

Art Therapy On Anxiety and Depression In Post-stroke Patients : Literature Review

Agustina C. B. Mare¹, Dwi Pudjonarko², Untung Sujianto³

¹Master of Nursing Students, Faculty of Medicine, Diponegoro University, Semarang, Indonesia

²Department of Neurology, Faculty of Medicine, Diponegoro University, Semarang, Indonesia

³Department of Nursing, Faculty of Medicine, Diponegoro University, Semarang, Indonesia

Email: agustinachriswinda@yahoo.com

Abstract

Background: Anxiety and depression are common psychological problems experienced by post-stroke patients. 1 in 3 post-stroke patients will experience anxiety in the first year of stroke diagnosis. Anxiety that is not handled properly can lead to depression. Post-stroke depression is experienced by about one third of stroke patients and the highest frequency occurs in the first year after stroke. Post-stroke depression can increase the risk of recurring strokes, worsening quality of life and functional status, and even increase the risk of post-stroke death. Art therapy can be used for therapeutic benefits to explore client feelings, reconcile emotional conflict, foster self-awareness, manage behavior and addiction, develop social skills, improve reality orientation, reduce anxiety and increase self-esteem. **Objective:** To review the type of art therapy and its effect on anxiety and depression in post-stroke patients. **Method:** A literature review with article search using EBSCOhost, CINAHL, MEDLINE, science direct and google scholar databases. The keywords used are art therapy, anxiety, depression, stroke. **Results:** Literatures that fit the inclusion and exclusion criteria are 5 articles. There are 5 studies with various research designs, that are the randomized controlled trial design, pilot study, case study, qualitative study, and review. Years of articles range from 2000-2016. Intervention art therapy that can be done on stroke patients in the hospital setting is creative art therapy, the service of reading, drawing, painting, forming clay, and taking photographs. Art therapy has an effect on reducing anxiety and depression in post-stroke patients in hospitals. **Conclusion:** Art therapy can be used as one of the nursing interventions to reduce anxiety and depression in post-stroke patients in hospitals.

Keywords: art therapy, anxiety, depression, stroke

Introduction

Anxiety and depression are psychological problems that are often experienced by post-stroke patients. 1 in 3 post-stroke patients will experience anxiety in the first year of stroke diagnosis (Rafsten, Danielsson, & Sunnerhagen, 2018). Similar to anxiety, post-stroke depression is experienced by about one third of stroke patients and the highest frequency occurs in the first year after stroke (Hackett & Pickles, 2014). The prevalence of anxiety after stroke and post-stroke depression were 20.4% and 31.1% (Schöttke & Giabbiconi, 2015).

Excessive anxiety experienced by post-stroke patients can lead to excessive stress conditions, namely negative feelings, the achievement of reality, the risk of increasing health problems and can lead to depression (Hawari, 2011; Rafsten et al., 2018). Depression should be

suspected if there is a slow-than-expected recovery,

cooperation in therapy that is poor, emotionally unstable, or horizontal affect (Benjamin et al., 2018). Post-stroke depression can delay the effects of therapy and slow down the recovery process. This is due to the patient's resignation from rehabilitation and lack of willingness and self-motivation to recover.

Anxiety and depression often occur after a stroke and can increase the risk of recurring strokes, worsening quality of life and functional status (Sagen et al., 2010), even increasing the risk of post-stroke patient deaths (Ayerbe, Ayis, Wolfe, & Rudd, 2013). The number of post-stroke patients who experience anxiety and depression after a stroke requires various interventions to deal with this problem. Good intervention in dealing with the psychological

problems of stroke patients is needed to improve the patient's condition, prevent the risks that occur due to anxiety and depression. Interventions for anxiety and depression in post-stroke patients are also expected to improve quality of life.

Art therapy is a mental health profession where clients are facilitated by art therapists who produce a work of art through a creative process using art media. Artwork produced in art therapy is produced to explore client's feelings, reconcile emotional conflicts, foster self-awareness, manage behaviour and addiction, develop social skills, improve reality orientation, reduce anxiety and increase self-esteem. The form of art produced from art therapy is a form of visual art such as drawing, painting, sculpture and other art forms (American art therapy association, 2013).

Today art therapy is widely practiced in various settings including hospitals, psychiatric facilities and rehabilitation. Research supports the use of art therapy for therapeutic benefits obtained through self-expression and artistic reflection for individuals who experience illness, trauma, mental health problems and those seeking personal growth (American art therapy association, 2013).

Research on art therapy has been carried out in many clinical studies. A systematic review and meta-analysis conducted in 2014 in breast cancer patients whose results are art therapy can positively affect patient anxiety (the difference in standardized average: -1, 10; 95%, confidence interval: -1,40 to -0, 80) but not in depression and quality of life (Boehm, Cramer, Staroszynski, & Ostermann, 2014). Systematic another review in 2018 which provides preliminary evidence that art therapy to benefit patients of breast cancer of women in connection with the treatment of anxiety, depression and fatigue (Tang et al., 2018).

Research on art therapy in stroke patients has not been done much. Systematic review that discusses the use of art therapy in stroke patients has also not been done. Therefore, at this article will review about the use of art therapy in stroke patients and effect against anxiety and depression post stroke patients through search

systematic related some research about art therapy, anxiety and depression in post-stroke patients. Study aims to review the effect of art therapy on anxiety and depression in post-stroke patients. In addition, this review also aims to find out what types of intervention art therapy can be done in stroke patients who experience anxiety and depression.

Methods

This article is a literature review of art therapy and its effects on anxiety and depression in post-stroke patients. Searched articles are not limited by the year of publication due to the absence of a similar literature review conducted previously.

Search Strategy

The article search strategy is carried out using electronic databases namely EBSCOhost, MEDLINE, CINAHL, Sciencedirect and google scholar. The keywords used are art therapy, anxiety, depression, stroke.

Inclusion Criteria

The inclusion criteria in this review were studies conducted on stroke patients, the intervention used was art therapy, the outcomes assessed in the study included anxiety and depression. The exclusion criteria in this review are studies that do not use English.

Results

The study of art therapy and its effects on anxiety and depression in post-stroke patients is very limited. The results of the literature search in accordance with the inclusion and exclusion criteria are as many as 5 articles (Ali et al., 2014; Eum & Yim, 2015; Gonen & Soroker, 2000; Higgins et al., 2005; Kongkasuwan et al., 2016). There are 6 studies with various research designs used, namely 1 study using the Randomized controlled trial design with blinded assessors (Kongkasuwan et al., 2016), pilot study (Ali et al., 2014), case study (Gonen & Soroker, 2000), qualitative study (Higgins et al., 2005), and review (Eum & Yim, 2015). Years of articles range from 2000-2016. All studies were conducted in deep adult stroke patients' hospital setting.

The intervention form in art therapy that are used in post-stroke patients

There are various forms of intervention in art therapy that are used in post-stroke patients, namely:

1) Creative art therapy

Creative art therapy is psychological therapy that includes a variety of activities (such as meditation, art, dance, acting, dolls and storytelling) combined with music therapy. The focus of creative art therapy is not artistic or musical skills, but communication and non-verbal and symbolic expressions and the delivery of complex ideas, emotions and feelings (Kongkasuwan et al., 2016).

In his study Kongkasuwan et al. (2016) gave creative art therapy as an additional intervention in stroke patients who received conventional physical therapy 5 days / week. Creative art therapy is given 8 sessions, 2x / week for 4 weeks. Creative art therapy has 5 stages, namely meditation with music, warm-up activities, main activities (each session has an art process-based activity) and group singing activities, deemed by the circle healing group stage.

2) Reading service

Reading services is one of the innovative arts in health interventions offered to stroke patients in the form of reading services, carried out by professional actors trained to read for stroke patients. This service aims to entertain, stimulate and involve patients in fun activities that are relevant to their own interests. Readers work for two hours, three times per week on the ward, reading material selected by patients from those provided by charities or from the patient's own books. Group sessions were also held, with the actors reading to patients and then leading group discussions (Higgins et al., 2005).

3) Visual art form

Various kinds of activities can be done to produce visual art forms such as drawing, painting, forming clay, taking photographs (Ali et al., 2014), and working with large paper mosaics (Eum & Yim, 2015).

Ali, et al. (2014) conducted a study with 2 weekly art therapy sessions for 6 weeks, facilitated by an art psychotherapist. The activities were draw and paint using a white

paper, pencils and crayons, create a form of clay, drawing on the iPad and take a photo using the camera. This group activity produced several art objects and photographic images arranged using stop-frame animation to produce 10 minutes of film.

Stroke patients can express their internal conflicts, emotions, and psychological status through their artworks or processes. Art activities can give patients a foundation for verbal and non-verbal communication that manifests in sensory, motoric, cognitive and physical therapy effects. In addition, form, colour, perspective, identification of dimensional structures and textures create various stimulations and provide effective visual and cognitive training. Through art activities patients can accept their disabilities and limitations after a stroke and as a medium that is useful for pursuing new goals and pleasures in life (Eum & Yim, 2015).

Effect of art therapy on anxiety and depression in post-stroke patients

Art therapy is a form of psychological therapy that can treat depression and anxiety in stroke patients (Eum & Yim, 2015). Higgins et al. (2005) in an in-depth interview conducted on stroke patients who were given reading services said that reading is an entertaining distraction activity in a setting that describes boredom and triggers anxiety so that these activities can reduce anxiety.

Kongkasuwan et al. (2016) in his research to creative art therapy interventions found that There are significant differences in the where the intervention group than the control group for depression score (-4.5, 95% CI -6.5, -2.5, $p < 0.001$), while in the anxiety score there was no difference between groups ($p = 0.123$). Another study conducted by Ali et al. (2014) in the pilot study found that there was a decrease in anxiety scores which was a score of 8 to 6 and a decrease in depression score of 10 to 4. Gonen & Soroker (2000) also reported that art therapy can reduce anxiety and depression.

Discussion

The purpose of this review is to find out the type of art therapy used and its effect in

reducing anxiety and depression in post-stroke patients. The study of art therapy and its effects on anxiety and depression in post-stroke patients is very limited. The number of articles that meet the inclusion criteria is very small, namely 5 articles. This is in line with previous review done on art therapy in patients with post-stroke who also revealed that the evidence presents the benefits of art therapy and art therapy interventions for stroke patients are limited and most of the articles reporting on a single case study (Reynolds, 2012).

Intervention art therapy that can be done for stroke patients in a hospital setting is creative art therapy (Kongkasuwan et al., 2016), reading services (Higgins et al., 2005), drawing, painting, forming clay, taking photos (Ali et al., 2014), and works with large paper mosaics (Eum & Yim, 2015). The American art therapy association (2013) also revealed that currently it is widely practiced in various settings including hospitals, psychiatric and rehabilitation facilities that produce various forms of visual arts such as drawing, painting, sculpture and other art forms. Eum & Yim (2015) argue that art therapy in stroke patients can be called "clinical art therapy". This term explains that diagnosis and treatment are in clinical settings using visual arts media (Eum & Yim, 2015; Landgarten, 2013).

Art therapy is a form of psychological therapy that can overcome anxiety and depression in post-stroke patients (Ali et al., 2014; Eum & Yim, 2015; Gonen & Soroker, 2000). Through his review Eum & Yin (2015) said that stroke patients can express their internal conflicts, emotions and psychological status through artwork or processes (Eum & Yim, 2015). Art therapy such as making a form, color, perspective, identification of structural dimensions and textures can also create stimulation and provide visual and cognitive training that is effective in strengthening performance intelligence (Eum & Yim, 2015). Art therapy can also help patients accept their disabilities and limitations and as a useful medium to find new goals and pleasures in life (Eum & Yim, 2015). Higgins et al. (2005) in an in-depth interview conducted on stroke patients who were given reading services said that

reading is an entertaining distraction activity in a setting that describes boredom and triggers anxiety so that these activities can reduce anxiety.

Different results were found by Kongkasuwan et al. (2016) with the design of the RCT study which states that creative art therapy is combined with physical therapy has a significant influence on depression, but not anxiety. This proves that art therapy in stroke patients in reducing anxiety and depression still needs further research, especially research with RCT design.

Conclusion

Art therapy can be used as one of the nursing interventions to reduce anxiety and depression in post-stroke patients in hospitals. But the study of art therapy and its effects on anxiety and depression in post-stroke patients is very limited. Intervention art therapy that can be done for stroke patients in a hospital setting is creative art therapy (Kongkasuwan et al., 2016), reading services (Higgins et al., 2005), drawing, painting, forming clay, taking photos (Ali et al., 2014), and works with large paper mosaics (Eum & Yim, 2015). Art therapy can overcome anxiety and depression in post-stroke patients (Ali et al., 2014; Eum & Yim, 2015; Gonen & Soroker, 2000). Art therapy in stroke patients in reducing anxiety and depression still needs further research, especially research with RCT design.

References

- Ali, K., Gammidge, T., & Waller, D. (2014). Fight like a ferret: a novel approach of using art therapy . 56–60. <https://doi.org/10.1136/medhum-2013-010448>
- American art therapy association. (2013). what is art therapy? Retrieved from <https://www.arttherapy.org/upload/whatisarttherapy.pdf>
- Ayerbe, L., Ayis, S., Wolfe, CDA, & Rudd, AG (2013). Natural history, predictors and outcomes of depression after stroke: Systematic review and meta-analysis. *British Journal of Psychiatry* , 202 (1),

- 14–21.
<https://doi.org/10.1192/bjp.bp.111.107664>
- Benjamin, EJ, Virani, SS, Callaway, CW, Chamberlain, AM, Chang, AR, Cheng, S., ... Muntner, P. (2018). Heart disease and stroke statistics - 2018 update: A report from the American Heart Association. *Circulation* , 137 (12), E67 – E492.
<https://doi.org/10.1161/CIR.0000000000000558>
- Boehm, K., Cramer, H., Staroszyński, T., & Ostermann, T. (2014). Arts Therapies for Anxiety, Depression, and Quality of Life in Breast Cancer Patients: A Systematic Review and Meta-Analysis. *Evidence-Based Complementary and Alternative Medicine* , 2014 , 1–9.
<https://doi.org/10.1155/2014/103297>
- Eum, Y., & Yim, J. (2015). Literature and Art Therapy in Post-Stroke Psychological Disorders. *Tohoku J. Exp. Med.* , 235 , 17-23.
<https://doi.org/10.1620/tjem.235.17>.Correspondence
- Gonen, J., & Soroker, N. (2000). Art Therapy in Stroke Rehabilitation: A Model Of Short-term Group Treatment. *The Arts in Psychotherapy* , 27 (1), 41–50.
- Hackett, ML, & Pickles, K. (2014). Part I: frequency of depression after stroke: an updated systematic review and meta-analysis of observational studies . (June), 1–9. <https://doi.org/10.1111/ijps.12357>
- Hawari, D. (2011). Stress, anxiety and depression management . Jakarta: FKUI.
- Higgins, M., McKeivitt, C., & Wolfe, CDA (2005). Reading to stroke unit patients: Perceived impact and potential of innovative arts based therapy . 27 (22), 1391–1398.
<https://doi.org/10.1080/09638280500164727>
- Kongkasuwan, R., Voraakhom, K., Pisolayabutra, P., Maneechai, P., Boonin, J., & Kuptniratsaikul, V. (2016). Creative art therapy to enhance rehabilitation for stroke patients: A randomized controlled trial. *Clinical Rehabilitation* , 30 (10), 1016-1023.
<https://doi.org/10.1177/0269215515607072>
- Landgarten, HB (2013). *Clinical art therapy: A comprehensive guide* . New York: Routledge.
- Rafsten, L., Danielsson, A., & Sunnerhagen, KS (2018). Anxiety after stroke: A systematic review and meta-analysis. *Journal of Rehabilitation Medicine* , 50 (9), 769–778. <https://doi.org/10.2340/16501977-2384>
- Reynolds, F. (2012). Art therapy after stroke: Evidence and need for further research. *Arts in Psychotherapy* , 39 (4), 239–244.
<https://doi.org/10.1016/j.aip.2012.03.006>
- Sagen, U., Finset, A., Moum, T., Mørland, T., Vik, TG, Nagy, T., & Dammen, T. (2010). Early detection of patients at risk for anxiety, depression and apathy after stroke. *General Hospital Psychiatry* , 32 (1), 80–85.
<https://doi.org/10.1016/j.genhosppsych.2009.10.001>
- Schöttke, H., & Giabbiconi, C. (2015). Post-stroke depression and post-stroke anxiety: prevalence and predictors. *International Psychogeriatrics* , 27 (11), 1805–1812.
<https://doi.org/10.1017/S1041610215000988>
- Tang, Y., Fu, F., Gao, H., Shen, L., Chi, I., & Bai, Z. (2018). Art therapy for anxiety, depression, and fatigue in females with breast cancer: A systematic review. *Journal of Psychosocial Oncology* , 1–17.
<https://doi.org/10.1080/07347332.2018.1506855>