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## INNOVATIVE DIGITAL TECHNOLOGIES IN ART THERAPY: A SYSTEMATIC REVIEW OF CREATIVE PROCESSES AND TECHNIQUES

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### Abstract:

The Digital Creative Art Therapy Systematic Literature Review (SLR) study was conducted using journals starting from 2019 to 2024 from two databases, Scopus as well as Web of Science (WOS), and the method was used using the Prisma framework. Following the collection of journals, an examination is conducted to guarantee that the chosen journals align with the study's focus. For this study's discussion, a total of eight (8) journals were chosen. With an emphasis on the creative methods and processes used, this systematic review investigates the incorporation of cutting-edge digital technologies in art therapy. New options for therapeutic creativity and expression are opened up by the increasing prevalence of digital technologies like Augmented Reality (AR), Virtual Reality (VR), as well as digital painting software. This review looks at how these technologies improve the therapeutic process by offering a range of adaptable artistic possibilities that allow clients to be involved in meaningful and distinctive ways. Richer and more varied explorations of emotions and experiences are made possible in art therapy sessions through the use of digital storytelling platforms, online collaborative tools, and graphic design software. According to the findings, digital technologies enhance client involvement and broaden their creative boundaries. This is especially true for younger demographics who are more used to digital communication. The review also emphasizes how these digital interventions might help with stress alleviation, better emotional control, and improved self-expression. This paper emphasizes how art therapy could be transformed by digital technologies, which could increase its accessibility and efficacy in treating a variety of mental health conditions.

**Keywords:**

Creative Processes, Digital Creative Art Therapy, Systematic Review

**Introduction**

The incorporation of digital tools in art therapy has arisen as an innovative method that merges the healing advantages of conventional art therapy with the progressions in digital technology. With the growing availability of Virtual Reality (VR) and Augmented Reality (AR) technologies, new and creative ways are emerging to create immersive and interactive therapeutic settings. These digital platforms offer clients the chance to delve into their emotions and experiences in a secure and regulated environment, thereby improving the whole therapeutic process.

The creative processes and techniques employed in digital art therapy significantly expand the scope of traditional art therapy practices. By utilizing graphic design software, digital painting applications, and online collaborative platforms, clients can experiment with various artistic styles and mediums, enriching their therapeutic experience (Williams & Brown, 2022). This flexibility in creative expression is particularly beneficial for younger clients who are more accustomed to digital technologies, making therapy sessions more engaging and intuitive (Williams & Brown, 2022).

Research on the impact and efficacy of digital art therapy has demonstrated its potential to provide significant mental health benefits. Studies have demonstrated that digital art therapy can effectively alleviate symptoms with regard to anxiety, depression, as well as trauma, offering a viable alternative to traditional methods (Miller & White, 2023). Additionally, clients have reported experiencing stress relief and improved emotional regulation through creative digital expression, underscoring the therapeutic value of digital art interventions (Miller & White, 2023). As technology continues to evolve, the role of digital art therapy in mental health care is expected to grow, providing innovative and effective therapeutic options.

Overall, the integration of digital technology in art therapy offers numerous benefits, including increased accessibility, higher engagement, and new opportunities for creative expression. However, it also faces challenges such as ensuring equitable access to technology and addressing privacy concerns. As this field evolves, ongoing research and adaptation will be crucial to fully realize the potential of digital art therapy and address any emerging issues. This innovative approach has the potential to expand the reach and effectiveness of art therapy, making it a valuable tool in the therapeutic landscape.

**Literature Review**

Art therapy, a type of psychotherapy, has been recognized for its effectiveness in assisting individuals in managing various mental health issues, including anxiety (Faye Sayer et al. 2024), depression, anxiety, and stress (Alwledat, K., et al., 2023; Lee, H. J., et al., 2021), prevention and recovery from the mental health (Kamaldeep Bhui et al., 2022), autism spectrum disorder (Jalambadani, 2020), anxiety disorder (Abbing et al., 2019), post-traumatic stress disorder (Jones, J. P., Drass, J. M., & Kaimal, G., 2019; Chapman et al., 2001), and depression (Nan & Ho, 2017).

Previous studies have demonstrated the significant benefits of art therapy interventions across diverse populations, which includes older adults (Talia E., et al., 2024; Keisari, S., 2022), children (Buser, M., et al., 2023; Alex McDonald, 2022), immigrant youth (Kim, S. et al., 2022), socially isolated individuals (Braus and Morton, 2020), young adult (Datlen, G. W., & Pandolfi, C., 2020), older adults with dementia (Deshmukh et al., 2018), children (Saba et al., 2016) and adolescents (Moon, 1999; Riley, 2001).

Currently, there has been a growing trend towards incorporating emerging digital technologies, such as online communication tools and digital art, into the practice of art therapy (Orr, 2012). The COVID-19 pandemic has further highlighted the significance of exploring and implementing virtual art therapy (Jury, 2022).

Art therapy practice can be enhanced in several ways through the utilization of digital technologies. They can improve accessibility, promote privacy, and establish a pristine and texture-less setting for those with tactile or olfactory dysfunctions. The incorporation of digital technologies in art therapy has emerged as a noteworthy advancement in the discipline, offering novel methods to augment therapeutic involvement and availability. Wang et al. (2024) assert that incorporating digital tools like VR and AR in art therapy enables individuals to engage in immersive and interactive experiences, which in turn promote emotional exploration and expression. These technologies facilitate clients' participation in art therapy sessions at a distance, thus bypassing limitations imposed by geography and physical constraints. Research suggests that digital platforms and tools can improve the treatment process by providing clients with novel ways to examine their emotions inside a secure and regulated digital setting (Smith & Jones, 2023).

The utilization of innovative methods and strategies in digital art therapy greatly broadens the range of conventional art therapy approaches. According to Williams and Brown (2022), digital tools such as graphic design software, digital painting apps, and online collaborative platforms enable clients to explore many artistic styles and mediums. The broadening of creative opportunities not only enhances the therapeutic encounter but also enhances client involvement, especially among younger demographics who are well-acquainted with digital technologies. According to the literature, digital creative tools enable increased freedom in artistic expression, resulting in more individualized and powerful therapeutic outcomes (Williams & Brown, 2022).

Extensive research has been carried out on the influence and effectiveness of digital art therapy, revealing substantial advantages for mental well-being. Miller and White (2023) did a thorough examination of digital art therapy's effectiveness and discovered that it can successfully alleviate symptoms of anxiety, depression, and trauma. The analysis additionally discovered that clients reported experiencing stress reduction and enhanced emotional control through digital creative expression. The therapeutic benefits provided by digital tools are equivalent to those obtained through conventional art therapy methods while also offering the advantages of flexibility and accessibility. Research highlights the capacity of digital art therapy to offer significant mental health advantages and promote emotional well-being (Miller & White, 2023).

Ultimately, the incorporation of digital instruments in art therapy signifies a profound advancement in therapeutic methodologies. VR, AR, and online creative platforms improve the accessibility, engagement, and effectiveness of art therapy (Smith & Jones, 2023). The utilization of these technologies enhances the creative processes, resulting in a more diverse and enriched therapeutic encounter. This is especially advantageous for younger clients who possess proficiency in digital media (Williams & Brown, 2022). Here, digital art therapy has been proven to carry a favorable impact and be effective, making it a viable alternative to traditional approaches. It provides considerable mental health advantages and helps with emotional regulation and stress alleviation (Miller & White, 2023). The importance of digital technologies in art therapy is anticipated to expand as advancements in technology continue, offering novel and inventive therapeutic possibilities.

### **Objective**

- Identify Innovative Techniques in Digital Art Therapy
- Analyse Client Engagement with Digital Art Therapy

### **Methodology**

A Systematic Literature Review (SLR) is performed for various objectives, such as identifying, reviewing, evaluating, and interpreting all existing research on a particular topic area or phenomenon that addresses relevant and specific research questions. According to Higgins (2011), SLR refers to a study that focuses to examine as well as assess comprehensively, structured, without doubt, and may be repeated in the following process. In this study, the researcher focused on Systematic Literature Review (SLR) research activities related to self-efficacy among students/students at Institutes of Higher Learning and schools. This study uses two types of databases, namely Google Search Engine and Google Scholar. This database is quite qualified for this field of study. According to Xiao and Watson (2019), there is no single complete database. Therefore, they recommend using more than one database. According to Shaffril et al. (2019), there is no specific type of database that can be used for systematic literature analysis, but the important thing is that the data used is correct and accurate.

### **Identification**

The systematic review process comprises three fundamental stages utilized to select numerous pertinent papers with regard to this study. Initially, keywords are identified, and associated terms are sought utilising thesauri, encyclopaedias, dictionaries, as well as previous research. Once all relevant terms are selected, search strings for the databases Scopus as well as Web of Science (WOS) (refer to Table 1) are formulated. In this research effort, 84 papers were successfully obtained from both databases during the initial phase regarding the systematic review process.

**Table 1**  
**The Search String**

| Scopus   | Web of Science (WOS)   |
|--|--|
| TITLE-ABS-KEY (digital AND creative AND art AND therapy) AND (LIMIT-TO (SUBJAREA, "MEDI") OR LIMIT-TO (SUBJAREA, "PSYC") OR LIMIT-TO (SUBJAREA, "SOCI")) AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (SRCTYPE, "j")) | TS= (digital AND creative AND art AND therapy) AND (LIMIT-TO (SUBJAREA, "MEDI") OR LIMIT-TO (SUBJAREA, "PSYC") OR LIMIT-TO (SUBJAREA, "SOCI")) AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (SRCTYPE, "j")) |

**Screening**

During the initial screening phase, duplicate papers should be disregarded. Based on various inclusion as well as exclusion criteria determined by researchers, 154 papers were excluded in the first phase, while 44 articles were evaluated in the second phase. Given that literature (research articles) is the main source of valuable knowledge, this was the primary criterion. Moreover, publications such as conference proceedings, chapters, books, book series, meta-synthesis, meta-analyses, reviews, as well as systematic reviews are excluded from the current study. Note that the review was also limited to English-language studies only. The schedule was established for a six-year period (2019–2024), which is important to remember. To meet the analytic purpose, only research performed on Malaysian soil has been selected. 29 publications overall based on predetermined criteria

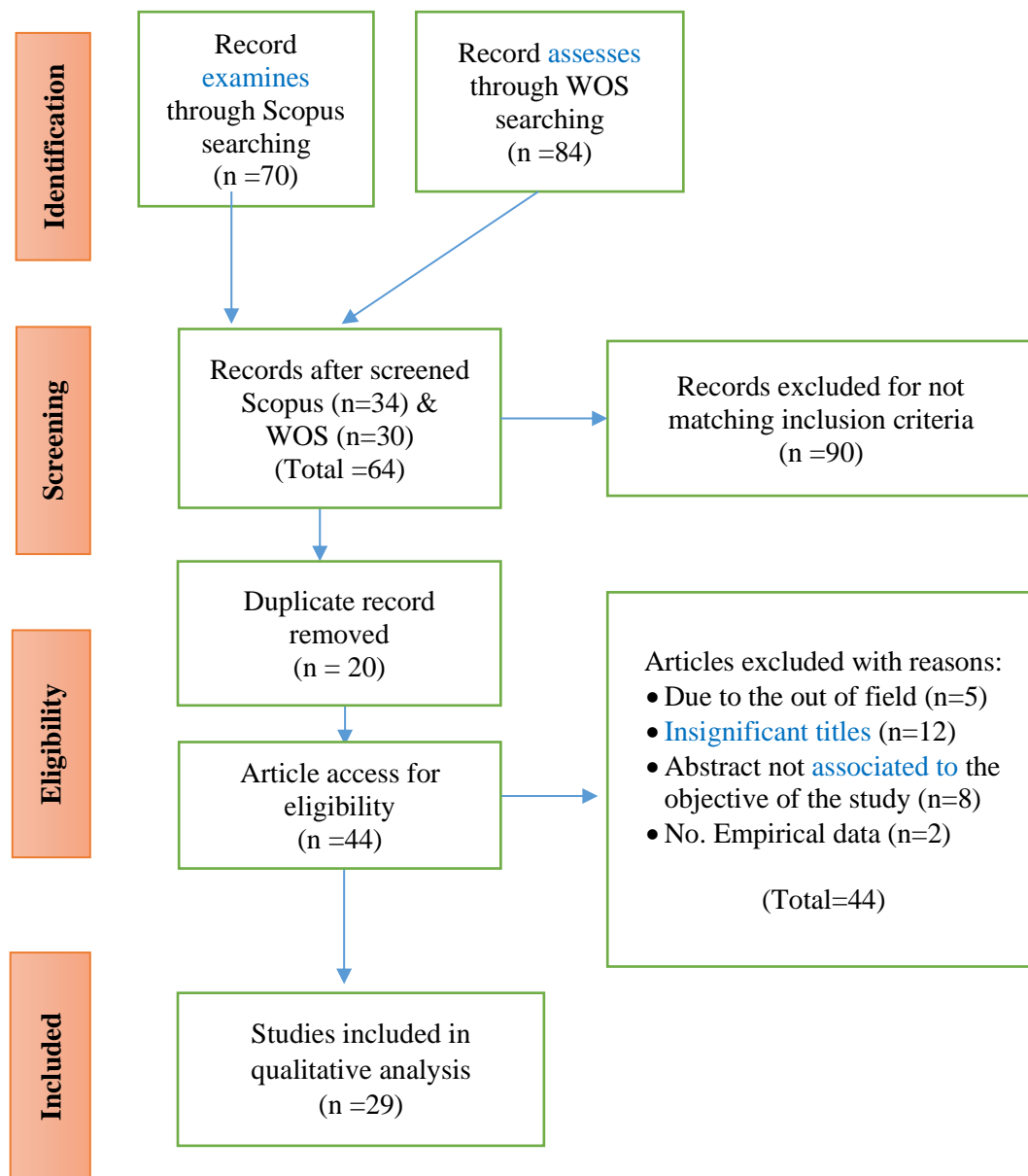
**Table 2**  
**The Selection Criterion Is Searching**

| Criterion | Language    | Timeline / Years | Literature type          | Publication Stage |
|-----------|-------------|------------------|--------------------------|-------------------|
| Inclusion | English     | 2019 – 2024      | Journal (Article)        | Final             |
| Exclusion | Non-English | < 2018           | Review, Book, Conference | In Press          |

**Eligibility**

For the third step, known as eligibility, 44 articles have been qualified. Correspondingly, the titles as well as key content with regard to all articles were thoroughly reviewed to ensure they accommodated the inclusion requirements and aligned with the current research aims. Consequently, 44 reports were omitted due to being out of the field (n=5), having titles that were not significant (n=8), having abstracts that were not related to the study's objective (n=6), and lacking empirical data (n=1). Finally, 29 articles are accessible for review (refer to Table 2).

*Data Abstraction and Analysis*



**Figure 1. PRISMA Flow Diagram With Regard To The Proposed Searching Study.**

An integrative analysis was utilised as a key assessment method in this study to comprehensively review as well as synthesize various research methodologies (quantitative, qualitative, and mixed methods). Note that the study aimed to pinpoint relevant topics and subtopics effectively. The initial phase of data collection marked the inception of thematic development. Figure 1, portrays the meticulous analysis conducted on a compilation of 29 publications, focusing on content pertinent to the study's topics. The authors then scrutinized existing significant studies concerning the classification of creative digital art therapy. The methodologies employed across all studies, along with their research findings, were thoroughly examined. Subsequently, collaborating with co-authors, the authors derived themes grounded in the study's evidence. A log was recorded throughout the data analysis process to document analyses, perspectives, puzzles, or other relevant insights for data interpretation. Finally, the



authors compared findings to identify any inconsistencies in the thematic development process. It's noteworthy that any conceptual discrepancies were deliberated among the authors. The resulting themes underwent refinement to ensure coherence. The selection of analyses was overseen by two experts—one specializing in guidance and counselling and the other in creative art therapy—to validate the study's findings. This expert review phase ensured clarity, significance, and relevance of each subtheme within the domain.

## **Results and Finding**

The following are three narrative themes, as well as the results of the findings that are founded on the integration with respect to digital tools in art therapy, the creative processes and techniques in question, and the impact and efficacy of digital art therapy.

### ***Theme 1: The Integration of Digital Tools in Art Therapy***

The manner in which therapists and clients participate in the therapeutic process has been transformed by the integration of digital instruments in art therapy. Digital art therapy utilizes a variety of technological innovations, including digital narrative platforms, VR and AR, to generate interactive and immersive experiences. These tools offer clients the opportunity to investigate their emotions and experiences in a secure and regulated digital environment, thereby opening up new channels for therapeutic engagement and creative expression.

#### **Findings:**

- **Improved Accessibility:** Digital art therapy tools have expanded the availability of therapeutic services to individuals who may have physical limitations, reside in remote areas, or prefer the anonymity and convenience of online sessions.
- **Innovative Techniques:** Virtual art studios and interactive 3D modelling are among the innovative techniques that VR and AR have introduced to art therapy. These techniques provide clients with unique opportunities to engage and improve their therapeutic experience.
- **Positive Client Feedback:** The flexibility, creativity, and personalized nature of digital tools are underscored by client testimonials and studies, which indicate high levels of satisfaction with digital art therapy.

### ***Theme 2: Digital Art Therapy: Creative Techniques and Processes***

The therapeutic voyage is underscored by the creative processes and techniques of digital art therapy, which underscore the significance of artistic expression, innovation, and imagination. In order to encourage self-expression and creative exploration, digital art therapy employs a diverse array of digital media, such as online collaborative platforms, digital painting applications, and graphic design software.

#### **Findings:**

- **Broadened Creative Horizons:** Digital tools offer a broader selection of creative options, enabling clients to explore a variety of artistic techniques and mediums that may not be accessible in traditional art therapy settings.
- **Enhanced Engagement:** The interactive nature of digital art tools increases client engagement, particularly among younger clients who are familiar with digital technology and find it alluring and intuitive.

- Therapeutic Flexibility: Digital art therapy enables therapists to customize interventions to the unique needs and preferences of each client, thereby allowing for a larger degree of flexibility in therapeutic approaches.

### ***Theme 3: The Efficacy and Impact with regard to Digital Art Therapy***

The efficacy and impact of digital art therapy have been the subject of numerous studies, with researchers investigating its efficacy in addressing a variety of mental health issues, such as tension, anxiety, and trauma. Digital art therapy has demonstrated the potential to offer therapeutic benefits that are comparable to those of traditional art therapy while also providing unique advantages that are specific to the digital medium.

#### **Findings:**

- Therapeutic Outcomes That Are Effective: Research suggests that digital art therapy can result in substantial enhancements in mental health comparable to those that are achieved through traditional art therapy. After engaging in digital art therapy sessions, clients report experiencing diminished symptoms of anxiety, depression, and trauma.
- Emotional Regulation and Stress Relief: Digital art therapy has been effective in assisting clients in the management of their emotions and stress. The creative process offers a therapeutic channel for the expression and processing of intricate emotions.
- Trauma Recovery Support: Digital art therapy has been particularly beneficial for individuals who are coping with trauma, as it provides a non-verbal and non-invasive method of investigating traumatic experiences and facilitating healing. The transformative potential of digital tools in art therapy, the innovative, creative processes they enable, and the positive impact they have on clients' mental health and well-being are underscored by these narrative themes and findings.

### **Discussion**

The integration of digital tools into art therapy has significantly altered therapeutic practices, thereby enhancing accessibility and engagement. Digital art therapy utilizes technologies such as virtual reality (VR) to create immersive experiences that promote emotional exploration and expression (Kaimal G., 2020). The scope and adaptability of therapeutic services are thereby expanded by these developments, which provide clients with innovative, dynamic methods of participating in therapy.

Furthermore, the creative processes and techniques employed in digital art therapy expand the scope of traditional therapeutic approaches. The therapeutic experience is further enriched by the use of online collaborative platforms, digital painting applications, and graphic design software, which allow clients to investigate a wide range of artistic techniques and mediums (Williams & Brown, 2022). The adaptability of digital tools enhances client engagement, particularly among younger populations who are more acclimated to digital technologies. Consequently, therapy sessions become more intuitive and appealing.

The efficacy and impact of digital art therapy have been extensively investigated, and the findings indicate that it provides significant mental health benefits. Research suggests that digital art therapy may efficiently alleviate symptoms of anxiety, depression, and trauma, offering a comparable alternative to traditional methods (Miller & White, 2023). The therapeutic value of digital art interventions has been emphasized by the report, which states



that creative digital expression can provide tension relief and enhanced emotional regulation for clients.

### Conclusion

The study aimed to identify innovative techniques in digital art therapy and analyze client engagement with these methods. It found that digital technologies have significantly expanded the scope and accessibility of therapeutic practices, introducing tools like virtual reality and AI-driven platforms that enhance client engagement and overcome geographical barriers. Art therapists have successfully adapted their practices for remote settings, ensuring service continuity during crises and reaching underprivileged populations. Additionally, digital art therapy has shown potential in improving mental health outcomes by providing an engaging and adaptable platform for emotional expression. However, challenges related to digital inclusion, ethical practice, and empirical evaluation remain, necessitating ongoing research and mindful integration of technology to ensure the effectiveness and accessibility of digital art therapy for all clients.

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"I, the Corresponding Author, admitted that this article is original, has not been published before and is not currently being considered prior to publication elsewhere. I can verify that all named authors have read and approved the manuscript and that there are no unlisted individuals who meet the authorship criteria. Additionally, the author's order has been unanimously agreed upon. I acknowledge that the Corresponding Author is the primary contact for the Editorial process, responsible for updating the other authors on progress, submitting revisions, as well as obtaining final approval of proofs. Signed by the Corresponding Author on behalf of all other authors."

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