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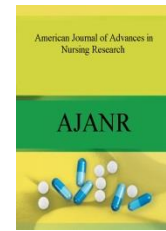
EFFECTIVENESS OF PROGRESSIVE MUSCLE RELAXATION THERAPY AND MEDITATION ON STRESS LEVELS AMONG NURSING STUDENTS

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ABSTRACT

The effects of progressive muscle relaxation therapy and meditation on nursing student stress were tested in an experimental study. In this study, 60 samples were selected using a simple random sampling technique based on probability. Data were collected using a demographics and stress assessment questionnaire along with a pretest and a posttest using the same stress assessment questionnaire after 14 days. A descriptive and inferential statistical analysis was performed on the data obtained. A study conducted on student nurses found that progressive muscle relaxation therapy with meditation reduced stress levels.

INTRODUCTION

Stress is a reaction to external circumstances or events that causes emotional and physical strain. As the result of dynamic interactions between individuals and their environments, it manifests as a complex and multidimensional phenomenon. There are a variety of factors and events that can cause stress, including challenges at work or school, financial difficulties, relationship challenges, and health concerns There was no need to fear stress; a certain level of stress can actually be beneficial by enhancing motivation, focus, and performance. Stress has driven many individuals to excel and overcome obstacles in human history, demonstrating that it was a powerful motivator for success and accomplishment.

The physical and mental health of an individual could be adversely affected by prolonged or excessive stress. In addition to anxiety, depression, insomnia, and fatigue, chronic stress has been linked to several medical conditions. Also, it impairs cognitive function, making it difficult to maintain concentration, remember, and solve problems. Furthermore, stress weakens the immune system, so individuals are more likely to contract illnesses and infections.

Stress was mostly associated with symptoms of restlessness, irritability, forgetfulness, headaches, and difficulty concentrating, as well as insomnia. In time, chronic stress can negatively affect an individual's overall quality of life and well-being, as well as their ability to function professionally and personally.

Changing lifestyle habits, practicing relaxation techniques such as meditation, seeking social support, and seeking professional help are all possible solutions. In

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order to improve one's quality of life and protect one's mental and physical well-being, individuals should address stress in a proactive manner.

Researchers found that medical students, nurses, and nursing students were exposed to a variety of stressors. Besides the stress caused by theoretical training environment, nurses and nursing students are affected by various college stressors. Colleges are considered as one of the most stressful work environments since Death and Life are at stake. People's personalities can be impacted by the stress they experience from their environment, resulting in many undesirable behaviors.

Statement of the problem

An investigation into the effectiveness of progressive muscle relaxation therapy combined with meditation to reduce stress levels among nursing students

Objectives

- A study was conducted to assess the stress level of nursing students.
- To determine whether progressive muscle relaxation therapy combined with meditation can decrease nursing students' stress levels.
- To determine the relationship between posttest stress and selected demographic variables

Hypothesis

H_1 – Pretest and posttest assessments of symptoms of progressive muscle relaxation therapy with meditation show significant differences.

H_2 – Stress levels are significantly different between pre and post test.

H_3 – Stress levels correlate with the level of preparation for the test and the level of preparation for the test.

H_4 – An association exists between demographic variables and stress levels.

METHODOLOGY

The research employed a quantitative true experimental design, specifically a pre-test and post-test approach. The study focused on assessing stress levels among nursing students. Following their consent, participants meeting the inclusion criteria were selected using a probability simple random sampling technique. The research tool, developed in English after extensive literature review, comprised demographic variables and a stress assessment questionnaire. Demographic variables included age, gender, academic year, course, family type, parental education and occupation, monthly income, and place of residence. Stress assessment was conducted using the Perceived Stress Scale (PSS-14), which consists of 14 statements assessing stress experienced by nursing students in various aspects of their academic and professional life, such as examinations, assignments, clinical postings, and interactions with peers and faculty members.

Grading of Scores

Using the (PSS-14) perceived stress scale, scores were calculated. Stress levels will be graded according to the following.

According to Karlpearson's coefficient of correlation, the tool was found to be reliable. Correlation coefficient between the split halves, 0.863. In order to collect the data, students who fulfilled the criteria were randomly selected within seven days after obtaining their consent. On the first day, a pre-assessment was conducted to determine the level of stress among the students. An assessment of demographics and stress was conducted on the same day as progressive muscle relaxation therapy with meditation. On the 14th day, the investigator used the same tool to conduct the post-test.

Statistics

Demographic variables and stress assessment questionnaires were analyzed using appropriate statistical techniques, such as descriptive statistics. In order to assess the effectiveness of Progressive Muscle Relaxation therapy with meditation, we used an inferential statistic ('t' test) to determine the significance of the reduction in stress status score. A Chi square test was used to determine whether demographic variables and stress assessment questionnaire scores are related.

Level of stress	Score
Never (0 - 14)	1
Almost Never (14-28)	2
Sometimes (28-42)	3
Fairly often (42-56)	4

RESULTS AND DISCUSSION

The findings of this study revealed significant changes in the stress levels of nursing students before and after the intervention. Prior to the intervention, the mean stress score was 14.78 with a standard deviation of 2.46, indicating a moderate level of stress among the participants. However, following the intervention, the mean stress score substantially increased to 36.84, with a standard deviation of 2.81. This reliable increase in the post-intervention stress scores suggests a considerable impact of the progressive muscle relaxation therapy with meditation on the stress levels of nursing students. The

statistical analysis further confirmed the significance of these changes, with a calculated 't' value of 34.82, which was found to be significant at the $p < 0.05$ level. This indicates that the observed differences in stress levels between the pre-test and post-test phases were unlikely to have occurred by chance alone. Instead, they are attributed to the effectiveness of the progressive muscle relaxation therapy with meditation intervention in reducing stress among nursing students. These results align with previous research highlighting the benefits of relaxation techniques, such as progressive muscle relaxation therapy and meditation, in mitigating stress and promoting overall well-being. By providing evidence of the effectiveness of such interventions specifically tailored for nursing students, this study contributes to the growing body of literature on stress management strategies in academic settings. However, it is essential to acknowledge certain limitations of the study, such as the relatively small sample size and the potential influence of other external factors on stress levels. Future research endeavors could explore these interventions in larger and more diverse samples, as well as incorporate long-term follow-up assessments to evaluate the sustainability of stress reduction effects over time. Overall, the findings underscore the importance of implementing holistic approaches to address stress among nursing students, thereby enhancing their academic performance and overall quality of life.

CONCLUSION

The findings of this study highlight the prevalent issue of stress among nursing students, with a majority experiencing severe levels of stress. However, the implementation of progressive muscle relaxation therapy with meditation proved to be an effective method for reducing stress levels among these students. The significant decrease in stress scores following the intervention underscores the importance of incorporating such relaxation techniques into nursing education programs to promote the well-being of students. Furthermore, it was observed that stress levels among nursing students were influenced by certain demographic characteristics and course-related factors. This suggests the need for targeted interventions and support systems tailored to address the specific stressors faced by nursing students in different contexts. Overall, these findings emphasize the importance of proactive measures to mitigate stress and promote mental health among nursing students. By recognizing and addressing the factors contributing to stress, nursing education institutions can better support the holistic development and academic success of their students. Further research in this area is warranted to explore additional interventions and strategies to effectively manage stress among nursing students and enhance their overall educational experience.

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