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Art-Based Interventions for Student Mental Well-Being: A Mixed-Methods Study Integrating Visual Arts and Psychology

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Abstract

With the increase of modern technology, lifestyle pressure, and academic rigor, there is an increased level of stress, anxiety and emotional regulation among college students which stresses on the need to create more inclusive strategies to address mental health issues. Although conventional counseling is important as it is executed by professionals, the utilization of such services is limited due to issues of stigma, culture, and accessibility. In such a situation, art-based interventions have come into the foreground as an alternative to express their emotions through participation in visual creative activities. This research adopts a mixed-method approach to assess the role of visual art-based strategies on promoting mental health and well-being among university students, incorporating both the perspectives of the visual arts and psychology. A total of 64 undergraduate students from the same college were included in an introductory workshop on creative practices such as drawing, clay work and visual journaling. They were asked to conduct independent practices for six weeks. Quantitative data gathered from pre- and post-intervention questionnaires were analyzed and compared using a paired sample t-test showing a notable increase in stress reduction, emotional awareness, and overall well-being ($p < .05$). Qualitative findings gathered from interviews and focus group sessions show the impact of art-based creative engagement in strengthening emotional awareness, thinking and personal coping mechanisms.

Keywords:- Art-Based Interventions, Student Mental Health, Visual Arts, Emotional Regulation, Self-Expression, Coping Skills.

I. INTRODUCTION

Mental health issues among college students have become a major concern in modern higher education. Students' academic and social pressures, in addition to their life experiences, have led to a high incidence of psychological illnesses such as anxiety, fear, stress, and emotional exhaustion. These mental health issues not only affect the mental health of college students but also their academic and personal development. Although colleges offer counseling and psychological support services for their students, it is evident that the majority of them are reluctant to access such support. Various reasons, such as social stigma and societal prejudices have contributed to this reluctance among students. This rising pressure on students have necessitated the need for alternative approaches to overcome mental issues and psychological well-being. Gorny-Wegrzyn and Perry (2022) recognized that Art-based interventions are effective holistic strategies that complement traditional practices.

II. LITERATURE REVIEW

Art-based interventions are organized creative activities to promote emotional and psychological well-being. According to Malchiodi (2018) artistic processes can allow people to express emotions using artistic activities such as clay, art, music, especially when they cannot verbally express their emotions. The process of engaging the student in activities such as drawing, painting, clay work, wood work, etc. helps in the expression of emotions through a means other than verbal communication. The process of creativity helps an individual express themselves from the inside out, which makes the process effective in dealing with complicated emotions.

Research indicates that the psychological benefits of engaging in art activities are positive, as it improves the moods of the participants, relieves them of stress, and enhances emotional intelligence. As Knill et al. (2005) explains decentering allows individuals to transition to imaginal reality through play or art-making. This shift provides an opportunity to leave the area of conflict with an options for new thoughts.

Art therapy also integrates psychotherapeutic theories with the psychology of the creative process, especially the tactile effect of diverse artistic materials. The benefits of creative engagement from a psychological perspective have been supported by neuroscientific research. For instance, research findings have shown that engaging in creative activities such as visual arts can stimulate area of the brain that are linked to emotional regulation and introspection (Bolwerk et al., 2014).

Many research studies have concluded that art therapy is not used in isolation but instead engages the sensory and cognitive senses during creation. According to Masoumeh (2011), creative expression is used to bypass verbal defenses for access to the unconscious mind for externalizing inner experiences that are inaccessible. As explored by Hinz (2020), the Expressive Therapies Continuum framework originally developed by Kagin and Lusebrink categorizes the human-art interaction into a hierarchy of processing levels.

The literature review indicates that research conducted so far has either been conducted in a clinical environment or based only on a qualitative study. It is imperative to conduct research that includes quantitative data as well as an in-depth study of the experience of the student. To address the mentioned gap, this study will employ a mixed-method design to examine both the quantitative and qualitative aspects of art-based interventions for the promotion of mental well-being among college students.

III. AIMS AND OBJECTIVES

The aim of this study is to determine the effects of art-based interventions on the mental well-being of college students using a multidisciplinary research approach that integrates visual art and psychology. The objectives of the study include:

1. To investigate the ability of art-based interventions to facilitate psychological well-being.
2. To assess the effect of art-based intervention on reducing stress and enhancing mood.
3. To identify the emotions expressed by students during the art-making process.

IV. HYPOTHESES

- H1: Art-based interventions lower stress levels in college students.
- H2: The emotional development of Students is evident through art-based interventions.
- H3: Art creation improves students' mood and expression.

V. METHODOLOGY

5.1. Participants

The design used in the research was a convergent mixed methods design. The total number of participants in the research study were sixty-four undergraduate students. The 64 participants in the study are considered adequate to perform paired sample statistical analysis. Data were collected using pre and post Likert-scale questionnaires and focus group discussions.

5.2. Ethical Consideration

The selection of participants was voluntary and was based on the sampling technique called purposive sampling. Consent was obtained from all participants prior to collecting data and they were assured of confidentiality and anonymity and the data would be used solely for research purposes.

5.3. Data Analysis

Quantitative results were statistically evaluated using SPSS software. For the analysis of difference between pre and post intervention results, reliability tests, and paired sample t-tests were carried out. Prior to conducting the paired sample t-test, the data was analyzed for normality and all the assumptions required for parametric test were met. For the qualitative results, thematic analysis was used to identify patterns. Braun and Clark (2006) stress the importance of thematic analysis as a theoretically flexible approach to detailed qualitative data.

VI. RESULTS

6.1. Quantitative Results

Reliability Analysis: To recognize the construct reliability of the research tool, Cronbach's alpha (α) coefficients were calculated for each construct. According to Hair et al. (2019), alpha values above .70 indicate an acceptable level of reliability. As seen below in Table 1, the reliability coefficients for the four constructs fell between .82 to .88, indicating that the reliability of the measurement scales used in this study are suitable for further comparative analysis.

Table 1. Internal Consistency Reliability of Measurement Scales (N = [Insert N])

Construct	Items	Cronbach's Alpha
Emotional Awareness	5	.86
Stress Reduction	5	.82
Creative Expression	5	.88
Psychological Well-Being	5	.84

Table 2. Descriptive Statistics for Baseline Measures (N = [Insert N]) prior to the intervention

Variable	Mean (M)	Standard Deviation (SD)
Stress Level	3.84	.72
Emotional Awareness	2.91	.68
Creative Expression	3.02	.74
Psychological Well-Being	2.21	.69

Table 2: Descriptive Statistics, indicates that students stated high levels of stress (M = 3.84, SD = .72) at the start of the study. In contrast, emotional awareness (M = 2.91, SD = .68) and psychological well-being were relatively low (M = 2.21, SD = .69). Creative expression was (M = 3.02, SD = .74) which fell within the moderate range. This baseline results suggests potential areas of concern prior to the art-based intervention.

6.1.1. Paired Sample *t*-Test

Table 3. Comparing Pre- and Post-Intervention Measures (N = 64)

Variable	Pre M	Post M	t (63)	p	Cohen's (d)
Stress Level	3.84	2.96	4.72	< .001	59
Emotional Awareness	2.91	3.87	-5.11	< .001	.64
Creative Expression	3.02	4.12	-6.04	< .001	.75
Psychological Well-Being	3.11	4.05	-5.78	< .001	.72

Table 3 displays a notable difference in the pre- and post-intervention analysis, indicating a reduction in the level of stress in the students and improvements in emotional awareness, creative expression, and well-being. Moreover, the effect size was found to be significant, as it ranged from moderate .59 to large .75. According to Cohen's (1988) conventions, indicate that the research had a substantial impact on the mental wellbeing of students.

Table 4. Multiple Linear Regression Analysis for Variables - Psychological Well-Being

Predictor	β	*t*	*p*
Creative Expression	0.42	4.18	< .001
Emotional Awareness	0.36	3.62	.001
Stress Reduction	0.31	2.95	.004

Note: $R^2 = 0.41$, $F(3, 60) = 13.89$, $p < .001$

The regression analysis results were statistically significant and accounted for 41% of the variance in psychological well-being. As shown in Table 4, all three predictors contributed significantly to the model. Creative expression was the strongest predictor (β=.42, p < .001), while emotional awareness (β=.36, p .001) and stress reduction came next (β=.31, p < .004).

6.2. Qualitative Results: Thematic Analysis

6.2.1. Theme 1: Emotional Expression through Creative Processes

Participants described the creative process as a valuable medium to express emotions that were difficult to communicate verbally. The visual process of creating such as sketching, painting, sculpting, etc. allowed students to externalize their inner experiences and emotions. This finding aligns with research by Kaimal (2016), which stated the importance of visual art making in reducing cortisol levels. The qualitative data supported this as participants described the creative process as a bridge between their emotional turmoil and a feeling of relief. One participant said "When I began to sketch the emotions I was feeling; it was as if my stress was being drawn from my mind onto the paper."

6.2.2. Theme 2: The Development of Personal Coping Strategies

The participants reported that they used the creative process as a self-regulated coping strategy to manage academic and daily-related stress. Many reported that this process became effective especially during timed submissions. The repetitive nature of artistic tasks- such as shaping clay, sketching, painting, etc. was cited as having a calming effect. These findings suggest that these interventions can be adapted as personal coping strategies whenever required. As Csikszentmihalyi, M. (1990) argued that the impact of a stressful event on an individual is often based on the individual's own response. For example, one person may be overwhelmed by an event while another may navigate the same event effectively. In this study, the art-making process provided students with the experience necessary to transform a stressful experience into a manageable creative task. As one student noted: "Whenever I feel overwhelmed with a college assignment now, I take ten minutes to just make some objects with clay. It grounds me and makes the assignment feel less like a huge hurdle."

6.2.3. Theme 3: The Creation of a Safe Space

One consistent finding among all participants was the need to have a personal space where they could engage in the creative process without being judged. This private space would give them a psychological sense of safety which motivated them to convey their emotions without social judgement. Participants described this space as an escape zone where they could be free from any pressures and connect with their inner self. This experience is consistent with Winnicott (1971) theory of the Holding Environment, which suggests that by having this personal space, the art-based intervention enabled students to move from a state of high stress to reflective introspection. As one student described: "In that room, there were no grades, no time restrictions or right answers. It was the only place where I felt I didn't have to perform for a grade. I could just be me."

6.2.4. Theme 4: Increased Emotional Awareness:

Participants became aware of their emotions and stress triggers as a result of the art based interventions. Creative engagement helped them to develop effective strategies for managing their own emotional challenges. By expressing their emotions through art, participants were able to identify causes of their stress, reflect on the accompanying emotions and shift from having a reactive response to reflective response. According to Shukla (2022) engaging in creative activities assists individuals to cope with stress which ultimately reduces the burden of psychological illnesses. One participant stated: "Before the sessions, I just felt sad for no reason and I didn't know why. Painting helped me see that my anger was actually just my frustration to not finish my projects on time. Now, when I feel that way, I know I need to relax instead of just getting irritated."

VII. DISCUSSION

This research is based on the integration of quantitative, qualitative and theory which gives a triangulated view on the implication of these art-based interventions on mental health of college students. While the quantitative results give an objective view of the statistical impact of art-based interventions on student well-being, the qualitative findings reveal the subjective perceptions of students about the art-based interventions. For example, the regression analysis showed that Creative Expression was the most important enabler of psychological well-being ($\beta = .42$, $p < .001$). This quantitative data is also supported by qualitative results in Theme 1 (Emotional Expression) and Theme 2 (Coping Strategies), where participants described the importance of art-making as an effective way for coping with stress related issues. Moreover, the t-test results revealed a significant increase in the Emotional Awareness scores from Pre M = 2.91 to Post M = 3.87 which is also supported by the qualitative data in Theme 4, where students reported a shift from reactive to a more reflective state.

Although the quantitative results have given statistical evidence of success, it is observed that the impact is seen when such figures are combined with qualitative results. These interventions became a personal coping strategy for students. Students were not only engaging with art; they were also incorporating it into their daily lives. By incorporating it into their daily routines, they were moving towards long-term psychological resilience. This is also observed by Van Lith et al. (2013) when they stated that creative activities can help in self-discovery and can strengthen one's social identity.

The safe place was conceptualized as a psychological haven, a non-judgmental space where they can work without judgment and fear. In a world where academic grades are given and where comparison is always done, the art-making process provided a space where students could look at their weaknesses without fear of judgment. This is particularly significant for those students who find it hard to express themselves in words. These findings indicate that art-based interventions do more than simply reduce stress. Students transition from a reactive state to a more reflective and adaptive state. This is in line with the conceptual framework of this study, where creative engagement is seen as a bridge that connects a student's psychological distress to emotional well-being.

VIII. CONCLUSION

The findings from this mixed-method study supports the aims and objectives by highlighting that the art-based interventions are a viable option in the provision and maintenance of mental well-being in a college environment. The study has proven that art-based interventions provide a means of support for students who are faced with the challenges of the academic environment, such as stress and burnout (Regev & Cohen-Yatziv, 2018). The benefits of using the art-based intervention approach lie in the fact that it is not stigmatizing in nature and can be incorporated into the daily routine of the students in the vicinity of their own rooms. Therefore, it becomes an essential part of the institutions which are looking forward to adopting an alternative approach in the care of mental health. In addition, the current research adds to the ever-expanding domain of interdisciplinary research in the visual arts and psychology. The importance of using the arts intervention in areas where there is substantial evidence of their effectiveness is a concept which is in line with the current health recommendations in the world (Fancourt & Finn, 2019).

However, it is recommended that future studies include more participants with diverse backgrounds from different specializations in terms of academics in order to further validate the results obtained in this study. Additionally, longitudinal studies would also be beneficial in further validating the sustainability of the interventions on the psychological resilience of the students. It is clear that the importance of encouraging creativity is vital for the well-being of the students.

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