



THE EFFECTIVENESS OF STUDENT ASSISTANCE PROGRAM FOR STRESS AND ITS EVIDENCE BASED MANAGEMENT ON LEVEL OF STRESS AMONG NURSING STUDENTS.

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Abstract

Introduction & Background: Students continuously experience pressure from different sources during academic life which leads to negative emotions and also affects their mental health. **Aim:** To assess the effectiveness of Student Assistance Program (SAP) for stress and its evidence based management on level of stress among nursing students in selected educational institute and to associate the findings of the baseline level of stress with background variables.

Method: Quasi experimental study with a one group pre-test post-test design.

Participants/Setting: One hundred fifty-two consented nursing students recruited by purposive sampling technique from selected educational institutes of Pune city.

Intervention: The group attended a seminar/ lecture series of the Student Assistance Program for stress and its evidence-based management, including Mental hygiene strategies, stress management in daily living, Examination preparation, Screen time control, Socialization, and Time management; with practice sessions of deep breathing, progressive muscle relaxation and guided imaginary as relaxation techniques.

Results: Data were collected baseline (T0) and post-intervention (T1) using a structured questionnaire as demographic variables and PSS scale. The result demonstrated that the level of stress in post-intervention (T1) was reduced significantly ($P < 0.05$) than baseline (T0) in group. This showed that the group had improved knowledge on stress management and followed relaxation techniques led to stress reduction among nursing students. Also there was significant association of level of stress with selected background variables.

Discussion & Conclusion: Early detection of stress among students is required for timely intervention. The implementation of the Students Assistance Program is a novel approach to address their stress by empowering them through a short structured program equipping them with evidence base psychological technique. Such program can help to motivate and empowered students to adopt healthy habits for stress management in professional and personal life.

Keywords: Student Assistance Program, Level of stress, nursing students

Introduction:

Higher education institutions (HEIs) are believed to be one of the strongest pillars in the growth of any nation.¹ To successfully compete in academics and hence good life ahead, students are not only supposed to develop their knowledge but are also expected to have imperative skills and abilities.² In the current highly competitive academic environment, students' performance is largely affected by several factors, such as social media, academic quality, family and social bonding etc. (3)

Stress has become an inseparable component of students' academic life due to a variety of internal and external responsibilities placed upon their shoulders. Youngsters are particularly susceptible to the problems associated with academic stress.⁴ New experiences and challenges faced by students during their undergraduate education, it is not surprising that this period of life can be characterized by substantial stress.⁵ Similarly nursing students are stressed by study workload and assignment deadlines along with financial difficulties, parental anxiety and impractical hopes etc.(6)

Deb et al. (2015), studied 400 male students studying in grades 10 and 12 from five private secondary schools where 35% of students were found to have high academic stress. Nearly two-thirds (63.5%) of the Indian students reported stress due to academic pressure. ⁷ Deng Y (2022) reported that 93%–100% of school children had medium to moderate stress while 1.9% exhibited severe stress. (8)

Stress is a perception of emotional or physical tension and it develops when a person cannot handle their inner and outer expectations and feelings. When the stress becomes chronic or exceeds a certain level, it affects an individual's mental health and interferes with learning. There are a number of incidents in a student's life that leads to negative emotions like anger, frustration and nervousness. Also, stress is a common factor that largely diminishes individual morale.

Studies have examined the connection between stress and negative health behaviors and outcomes. The effects of stress impact not only every system in our bodies but are also associated with significant mental health problems, including higher levels of depression and anxiety symptoms.(9)

According to CDC, youth risk behaviour survey in 2021, more than 4 in 10 (42%) students felt persistently sad or hopeless and nearly one-third (29%) experienced poor mental health. More than 1 in 5 (22%) students seriously considered attempting suicide and 1 in 10 (10%) attempted suicide.(10)

Stress can be a major problem for college students. In December 2017, Ex-President of India Hon'ble Ram Nath Kovind warned of a potential "mental health epidemic" in India, with 10 % of its strong population (1.3 billion) having suffered from one or more mental health problems. According to WHO, India accounted for nearly 15 % of the global mental, neurological and substance abuse disorder burden. A meta-analysis of community surveys estimate that the prevalence of depression and anxiety could be up to 33 per 1,000 persons.(11)

A study conducted by Subramani and Kadiravan (2017) revealed the link between academic stress and mental health among students. Parents and schools pressurize the students way too much for the higher grades which disheartens the students, and further add on the lack of enough support from the parents and school in terms of guidance. (12)

It is essential to identify the cause of the stress, so that it can be addressed effectively and efficient interventions can be planned. There are various strategies that the students can adapt to relieve stress. However, for various reasons, many students do not receive counselling services. (13)

Kumi Hirokawa conducted a study to examine the effects of a stress-management program for college students on their perception of mental stress and stress-coping strategies. Students in a experimental group received progressive muscle relaxation training, cognitive-behavioral skills training, and assertion training for 14 weeks. Their life events, stress symptoms and stress-coping skills evaluated on the first and last days of the program, were compared with those of a control group. The results showed a reduction in passive coping skills of students in the stress-management group.(14)

Akihito Shimazu, et al. conducted a study was to examine the effects of a stress management program including psycho-education, group discussion, role-playing and relaxation training for teachers (n=24) on their stress responses, social support, and coping. The positive intervention effect was significant for social support from co-workers ($p=0.035$), whereas the negative intervention effect was significant for proactive coping ($p=0.033$). (15)

Amanvermez, Yagmur (2020) conducted a systematic review and meta-analysis aimed at examining the effects of stress management interventions in reducing stress, depression, and anxiety among college students. Their results suggested that stress management interventions may be effective in reducing distress among college students.(16)

Reddy et al. (2018) in their study concludes that remedies such as feedback, yoga, life skills training, mindfulness, meditation and psychotherapy have been found useful in dealing with stress.17 Selvam A (2020) concluded that yoga practice has significantly reduced stress and increased self-confidence.18 Hopper S I (2019) demonstrated that diaphragmatic breathing had a positive effect on; lowering physiological and psychological stress.(19) Hence, the current study proposed to assess the effectiveness of Student Assistance Program (SAP) for stress and its evidence based management on level of stress among nursing students.

Objective:

1. To assess the effectiveness of the Student Assistance Program (SAP) for stress and its evidence-based management on the level of stress among nursing students
2. To associate the findings of the baseline level of stress with background variables.

Hypothesis: HO₁-There is no significant effect of SAP on the level of stress among nursing students in selected nursing education institution of the city.

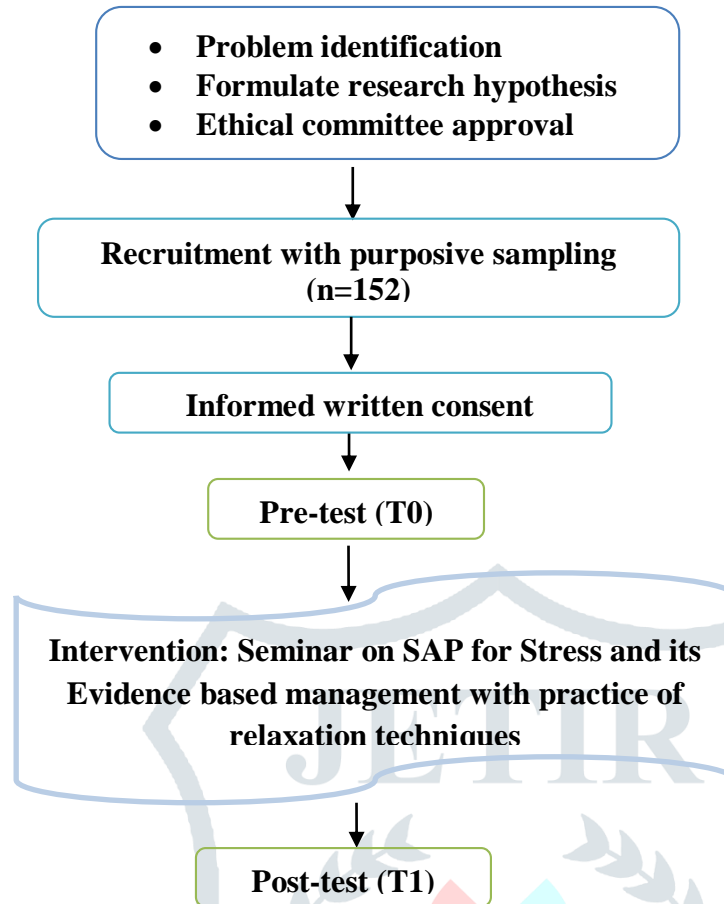
Ethical consideration

All procedures performed during studies were in accordance with the ethical standards of the institutional research committee.

Research methodology

Design: Quasi-experimental one group pre-test post-test design.

Participants/Setting: The research setting included one hundred fifty-two consented 1st and 2nd year nursing students recruited by non-probability-purposive sampling technique from selected educational institutes of Pune city.

Research concept mapping:**Figure.1 Flow chart of recruitment and research design**

All the students under study completed the pre-test research tool Perceived stress Scale (PSS). In addition, they filled out the demographic information form that included the variables of age, Course, Type of family, education of head of family, Monthly income; spending of leisure time, total sleep hours and subjective recent stress experience.

Intervention: The group attended the seminar/ lecture series of Student Assistance Program for stress and its evidence-based management including Mental hygiene strategies, stress management in daily living, examination preparation, Screen control, Socialization, Time management; with practice session of deep breathing, progressive muscle relaxation and guided imaginary as relaxation techniques. The blueprint of the seminar is shown in table. 1.

Table no. 1 Blueprint of SAP seminar on stress and its evidence based management

Sr. No	Programme	TIME
	Pre-test	30 min
A	Lecture series	
1.	Mental hygiene awareness	60 min
2.	Handling stress in daily life and examination	90 min
3.	Time management	30 min
4.	Screen time control awareness	60 min
5.	Socialization	30 min
B	Relaxation techniques	
1.	Deep breathing exercises	30 min
2.	Progressive muscle relaxation	60 min
3.	Guided imaginary	30 min
	Total time durations in hours	8 hours
	Post-test	30 min

Analysis- The sample followed a normal distribution curve for baseline stress level. (Mean=19.03, median=19 and mode=18). Descriptive statistics (frequency, percentage, mean) were used to analyze the data, and inferential statistics were used to determine the statistical significance – independent samples paired T test and correlation using data analysis in MS Excel). Significance level of less than 0.05 was set for the tests.

Results: Data were collected at baseline (T0) and post-intervention (T1) using a structured questionnaire as demographic variables and PSS scale. The baseline demographic characteristics are presented in Table no. 2 with frequency, percentage and *P* value for association.

Table no. 2 Baseline demographic characteristics

Sr. no.	Background variable	Freq. (n=152)	Percentage (%)	P value
1	Age in years: Less than 16 16-18 More than 18	0 17 135	0 11.18 88.82	-0.01227**
2.	Gender: Male Female	0 152	0 100	0.082478
3.	Course: GNM ANM	124 28	81.58 18.42	0.000323***
4.	Type of family: Nuclear Extended (3 generation family) Joint Single parent	91 6 37 18	59.87 3.95 24.34 11.84	0.010539**
5	Education of head of family: Illiterate Primary Secondary Graduate and higher	17 69 48 18	11.18 45.39 31.58 11.84	-0.02299**
6.	Monthly income of the family in rupees: Less than Rs. 10,000/- Rs. 10,001/- to 20,000/- Rs.20,001/- to 30,000/- More than Rs. 30,000/-	57 52 19 24	37.5 34.21 12.50 15.79	-0.02198**
7.	Spend of leisure time: Watch TV or mobile Play outdoor Interact with family or friends Hobby	54 11 69 18	35.53 7.24 45.39 11.84	-0.0427*
8.	Total duration of sleep hours: Less than 6 hours 6-8 hours 8- 10 hours	36 101 13	23.68 66.45 8.55	-0.0142**

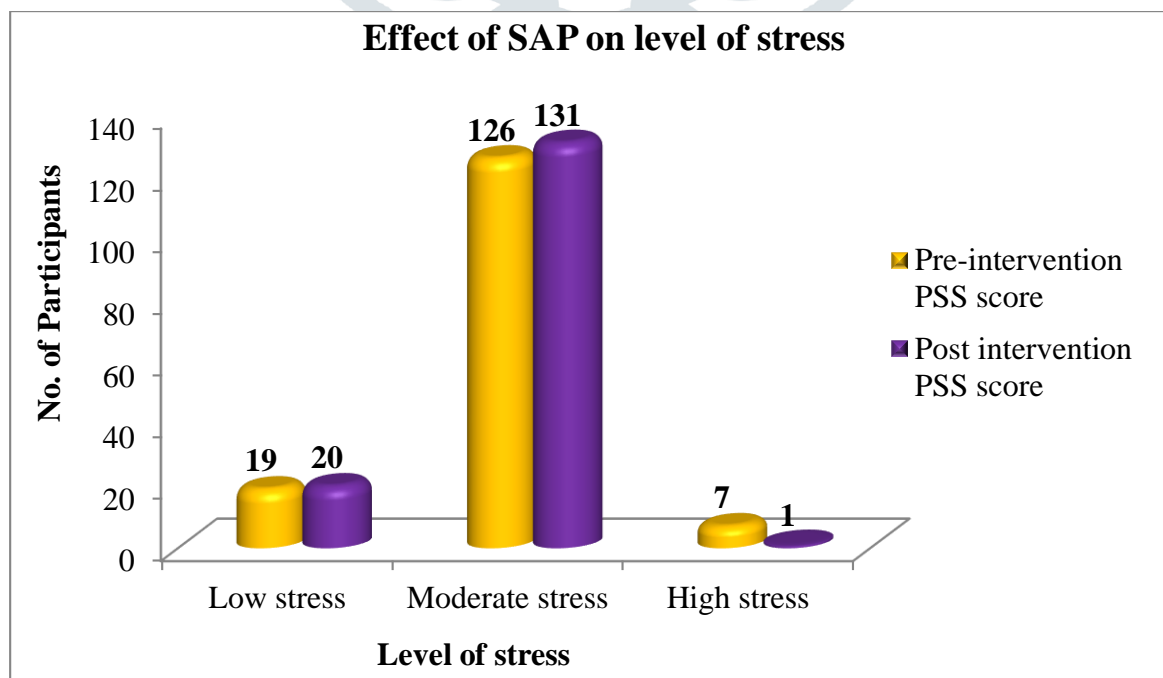
	More than 10 hours	2	1.32	
9.	Subjective experience of recent stress:			
	Yes	122	80.26	
	No	30	19.74	

Level of significance set at 0.05. $P > 0.05$ = Not significant. $P = .000$ highly significant ()**

Demographic variables are presented in Table 2. The majority (89%) of nursing students aged more than 18 years, 60% of nursing students were from nuclear family where 71% of families had monthly income less than Rs. 20,000/ month. 36% of students spend leisure time on watching TV/mobile and 90% of students had less than 8 hours of sleep/ day. Majority of nursing students (80%) were experiencing recent stress.

The association of baseline level of stress with selected background variables was assessed using MS Excel- data analysis. The course and type of family have positive correlation with baseline level of stress, whereas age, education of head of family, monthly income, sleep duration and spending of leisure time have negative correlation with baseline level of stress as shown in table no 2. This table shows that, except for gender being variable, all other background variables have statistically significant influence with baseline level of stress ($P < 0.05$).

The graph no. 1 shows the effect of the Students Assistance Program which reveals that post intervention PSS scores significantly improved where 20 students had low stress, 131 had moderate and only 1 student had high level of stress compared to pre-intervention. The mean scores of PSS were higher at pre-intervention (19) than those obtained post-intervention (18) and the difference between them was significant. The result demonstrated that the level of stress in post-intervention (T1) was reduced significantly ($P < 0.05$) than baseline (T0) in group. This showed that the group had improved knowledge on stress management and followed relaxation techniques.



Graph no. 1: Effect of SAP on Level of stress

Discussion:

The current study sought to determine the impact of Student Assistance Program on stress and its evidence-based management on stress levels among nursing students.

According to demographic data, all female nursing students were included where majority (89%) of students aged more than 18 years, 60% of students were from nuclear families, 71% of family had monthly income less than Rs. 20,000/ month, 36% of students spent leisure time on watching TV / mobile and 90% students had less than 8 hours of sleep/ day. Majority of nursing students 80% were experiencing recent stress subjectively. 5% of student have high stress, 83% were in moderate and only 13 % experience low stress.

The current study's findings were consistent with the baseline findings of the study conducted by Redy KJ (2018) revealed that 33% of adolescent school children have no stress, 50% are having mild stress, 11% of them are having moderate stress and 6% are suffering from severe stress. Further researchers recommended that managing the time effectively and ensuring that at least one physical exercise on daily basis can become a deterrent to stress.¹⁷

Another study conducted by Britz J, (2010) to assess the sources and outlets of stress among 124 college students and the results revealed that over 50% of students reported high levels of stress. The major causes of stress were found to be academic workload and time management (42%). High-stress levels among participants were correlated with many unhealthy behaviors, including compromised quality of diet (80% skipping breakfast) and decreased quantity of sleep (77.8%).²⁰

The current study's findings were consistent with above mentioned study where the course ($P=0.000$) and type of family ($P=0.01$) have positive correlation with baseline level of stress, whereas age ($P=0.012$), education of head of family ($P=0.022$), monthly income ($P=0.021$), sleep duration ($P=0.014$), and spend of leisure time ($P=0.042$) have negative correlation with baseline level of stress.

A systematic review conducted by Alzahem AM et al (2014) to identify and determine the effectiveness of stress management programs. The researcher reported the program either helped to reduce the number of stressors or enhanced stress coping skills, using relaxation techniques such as deep breathing and yoga. The results obtained from the study support the possibility that the deep breathing technique is capable of inducing an effective improvement in mood and stress.²¹

In the current study, paired T-test used to calculate statistical significance using data analysis in MS Excel 2010. The result demonstrated that the level of stress in post-intervention (T1) was reduced significantly ($P=0.046 < 0.05$) than baseline (T0) in group. This showed that the group have improved knowledge on stress management and followed relaxation techniques. Hence the Student Assistance programs with evidence based stress management focused on stress prevention attempted to decrease the impact of stressors through stress awareness lectures.

Limitations

The study was feasible, but it had some limitations, such as nonprobability sampling, lack of male students, self-reported questionnaires to assess stress levels, hence the generalizability of the findings should be treated with

caution. To achieve the best results, future studies could include a larger number of participants from a broader geographic area.

Nursing Implication

Nursing is considered as one of the most stressful professions in the world. Because work-related stress and its consequences are serious, preventive approaches must be identified to reduce nursing stress. As the findings of this study showed that the stress management program reduces stress among nursing students and because this program is simple, low cost, and acceptable to all age groups, gender, cultures and religions, its implementation is recommended for students, other professionals including nurses all around the world.

Conclusion:

Despite being a pillar of the nation, the stress of students is not often acknowledged. This study demonstrates the moderate levels of stress experienced by nursing students and the efficacy of an intervention designed to improve their condition. Being practical and affordable, SAP can be introduced in higher education institutes to promote healthy future through stress prevention and management. Based on participation and feedback, the seminar was successful and recommended for creating and maintaining similar stress management seminars is offered.

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Conflict of interest- No

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