has been used to address the patient's health requirements. Throughout the years, the use of art therapy has gradually increased and bore positive outcomes mainly among those suffering from depression disorders and anxiety. Therefore, this project explores effective approaches and practices of art therapy and combines it with new media technology, transforming a simple work of art into an interactive installation that also serves to promote the use of art in improving mental health.

1. Introduction

Based on a report by the Indonesian National Health Research, 3,7% of Indonesians in the past decade suffered from severe depression, which sums up to 9 million people. Meanwhile, 6% of the population aged 15 and above, approximately 14 million people, are suffering from moderate depression and anxiety (Seribu Tujuan, 2018). Young adults are more vulnerable to mental health issues as that stage in a human's life, teetering between adolescence and adulthood, is where they are developing the most, finding out who they truly are all while bearing the weight of expectation that the people around them are pressuring them with (Purborini, Lee, Devi, & Chang, 2021). According to Erik Erikson's theory of psychological development, if the adolescent fails to find that sense of identity, it will lead to role confusion, where they are not sure of their place in society. If this is not dealt with appropriately, it can lead to major mental health disorders in future developments. Unfortunately, mental health care in Indonesia is still considered poor. It was reported by WHO that as of 2014, there are only 800 psychiatrists at most who are actively working in the country, which results in a meagre ratio of 0,01 psychiatrists to 100,000 patients. Only 9% of the youth diagnosed with depression were able to access treatment at such facilities (Suryaputri, Mubasyiroh, Idaiani, & Indrawati, 2021).

Following the recent COVID-19 outbreak, the global prevalence of depression and anxiety spiked by 25% in 2020, with young people and women being hit the hardest. A major cause of this includes, "Constraints on people's ability to work, seek support from loved ones and engage in their

communities.” (World Health Organization, 2022). Financial issues caused by the pandemic also caused a spike in domestic violence and divorce rates by 40%. While it has brought about unprecedented changes, one of the most notable lessons that the pandemic has reminded people of is the importance of social interaction. In fact, the resulting constraints have made it clear that humans are indeed social beings that must interact with one another. Social support is crucial for maintaining good mental health and reducing stress and anxiety. People who have strong social connections are better able to cope with life's stressors and have a greater sense of well-being (American Psychological Association, 2019).

It comes as no surprise that during this era of increased social isolation, a notable increase in the emergence of small-scale online art enterprises and the establishment of unique 'art-spaces' within Indonesia's creative landscape was apparent. This phenomenon can be attributed to several interconnected factors that converged during this period of solitude. Firstly, with activities being limited to online interactions and people finding themselves with an abundance of free time, digital art expanded into a prominent medium for artistic expression, both to artists and art enthusiasts. This newfound leisure time was the perfect opportunity for individuals to delve into creative hobbies as a means of distraction from the monotony and stress of their circumstances. The results of a study involving participants across 74 countries indicated that amid the COVID-19 pandemic, people were more inclined to engage in or adopt new activities such as home crafts, artisanal pursuits, specialized IT interests, language-related activities, fine arts, and musical and performing arts, in contrast to sports and outdoor physical activities (Morse, Fine, & Friedlander, 2021). Art, in its various forms, proved to be a captivating and therapeutic outlet for many.

The British Association of Art Therapists defines art therapy as: “a form of psychotherapy that uses art media as its primary mode of expression and communication.” It is not necessary for art therapists to be skilled in the arts, nor will they evaluate the client’s mental conditions based on their art. The main objective is to provide a space for the client to grow on a personal level, utilising artistic resources in a safe and convenient space (British Association of Art Therapists, 2015). According to art therapist Cindy Harjatanaya of PT Terapi Seni Indonesia, ART+i in an online meeting, the difference between art therapy and therapeutic art lies in the presence of a therapist. Art therapy requires a professionally trained art therapist to guide the sessions, while therapeutic art is described as artistic techniques that anyone can do at any time. Visual art making has been proven to lower cortisol levels, a hormone often used as a marker for stress (Kaimal, Ray, & Muniz, 2016), as well as reducing depressive and anxiety symptoms in young adults (Hu, Zhang, Hu, Yu, & Xu, 2021). Making art allows people to visualise what they are feeling and thinking, turning it into something more tangible that can later be tracked and reflected on. Besides that, people who are struggling with cancer, depression, anxiety, autism, dementia, and cognitive impairment are also often reluctant to express their feelings verbally, making art therapy or therapeutic art a better alternative to keep their mental health from deteriorating further (Hu, Zhang, Hu, Yu, & Xu, 2021).

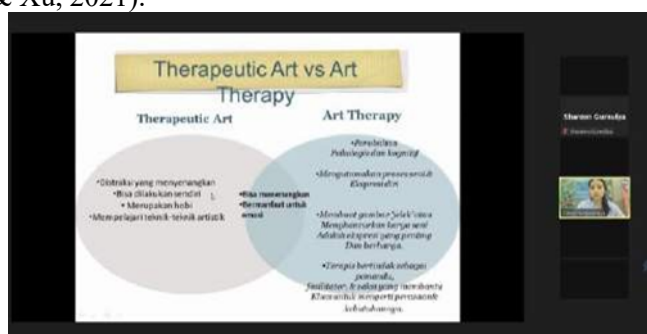


Figure 1. Private meeting with Cindy Harjatanaya. (Other members of meeting are censored to keep privacy.)

This project will combine therapeutic art techniques with new media to enhance the importance of art and community in maintaining a healthy relationship with one’s own mental health, as the essence of art is to be shared. With that, people are able to feel that they are a part of something bigger than themselves through art.

2. Method

This project will make use of design-based research (DBR) as its methodology. This method developed by Siko and Barbour involves three main steps: first analysis and exploration, then design and construction, finally evaluation and reflection.

Before creating the visuals, the designer will explore the field of art therapy and collect the data required to inspire said visuals. This step will involve reaching out and having a consultation with an expert, that is, an art therapist to acquire insight on art therapy and therapeutic art from someone actively working in the field. This step proved to be significant in the process as a whole. Instead of art therapy itself, this project will make use of therapeutic art as the output since it will not include an art therapist - something that is crucial in art therapy. It can still, however, act as a bridge to promote art therapy. Besides that, additional research is required to determine the art technique that will be used. As this project will focus on how art and community can be useful in opening up about one's thoughts and feelings, the designer must decide the art style and medium that is most ideal to bring this out. Based on insight from art therapist Cindy Harjatanaya, painting is a more expressive way of exploring emotions, while drawing is more narrative. Since this project is more about expression through art, it was decided that painting will be the medium used. The information gathered was used to create an online canvas that allows users from different devices to connect to the same server and paint together. The designer will make use of Javascript, HTML, CSS, as well as other necessary processing libraries to complete this task. The project will be entirely digital. The collaborative creative canvas will allow users to paint with different colours with the help of RGB (red, green, blue) sliders, as well as change the brush stroke size with a separate slider. These specific features were chosen to mimic traditional painting, where one typically only has paint, brushes, and a canvas. The RGB slider allows the user to experience mixing their own colours through trial and error to get the exact colour that they want, exactly how one would in traditional painting. The brush strokes look like paint so users can create more expressive art in an abstract way, also opening equal opportunities for users that might not be familiar with painting. A grainy canvas texture was also added to the canvas to mimic a real canvas. After the visuals are complete, the designer will need to test the canvas on multiple web browsers from the same device to see how well it works. The designer will also test how well the canvas works on multiple browsers from different devices and compare the results to that of the latter.

3. Results and Discussion

The sharing feature that is found within the collaborative creative canvas is made possible with the p5.js library called p5.party that provides a simple and straightforward way to automatically synchronise any modifications made across all connected clients through a server (p5.party).

This project was uploaded through GitHub pages so that it can be accessed by other users. The below image shows the initial display of the collaborative canvas when a user opens it up on a Mozilla Firefox browser.

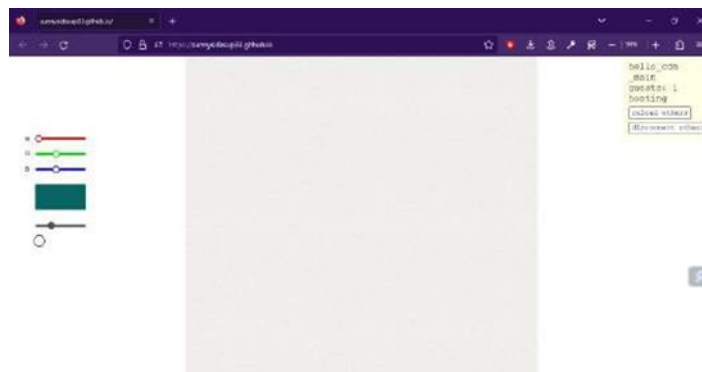


Figure 2. Initial Canvas Display

The canvas is in the centre, always half the width of the window, and as tall as the height of the window. On the right side there is a built-in panel from p5.party that allows the user to see how many guests there are on this particular server. On the left side are the controls. Simple sliders indicating the red, green, and blue channels for the brush are coloured accordingly. Below the sliders is a box that shows the colour that will be displayed. The default colour is set to forest green. Finally, underneath that is the slider that can change the brush size and a circle indicating the size it will be. The default size is set to 20 points.

The collaborative canvas was tested in 2 different ways. First it was tested with up to 6 different web browsers in the same device, as well as on 3 different devices with their own web browsers.

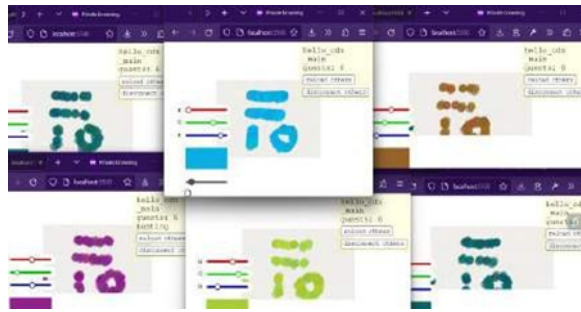


Figure 3. Canvas on 6 web browsers.

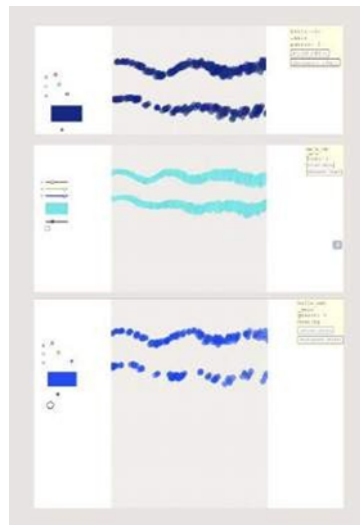


Figure 4. Canvas on 3 different devices.

Through these results it is evident that there is a delay in the transmission of visuals through the collaborative canvas, as seen by the gaps in some of the lines being drawn. This is because the information is being sent, received, and turned to visuals in real time from one client to a server, before reaching the other client. This takes time. There are a few other factors that also affect this; one being the stability of the current network connection, another being the number of connections made to the server at the same time. A faster and more stable network helps in reducing delays. Although the difference is not as significant, an increased number of connections also adds more delay to one or more of the clients. The speed of the mouse being dragged also affects the smoothness of the lines. At a slower speed there will be less gaps between them as there is more time for the client to process the information it receives. The speed and smoothness of the brush strokes is also dependent on the state and availability of the p5.party server. Further user tests are still required to test the usability of the canvas, as different people will use it differently. The server this project works on is also still a work in progress and therefore will affect the continuity of the collaborative canvas.

4. Conclusions

The nature of the collaborative canvas allows people to not only express themselves through digital painting, but also connects people together. It is a symbol of shared experience, a reminder that humans are social beings, and that social support is crucial for maintaining good mental health. While this project is just a small step towards promoting the use of art as a complementary treatment for mental health disorders, it is hoped that it will contribute to raising awareness of the importance of mental health and well-being in the community.

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