

“A study to assess the knowledge regarding Jacobson Progressive Muscle Relaxation Technique among undergraduate nursing students in a Sharda University, Greater Noida”

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Abstract: A descriptive study was undertaken in 2024 "to assess the knowledge regarding Jacobson progressive muscle relaxation technique among undergraduate nursing students in a selected university, Greater Noida". The objectives were to assess undergraduate nursing students' knowledge of the Jacobson progressive muscle relaxation technique and its complications, as well as to determine the relationship between the level of knowledge and a set of socio-demographic variables. The convenient sampling method was used in the research study. The study was carried out at Sharda School of Nursing Science and Research (Sharda University), Greater Noida, with a sample of 80 BSC nursing students from the sixth and fifth semesters. A self-created structured knowledge questionnaire was utilized to examine the level of knowledge of Jacobson progressive muscle Relaxation strategy for undergraduate students. The data was analysed using both descriptive and inferential statistics. The reliability of the questionnaire on the degree of knowledge was examined using the split half technique, and the estimated value was 80. The study shows that 67 are moderately educated, and 13 have educated knowledge, totaling 80. The chi square test for the Demographic variables revealed a significant connection between the level of knowledge and selected socio demographic characteristics.

I. INTRODUCTION

Stress is an unavoidable element of life, including education and survival. It is not harmful as long as it becomes overwhelming and disrupts our bodies' homeostasis. Our bodies become overloaded when our nervous system is overworked with drugs that prepare us to "fight or escape. Furthermore, there is a clear positive link between stress, anxiety, and depression in undergraduate nursing students. In 1930, Dr. Edmund Jacobson created Jacobson progressive muscle relaxation (PMR), a systematic technique for stress management and profound relaxation. Academic stress is common among BSC nursing students, with 56% reporting moderate stress, 28% reporting severe stress, and 2% experiencing extreme stress.

The relationship between academic stress levels and socio-demographic characteristics was substantial. Working shifts, long hours, a lack of control, poor relationships with coworkers, and unfamiliarity with the public environment are the most common causes of stress, sadness, and anxiety among student nurses at posting or at work. Exposure to these stresses over time can develop emotional and physical symptoms such as stress, anxiety, and depression, necessitating more treatment.

Relaxation is a strategy of reducing the negative impact on the mind. Gradual muscle relaxation following nursing student studies has lowered academic, clinical, and personal stress, making it possible for students with a variety of social and developmental exceptions that limit their learning and psychological well-being to feel fairly comfortable. We are inspired to investigate the efficacy of progressive muscle relaxation, a stress-reduction technique.

Jacobson's progressive muscle relaxation (PMR) has been utilized to treat a variety of health issues, including stress disorder and anxiety symptoms associated with numerous stressful circumstances in daily life.

Nursing students report that the initial clinical training is the most difficult aspect of the nursing employment. However, gradual muscular relaxation and guided imagery have been shown to improve both mental and physical health. Nursing students in clinical training face several stresses. Stressors include a lack of nursing expertise, insufficient patient care abilities, unfamiliarity with the public context, and a high workload.

Repeated exposure to these stresses may result in mental and physical consequences, including the danger of the act, drowsiness, and an inability to care for themselves or their patients.

These children have regularly reported having a wide range of emotional and physical symptoms, including stress, depression, and anxiety, necessitating extra therapy.

Mind-body relaxation practices have been found to improve emotional and physical health.

Mind body relaxation treatments use a variety of cognitive behavioral strategies. Use to improve the mind's ability to

influence body functions.

Progressive muscle relaxation (PMR) and guided perception have been identified as the easiest techniques to learn and apply. They have also been recognized as inexpensive, accessible, and safe approaches.

This study will highlight trends among nursing students. The current study may provide improved insight into risk factors for psychological stress and physical health among nursing students, which can be useful in the planning and implementation of most relevant methods in nursing universities.

II. MATERIALS AND METHODS

The study employs an experimental descriptive research design to evaluate nursing students' knowledge and attitudes toward the Jacobson relaxation technique and deep breathing at Sharda University. It includes two key variable categories: study variables related to the students' understanding and attitudes about the techniques, and demographic variables such as age, program of study, and socio-economic status. The research is conducted at the Sharda School of Nursing Science and Research with a sample size of 100 nursing students selected through stratified random sampling. Data collection involves a demographic form, a self-structured knowledge questionnaire, and a Likert scale for attitudes, all verified for content validity by experts and tested for reliability using the Karl Pearson coefficient of correlation. The methodical approach ensures the study's results are both accurate and reliable..

III. RESULT

The study of knowledge adequacy among 80 people indicates a variety of trends. For age, those 18-20 years old have 1 individual with adequate knowledge and 22 with somewhat adequate knowledge, but those 21-22 years old have 12 with adequate and 45 with moderately acceptable knowledge, providing a chi-square value of 3.36, $df = 1$, and F value = 0.06. Gender-wise, 7 males and 6 females had adequate knowledge, compared to 23 males and 44 females with fairly good knowledge, with a chi-square value of 1.77, $df = 1$, and F value of 0.18. Among family kinds, 11 persons from nuclear families have adequate knowledge and 34 have somewhat adequate, whereas joint families have 2 with adequate and 28 with moderately adequate knowledge, and extended families have 0 and 5.

respectively, giving a chi-square value of 5.21, $df = 2$, and a F value of 0.07. In education, 12 BSc Nursing students have acceptable knowledge, while 62 have relatively adequate knowledge, compared to 1 and 5 GNM students, respectively, with a chi-square value of 0.001, $df = 1$, and F value = 0.97. For residence, 4 people in rural regions have adequate knowledge and 19 have moderately adequate knowledge, compared to 9 and 48 in urban areas, resulting in a chi-square value of 0.31, $df = 1$, and F value = 0.86. In terms of sleep patterns, those sleeping 2-4 hours have 5 individuals with adequate knowledge and 8 with somewhat adequate, those sleeping 5-7 hours have 6 and 35, and those sleeping 8-10 hours have 2 and 24, resulting in a chi-square value of 6.19, $df = 2$; F value = 0.04. Finally, in terms of income, persons with less than 40,000 have 5 with acceptable knowledge and 21 with fairly adequate, whereas those with more than 40,000 have 8 and 46, respectively, providing a chi-square value of 1.05, $df = 2$, and F value of 0.59.

IV. DISCUSSION

The study assessed the knowledge of Jacob's Progressive Muscle Relaxation techniques among 80 undergraduate students, revealing that a majority were aged 21-22 years, predominantly female (62.5%), and pursuing a B.Sc. Nursing degree (92.5%). The sample comprised mostly urban residents (71.3%) from nuclear families (56.3%). Most participants reported sleeping 5-7 hours per night (51.3%) and had family incomes exceeding 40,000 (67.5%). The findings suggest a high concentration of younger, predominantly female students from specific educational and socioeconomic backgrounds, which may influence their awareness and understanding of relaxation techniques.

CONCLUSION

The study revealed that the majority of undergraduate nursing students at Sharda University, Greater Noida, have limited knowledge regarding the Jacobson Progressive Muscle Relaxation (JPMR) technique. While some students had heard of the technique, few had received formal training or had practiced it themselves. This highlights a need for incorporating relaxation techniques, specifically JPMR, into the nursing curriculum to equip students with essential skills for managing stress and promoting relaxation in patients. By doing so, nursing educators can empower students to provide holistic care and promote overall well-being. Future studies can explore the effectiveness of JPMR training programs for nursing students and their impact on patient outcomes.

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