



EFFECT OF SUN SALUTATION ON LEVEL OF STRESS AMONG NURSING STUDENTS: A PRE EXPERIMENTAL STUDY

Nursing

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ABSTRACT

This pre experimental study was conducted to assess the effect of sun salutation on the level of stress among nursing students. Quantitative research approach with pre-experimental one group pre-test post-test study design was adopted for the study. Forty first-year B Sc. Nursing students were selected by convenience sampling technique from SSNMM College of Nursing, Varkala. The tools used were the demographic proforma and the Perceived Stress Scale. After conducting the pre-test, sun salutation was administered for 30 minutes (7 rounds of sun salutation followed by 10 minutes of yoga nidra) for 21 days regularly. The post-test was conducted on the twenty-first day after the intervention using the same tool. The data were analyzed by descriptive (frequency and percentage) and inferential statistics (paired 't' test and chi-square). The study revealed that the majority (80%) of the nursing students were moderately stressed. The results showed a significant difference between the mean pre-test and post-test stress score which was statistically tested using paired 't' test. ($t=10.514$; $p<0.0001$) and was found to be significant at 0.0001 level of significance. It was inferred that sun salutation is effective in reducing stress among nursing students. The study also found that there was a significant association between the level of stress and type of family ($\chi^2=8.42$, $p<0.05$).

KEYWORDS

Sun salutation; Level of stress; Nursing students.

INTRODUCTION

Stress can be defined as the inability to cope with a perceived threat (real or imagined) to one's mental, physical, emotional and spiritual well-being, which results in a series of physiological responses and adaptation. In other words, it has been defined as a process in which the environmental demands exceed the adaptive capacity of an organism, resulting in psychological and biological changes that may place a person at risk for disease.

The period of adolescence itself was well recognized as a period of 'stress and storm'. Even in our life span, adolescence can debatably be one of the stages that are most marked by rapid and potentially tumultuous transition, including various changes in biological, social and psychological aspects. In the modern era, student population is exposed to high level of stress academically, socially, physically and emotionally. On the verge of coping those pressures, an individual himself unconsciously frames a net and is caught in the same.

Academic sources of stress are like examinations, long hours of study, assignments, grades, lack of free time, lack of timely feedback after their performance, special elements of the academic programme like arrangement and conduction of workshops. Clinical sources of stress are like taking care of ill patients, interpersonal conflict with peer group, insecurity about personal clinical competence, fear to complete their clinical requirements, dealing with uncooperative patients, work overload, prolonged standing and learning some clinical psychomotor skills have also been associated with high levels of stress.

A survey conducted by Cigna TTK Health Insurance reported that Stress level seems to be high in India compared to other countries, both developed and emerging. About 89% of the population in India say they are suffering from stress compared to the global average of 86%. Another survey conducted by them revealed that nearly 9 in 10 Indians suffer from stress, which is comparably higher than other developed and emerging countries, including United States, the UK, Germany, France, China, Brazil and Indonesia.

A stress survey conducted by Mental Health and Behavioural Sciences across 8 cities in India (Bangalore, Delhi, Mumbai, Kolkata, Mohali, Ludhiana, Jaipur, and Chennai) revealed that 79% of the study participants expressed that a person's nervous disposition highlighted by their nature, personality traits and ineffective coping mechanisms made them more susceptible to stress. Sun salutation quiets the brain and aides enhance focus. Today, youngsters confront a ferocious rivalry and ought to embrace surya namaskar in their day to day plan as it helps continuance control and decreases the sentiment tension and anxiety, particularly amid exams. General routine of surya namaskar gives quality and imperativeness to the body. These above mentioned reviews and personal intuition leads the researcher to study the effectiveness of sun salutation in stress reduction among nursing students.

MATERIALS AND METHODS

Quantitative research approach with pre-experimental one group pre-test post-test study design was adopted for this study. Forty first-year B Sc. Nursing students were selected by convenience sampling technique from SSNMM College of Nursing, Varkala. The tools used were the demographic proforma and the Perceived Stress Scale. After obtaining formal permission from the principal, SSNMM College of Nursing, the main study was conducted. By using convenient sampling technique, investigator had selected samples from the nursing college. On the first day, the investigator assembled all the study participants at the auditorium of SSNMM College of Nursing. After giving a brief introduction about herself and the study, subjects were made comfortable and informed consent was obtained from each study participants and assured the confidentiality. Data was collected from all the study participants to assess the baseline information and stress level using Perceived Stress Scale (PSS). Vital information regarding sun salutation was given and the yoga module was demonstrated to the students. From the second day to twenty-second-day sun salutation was administered every day morning from 7:00 am to 7:30 am for 7 times (20 minutes) followed by yoga nidra (10 minutes). On the twenty-second-day post-test was conducted among the samples.

RESULTS

A. Socio Demographic Data Of Study Subjects

- According to the age, 67.5% of the participants were between the age group 17-18 years and remaining 32.5% were between the age group of 19 and 20 years.
- Based on the type of family, most of the samples (70%) belong to nuclear family while, 17.5% were in single parent family and remaining (12.5%) come from joint family. Relating to their area of residence, majority of the study samples (62.5%) come

examination. According to the birth order, 75% of them were first born, 20% were last born, and the remaining 5% were middle born. With reference to the study samples status of education loan, only 35% of them have educational loan.

Level Of Stress Among Nursing Students.

The level of stress was assessed using standardized perceived stress scale (PSS). The maximum score was 40 and the minimum possible score was 0. In this stress scale, the level of stress was classified as mild stress (0-13), moderate stress (14-26) and severe stress (27-40). The pre-test score of level of stress among first year B Sc. Nursing in selected college revealed that, majority (80%) of the study participants had moderate stress and remaining half of them had mild stress (10%) and another 10% were in severe stress.

Table 1: Mean, SD And Paired t Test Value Of The Level Of Stress Among Nursing Students Before And After Sun Salutation.

Group	Mean	S.D	Mean difference	t	P
Pre-test	19.000	5.69750	9.62	10.514***	0.000
Post-test	9.3750	1.90394			

***Significant at $p < 0.0001$ level

Association Between The Level Of Stress And The Selected Socio-Demographic Variables.

Chi square test was used to find the association between the level of stress and selected demographic variables. The study revealed that there was a significant association between the type of family and level of stress ($p < 0.05$) but, there were no significant association between level of stress and other socio demographic variables like age, religion, residence, family income, education of parents, occupation of parents, previous academic performance of the student, number of siblings, birth order, previous educational pattern and presence of educational loan.

DISCUSSION

Majority (80%) of them had moderate stress, beside that 10% had severe stress, and only 10% had mild stress. This study finding was consistent with the findings of a descriptive study conducted among 60 first year B Sc. Nursing students to assess the level of stress and coping mechanism adopted by them. Samples were selected using non-probability convenient sampling technique. The tools used for data collection were Perceived Stress Scale, Standard Coping Scale and Demographic Proforma. The study revealed that 46.7% had moderate stress, 51.6% had mild stress and only 1.7% had severe stress.

The findings of the present study showed a significant difference in the mean scores of level of stress (19 ± 5.697 to 9 ± 1.903) before and after sun salutation. This result indicates and strongly suggests that sun salutation is effective in reducing stress among nursing student. The study findings were supported by a quasi-experimental study conducted to assess the effectiveness of surya namaskar (sun salutation) in reducing stress among nursing students in selected nursing colleges at Mysore. For that 50 first year B Sc. Nursing students were selected by using non-probability convenient sampling technique. The level of stress was measured using perceived stress scale. The intervention was given for 20 days and post-test was conducted. The study revealed that there was a significant association between the mean pre-test and post-test stress score and was found to be significant at 0.05 level of significance and was inferred that the sun salutation was effective in reducing stress level.

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