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Effects of Recreational Therapy on Anxiety Levels in Patients with Chronic Illness

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Abstract

Purpose: The aim of the study was to assess the effects of recreational therapy on anxiety levels in patients with chronic illness.

Methodology: This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

Findings: The study indicated that engaging in recreational activities, such as art, music, and physical exercise, can significantly alleviate anxiety symptoms. These activities provide a distraction from pain and discomfort, enhance mood, and promote relaxation. For instance, studies have demonstrated that music therapy can lead to decreased levels of cortisol, the stress hormone, and increased production of endorphins, which are natural mood elevators. Similarly, physical activities like yoga and tai chi help in reducing tension and improving overall mental health by fostering a sense of physical well-being and

empowerment. Art therapy, through creative expression, allows patients to process their emotions and experiences, leading to reduced feelings of anxiety and depression. Overall, recreational therapy offers a holistic approach to managing anxiety in chronically ill patients, contributing to improved quality of life and better mental health outcomes.

Implications to Theory, Practice and Policy: Cognitive-behavioral theory, biopsychosocial model and flow theory may be used to anchor future studies on assessing the effects of recreational therapy on anxiety levels in patients with chronic illness. Practitioners should consider combining different types of recreational therapies to maximize therapeutic benefits. Policymakers should recognize the value of recreational therapy and integrate it into national healthcare guidelines and policies. This integration can promote the widespread adoption of these therapies in various healthcare settings, ensuring that patients with chronic illnesses have access to comprehensive care options.

Keywords: *Recreational, Therapy, Anxiety Levels, Chronic Illness*

INTRODUCTION

Anxiety levels in developed economies have shown notable increases, particularly in the United States and the United Kingdom. In the United States, approximately 19% of adults experience anxiety disorders annually, with the COVID-19 pandemic contributing to a significant rise in anxiety symptoms—around 36% reported heightened anxiety during this period (Gonzalez, Sanger, & Lee, 2021). The National Institute of Mental Health reported that generalized anxiety disorder alone affects nearly 6.8 million adults, emphasizing the persistent nature of this mental health issue (National Institute of Mental Health, 2021). In the United Kingdom, anxiety prevalence has also risen, with surveys indicating that nearly 25% of young adults reported anxiety symptoms in 2021, which reflects a worrying trend among younger populations (Office for National Statistics, 2021). Such statistics highlight the urgent need for comprehensive mental health strategies in these developed nations.

Japan represents another developed economy where anxiety levels have become a pressing concern. Recent studies suggest that around 30% of the population experienced elevated anxiety during and after the COVID-19 pandemic, driven by social and economic stressors (Kawakami, Araki & Kawashima, 2020). Furthermore, longitudinal studies indicate that mental health issues, including anxiety, have been exacerbated by societal factors such as economic insecurity and aging population dynamics (Fujisawa, 2021). This rising trend calls for targeted mental health interventions to address the increasing burden of anxiety disorders in Japan. Overall, these findings across developed economies underscore the growing mental health crisis and the necessity for effective public health initiatives.

In developing economies, anxiety levels often reflect a complex interplay of socioeconomic factors, as observed in India and Brazil. In India, studies indicate that about 28% of the population experiences significant anxiety, often influenced by poverty and limited access to mental health resources (Gupta, Kaur & Verma, 2020). Economic stressors, alongside social instability, contribute to heightened anxiety levels, particularly among marginalized groups. In Brazil, research shows that approximately 31% of individuals report experiencing anxiety symptoms, significantly impacted by economic downturns and public health crises (Barros, Lima & Grosse, 2020). These statistics reveal an urgent need for mental health initiatives that address the unique challenges faced by developing economies.

In developing economies, anxiety levels often reflect the interplay of socioeconomic challenges, as illustrated by India and Brazil. In India, recent studies indicate that approximately 28% of the population experiences significant anxiety, with factors such as poverty, unemployment, and limited access to mental health care being prominent contributors (Gupta, Kaur & Verma, 2020). The COVID-19 pandemic further exacerbated these issues, leading to heightened levels of anxiety among various demographics, particularly among marginalized communities. Additionally, a survey found that around 38% of individuals reported increased anxiety symptoms during the pandemic, underscoring the urgent need for effective mental health interventions (Ghosh, 2021). This situation highlights the critical need for comprehensive mental health strategies tailored to the unique challenges faced in developing countries.

Brazil serves as another example where anxiety levels are significantly impacted by socioeconomic conditions. Approximately 31% of the Brazilian population reports experiencing anxiety symptoms, with economic instability and social inequalities playing a substantial role in this prevalence (Barros, Lima & Grosse, 2020). The combination of high unemployment rates and inadequate mental health services contributes to a pervasive sense of insecurity among the population. Moreover, research indicates that during the pandemic,

mental health issues intensified, with 43% of Brazilians reporting increased anxiety levels (Silva, 2021). These statistics reveal an urgent need for targeted mental health initiatives and support systems that can effectively address the growing anxiety crisis in developing economies.

In addition to the previously mentioned countries, South Africa presents a significant case of rising anxiety levels influenced by socioeconomic and political challenges. Approximately 28% of South Africans report experiencing anxiety, often exacerbated by high rates of violence, unemployment, and systemic inequality (Williams, Wang & Stein, 2021). The COVID-19 pandemic has further strained mental health, with studies indicating that about 35% of the population reported increased anxiety levels during this period. This mental health crisis highlights the urgent need for accessible mental health care and community support initiatives tailored to local needs. Moreover, the lack of resources and awareness surrounding mental health issues contributes to a cycle of untreated anxiety among vulnerable groups (Herman, 2021).

Similarly, in Bangladesh, anxiety levels have been notably affected by both environmental and economic pressures. A study found that approximately 30% of the population reported significant anxiety symptoms, primarily due to factors such as poverty and natural disasters (Hossain, 2021). The COVID-19 pandemic exacerbated these conditions, leading to a reported increase in anxiety among nearly 45% of respondents during the crisis. The challenges of accessing mental health services and the stigma associated with seeking help further complicate the landscape of mental health in Bangladesh (Rahman, 2021). These findings underline the pressing need for effective mental health policies and support systems that address the complex factors contributing to anxiety in developing economies.

Another notable example is Kenya, where anxiety levels have been influenced by similar socioeconomic factors. A study revealed that about 33% of Kenyans reported increased anxiety during the COVID-19 pandemic, driven by economic challenges and the impact of social distancing measures (Kamau, Karanja & Ogutu, 2021). The ongoing economic struggles and inadequate mental health resources significantly contribute to the rising anxiety rates among the population. Furthermore, nearly 25% of respondents indicated that they had never sought help for mental health issues, primarily due to stigma and lack of access (Wamalwa, 2020). These findings emphasize the urgent need for comprehensive mental health policies that can effectively address anxiety and promote well-being in developing economies.

Furthermore, in Ethiopia, the anxiety landscape shows concerning trends, with studies indicating that around 32% of adults experience anxiety symptoms. Factors such as ethnic tensions and political instability contribute significantly to these high rates (Alemayehu, 2021). The pandemic intensified these challenges, with reports indicating a further rise in anxiety among the population. Mental health stigma and limited access to care exacerbate the situation, making it critical for governments to implement effective mental health policies. The overall anxiety levels in Ethiopia highlight the pressing need for targeted interventions and community support systems to address mental health challenges effectively.

Anxiety levels in Sub-Saharan Africa are often influenced by the unique socioeconomic and political challenges faced by the region, as seen in Uganda and South Africa. In Uganda, approximately 37% of adults report experiencing anxiety, driven by economic instability and social unrest (Nabbuye, Kasujja & Musisi, 2021). The lack of mental health resources and barriers to care further exacerbate the prevalence of anxiety disorders among the population. Similarly, in South Africa, anxiety prevalence is estimated at about 28%, heavily influenced by high rates of violence and systemic inequality (Williams, Wang & Stein, 2021). These

figures highlight the urgent need for tailored interventions that address the specific mental health needs in Sub-Saharan economies.

Moreover, the COVID-19 pandemic has significantly impacted mental health across Sub-Saharan Africa. In Kenya, a study revealed that approximately 33% of respondents reported increased anxiety during the pandemic, primarily due to economic challenges and health-related fears (Kamau, Karanja & Ogutu, 2021). The intersection of these challenges underscores the necessity for comprehensive mental health policies that consider local contexts and provide accessible care. Increasing awareness and reducing stigma surrounding mental health issues are critical for improving outcomes in Sub-Saharan Africa. Consequently, addressing the multifaceted nature of anxiety is essential for fostering resilience and promoting mental well-being in the region.

Recreational therapies such as art therapy, music therapy, animal-assisted therapy, and outdoor adventure therapy have shown significant promise in reducing anxiety levels as measured by standardized scales. Art therapy, which involves activities like drawing and painting, has been found to significantly lower anxiety levels, particularly in patients with generalized anxiety disorder (Stuckey & Nobel, 2018). Music therapy, including listening to or creating music, can reduce anxiety by promoting relaxation and emotional expression, with studies indicating substantial decreases in anxiety scores (Kim, Chong & Lim, 2020). Animal-assisted therapy, often involving interactions with dogs or horses, helps alleviate anxiety by providing comfort and reducing cortisol levels (Beetz, Uvnäs-Moberg, & Julius, 2020). Lastly, outdoor adventure therapy, which includes activities like hiking and rock climbing, has been shown to reduce anxiety by enhancing physical health and promoting mindfulness (Annerstedt & Wahrborg, 2018).

Each of these therapies leverages different mechanisms to mitigate anxiety. Art therapy allows individuals to express feelings non-verbally, which can be particularly beneficial for those who find it difficult to articulate their emotions (Stuckey & Nobel, 2018). Music therapy's rhythm and melody can have a soothing effect on the nervous system, which helps lower anxiety levels (Kim, Chong & Lim, 2020). Interacting with animals in animal-assisted therapy provides a sense of companionship and reduces feelings of loneliness, thereby reducing anxiety (Beetz, Uvnäs-Moberg & Julius, 2020). Outdoor adventure therapy exposes individuals to nature, which has been found to have a calming effect and improve overall mental health (Annerstedt & Wahrborg, 2018). These diverse therapeutic approaches highlight the multifaceted nature of anxiety treatment and the importance of personalized interventions.

Problem Statement

Anxiety is a prevalent comorbidity among patients with chronic illnesses, significantly impacting their overall quality of life and complicating disease management. Traditional pharmacological treatments for anxiety often come with undesirable side effects and may not be suitable for all patients, necessitating the exploration of alternative therapeutic approaches. Recreational therapies such as art therapy, music therapy, animal-assisted therapy, and outdoor adventure therapy have shown potential in reducing anxiety levels in various populations, yet their specific effects on patients with chronic illnesses remain under-researched. Recent studies have indicated that these non-pharmacological interventions can effectively alleviate anxiety symptoms, promote emotional well-being, and enhance overall health outcomes in chronic illness patients (Kim, Chong & Lim, 2020; Beetz, Uvnäs-Moberg & Julius, 2020). However, there is a need for more comprehensive research to establish standardized protocols and quantify the effectiveness of these therapies in managing anxiety among this specific patient group (Stuckey & Nobel, 2018; Annerstedt & Wahrborg, 2018).

Theoretical Framework

Cognitive-Behavioral Theory (CBT)

Originated by Aaron Beck in the 1960s, cognitive-behavioral theory posits that psychological problems arise from maladaptive thinking patterns and behaviors. The main theme of CBT is that changing negative thought patterns can lead to changes in emotions and behaviors. This theory is foundational in understanding how recreational therapy can alleviate anxiety. Recreational activities such as art and music therapy provide patients with an outlet for expressing emotions and thoughts non-verbally, which can help in reframing negative cognitions. Additionally, engaging in structured activities can help patients develop new coping mechanisms and problem-solving skills, thereby reducing anxiety symptoms. For example, a patient who participates in art therapy might begin to see their health condition from a new perspective, reducing feelings of helplessness and promoting a sense of control. Studies have shown that when patients engage in positive, structured activities, their cognitive distortions about their illness decrease, leading to reduced anxiety (Hofmann, 2021). Moreover, CBT principles suggest that consistent participation in enjoyable activities can create a positive feedback loop, where improved mood leads to increased activity engagement, further enhancing mood. Thus, recreational therapy can be an effective non-pharmacological intervention for managing anxiety in patients with chronic illnesses. It aligns well with CBT's emphasis on altering thought patterns through active engagement and practical interventions.

Biopsychosocial Model

Proposed by George Engel in 1977, the biopsychosocial model emphasizes that health and illness are the result of an interplay between biological, psychological, and social factors. This comprehensive model is particularly relevant to chronic illness and anxiety because it acknowledges that psychological well-being is influenced by a combination of physical health, emotional states, and social environments. For instance, a patient with a chronic illness may experience anxiety not only due to their physical symptoms but also due to feelings of social isolation or inadequate social support. Recreational therapy addresses these multiple dimensions by promoting physical activity, providing social interaction, and enhancing emotional well-being. For example, animal-assisted therapy not only reduces cortisol levels (a biological factor) but also provides companionship (a social factor) and improves mood (a psychological factor) (Borrell-Carrio, 2020). The Biopsychosocial Model supports the integration of recreational therapy as a holistic approach to healthcare, recognizing that improving one aspect of health can positively impact other areas. By engaging in activities that address the physical, emotional, and social needs of patients, recreational therapy can create a more balanced and supportive environment for managing chronic illnesses. This holistic approach is essential for patients whose anxiety is multifaceted and cannot be effectively treated through medication alone.

Flow Theory

Developed by Mihaly Csikszentmihalyi in the 1970s, flow theory describes a state of complete immersion and optimal experience in an activity. The main theme of Flow Theory is that engaging in activities that match one's skills and interests can lead to a state of flow, characterized by deep concentration and enjoyment. This theory is particularly relevant to recreational therapy as it suggests that activities inducing flow can significantly reduce anxiety. When patients engage in activities that fully capture their attention, such as painting, playing music, or participating in outdoor adventures, they experience a reduction in anxiety because these activities help them focus away from their worries and immerse in the present moment.

For instance, a patient who enjoys painting may find that their anxiety levels decrease significantly when they are deeply involved in creating art, as they enter a state of flow where time seems to disappear (Nakamura & Csikszentmihalyi, 2019). This immersion can lead to a sense of accomplishment and satisfaction, further reducing anxiety symptoms. Additionally, flow activities often require a balance between challenge and skill, which can help build resilience and self-efficacy in patients. By promoting activities that induce flow, recreational therapy can provide a meaningful and enjoyable way for patients to manage their anxiety. The application of Flow Theory in recreational therapy highlights the importance of personalized interventions that cater to individual interests and strengths, ultimately improving mental health outcomes.

Empirical Review

Anderson and Serfass (2018) assessed the effectiveness of art therapy in reducing anxiety among cancer patients. The researchers employed a randomized controlled trial involving 150 participants who were divided into two groups: one receiving weekly art therapy sessions and the other receiving standard care. The art therapy sessions included various activities such as painting, drawing, and sculpting, designed to facilitate emotional expression and reduce stress. The findings revealed that participants in the art therapy group experienced a significant reduction in anxiety levels compared to the control group, as measured by the Hospital Anxiety and Depression Scale (HADS). The study concluded that art therapy could serve as a valuable adjunctive treatment for cancer patients to improve their emotional well-being. The researchers recommended that healthcare providers incorporate art therapy into routine cancer care to enhance patients' quality of life. Additionally, they suggested further studies to explore the long-term effects of art therapy on anxiety and other psychological outcomes in cancer patients. The robust methodology and significant findings underscore the potential benefits of art therapy in oncology settings.

Ng and Leung (2019) investigated the effects of music therapy on anxiety in patients with chronic heart disease through a quasi-experimental design. The study included 120 participants who attended bi-weekly music therapy sessions over six months. These sessions involved listening to calming music, playing instruments, and group singing, aiming to promote relaxation and emotional expression. The researchers used the State-Trait Anxiety Inventory (STAI) to measure anxiety levels before and after the intervention. Results indicated that patients who participated in music therapy reported significantly lower anxiety scores and improved heart rate variability compared to those in the control group. The study concluded that music therapy could be an effective complementary treatment for managing anxiety in patients with chronic heart disease. Ng and Leung recommended integrating music therapy into cardiac rehabilitation programs to enhance patient outcomes. They also called for further research to understand the specific mechanisms through which music therapy alleviates anxiety. The findings highlight the therapeutic potential of music in promoting mental health among heart disease patients.

Smith, Parris and Garcia (2020) examined the benefits of animal-assisted therapy for patients with chronic pain using a mixed-methods approach. The study involved 100 patients who interacted with therapy dogs during weekly sessions over a three-month period. Quantitative measures included the Generalized Anxiety Disorder 7 (GAD-7) scale and qualitative interviews to capture patients' experiences. The findings showed that participants experienced significant reductions in anxiety and pain perception following the animal-assisted therapy sessions. The qualitative data revealed that patients found comfort and companionship in interacting with the therapy dogs, which helped alleviate feelings of loneliness and distress.

The study concluded that animal-assisted therapy could be a valuable addition to pain management programs. The researchers recommended incorporating therapy animals into holistic care plans for chronic pain patients to enhance emotional support and reduce anxiety. They also suggested further studies to explore the long-term benefits and potential cost-effectiveness of animal-assisted therapy. The comprehensive approach and positive outcomes highlight the role of human-animal interactions in promoting psychological well-being.

Lee, Chou and Kuo (2020) focused on the effects of outdoor adventure therapy on anxiety levels in patients with chronic respiratory illnesses through a longitudinal study. The study included 80 participants who engaged in regular outdoor activities such as hiking, rock climbing, and nature walks over a six-month period. The researchers used the Beck Anxiety Inventory (BAI) to measure anxiety levels at multiple time points. The results demonstrated sustained reductions in anxiety and improvements in respiratory function among participants who took part in outdoor adventure therapy. The study concluded that engaging in nature-based activities could significantly benefit patients with chronic respiratory conditions by enhancing physical health and reducing anxiety. Lee, Chou, and Kuo recommended that healthcare providers consider incorporating outdoor adventure therapy into respiratory care programs to improve patient outcomes. They also called for additional research to examine the long-term effects and potential barriers to implementing such programs. The findings emphasize the importance of incorporating natural environments into therapeutic interventions.

Williams and Stein (2021) explored the impact of dance therapy on anxiety in patients with Parkinson's disease using a pre-test/post-test design. The study involved 60 participants who attended dance therapy sessions twice a week for 12 weeks. The sessions included various dance styles tailored to accommodate the physical limitations of Parkinson's patients, aiming to improve motor function and reduce anxiety. The researchers used the Parkinson's Disease Questionnaire-39 (PDQ-39) and the State-Trait Anxiety Inventory (STAI) to assess outcomes. The findings indicated significant decreases in anxiety levels and improvements in motor function following the dance therapy intervention. The study concluded that dance therapy could be a viable non-pharmacological intervention for managing anxiety and enhancing physical abilities in Parkinson's patients. Williams and Stein recommended integrating dance therapy into standard care practices for Parkinson's disease to improve overall patient well-being. They also suggested further research to explore the specific elements of dance therapy that contribute to its effectiveness. The study highlights the dual benefits of physical and mental health improvements through creative movement.

Gupta and Arora (2022) examined the effects of horticultural therapy on anxiety in patients with diabetes using an experimental study design. The study involved 50 participants who engaged in gardening activities three times a week for three months. The researchers used the Generalized Anxiety Disorder 7 (GAD-7) scale to measure anxiety levels before and after the intervention. The findings revealed that participants experienced significant reductions in anxiety and improvements in glycemic control after engaging in horticultural therapy. The study concluded that gardening activities could serve as a beneficial adjunct treatment for managing anxiety in patients with diabetes. Gupta and Arora recommended incorporating horticultural therapy into diabetes management programs to enhance both mental and physical health outcomes. They also called for further research to explore the long-term benefits and potential mechanisms of action. The study underscores the therapeutic value of engaging with nature and physical activity in managing chronic conditions.

Rodriguez and Blanco (2023) investigated the impact of drama therapy on anxiety in patients with chronic kidney disease using a qualitative approach. The study included 30 participants

who attended weekly drama therapy sessions over a six-month period. The sessions involved role-playing, storytelling, and improvisation exercises designed to help patients express their fears and anxieties. The researchers conducted in-depth interviews to capture participants' experiences and perceived benefits. The findings revealed that drama therapy helped patients articulate their emotions, leading to a noticeable reduction in anxiety levels. Participants reported feeling more understood and supported through the therapeutic process. The study concluded that drama therapy could be an effective intervention for reducing anxiety and improving emotional well-being in patients with chronic kidney disease. Rodriguez and Blanco recommended integrating drama therapy into holistic kidney care programs to address the psychological needs of patients. They also suggested further research to explore the broader applications of drama therapy in chronic illness management. The study highlights the power of creative expression in promoting mental health.

METHODOLOGY

This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

RESULTS

Conceptual Research Gaps: The existing body of research on recreational therapy's effects on anxiety levels in patients with chronic illness primarily focuses on individual therapeutic modalities such as art therapy, music therapy, and animal-assisted therapy. However, there is a conceptual gap in understanding the comparative effectiveness of these different therapies. For instance, while Anderson and Serfass (2018) highlighted the benefits of art therapy for cancer patients, there is limited research that directly compares art therapy with other forms of recreational therapy to determine which might be more effective for specific chronic conditions. Additionally, there is a lack of studies exploring the synergistic effects of combining multiple types of recreational therapies. Integrating therapies like music and dance or art and horticulture could potentially offer compounded benefits, but this area remains underexplored. The existing studies also focus on specific chronic illnesses, leaving a gap in understanding how these therapies might affect anxiety across a broader range of chronic conditions.

Contextual Research Gaps: Many studies on the effects of recreational therapy on anxiety are conducted in controlled, clinical environments, which might not accurately reflect real-world settings. For example, Ng and Leung (2019) conducted their music therapy study within a hospital setting, which may not account for external factors that patients encounter in their daily lives. There is a need for more contextual research that evaluates the impact of recreational therapy in diverse settings, such as community centers, homes, and outdoor environments. Moreover, existing research often focuses on short-term interventions, as seen in the studies by Smith, Parris, and Garcia (2020), and Lee, Chou, and Kuo (2020). Long-term studies are required to understand the sustained effects of recreational therapies and how they can be integrated into patients' ongoing care plans. This would provide a more comprehensive understanding of how these therapies can be maintained over time and their long-term benefits.

Geographical Research Gaps: Geographically, most research on recreational therapy for anxiety in chronic illness is concentrated in developed countries, such as the United States and parts of Europe and Asia. For instance, Anderson and Serfass (2018) conducted their study in

the US, while Ng and Leung (2019) conducted theirs in Hong Kong. There is a significant gap in research conducted in developing regions and sub-Saharan Africa. Cultural differences might influence the effectiveness and acceptance of different types of recreational therapy. For example, Lee, Chou, and Kuo (2020) highlighted the importance of outdoor adventure therapy, which may be more or less applicable in different geographical contexts due to varying cultural attitudes towards outdoor activities. Research in diverse geographical locations would help understand cultural perceptions and logistical challenges, providing insights into how recreational therapies can be adapted and implemented worldwide.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Recreational therapy has demonstrated significant potential in reducing anxiety levels among patients with chronic illnesses. Empirical studies have consistently shown that various forms of recreational therapy, such as art therapy, music therapy, animal-assisted therapy, and outdoor adventure therapy, contribute to notable decreases in anxiety and improvements in overall well-being. For instance, Anderson and Serfass (2018) found that art therapy significantly reduced anxiety in cancer patients, while Ng and Leung (2019) reported similar findings with music therapy for chronic heart disease patients. These therapies not only provide emotional and psychological benefits but also enhance physical health and social connectivity, crucial for patients managing long-term conditions.

However, despite these promising results, there are significant research gaps that need to be addressed to fully understand and optimize the use of recreational therapy. Conceptually, more comparative studies are required to evaluate the relative effectiveness of different therapeutic modalities and their combined effects. Contextually, research needs to extend beyond controlled clinical environments to real-world settings and include long-term follow-up to assess the sustainability of therapeutic benefits. Geographically, there is a need for more diverse studies, particularly in developing countries and sub-Saharan Africa, to explore cultural variations and logistical challenges in implementing recreational therapy. Addressing these gaps will provide a more comprehensive understanding of how recreational therapy can be tailored and integrated into healthcare systems worldwide to improve the quality of life for patients with chronic illnesses.

Recommendations

The following are the recommendations based on theory, practice and policy:

Theory

Future studies should focus on comparing the effectiveness of different types of recreational therapies, such as art therapy, music therapy, and animal-assisted therapy, to determine which modalities are most effective for specific chronic illnesses. This comparative research can help develop a more nuanced theoretical framework for understanding how and why different therapies work. Research should aim to integrate various theoretical perspectives, such as the biopsychosocial model and self-efficacy theory, to create a comprehensive understanding of the mechanisms through which recreational therapy alleviates anxiety. This integration can offer a holistic view of the interaction between psychological, social, and biological factors in therapeutic outcomes. Theoretical models should be developed to explore the long-term impacts of recreational therapy on anxiety and other psychological outcomes. Longitudinal studies can provide insights into the sustainability of therapeutic benefits and help refine theoretical models to account for long-term psychological processes.

Practice

Practitioners should consider combining different types of recreational therapies to maximize therapeutic benefits. For example, integrating art therapy with music therapy or horticultural therapy can provide compounded benefits, addressing multiple aspects of patients' well-being simultaneously. Healthcare providers should tailor recreational therapy programs to individual patient needs, preferences, and cultural contexts. Personalized approaches can enhance engagement and effectiveness, ensuring that therapies are more relevant and beneficial for diverse patient populations. There should be increased training and education for healthcare providers on the benefits and implementation of recreational therapies. This includes workshops, seminars, and continuing education programs to equip practitioners with the skills and knowledge needed to integrate these therapies into standard care practices effectively.

Policy

Policymakers should recognize the value of recreational therapy and integrate it into national healthcare guidelines and policies. This integration can promote the widespread adoption of these therapies in various healthcare settings, ensuring that patients with chronic illnesses have access to comprehensive care options. Governments and healthcare organizations should allocate funding for research on recreational therapy and its effects on anxiety in chronic illness patients. Funding should also support the implementation of recreational therapy programs in hospitals, community centers, and other healthcare facilities. Policies should aim to make recreational therapy accessible to all patients, regardless of socioeconomic status or geographic location. This includes funding for community-based programs, subsidies for low-income patients, and initiatives to overcome logistical barriers in underserved regions.

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