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IMPLICATIONS OF NATIONAL TRENDS IN DIGITAL MEDIA USE FOR ART THERAPY PRACTICE

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IMPLICATIONS OF NATIONAL TRENDS IN DIGITAL MEDIA USE FOR ART THERAPY PRACTICE

Cover Page Footnote

We are grateful to Ms. Adele Gonzaga for her help with data extraction for this study.

Abstract

This paper presents an overview of national trends in visual art-making and art sharing using digital media, and the authors' reflections on the implications of these findings for art therapy practice. These findings were based on a secondary analysis of the 2012 Survey of Public Participation in the Arts administered by the National Endowment for the Arts. Survey findings indicated that increasing proportions of people in the United States are using digital media for creating, archiving, and sharing their art. Reflections by the authors on these findings include support for increase in use of digital media by art therapists for their own art, and the need for research and education on best practices for use of digital media.

Keywords: digital media, art therapy, survey of public participation in the arts

Implications of National Trends in Digital Media Use for Art Therapy Practice

Art therapists have reported on the prevalence of digital media for creative self-expression (Kapitan, 2007); however, there is limited research in the art therapy community on the implications of using digital and social media for patient care (Kapitan, 2011). A few scholars have recognized that art therapists are increasingly faced with professional and ethical dilemmas in the use of digital and social media (Alders, Beck, Allen, & Mosinski, 2011; Belkofer & McNutt, 2011; Peterson, 2010) and have advocated for research on the topic (Kapitan, 2011; Orr, 2006). Despite evidence of ambivalence among art therapists on integrating digital media in their work (Orr, 2006), there has been increasing recognition of the need to better understand digital media, new technology, and implications for clinical practice (Asawa, 2009; Orr, 2006). This paper expands on this dialogue reflecting on a national survey of the general public's increased use of digital media related to artwork and the implications for the art therapy professional.

Literature Review

In a study on technology use, Orr (2006) found that although 88% of art therapists used technology, they did not use it for therapeutic purposes because technologically-based tools lacked the sensory aspects of traditional art tools (e.g., paints, markers, pencils). Collie, Bottorff, Long, and Conati (2006) reported concerns from their focus group of art therapists and mental health and telehealth professionals that computer use in art therapy, especially when art therapy is delivered online, could be viewed as isolating, dehumanizing, and impersonal. Using surveys and interviews, Peterson (2010) found that art therapists preferred expressive media that were simple enough for the client to learn how to use effectively. Some of Peterson's participants asserted that digital tools provided them with an opportunity to learn new skills which, in turn,

had a positive effect on their clients' self-esteem. Almost all of these participants agreed that if a medium could safely produce a desirable change in a client, then it warranted inclusion in art therapy treatment. The fact that the medium was digital or non-digital was found to be less relevant than the capacity to produce change. However, actual adoption of digital media was related to an individual art therapist's comfort with the media, cost effectiveness, and applicability of the media to clients who might prefer cleaner technology-based artwork, rather than the "messy" options with traditional art media. Potash (2011) argued that electronic media provided rapid delivery and unlimited access to pictures, sounds, and information. Thong (2007) also suggested that computer-generated art was a valid therapeutic modality for empowering clients and fostering the therapeutic alliance.

Digital media in the context of art therapy can also refer to the use of the Internet and social media to archive and share art and related reflections. Aspects of sharing, especially on social media formats, could contribute to interpersonal connections and social learning through the active participation of these social media members (Belkofur & McNutt, 2011). The digital landscape of social networking has transformed the ways that individuals collaborate, exchange information, and determine what is significant content for their responses and which ones merit their attention while online (Eysenbach, 2008). According to Austin (2009), art therapists are uniquely positioned to understand and leverage social media to help their clients and patients as art therapists work with fantasy, projection, symbol, and metaphor which enables them to provide a unique perspective on the impact of technology on the creative process and on emotional life. Ethical issues that need to be considered include privacy protections in electronic health records, client familiarity and comfort with digital media (Alders et al., 2011; Gussak & Nyce, 1999; Peterson, 2010), and client confidentiality in the therapeutic context (Klorer, 2009).

Digital media offer alternate learning avenues and options for sharing artwork compared with traditional modes of art-making and sharing. This in turn could make digital media more relevant to some people than others. For example, there are some people engaged in capturing and sharing photography as an artistic tool using mobile technologies. In addition, digital media potentially offer tools that enable democratic access to art-making, especially for individuals who are unable to work with or are intimidated by artistic expectations of traditional art media.

Little is known, however, about the scope and extent of the use of digital media. One source of data for this is the Survey of Public Participation in the Arts (SPPA). The National Endowment for the Arts (NEA) has conducted this nationwide survey every four to five years in partnership with the United States Census Bureau. This survey is the largest periodic study of arts participation in the United States (US). Although not directly related to art therapy, it can inform us about national trends. The large number of survey respondents—similar in make-up to the total US adult population—permits a statistical snapshot of citizen engagement with the arts by frequency and activity type. The questions on the survey seek to gather information from a representative random sample of the population on participation in arts activities (art, music, performing arts, literary and cultural activities). The survey has taken place five times since 1982, which has allowed researchers to compare trends not only for the total adult population but also for demographic subgroups. The examination of the demographic data included in the SPPA (e.g., age, race, gender, income, education) could help provide further information around digital media usage and access and deepen art therapists' understanding of the diversity prevalent in art-making and art sharing.

Given that the survey is the only one of its kind that tracks national trends in art participation of the general population, we examined selected findings and considered the

implications specifically around art-making, art sharing, and digital media in the context of art therapists' practice. By examining the patterns in art-making and art sharing through the SPPA and reflecting on the implications in research, clinical practice, education, and art-making, we can better understand how these SPPA trends might inform art therapy practice.

Method

This study used a multi method design that included (a) a secondary analysis of SPPA data and (b) a summary of reflections on the implications as perceived by art therapists (the authors) for clinical, research and education, and artistic practices. The SPPA in 2012 was conducted over a one year time period from 2011 to 2012 and included responses from a random sample of 37,000 adults from across the US. The survey was conducted in partnership with the US Census Bureau as a supplement to the Census Bureau's Current Population Survey. The 2012 SPPA had 93 questions, 37,266 adult respondents (18 years old and above), and a response rate of 74.8% (NEA, 2013). On both surveys, smaller representative samples of participants responded to different sections of the questionnaire. Although the SPPA has been administered seven times (approximately every four to five years) since 1982, the questions about digital media usage were initiated in 2008 and expanded in 2012. The data from the 2012 SPPA survey are available to the public through a large national database housed at the website of Cultural Policy and the Arts national data archive (<http://www.cpanda.org/cpanda/studies/c00016?view=summary>).

For this study, we focused on the use of digital media for art-making and art sharing. The specific questions used in the secondary analysis of this 2012 SPPA data included those focused on trends in visual art-making and art sharing specifically as they related to digital media. In addition, we also examined distinct patterns by demographics such as age, gender, and income

levels. The data were entered into an electronic database and analyzed using the statistical software program SPSS version 20. Descriptive statistics were computed for each question on the survey related to respondents' use of digital media for creating and sharing art, and for participant demographics. Since not all questions were asked of all participants, the findings will be reported here as a percentage of those who were asked a question (rather than the entire sample).

After the data were summarized, in the next part of the study, four art therapists reflected on the findings from the secondary analysis to identify possible implications for researchers, artists, clinicians, and educators. These four art therapists have a combination of over 30 years of personal experience teaching students of art therapy, making their own art, sharing their artwork online (either via blogs or other websites), engaging in clinical practice, and in conducting research. The differences among them lie in the levels of focus in each of the domains listed above. They range in age from 27 to 44 years and racially identify as three White individuals and one Asian American individual. As art therapists, they have used a range of art media including digital tools, crafts, fine arts, and mixed media arts.

Findings

Findings from the 2012 NEA surveys have indicated an increasing engagement with digital media for arts experiences, sharing, and creating. According to the 2008 NEA report, 40% of adults used the Internet to engage with, access, or post artworks. Of these, about 20% used the Internet to view or download visual art, and most adults who used the Internet were found to engage with artworks at least once a week. Findings from the 2012 SPPA (NEA, 2013) indicated that there was an overall decline in arts participation in traditional forms such as performing arts events, visits to museums, and attendance at craft fairs. However, there appeared to be large

levels of engagement in the arts through digital media. In fact, 71% of adults consumed art through digital media (art forms including music, dance, visual art, drama, and literature). Overall 48% of US adults (113 million people) engaged in art-making and/or art sharing; of these, 40% emailed, shared, or posted their artwork (NEA, 2013) (see Figure 1).

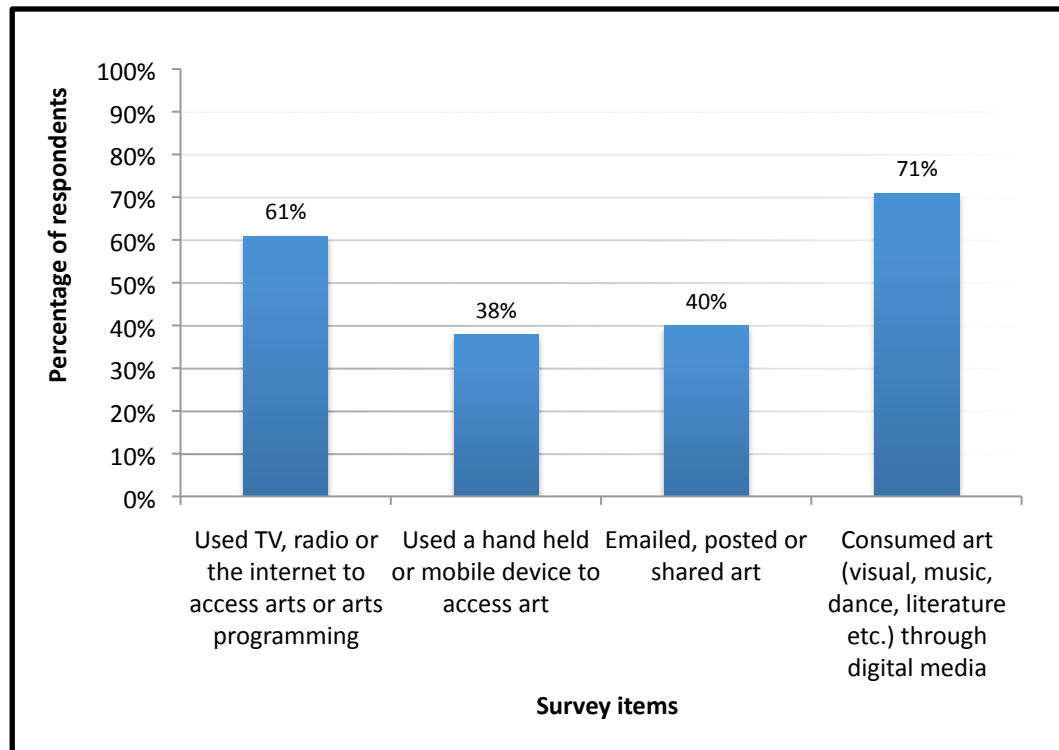


Figure 1. Percentage of the national population that uses digital media to consume or share art. Source: SPPA 2012 survey (NEA, 2013)

As illustrated in Figure 1, a large proportion of SPPA survey respondents indicated that they consumed art through digital media; however, fewer who created their own art shared this content online and/or via hand held devices (NEA, 2013).

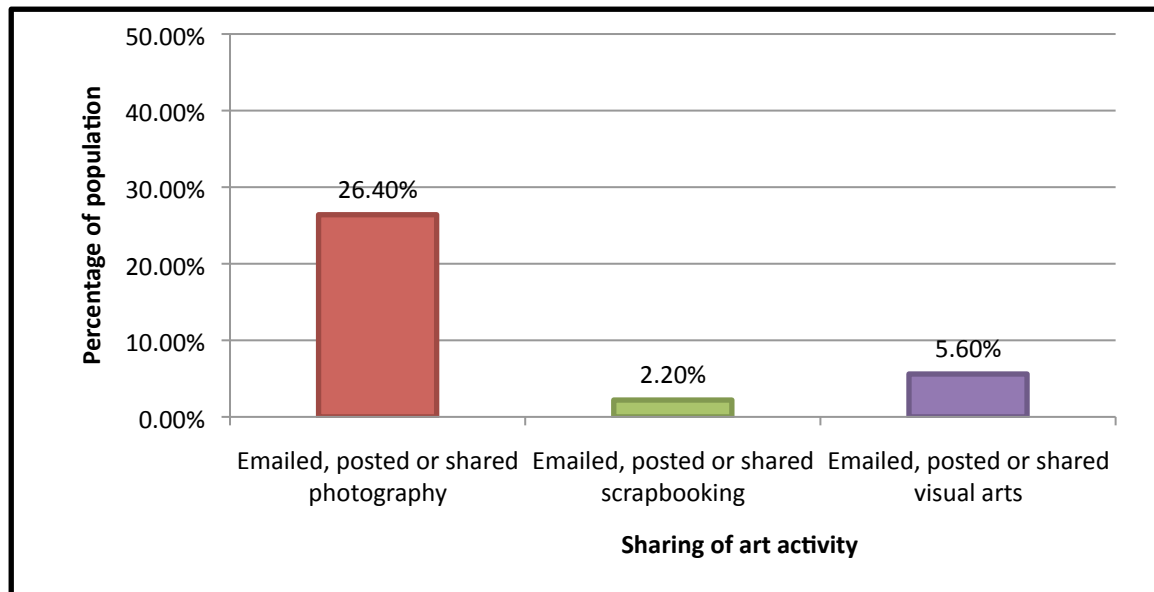


Figure 2. Digital art-making and art sharing activities of one's own art by percentage of US adults who participated in 2012 SPPA survey.

Source: SPPA 2012 survey, n = 9,487

As can be seen from Figure 2, the art form shared the most was photography followed by visual arts and scrapbooking. Figures 3, 4, and 5 present art sharing activities related to gender, age, and family income.

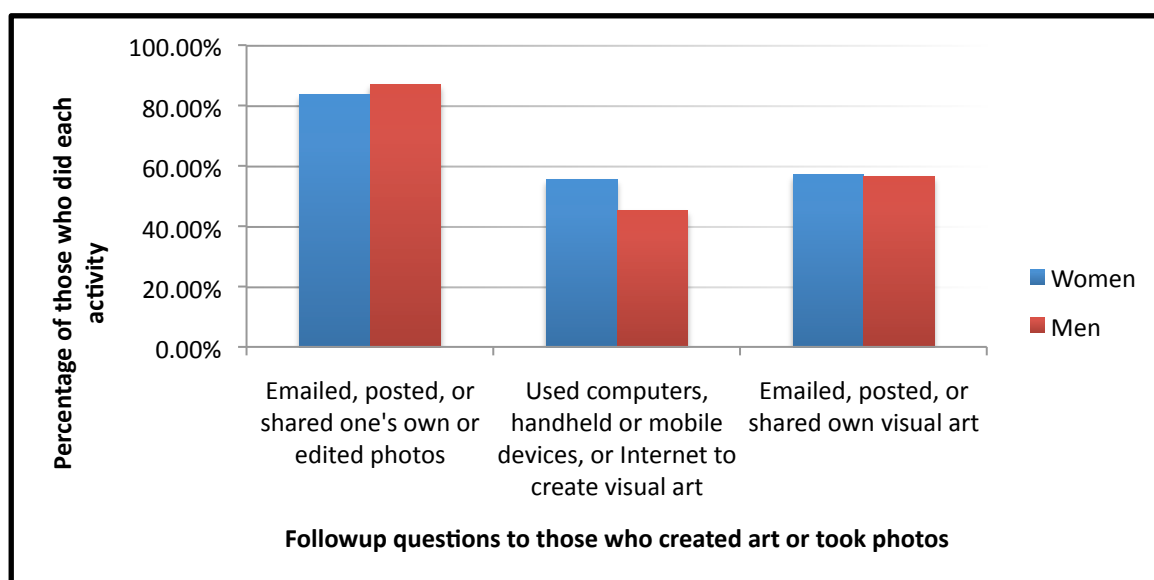


Figure 3. Digital art-making and art sharing activities by gender.
Source: SPPA 2012 survey, n =1,785

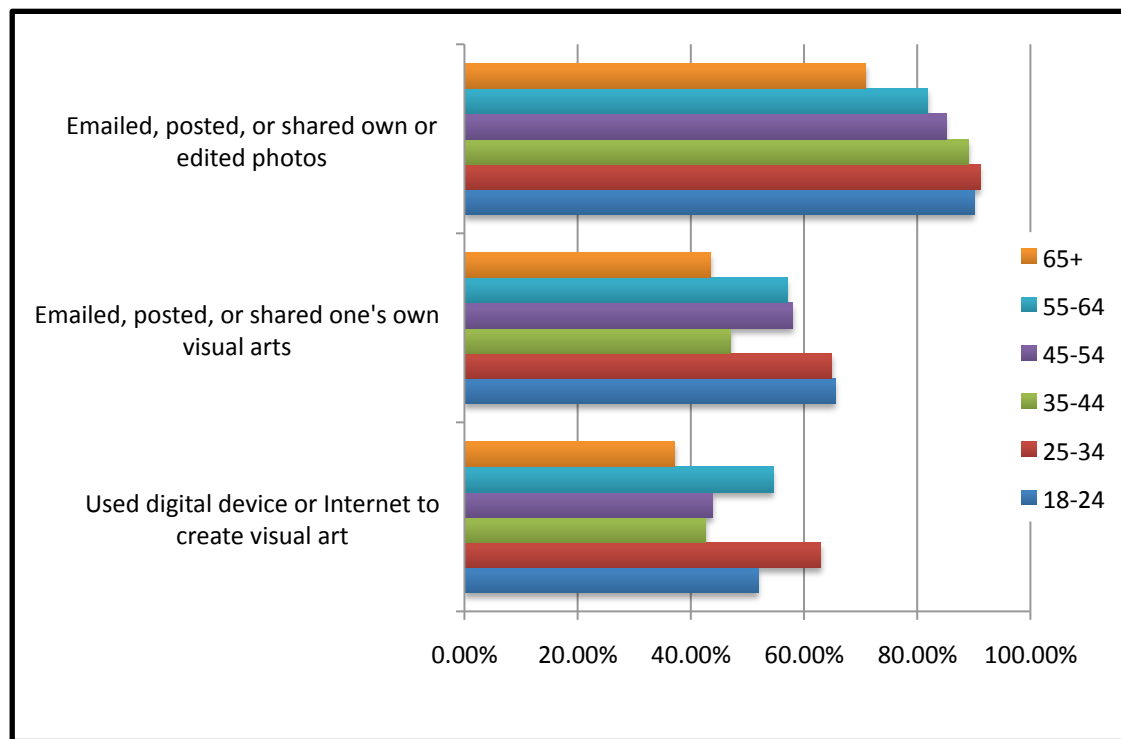


Figure 4. Percentage of those who used digital media or the Internet to create and share art by age groups.
Source: SPPA 2012 survey, n=1785

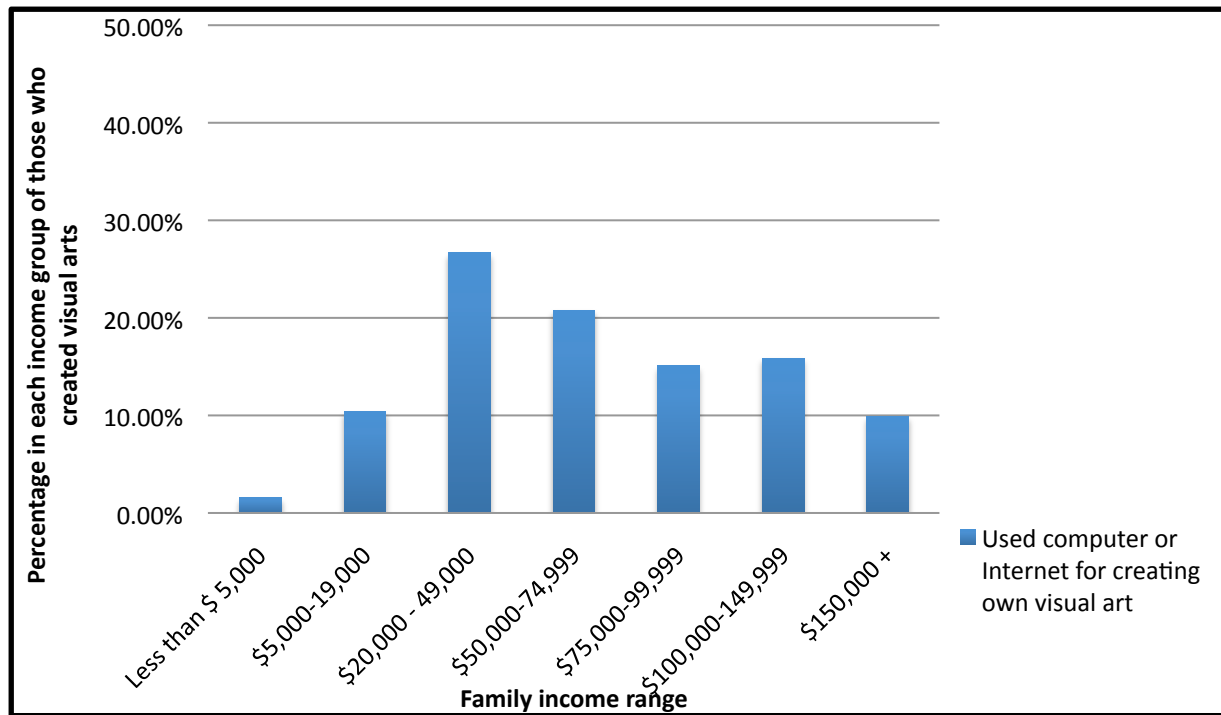


Figure 5. Percentage of individuals who used computers or handheld devices to create visual art by family income levels.

Source: SPPA 2012 survey, n = 555

As shown in Figure 5, larger percentages of those who create art using digital media are those in the \$20,000 to \$75,000 income range. However, it cannot be assumed that higher digital media usage is directly connected to higher income levels. Figure 3 demonstrates that there are no major differences by gender in digital media usage. This indicates that equal proportions of men and women engage in art making and sharing using digital media. Figure 4 indicates that in terms of age ranges and digital media usage, compared with younger age ranges, fewer individuals over 65 years used digital media. Across age ranges, however, photography was shared most commonly. These findings are important to consider, especially in light of how they differ from other art media. We will next explore the implications of all these figures and findings specific to art therapy practice.

Discussion

The SPPA survey provides information on national trends in arts participation. Although not specifically about art therapy, the survey could nevertheless provide useful information for art therapists about the use of digital media tools. The four art therapists, namely authors of this article, reflected on the implications of these SPPA findings for art therapy practice including implications for clinical, research, education, and artistic practice.

Clinical Practice Implications

Art therapists need to consider two aspects of digital media: tools for creating digital art and tools for sharing art through the Internet and other types of social media. A major finding from the survey has been recognition of the rising use of digital media for self-expression and art sharing. As shown in Figure 3, digital media usage does not seem to differ by gender or age. Especially with youth who are often familiar with *apps* and the languages of online tools, digital media might be particularly valuable to build a therapeutic alliance. The following anecdote from one of the participant expert's clinical practice serves as an illustration of including digital tools in therapeutic practice.

One 9 year old boy attended art therapy and disliked drawing. His mind moved faster than his hands could control, and he had the where-with-all to recognize that his fine motor skills were sloppy and did not reflect the image in his head which was a frustrating experience for him. At that time, this young man related everything (metaphorically) to Minecraft – his therapist needed to learn everything about Endermen and the world of Nether. Figure 6 shows an example of the therapist's attempt to understand Minecraft by engaging in her own exploration of the game in an

attempt to connect with her patient who used and spoke incessantly about the digital game Minecraft.



Figure 6. Screenshot image of a garden built in “creative mode” of Minecraft by an art therapist. Source: Symmetrical Garden, Minecraft Creative Mode, Michele Rattigan

While the boy’s art therapist did not provide digital or computerized art during his session, she did refer to these characters and assisted the boy in building sets with clay and cardboard to enact different scenarios around survival, coping with pending danger and how to communicate needs effectively; all this was accomplished with the language and 3D avatars comfortable to this child. At one point, this particular client stated, “You know, Minecraft is like life. I know Minecraft isn’t reality, but sometimes it sure explains things better or makes more sense than real life does.”

In a different case, this same art therapist found that digital or computerized art-making was a viable tool with a depressed and reluctant adolescent with OCD. The art created through a basic paint program on an old laptop provided a segue into the client’s expressive arena and eventually assisted his choosing more expressive, fluid media. It also offered the adolescent

control over the expression. The therapist took the role as “student” to his “teaching” her all of the different tricks one could do in the computerized paint program.

As highlighted in these indirect and direct usage examples, digital art media is currently being explored and used in art therapy. Art therapists might consider the use of computers (Parker-Bell, 1999), Internet and digital media (Orr, 2006), and particularly digital photography and social media applications to engage patients who might be intimidated by expectations around artistic skills and mastery in traditional media choices for painting, drawing, etc. (Moon, 2010). Digital and Internet media could include using digital photography as a collage tool or storytelling apps. This might integrate both digital and handmade formats in art therapy practice to address the sensory needs as well as digital options. Sawyer and Willis (2011) highlighted the use of creative applications like digital storytelling as tools to enhance autonomy and creativity.

In a survey study, Kuleba (2009) found that the therapeutic relationship and the effects of using a computer to create artwork were comparable to the therapeutic outcomes of art therapy using traditional media. Those therapists who were reluctant to use computerized art-making in therapy expressed their lack of training and experience related to the computer hardware and software; they also expressed concern about the unique sensory qualities of a computer to create artwork. Potash (2011) also presented two case studies that illustrated how cyberspace entered into art therapy sessions and how the process of art therapy empowered adolescent clients to transform pop culture images into personally meaningful ones. Thong (2007) presented traditional art-making methods (e.g., drawing, painting, photography, collage, sculpture) that could be combined or enhanced with photopaint programs and 3D computer modeling and animation software such as Adobe Photoshop, Flying Colors, and People Putty. The author compared the unique tools of various visual graphics and virtual sculpture programs to those of

more traditional methods of art-making. Thong (2007) concluded that computer art-making has become an integral part of the process of making art, and is a valid medium for individual self-expression and art therapy.

Research Practice Implications

The 2012 SPPA survey indicated that digital media are increasingly being used for creating, sharing, and consuming art. In an exploratory qualitative study on digital media and art therapy, Edmunds (2012) found that art therapists combined traditional art-making with digital art-making techniques. Other themes found were that digital art-making supports the defenses of doing and undoing; furthermore, deconstruction and reconstruction were also discussed as part of the defense of doing and undoing (Edmunds, 2012). Further research is needed on the role and applications of non-traditional media including digital media apps, photography and photo usage, and digital art. There is a need to study and better understand the strengths and limitations of digital media as therapeutic tools and how they compare with traditional media (e.g., notion of structure in media).

More research is also needed in the role of digital media in the stages of artistic development including if and how digital tools help or hinder the process. For example, Figure 7 presents a scribble drawing created by a 3-year-old child on a doodling application on an iPad. This appears comparable to drawings that might be created using pencils or markers in terms of artistic developmental indicators.



Figure 7. Scribble drawings by a 3-year-old child on an iPad doodle pro app.
Source: Girija Kaimal

Given the increasing numbers of art therapists who blog and share their work online, research is also needed to examine implications of the online presence of art therapists and art therapy bloggers both for content creators and content viewers. Blogs, according to Kaplan and Haenlein (2010), are the “earliest form of social media” and are comparable to personal websites that “summarizes relevant information in one specific content area” (p. 63). In their perspective paper addressing the implications of social media, Belkofer and McNutt (2011) cautioned that websites and blogs could have unpredictable impacts on the privacy of social relationships and interactions among human beings who contribute to and access the sites. Other researchers have argued that it is essential that art therapy professionals begin to recognize social media as a set of powerful, contemporary tools that can be used for finding meaning in an increasingly uncertain world and for facilitating therapeutic dialogue with patients isolated by distance or illness (Collie & Cubranic, 1999; Malchiodi, 2012).

Belkofer and McNutt (2011) suggested some strategies for successful use of social media including (a) expanding the definition of art to include new media and digital technologies, (b) developing a greater range of expertise to help people deal with the realities of new media, (c) engaging mindfully in the monitoring of online behaviors, and (d) establishing clear policies and procedures to protect clients and the integrity of the therapeutic relationship. One way to learn more about the impact of the art therapy blogging community might be to examine perceptions of those in the field through online comments made on these sites. Many sites also offer web analytics tools which can also be used as a data source to better understand why and how art therapy websites and blogs are accessed and used.

Artistic Practice Implications

All four of the art therapy experts/authors have engaged in artistic practice and have identified as artists. This artistic practice has been used as a form of self-care, a way to share our values, reflections, and beliefs, and a way to better understand our own responses and reactions to the world. This has often been done by creating art and sharing images and narrative reflections via emails or blogs with peers. In fact, three of the four art therapist authors are actively engaged in blogging about their work as artists and art therapists. In relationship to the impact of personal art-making on the creative lives of art therapists, Chilton, Gerity, LaVorgna-Smith, and MacMichael (2009) have suggested the many benefits of using the Internet to engage in online art communities. These include providing the power of support through the relationships that are built within the community, providing a sense of hope and inspiration through the sharing and exchanging of art among community members (on and offline), as well as empowering creative motivation and accountability (Chilton et al., 2009). Chilton and colleagues have also connected the value of engaging in a virtual creative space to having a

positive impact on the work of art therapists through validation and meaningful art-based inspiration rooted in the values of generosity, gratitude, and belonging.

Digital artwork and digital photography can and have been used as essential tools for art therapists who value this connection on the Internet through documenting, collaborating, and sharing their own creative expressions through blogs, online communities, and other social networking sites. With the advent of simple photo capturing and image editing tools now available on mobile devices, creative works in the form of visual art, photo captures, videos, internet memes, and more can be easily created and then connected to social media sites to share with colleagues and peers. These tools have shifted the focus away from skill to ease of self-expression. Baumann (2012), for example, critiqued the popular mobile photo sharing app Instagram as not qualifying as photography which takes talent/skill/education, and instead defined Instagram as “folk photography.” Baumann does suggest that these apps can be seen as therapeutic creation rather than time-consuming technology use and offer the user a means to slow down the fast paced, technology-driven world around them. Baumann finally adds that Instagram’s filtering process (editing) provides an opportunity to spend more time focusing on the process of creating and less on the actual product. With the addition of this technology and its seamless integration into social media, the broadcasting (and viewing) of visual content has become more user friendly and available to the art therapist’s artistic practice and connection online.

Education Practice Implications

Given that large proportions of the US population use the Internet to consume art and use digital media to create and share art, it is important to incorporate the discussion around digital media into the preparation and ongoing professional development of art therapists. Although

digital media might not provide many of the sensory and tactile qualities of traditional art media (Kuleba, 2009; Orr, 2006), digital media are increasingly being used to document and share life events. These include narratives and images shared on social media and other forms of sharing including blogs, emails, and website posts.

Educational implications for professional development for practicing art therapists include education around digital media software, tools, and uses. Students of art therapy need to learn: the ethics of digital data including sharing on social media, copyright restrictions in the use of images in the public domain, privacy and ensuring confidentiality in sharing patient or personal artwork on the Internet, and the strengths and limitations of using digital media as a therapeutic tool. In 2013, the American Art Therapy Association revised the *Ethical Principles for Art Therapists* to include updated content about the “professional use of the Internet, social networking sites, and other electronic or digital technology” (Section 15.0). This content highlights the importance of the need for art therapists to understand the public nature of information available online, its implications for privacy and confidentiality including HIPAA, the art therapist’s responsibility and awareness of these limitations, as well as the importance of reasonably safeguarding content accessible to their patients/clients.

Art therapy students and continuing education trainees need increased understanding and skills related to the appropriate contexts for inclusion of digital media. This could be accomplished through coursework on different digital devices, preparation on how to use these devices in clinical settings, as well as consideration of related ethical issues. Kuleba (2009) has recommended that computerized art-making should be part of the training curriculum in graduate studies. Including this educational standard supports the findings that if art therapists were

knowledgeable and trained with using digital media for art-making, they might be more likely to use this medium as a therapeutic tool in their clinical work as well.

Limitations

This study presented selected findings from the 2012 SPPA national survey on arts participation. Participation in the arts is not, however, synonymous with art therapy, and the NEA's SPPA surveys have not included any references to art therapy or art-making in a therapeutic context. It focuses on self-reports of arts engagement. Another feature of the survey is that although the entire study includes over 37,000 respondents, many of the questions were only asked of a small sub-sample, and each follow-up question was based on responses from previous questions and thus had successively smaller numbers of respondents. Consequently, the percentages sometimes mask the wide variations in the actual number of respondents for many of the questions. The questions around sharing and creating art digitally were also limited to questions that encompassed a range of options. The questions did not differentiate between digital devices like smartphones, tablets, desktop computers, or between personal emails and sharing publicly social media sites or blogs. Thus, it is difficult to know the proportions of people who shared and the digital context in which they communicated this information.

Limitations also extend to the clinical, research, artistic, and educational implications offered in this paper. These implications are influenced by the subjective experiences of the authors and might not be applicable to all readers. The authors also used this section to demonstrate potential customizable applications of the findings from the 2012 SPPA survey's secondary analysis in relationship to the art therapy field. Although thoughtful considerations and discussions took place among the authors about these experience-based implications, these

are predominantly anecdotes. More research is needed to understand the deeper implications of how digital media impact the multi-faceted practice and training of art therapists.

Conclusion

The purpose of this paper was to reflect on and share findings from the NEA's 2012 SPPA survey which has indicated an increasing prevalence of digital media usage, and to explore how this increase might relate to art therapy practice. The secondary analysis findings indicated an increasing prevalence and use of digital media for art-making and art sharing. Art therapists are already starting to use digital media as a therapeutic tool and for their own artistic expression. Research on the usefulness and effectiveness of digital media for art therapy practice will be needed to assure integrity of best practices which can then be integrated into education and training for the profession.

References

- American Art Therapy Association (2013). Ethical principles for art therapists. Retrieved from <http://www.arttherapy.org/aata-ethics.html>
- Alders, A., Beck, L., Allen, P. B., & Mosinski, B. B. (2011). Technology in art therapy: Ethical challenges. *Art Therapy: Journal of the American Art Therapy Association*, 28(4), 165-170. doi:10.1080/07421656.2011.622683
- Asawa, P. (2009). Art therapists' emotional reactions to the demands of technology. *Art Therapy: Journal of the American Art Therapy Association*, 26(2), 58-65. doi:10.1080/07421656.2009.10129743
- Austin, B. D. (2009). Renewing the debate: Digital technology in art therapy and the creative process. *Art Therapy: Journal of the American Art Therapy Association*, 26(2), 83-85. doi:10.1080/07421656.2009.10129745
- Baumann, P. (2012, May 1). Folk photography as digital therapy. Retrieved from <http://healthsocial.com/instagram/folk-photography-as-digital-therapy/>
- Belkofer, C. M., & McNutt, J. V. (2011). Understanding social media culture and its ethical challenges for art therapists. *Art Therapy: Journal of the American Art Therapy Association*, 28(4), 159-164. doi:10.1080/07421656.2011.622684
- Chilton, G., Gerity, L., LaVorgna-Smith, M., & MacMichael, H. N. (2009). An online art exchange group: 14 secrets for a happy artist's life. *Art Therapy: Journal of the American Art Therapy Association*, 26(2), 66-72. doi: 10.1080/07421656.2009.10129741
- Collie, K., Bottorff, J. L., Long, B. C., & Conati, C. (2006). Distance art groups for women with breast cancer: Guidelines and recommendations. *Supportive Care in Cancer*, 14(8), 849-858. doi: 10.1007/s00520-005-0012-7

- Collie, K., & Cubranic, D. (1999). Computer-supported distance art therapy: A focus on traumatic illness. *Journal of Technology in Human Services, 20*, 155-171.
doi:10.1300/J017v20n01_12
- Edmunds, J. (2012). *The applications and implications of the adoption of digital media in art therapy: A survey study* (Unpublished master's thesis). Drexel University, Philadelphia, PA.
- Eysenbach, G. (2008). Medicine 2.0: Social networking, collaboration, participating, apomediation, and openness. *Journal of Medical Internet Research, 10*(3), e22.
doi:10.2196/jmr.1030
- Gussak, D. E., & Nyce, J. M. (1999). To bridge art therapy and computer technology: The visual toolbox. *Art Therapy: Journal of the American Art Therapy Association, 16*(4), 194-195.
doi:10.1080/07421656.1999.10129478
- Kapitan, L. (2007). Will art therapy cross the digital cultural divide? *Art Therapy: Journal of the American Art Therapy Association, 24*(2), 50-51. doi:10.1080/07421656.2007.10129591
- Kapitan, L. (2011). Introduction to the special issue on art therapy's response to the technological culture. *Art Therapy: Journal of the American Art Therapy Association, 26*(2), 50-51. doi:10.1080/07421656.2009.10129737
- Kaplan, A. E., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons, 53*(1), 59-67. doi:10.1016/j.bushor.2009.09.003.
- Klorer, P. G. (2009). The effects of technological overload on children: An art therapist's perspective. *Art Therapy: Journal of the American Art Therapy Association, 26*(2), 80-82.
- Kuleba, B. (2009). *The integration of computerized art-making as a medium in art therapy*

- theory and practice*. (Unpublished master's thesis). Drexel University, Philadelphia, PA.
- Malchiodi, C. (2012). *Art therapy and healthcare*. New York, NY: Guilford.
- Moon, C.H. (2010). *Materials and media in art therapy: Critical understandings in diverse artistic vocabularies*. New York, NY: Routledge.
- National Endowment for the Arts. (2008). *Arts participation: Highlights from a national survey*. Retrieved from <http://arts.gov/news/2013/national-endowment-arts-presents-highlights-2012-survey-public-participation-arts>
- National Endowment for the Arts. (2013). *How a nation engages with art: Highlights from the 2012 survey of public participation in the arts* (Research Report No. 57). Retrieved from <http://arts.gov/sites/default/files/highlights-from-2012-SPPA.pdf>
- Orr, P. P. (2006). Technology training for future art therapists. *Art Therapy: Journal of the American Art Therapy Association*, 23(4), 191-196. doi:10.1016/j.aip.2012.03.010.
- Parker-Bell, B. (1999). Embracing a future with computers and art therapy. *Art Therapy: Journal of the American Art Therapy Association*, 16(4), 180-185.
- Peterson, B. C. (2010). The media adoption stage model of technology for art therapy. *Art Therapy: Journal of the American Art Therapy Association*, 27(1), 26-31. doi:10.1080/07421656.2010.10129565
- Potash, J. (2011). Fast food art, talk show therapy: The impact of the mass media on adolescent art therapy. *Journal of the American Art Therapy Association*, 26, 52-57. doi:10.1080/07421656.2009.10129746
- Sawyer, C., & Willis, J. M. (2011). Introducing digital storytelling to influence the behavior of children and adolescents. *Journal of Creativity and Mental Health*, 6(4), 274-283. doi:10.1080/15401383.2011.630308.

Thong, S. A. (2007). Redefining the tools of art therapy. *Art Therapy: Journal of the American Art Therapy Association*, 24, 52-58. doi:000000010.1080/07421656.2007.10129583