

# Evaluating The Effectiveness Of Art Therapy In Medical Settings: A Case Study On Hemodialysis Patients

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## **Abstract:**

*Art therapy is commonly employed in various medical and surgical treatments to enhance patient well-being. This research aims to investigate the psycho-emotional effects and satisfaction levels of art therapy in patients with kidney failure undergoing Hemodialysis. The results indicated that most patients experienced improved well-being following art therapy sessions. The study concludes that art therapy plays a significant therapeutic role for patients with kidney failure undergoing hemodialysis, highlighting its potential benefits for improving patient well-being.*

**Keywords:** *Hemodialysis, art therapy, scale, kidney failure, surgical, treatment, painting.*

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## **I. Introduction**

It is known that art has been present since the beginning of humanity, as a symbol of creativity, curiosity, culture, history, and the expression of human beings. Over time, art has been used therapeutically to enhance mental health during illness (Jamal, 2023). Chronic diseases, such as chronic kidney disease (CKD) or kidney failure, often have no cure. Recent studies have explored how art therapy improves patients' mental states (Nainis et al., 2006). However, the impact of art therapy on CKD patients remains unclear, as there is neither a precise measure of its effectiveness, nor a deep understanding of the emotions experienced during therapy (Nishida & Strobino, 2005). Accordingly, this research aims to investigate the psychological and emotional effects of art therapy in CKD patients and to develop an objective scale for evaluating these effects.

## **II. Methods And Materials**

This study was conducted through a combination of a thorough literature review, a descriptive experiment, and data analysis. It is a qualitative study primarily using primary data, supplemented by secondary data from sources such as Google Scholar, the UC Davis Health Hospital website, Academia.edu, the National Library of Medicine, and PubMed. The limitations of this study include patients being unable to fill out forms due to medical reasons, the absence of an objective scale to measure effectiveness accurately, and interruptions during hemodialysis sessions that slowed the therapy process.

The experiment was conducted in September 2023 in the hemodialysis room of Veraguas Regional Hospital, with Dr. Luis "Chicho" Fábrega, in Santiago de Veraguas, Republic of Panama. The hemodialysis room consisted of three sections, each with eight beds and their respective hemodialysis machines. This room was constantly monitored and supervised by doctors and nurses across three shifts (morning, afternoon, and night).

The hemodialysis process, from the moment the patient arrived until they left, lasted approximately four hours. During these sessions, patients were connected to their machines with minimal interaction among them, and many expressed fatigue from the routine.

The art therapy project consisted of three sessions, held once a week, including patients from all three shifts. Patients were verbally informed about the project dynamics and voluntarily agreed to participate. They were provided with materials for the art therapy workshops, including a canvas with support, acrylic paints, brushes, pencils, pens, paper towels, disposable plates, and cups.

During the three art therapy sessions, 52 patients were informed about the project, and 38 decided to participate in the workshop. Each art therapy session lasted between 2 and 2.5 hours. Surveys were administered to participating patients before and after each session. These surveys, printed in Spanish, included questions about the emotions and feelings experienced during the hemodialysis process. The surveys were either filled out by the patients themselves or verbally completed with the help of an interviewer.

Patients who did not agree to participate in the art therapy or did not complete both data collection forms were excluded from the study. Images of the surveys are included in the *Attachments* section.

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### III. Results

During the three art therapy sessions carried out, 52 patients (100%) were informed about the project, of which 73% decided to participate in the workshop. Of these, 66% were male and 34% were female.

The results shown in the following tables and graph were obtained by completing the before and after art therapy (AT) surveys.

Age range (years old)	N° of People	Percent (%)
≤ 15	0	0%
16 - 30	4	11%
31 - 45	6	16%
46 - 60	12	31%
61 - 75	15	39%
≥ 76	1	3%

1. How do you feel today?	Before AT (%)	After AT (%)
Positive emotions: excited, happy, calm,	87%	89.9%
Negative emotions: sad, bored, anxious	13%	10.1%

2. How happy are you?	Before AT (%)	After AT (%)
I'm not happy	13.1%	3%
I'm a little happy	18.4%	13%
I'm happy	47.4%	45%
I'm very happy	21.1%	39%

3. How bored are you?	Before AT (%)	After AT (%)
I'm not bored	76%	76%
I'm a little bored	11%	24%
I'm bored	5%	0%
I'm very bored	8%	0%

4. How much anxiety do you feel before the art therapy?	Before AT (%)	After AT (%)
I don't feel anxiety	68.4%	73%
I feel a little bit anxiety	26.3%	16%
I feel anxiety	5.3%	8%
I feel a lot of anxiety	0%	3%

5. Are you feeling stressed right now?	Before AT (%)	After AT (%)
I'm not stressed	79%	79%
I'm a little bit stressed	13.2%	16%

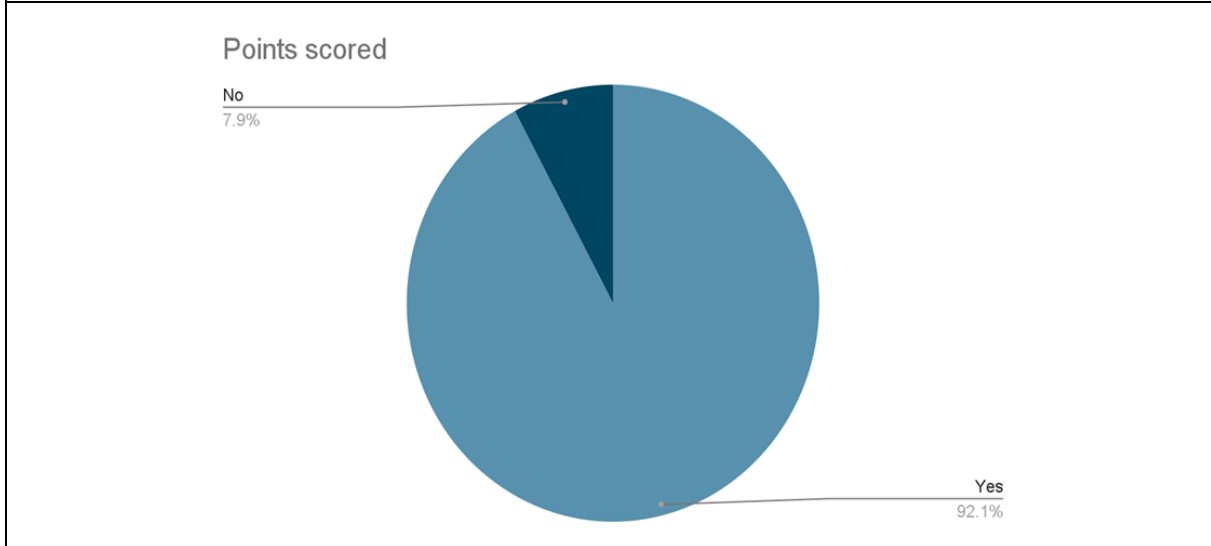
I'm stressed	5.2%	0%
I'm very stressed	2.6%	5%

6. Could you relax before/during the art therapy?	Before AT (%)	After AT (%)
Yes	94.8%	89%
No	5.2%	11%

7. Do you think the time of hemodialysis will pass faster?	Before AT (%)	After AT (%)
Yes	86.8%	89%
No	13.2%	11%

8. Do you think that art therapy will cheer you up?	Before AT (%)	After AT(%)
Yes	100%	92.1%
No	0%	7.9%

9. Would you repeat AT?



10. Were you able to relax during the art therapy?	After AT (%)
Yes	100%
No	0%

#### IV. Summary Of The Results

- Results showed an increased amount of positive emotions after the therapy (Table #1), confirming the positive impact of art therapy.
- Results showed that more specific feelings, like happiness, increased after the art therapy (Table #2), and anxiety in patients was reduced (Table #4), showing the effectiveness of the therapy.
- Results indicated the effectiveness of art therapy for patients' time passing faster (Table #7) and their enthusiasm to repeat the therapy (Graph #9).
- Positive Emotional Impact: The percentage of patients reporting positive emotions increased slightly, from 87% before art therapy to 89.9% after art therapy.

- **Increased Happiness:** There was a notable increase in the percentage of patients who felt "very happy" after art therapy, rising from 21.1% to 39%.
- **Reduced Boredom:** The percentage of patients who felt "very bored" decreased from 8% before art therapy to 0% after art therapy, indicating reduced boredom.
- **Stable Anxiety and Stress Levels:** While anxiety and stress levels showed some variability, the overall trends indicate a slight reduction in anxiety and stress post-therapy.
- **High Relaxation Rates:** A significant majority of patients (100%) reported being able to relax during the art therapy sessions.
- **Positive Perception of Hemodialysis Time:** Patients generally felt that the time spent on hemodialysis passed faster with art therapy, with a slight increase from 86.8% to 89%.
- **High Satisfaction and Willingness to Repeat:** A substantial 92.1% of participants expressed willingness to repeat art therapy sessions, demonstrating high satisfaction.

## **V. Results And Discussion**

The results indicate that art therapy has a positive impact on the emotional well-being of hemodialysis patients. The increase in positive emotions and happiness levels, along with the reduction in boredom, suggests that art therapy can be an effective complementary treatment to improve the quality of life for these patients. The high levels of relaxation and willingness to repeat the sessions further support the therapeutic benefits of art therapy in a hemodialysis setting.

Although no scales were used to evaluate physical aspects, health staff reported that patients did not experience usual symptoms such as physical pain or discomfort during art therapy sessions, which typically occurred between the second and third hours of hemodialysis; this was the same time that the therapy took place.

The effectiveness of art therapy was notable, drawing significant patient attention and yielding positive results. Patients reported significant improvements in contentment, relaxation (89%), enjoyment (97%), and mood (92.1%) throughout the art therapy sessions.

The findings align with previous research on art therapy's benefits, demonstrating its potential as a valuable adjunctive treatment. Patients reported significant improvements in satisfaction, relaxation, contentment, and mood, suggesting art therapy can promote emotional well-being and a sense of accomplishment in clinical settings.

Art therapy helps and improves patient's self-esteem (Jingxuan et al., 2021). Other, more complete scales should be carried out with new techniques to evaluate the feelings, emotions, and psychological aspects of the patients more accurately. In this way, greater positive feedback is obtained in the arts and health sciences communities.

## **VI. Limitations And Future Research**

Despite the promising findings, this study encountered several limitations, such as the lack of scales to measure physical symptoms and the dependence on subjective self-reports. Future research should incorporate more comprehensive scales and innovative methods to accurately evaluate the emotional and psychological effects of art therapy. This approach will yield more robust data and enhance feedback within the arts and health sciences communities, ultimately improving the implementation of art therapy in clinical settings. The substantial benefits of art therapy on patients' self-esteem highlight the need for future studies to adopt these comprehensive assessment tools. Moreover, examining the long-term benefits of art therapy and increasing the sample size and diversity of participants will provide more extensive insights.

## **VII. Conclusion**

In summary, patients showed significant signs of relaxation (89%), happiness (97%), and improved mood (92.1%) following art therapy sessions. A majority expressed willingness to continue with art therapy, with 92.1% indicating they would participate again. This study demonstrates that art therapy significantly enhances the emotional well-being of hemodialysis patients, making the treatment process more tolerable. These findings underscore the potential of art therapy as a valuable complementary intervention, promoting holistic care for patients with chronic illnesses. Further research and larger studies are necessary to confirm these results and optimize the integration of art therapy into clinical practice, reinforcing its role in the comprehensive care of chronic illness patients.

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