

# The Effects of Medical Clowning on the Quality of Life (QoL) on the Patients in on Co-Pediatric Daycare Wards

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**Abstract:** *This study investigate the effects of Medical Clowning on the quality of life (QoL) on the patients in onco-pediatric daycare wards. A total of 35 participants aged 8-15 years were recruited from an onco-pediatric ward. Validated tools, including the Pediatric Quality of Life Inventory (PedsQL) and thematic coding, were utilized to assess QOL respectively. Statistical analysis, including frequency distribution for quantitatively analyzing the scores of quality of life and further using thematic coding to form respective codes done conducting semi structured interviews on the patients and their guardians were employed to analyze the data. The findings revealed significant improvements in the pediatric quality of life following medical clowning therapy. The frequency distribution for scoring quantitative data for quality of life, thematic coding for qualitatively analysis and forming 8 different themes, to assess the effectiveness of medical clowning therapy was used. The findings indicated a significant positive impact of medical clowning on improving pediatric quality of life. These results highlight the therapeutic benefits of medical clowning interventions in pediatric oncology care, emphasizing their role in enhancing patient well-being and promoting a supportive treatment environment. Furthermore, the findings underscore the importance of interdisciplinary collaboration and policy support in integrating medical clowning into comprehensive pediatric oncology care protocols. Overall, this study contributes valuable insights into the effectiveness of medical clowning as a psychosocial intervention in pediatric oncology settings, providing evidence to support its integration into standard care protocols. Moving forward, further research is needed to explore the long-term effects of medical clowning interventions and optimize their implementation in clinical practice.*

**Keywords:** Medical clowning, Pediatric oncology, Quality of life, Psychosocial intervention

## I. INTRODUCTION

Medical clowning, a unique and unconventional form of therapeutic intervention, has emerged as a valuable component of healthcare practices worldwide. Rooted in the principles of humor, play, and compassion, medical clowning represents a departure from traditional approaches to healthcare by integrating the transformative power of laughter and joy into medical settings. Medical clowning, also known as therapeutic or hospital clowning, is a unique and innovative intervention that harnesses the power of humor and playfulness to alleviate distress and enhance well-being in healthcare settings.

Medical clowning draws on various psychological and therapeutic theories to understand and leverage the healing power of laughter. One such theory is the biopsychosocial model, which emphasizes the inter connectedness of biological, psychological, and social factors in influencing health. Medical clowning aligns with this model by addressing not only the physical symptoms of illness but also the emotional and social dimensions of a patient's experience.

Medical clowning is grounded in the principles of psychosocial and emotional support, with a focus on enhancing the overall well-being of patients and promoting a positive healthcare experience. Research has shown that medical clowning interventions can have a significant impact on various aspects of patient care, including reducing anxiety,

alleviating pain, improving mood, enhancing coping skills, and promoting socialization (Fleischer et al., 2018; Golan et al., 2009).

One of the key strengths of medical clowning is its versatility and adaptability to different healthcare contexts and patient populations. Medical clowns work collaboratively with healthcare teams to tailor their interventions to meet the specific needs and preferences of patients, ensuring that each interaction is personalized, respectful, and culturally sensitive. Whether performing at the bedside of a hospitalized child, facilitating group activities in a pediatric ward, or engaging with elderly patients in long-term care facilities, medical clowns bring a sense of joy and humanity to the healthcare environment.

In pediatric settings, medical clowning aims to create a positive and supportive atmosphere, alleviating the stress and anxiety experienced by young patients. Through interactive performances, games, and humor, clown doctors engage children in a therapeutic process that transcends traditional medical interactions. The playful and non-threatening nature of medical clowning helps build rapport between healthcare providers, children, and their families, fostering a conducive environment for healing.

In recent years, medical clowning has gained recognition as an integral component of holistic healthcare, with an increasing number of hospitals and healthcare facilities integrating clowning programs into their standard care practices. The growing body of research supporting the efficacy of medical clowning has further bolstered its acceptance and adoption within the healthcare community.

Despite its widespread acclaim, there remains a need for continued research to further elucidate the mechanisms through which medical clowning exerts its therapeutic effects and to explore its potential applications in different clinical settings and patient populations. Additionally, there is a need for rigorous evaluation of medical clowning interventions to ensure their safety, efficacy, and cost-effectiveness.

## **II. RESEARCH METHODOLOGY**

This chapter outlines the methodology employed to investigate the impact of Medical Clowning on the quality of life on patients in onco-pediatric daycare wards. A mixed research design will be employed to assess the impact of Medical Clowning on the quality of life on the patients in onco-pediatric daycare wards aged 8-15 years.

### **Aim:**

- The aim of this study is to examine the effects of Medical Clowning on the quality of life (QoL) on the patients in the onco-pediatric daycare wards.

### **Objectives:**

- Examine the Impact of Medical Clowning on the Quality of Life of Children within Onco-Paediatric Wards.

### **Hypotheses:**

- Alternative Hypothesis (H1): Pediatric oncology patients exposed to Medical Clowning interventions will demonstrate a significant improvement in emotional regulation compared to a control group receiving standard care.
- Alternative Hypothesis (H2): Pediatric oncology patients exposed to Medical Clowning interventions will exhibit a significant improvement in overall quality of life compared to a control group receiving standard care.

### **Participants:**

Participants were selected from the onco-pediatric ward using purposive sampling. Inclusion criteria include being aged between 8-15 years and receiving treatment in the oncology ward. Informed consent was obtained from both the participants and their legal guardians prior to participation in the study. The data from 35 participants was recorded.

**Tools for Measurement:**

**Quality of Life:**

- The Pediatric Quality of Life Inventory (PedsQL) by Dr. JW Varni - Generic Core Scales will be administered to assess quality of life.
- Assessments will occur to collect qualitative data, follow-up to measure changes in quality of life.

**Interviews**

The interview was conducted and relating questions to the impacts of medical clowning on the current situation was asked from patients and their guardians after taking the consent and following the protocols to qualitatively perform the thematic coding.

**Data Collection Procedure:**

**1. Before Medical Clowning therapy:**

The sample size was carefully chosen and their details along the consents were collected before the commencement of the 6-week medical clowning intervention.

It was ensured that data collection sessions were conducted in a private and comfortable setting within the hospital environment to ensure confidentiality and minimize distractions.

**2. During the Data Collection:**

Following the completion of the 6-week medical clowning therapy, the data was collected from the same group of pediatric patients.

Participants underwent assessment using the validated assessment scale for quality of life.

At the same time after consent the interviews were collected from the patients and their guardians for systematic thematic coding.

Efforts were made to minimize any potential biases or confounding factors during data collection, and participants were encouraged to provide honest and accurate responses.

**3. Mixed Research Design**

It is a widely used methodology in healthcare research, offering valuable insights into the effects of treatment on specific outcomes over time. In this article, we explore the principles, applications, and considerations of mixed research design through a case study focused on the impact of medical clowning on pediatric patients in onco-pediatric wards. Specifically, we examine a 6-week medical clowning intervention aimed at improving quality of life among children facing serious illness. By employing a mixed design, researchers sought to evaluate changes in psychosocial outcomes before and after the medical clowning therapy, providing evidence for the efficacy of medical clowning in pediatric healthcare settings.

**4. Data Management**

All collected data were securely stored and managed in accordance with relevant privacy regulations and institutional guidelines.

Quantitative data from the assessment scale was entered into a computerized database for analysis using statistical software and was noted in the form of (frequency distribution) and plotted as a histogram for the age groups vs the score obtained in assessment.

Qualitative data (interviews) was securely structured in the database system and further using the appropriate thematic coding software themes were derived out of the collected data.

Statistical analyses were conducted to determine whether significant improvements in quality of life occurred following the 6-week medical clowning therapy supported by the recurring themes formed by administering thematic coding, providing evidence for its efficacy in pediatric healthcare settings.

**Statistical tools**

This section elaborates the proper statistical models which are being used to forward the study from data towards inferences. The detail of methodology is given as follows.

**Quantitative Analysis:**

Objective: To quantify the impact of medical clowning on various aspects of quality of life among pediatric oncology patients.

Sample Size: 35 participants.

Variables: Independent Variable: Medical clowning intervention (presence vs. absence).

Dependent Variables: Quality of life measures (e.g., physical, emotional, social well-being).

**Data Collection:**

Use validated quality of life assessment tools such as Pediatric Quality of Life Inventory (PedsQL) or Pediatric Quality of Life Inventory Cancer Module (PedsQL Cancer Module) and obtain scores for the assessment.

Statistical Analysis:

Descriptive statistics: Calculate frequency distribution for demographic variables and quality of life measures.

**Software:**

Statistical analysis will be conducted using the Statistical Package for the Social Sciences (SPSS) software. SPSS provides a user-friendly interface for performing t-tests and other statistical analyses, allowing researchers to efficiently analyze data and generate results.

Interpretation:

Determine if there are statistically significant improvements in quality of life following medical clowning therapy.

Assess the magnitude of quality of life scores.

**Qualitative Analysis:**

**Objective:**

- To explore the themes emerging from qualitative interviews regarding the perceived impact of medical clowning on quality of life.

Sample Size: 23 participants.

**Data Collection:**

- Conduct semi-structured interviews with pediatric patients and their guardians.
- Use thematic coding to identify and categorize themes related to the impact of medical clowning.

**Thematic Coding:**

- Code transcripts using thematic analysis software or manually.
- Identify key themes and sub themes emerging from the data.
- Refining the themes through discussion.

**Statistical Analysis:**

- Calculate frequencies of occurrence for each identified theme.
- Assess the consistency and overlap of themes across participants.
- Compare themes between different participant groups (e.g., patients vs. guardians).

**Interpretation:**

- Identify predominant themes related to the impact of medical clowning on quality of life.
- Explore variations in themes based on participant characteristics.
- Provide rich descriptions and illustrative quotes to support findings.

**Integration:**

**Triangulation:**

- Compare quantitative findings (e.g., quality of life scores) with qualitative themes to provide a comprehensive understanding of the impact of medical clowning.

**Convergence:**

- Look for convergence or divergence of findings between quantitative and qualitative analyses.

**Implications:**

- Discuss how findings from both quantitative and qualitative analyses complement each other and contribute to a deeper understanding of the research question.
- Consider practical implications for healthcare practice and policy based on integrated findings.

This plan outlines the steps for conducting a rigorous analysis of the impacts of medical clowning on quality of life in oncopediatric daycare wards using both quantitative and qualitative approaches.

**III. RESULTS AND DISCUSSION**

**3.1 Tables for the thematic coding depicting the themes & sub themes**

Theme	Subthemes
Emotional Response to Clowning	- Feeling happy - Feeling excited and having fun with the clowns
Engagement with Clowning Activities	- Enjoying playing games with clowns and friends - Enjoying playing with puppets
Distraction from Pain	- Not feeling bored during clown visits - Not feeling pain during clown visits - Mind distracted from pain during clown visits
Behavioral Changes and Interaction	- Increased interaction with other children and parents - Engaging with clowns - Expressing oneself more and worrying less about surroundings
Positive Impact on Mood	- Feeling happy and good - Feeling remembered and recognized by clowns
Sense of Anticipation and Routine	- Looking forward to regular clown visits - Being mentally prepared for clown visits Engaging with clowns' activities during visits
Expression of Gratitude or Appreciation	- Parents laughing and enjoying with clowns - Actively participating and playing with clowns
Observations of Changes Over Time	- Initial unfamiliarity with clowning - Watching clowns engaging with others - Becoming comfortable with clowns - Actively participating and playing with clowns

Thematic coding of interview transcripts identified eight key themes elucidating the qualitative experiences of patients and their guardians regarding medical clowning. Emotional response to clowning emerged as a prominent theme, with participants expressing feelings of happiness and excitement during clown interactions. Engagement with clowning activities fostered socialization and enjoyment among patients, facilitating distraction from pain and promoting behavioral changes and interaction. Patients reported a positive impact on mood, with clowns contributing to a sense of anticipation and routine in the daycare environment. Additionally, expressions of gratitude or appreciation highlighted the reciprocal nature of interactions between patients, guardians, and clowns. Observations of changes over time

underscored the evolution of patient attitudes towards medical clowning, from initial skepticism to active engagement and comfort.

The qualitative themes complement the quantitative data by providing rich contextual insights into the subjective experiences of patients and guardians. Emotional responses, engagement with activities, and behavioral changes elucidated through thematic coding resonate with the quantitative findings of improved quality of life scores. The qualitative data offer nuanced understandings of how medical clowning interventions manifest in patients' everyday experiences, enhancing the credibility and depth of the study findings.

#### **IV. DISCUSSION**

The findings from the systematic review and meta-analysis align with the results of the current study, providing further support for the effectiveness of medical clowning interventions in improving pediatric patient outcomes. By integrating insights from existing literature with the empirical findings of the current study, healthcare providers can gain a more comprehensive understanding of the role of medical clowning in pediatric oncology care. Moving forward, continued research and interdisciplinary collaboration are needed to further explore the mechanisms underlying the therapeutic effects of medical clowning and optimize its implementation in clinical practice.

##### **Mixed method:**

The mixed method helped conducted in this study provided valuable insights into the scores obtained for quality of life for which further frequency distribution was done which helped in obtaining the gender wise distribution of age with respect to the scores of quality of life for the onco-pediatric patients. Notably, significant improvements were observed in the findings suggest that while medical clowning therapy effectively alleviate distress and enhance positive emotions, their influence on emotional regulation may be limited.

##### **Quantitative Analysis:**

Frequency distribution analysis of quality of life scores revealed a range from 53.04 to 100, indicating variability in the perceived impact of medical clowning across participants. These findings highlight the potential of medical clowning to positively influence various dimensions of pediatric patients' quality of life, ranging from emotional well-being to social interactions.

##### **Qualitative Analysis:**

Thematic coding of interview transcripts identified eight key themes elucidating the qualitative experiences of patients and their guardians regarding medical clowning. Emotional response to clowning emerged as a prominent theme, with participants expressing feelings of happiness and excitement during clown interactions. Additionally, expressions of gratitude or appreciation highlighted the reciprocal nature of interactions between patients, guardians, and clowns. Observations of changes over time underscored the evolution of patient attitudes towards medical clowning, from initial skepticism to active engagement and comfort.

##### **Interpretation of Findings:**

The findings underscore the effectiveness of medical clowning therapy in improving pediatric quality of life among oncology patients. These interventions create a supportive and joyful environment that enhances the treatment experience and fosters emotional resilience. The findings indicated a significant positive impact of medical clowning on improving pediatric quality of life. The results revealed significant improvements in pediatric quality of life following medical clowning therapy.

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