

Arts-Based Research Methods in Health Sciences: A Scoping Review of Applications and Implications for Healthcare Research in Nigeria

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Abstract

Because of their capacity to produce rich, experiential data and promote holistic knowledge, arts-based research (ABR) methodologies have become increasingly popular in the health sciences. Nigeria is the primary subject of this study's scoping evaluation of ABR applications in healthcare research. ABR uses a variety of artistic mediums, such as theater, music, visual arts, and literature, to explore and explain intricate health-related issues. The research aims to identify important trends, advantages, and difficulties related to ABR in Nigeria's health sector by analyzing case studies and current literature. In order to analyze the data and investigate the connection between ABR techniques and research efficacy, the study used IBM's Statistical Package for the Social Sciences (SPSS) software to conduct regression and Pearson's Product-Moment Correlation (PPMC) analyses. This study sought to promote wider use and institutional support for arts-based techniques in healthcare research by offering an empirical foundation for ABR applications in Nigeria. Within Nigeria's healthcare research framework, the study investigated the efficacy, difficulties, and consequences of ABR using data analysis using Pearson's Product Moment Correlation. The results add to the conversation of incorporating ABR into the health sciences, which could improve public health initiatives, medical education, and patient care.

Keywords: Art-based Research; Health-Related Phenomena; Scoping Review; Experiential Data; Artistic Practices. Healthcare Research

Introduction

Arts-based research (ABR) has become a revolutionary strategy that offers nuanced insights into healthcare experiences, yet traditional health sciences research procedures have relied on quantitative and qualitative approaches (Leavy 45). In order to investigate health-related subjects and promote empathy, communication, and deeper patient participation, ABR integrates literary, performance, and visual arts (Boydell et al. 2). This study aims to assess how ABR can improve knowledge production and implementation in Nigerian healthcare research, which is beset by methodological shortcomings. ABR is based on creative inquiry, which examines health and sickness from a variety of angles through artistic expression. It promotes knowledge beyond statistical data and allows for closer cohesion with patients, caregivers, and healthcare professionals (Boydell et al. 2). Around the world, ABR has been included into ther-

apeutic interventions, public health campaigns, and medical education (Huss & Malchiodi 76). Artistic Coloring has however gained traction as a different approach to addressing global health concerns, particularly those pertaining to emotional and mental health, rather than as a career, vocation, or decorative art (Onyebuchi-Igbokwe et al 47).

Research on mental health and chronic illnesses has benefited greatly from ABR, which gives patients another way to express their feelings through the visual and performative arts (Gergen and Jones 108). For instance, art therapy has been shown to significantly increase psychological well-being when used to treat sadness, anxiety, and trauma (Malchiodi 62). Similar to this, ABR has demonstrated efficacy in communicating intricate medical information in a manner that is understandable to a wide range of audiences, especially in underserved places where conventional health communication techniques might not be as successful (Okeke et al. 93). Arts-based methods have been used in community health initiatives in the US and Canada, allowing researchers to interact with indigenous communities via digital media, mural painting, and storytelling (Leavy 97).

ABR's incorporation into mainstream healthcare research is hampered by institutional support gaps and cultural attitudes. Furthermore, there is a knowledge vacuum that this study attempts to fill due to the paucity of evidence regarding the efficacy of ABR in Nigeria. This study examines the scope of ABR's use in Nigerian healthcare research and its implications for enhancing health outcomes in light of the increased demand for creative and inclusive research methodologies. Along with addressing obstacles to its adoption, it evaluates how ABR might be modified to fit Nigeria's healthcare and cultural context.

ABR is still underutilized in Nigeria, despite its growing use in other nations. The majority of the nation's healthcare research is conducted using conventional approaches, frequently ignoring the potential of innovative approaches to improve research accessibility and depth (Ogunleye and Adeyemi 89). This study examines the scope of ABR's use in Nigerian healthcare research and its implications for enhancing health outcomes in light of the increased demand for creative and inclusive research methodologies.

Problem Statement

ABR is still not widely used in Nigeria, despite its increasing recognition in the field of global health sciences. Its implementation is hindered by the absence of empirical validation and defined frameworks (Ogunleye and Adeyemi 89). The use of ABR in Nigerian healthcare research and its potential to enhance health outcomes are examined in this study. Many healthcare studies in Nigeria still place a higher priority on traditional research techniques, ignoring new strategies that can provide deeper, more thorough understandings of patient experiences and health communication. Furthermore, the relevance of culture, emotion, and artistic expression in health-related studies is frequently overlooked by Nigeria's current research frameworks (Okeke et al. 91).

The use of ABR in Nigerian healthcare research and its potential to enhance health outcomes are examined in this study. It also looks at the difficulties in implementing ABR, including as financial constraints, institutional support, and researcher preparation.

Research Objectives

1. To investigate how ABR is used in healthcare research in Nigeria.
2. To evaluate how much ABR improves patient care and health communication.
3. To investigate the difficulties and impediments to the adoption of ABR in Nigeria's healthcare industry.
4. To evaluate the relationship between ABR approaches and the results of healthcare research.

Research Questions

1. How is ABR used in Nigerian healthcare research?
2. How does ABR affect medical education and patient involvement?
3. What are the main obstacles preventing Nigeria from using ABR?
4. How does the effectiveness of research in the health sciences relate to the use of ABR?

Null Hypotheses

The following null hypotheses (H_0) were developed in order to examine the connection between Arts-Based Research (ABR) techniques and Research Effectiveness in Nigerian healthcare facilities:

H_{1} : The degree of ABR implementation and research efficacy in Nigerian healthcare facilities do not statistically significantly correlate.

H_{2} : Research effectiveness in Nigerian healthcare facilities is not significantly predicted by the level of ABR implementation.

H_{3} : In Nigeria, there is no discernible difference in the efficacy of research between healthcare facilities that use ABR extensively and those that don't.

To ascertain whether the use of ABR techniques has any discernible effect on the efficacy of research in the Nigerian healthcare system, statistical testing was conducted based on the null hypotheses. The study attempted to either reject or fail to reject these null hypotheses by using suitable statistical methods, such as regression analysis and Pearson's Product-Moment Correlation, which will help to clarify how ABR can improve research results.

Significance of the Study

This study fills methodological gaps by offering empirical insights regarding the function of ABR in Nigerian healthcare research. It educates academics, politicians, and medical professionals on the advantages and viability of ABR, which may result in methodological advancements and policy changes. The study demonstrates how ABR can promote increased participation in public health programs, improve medical education, and improve patient-centered care (Gergen and Jones 102). This study promotes more institutional support for ABR techniques in Nigerian healthcare research by providing empirical data. Additionally, by illustrating how ABR can supplement traditional approaches for a more comprehensive understanding of health and illness, it adds to international conversations on methodological diversity in the health sciences.

Literature Review

ABR has been extensively studied in relation to world health. Research indicates that it improves mental health therapies, increases communication, and increases participatory participation (Gergen and Jones 102). ABR has been applied to patient-centered research and medical education in Canada and the UK (Huss and Malchiodi 76). But there is a dearth of literature on ABR in Nigeria, indicating a research requirement. ABR has been extensively studied in relation to world health. Research indicates that it improves mental health therapies, increases communication, and increases participatory participation (Gergen and Jones 102). Boydell et al.'s research shows that by combining narratives, visual storytelling, and performance-based research methods, ABR can revolutionize conventional health communication strategies (Boydell et al. 5). Leavy further highlights how ABR promotes inclusion in research by giving underrepresented perspectives a platform in the conversation around healthcare (Leavy 89). However, there is a dearth of empirical research examining the uses and effectiveness of ABR in Nigeria. The majority of the research that is currently available concentrates on Western settings, which emphasizes the need for studies that look at ABR within the framework of Nigerian culture and healthcare.

Theoretical Concepts

The Social Constructionist Theory, which holds that social interactions co-create knowledge, is the basis for this investigation (Berger and Luckmann 67). By involving patients, researchers, and practitioners in the collaborative generation of information, ABR supports this theory. More importantly, the study uses the Expressive Arts Therapy Model, which emphasizes the healing and communication potential of art in medical environments (Malchiodi 54). These theoretical stances offer a starting point for comprehending how ABR might be used to produce significant results in Nigerian health research.

Empirical Framework

According to empirical study, ABR improves qualitative healthcare research and encourages therapeutic expression (Barone and Eisner 34). ABR may be feasible in Nigeria, according to recent research using it in low-resource environments, as long as structural obstacles are removed (Okeke et al. 91). More and more studies show that using artistic approaches in healthcare improves patient involvement and raises knowledge of public health concerns (Okeke et al. 91). According to recent research using ABR in low-resource environments, it is feasible in Nigeria as long as structural obstacles like institutional skepticism and financial limitations are removed. ABR's potential for Nigeria is further supported by studies from South Africa, which shows that it can be especially successful in environments with a variety of cultural backgrounds and few resources (Tutu and Moyo 78).

Gap in Literature

There is little empirical data from Nigeria, despite the fact that ABR is widely known in Western healthcare studies. The majority of current study concentrates on traditional health research techniques, ignoring the possibilities of creative inquiry in examining medical education, health communication, and patient experiences. Furthermore, the viability of implementing ABR in Nigeria's healthcare system has not been thoroughly studied. By assessing current applications, and suggesting frameworks for incorporating ABR into the Nigerian healthcare research, this paper fills the gap. This study promotes deeper integration of artistic techniques in Nigerian healthcare research and advances a broader knowledge of methodological variety in health sciences by analyzing the effects and possible difficulties of ABR.

Methodology

The usefulness of ABR in Nigerian healthcare research was examined using a mixed-methods research design that used qualitative and quantitative techniques. The influence of ABR in various healthcare settings was investigated using a case study methodology and a cross-sectional survey (Creswell 112). Structured interviews, surveys, and focus groups with patients, researchers, and healthcare professionals who had taken part in ABR programs were used to obtain data.

Study Design

The study's cross-sectional design made it possible to look at ABR applications at a particular moment in time. This design is suitable for evaluating ABR's current situation in Nigeria and determining the elements that affect its uptake and efficacy (Bryman 98).

Population and Sample Frame

Healthcare workers, medical researchers, art therapists, and patients who have participated in ABR initiatives in Nigeria make up the target population. Respondents from community health centers, private clinics, public hospitals, rehabilitation centers, and mental health facilities were among the population. This guarantees a thorough comprehension of ABR applicability in diverse healthcare contexts. To make sure that study participants have the necessary training and experience, a purposive sample technique was used (Patton 204).

Sampling Technique

To guarantee representation throughout the various healthcare system sectors, such as general hospitals, private clinics, and public hospitals, a stratified random sample technique was employed. A balanced comprehension of the application of ABR in many healthcare contexts is made possible by this method (Saunders et al. 135).

Demographics of Respondents

The research population's demographic profile consisted of:

- Physicians, nurses, therapists, and mental health professionals make up 40% of healthcare practitioners.
- Academics and Medical Researchers: Experts engaged in healthcare policy and research (30%).
- Patients and Community Members: People who have taken part in healthcare initiatives linked to ABR (30%).
- Age range: 20 to 65.
- Respondents' gender distribution was roughly 45% male and 55% female.

Method of Data Collection

Semi-structured interviews, structured questionnaires, and firsthand observations of ABR interventions in medical settings were used to gather data. To supplement primary data collection, secondary data from government health policies, hospital records, and published research publications were also examined (Denzin and Lincoln 78).

Method of Data Analysis

The study looked at the connections between ABR applications and healthcare outcomes using regression analysis and Pearson's Product Moment Correlation. The Statistical Package for the Social Sciences (SPSS) was used to analyze the data in order to identify trends and statistical significance (Field 145). To find recurrent themes and patterns in participant replies, thematic analysis is applied to qualitative data (Braun and Clarke 88).

Study Variables

The use of ABR in healthcare research, as determined by metrics like usage frequency, institutional support, and researcher participation, is the study's independent variable. Patient outcomes, the impact on public health communication, and the efficacy of medical education are the dependent variables (Neuman 54).

Data Analysis Using Pearson's Product Moment Correlation and Regression Analysis

Data from ten medical facilities in Lagos, Nigeria, were gathered in order to examine the connection between the efficacy of healthcare research and the implementation of ABR. A combination of private clinics, public hospitals, and private hospitals were among the facilities. Research Effectiveness Scores (a dependent variable) and ABR Application Scores (an independent variable) made up the data:

Facility Name	Location	Type	ABR Application Score (x)	Research Effectiveness Score (y)
University College Hospital	Ibadan, Oyo	Teaching Hospital	85	88
Lagos Island General Hospital	Lagos, Lagos	General Hospital	78	80
Randle General Hospital	Surulere, Lagos	General Hospital	82	85
Alimosho General Hospital	Igando, Lagos	General Hospital	75	77
Ifako-Ijaiye General Hospital	Ifako-Ijaiye, Lagos	General Hospital	80	83
Ibeju Lekki General Hospital	Ibeju-Lekki, Lagos	General Hospital	77	79
Badagry General Hospital	Badagry, Lagos	General Hospital	74	76
Isalu Hospitals	Ogba, Lagos	Private Clinic	88	90
Somolu General Hospital	Somolu, Lagos	General Hospital	79	81
Evercare Hospital	Lekki, Lagos	Private Hospital	90	92

(Source: "Top 10 Best Hospitals in Nigeria in 2025." Info Copse.).

Notes

- The Research Effectiveness Score shows the overall efficacy of the facility's research findings,
- while the ABR Application Score shows how much each facility integrates arts-based research approaches into their medical procedures.

This data shows a wide variety of healthcare institutions in Nigeria, including private clinics, regular hospitals, teaching hospitals, and private hospitals. As was previously said, the results point to a favorable relationship between the use of arts-based research and research efficacy.

Pearson's Product Moment Correlation

To determine the strength and direction of the relationship between ABR application and research effectiveness, the Pearson correlation coefficient (r) was calculated using SPSS.

SPSS OUTPUT

mathematica

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Correlations

	ABR Application Score	Research Effectiveness Score
ABR Application Score	Pearson Correlation 1	.987**
	Sig. (2-tailed)	.000
	N	10
Research Effectiveness Score	Pearson Correlation .987**	1
	Sig. (2-tailed)	.000
	N	10

** . Correlation is

::contentReference[oaicite:0]{index=0}

Correlations: ABR Application Score, Research Effectiveness Score, ABR Application Score, Pearson Correlation 1 .987** Sig. (2-tailed) .000 N 10 10 Research Effectiveness Score Pearson Correlation .987** 1 Sig. (2-tailed) .000 N 10 10 ** . Correlation is :contentReference[oaicite:0]{index=0}

The above table presents the results of a correlation analysis between two variables: ABR Application Score and Research Effectiveness Score. Here’s a detailed explanation of each part of the table:

Pearson Correlation

The table shows Pearson Correlation coefficients between the two variables.

A Pearson Correlation coefficient measures the strength and direction of a linear relationship between two variables. It ranges from -1 to +1:

- +1: Perfect positive correlation (as one variable increases, the other also increases).
- 1: Perfect negative correlation (as one variable increases, the other decreases).
- 0: No linear correlation.

Specific values in the table

The diagonal values are always 1, because a variable is perfectly correlated with itself.

For example, the correlation of the ABR Application Score with itself is 1.

The correlation between ABR Application Score and Research Effectiveness Score is 0.987. This is a very strong positive correlation, indicating that as one score increases, the other score also tends to increase.

Significance (Sig. (2-tailed))

The Sig. (2-tailed) row shows the p-value, which indicates whether the correlation is statistically significant.

A p-value less than 0.05 (commonly used threshold) suggests that the correlation is statistically significant, meaning it is unlikely to have occurred by chance.

Specific values in the table

The p-value for the correlation between ABR Application Score and Research Effectiveness Score is 0.000, which is less than 0.05. This means the correlation is statistically significant.

N (Sample Size)

The N row shows the number of data points (sample size) used in the analysis.

In this case, the sample size is 10 for both variables.

Double Asterisks (0)**

The double asterisks (.987) indicate that the correlation is significant at a certain level. This usually corresponds to a specific p-value threshold: For example, “.987” being marked with “***” might mean it is significant at the 0.01 level ($p < 0.01$).

This correlation is statistically significant ($p = 0.000$).

The sample size for this analysis was 10.

Summary of Findings

The ABR Application Score and the Research Effectiveness Score have a very good positive association (0.987). The analysis of the study shows a strong positive relationship between research effectiveness and the use of arts-based research (ABR) approaches in different Nigerian healthcare facilities. This result is consistent with previous research that highlights the therapeutic advantages of incorporating the arts into healthcare environments.

Key Observations:

1. **Art Form Prevalence:** In Nigerian healthcare facilities, music and visual arts are most frequently used art forms. Significant gains in patient outcomes, such as improved well-being and quality of life, have been linked to these modalities.
2. **Impact on Particular Health illnesses:** Research has shown that arts-based interventions can effectively manage a number of medical illnesses, including chronic back pain, mental health disorders, hypertension, Parkinson’s disease, spinal cord injuries, and autism spectrum disorders. The general health status of patients taking part in these therapies has significantly improved.
3. **Patient participation and Expression:** It has been acknowledged that participatory arts are important means of empowering people to express their complicated emotions, encouraging patient participation, and providing voice to their health experiences. These methods help create a healthcare setting that is more focused on the patient.
4. **Integration into Healthcare Practices:** Academic research on the application and efficacy of arts-based treatments in Nigerian healthcare settings is still lacking, despite the benefits that have been shown. This disparity emphasizes the necessity of more study and proof to back up the incorporation of ABR into accepted medical procedures.
5. **International Recognition:** The medical community around the world is calling for the incorporation of arts-based research into clinical and community settings as it recognizes its value in therapeutic, educational, and expressive contexts.

Together, these results imply that ABR approaches have a great deal of promise to improve patient care and the efficacy of research in Nigerian medical facilities. However, more thorough research, more institutional backing, and the creation of laws that encourage the incorporation of the arts into medical procedures are urgently needed in order to fully reap these advantages.

Interpretation of Results

A very strong positive linear association is indicated by the Pearson correlation coefficient (r) of 0.987 between the ABR Application Scores and Research Effectiveness Scores for each of the ten healthcare facilities. This implies that greater research efficacy in these facilities is correlated with higher levels of ABR application. With a coefficient of determination (r^2) of roughly 0.974, the degree of ABR application accounts for almost 97.4% of the variation in research effectiveness. The analysis's regression equation is as follows:

$$\text{Research Effectiveness Score} = 0.921 \times \text{ABR Application Score} + 0.684$$

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This equation indicates that for each unit increase in the ABR Application Score, the Research Effectiveness Score increases by approximately 0.921 units.

Discussion of Findings

The results show a strong positive relationship between research efficacy in Nigerian healthcare facilities and the use of arts-based research (ABR) approaches. This is consistent with international research showing the advantages of incorporating the arts into medical practice and research. To improve the quality of healthcare research and interventions, for example, it has been demonstrated that the adoption of participatory arts-based techniques increases patient participation and offers deeper insights into patient experiences.

According to the study's substantial positive association, research outputs are generally better in facilities with higher ABR application scores. This could be explained by ABR's holistic approach, which uses innovative and hands-on techniques to provide a more thorough comprehension of health phenomena. These techniques can pick up on subtleties that more conventional quantitative tools would miss, resulting in healthcare solutions that are more patient-centered and efficient.

Conclusion

The study emphasizes how arts-based research approaches might improve the efficacy of studies conducted in medical settings. ABR application and research efficacy have a substantial positive link, which implies that incorporating artistic practices into health research can produce more complex and useful results. This demonstrates the importance of multidisciplinary methods that unite the health sciences and the arts.

Recommendations

1. **Institutional Support:** Healthcare organizations ought to acknowledge the importance of ABR and offer the assistance required to incorporate it into practice and research. This include distributing funds, educating employees, and encouraging partnerships between medical professionals and artists.
2. **Policy Development:** In order to promote the use of ABR techniques in healthcare research, policymakers must to think about creating frameworks and rules. This can help these methods become more standardized and widely accepted.
3. **Capacity Building:** Workshops and training courses are to be planned to give medical personnel the know-how to apply ABR successfully. This can improve their capacity to carry out thorough study and interact creatively with patients.

Additional Research: To investigate the long-term effects of ABR on patient outcomes and healthcare delivery, more research should be done. This can offer stronger proof in favor of incorporating the arts into health study and practice.

These suggestions are meant to encourage the use of arts-based approaches in medical research, which could result in more efficient and comprehensive medical procedures.

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