INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT (IJNRD)
© 2026 IJNRD | Volume 11, Issue 3, March 2026 | ISSN: 2456-4184 | IJNRD.ORG

# A SUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAM ON STRESS MANAGEMENT IN REDUCTION OF OCCUPATIONAL STRESS AMONG NURSES WORKING IN ICU IN SELECTED HOSPITAL OF GUWAHATI, ASSAM

**[1]Rajoshree Saikia, [2]Syed Ridhwaanah**

[1]M. Sc Nursing, [2]Assistant Professor, Department of Obstetrics and Gynaecological Nursing, Army Institute of Nursing, Guwahati, Assam, India

[1]Department of Mental Health Nursing,

[1]Army Institute of Nursing, Guwahati, Assam, India

***Abstract:*** **Introduction**: Working in a vocation that requires complicated multitasking, a high workload, rapid decision making, and giving specialized care to severely ill patients can be challenging for nurses. As a result, the ICU nursing staffs are considered to be a high-risk group for developing occupational stress. Hence, it has become essential to increase nurses' job satisfaction as it has the possibility of helping improve patients' assessments of the quality of healthcare and secure a enough nursing staff.
**Objectives:** To assess the effectiveness of Video Assisted Teaching Program on stress management in reduction of occupational stress among nurses working in ICU.
**Method:** Pre experimental one-group pre-test post-test design, was adapted for this study. 60 nurses working in ICU departments were selected by purposive sampling technique. The study was conducted in 2 hospitals of Guwahati, i.e., Hayat Hospital and Guwahati Neurological Research Centre (Dispur). Tools for data collection were demographic proforma and Standard Workplace Stress Scale. Occupational stress was assessed by WSS questionnaires on pre-test followed by providing video assisted teaching program on stress management for 6 continuous days. On 7$^{th}$ day post-test was done by using the same tool.
**Result:** Findings assessing the level of occupational stress before and after a Video-Assisted Teaching Program delivered through 6 consecutive days among ICU nurses revealed that in the pre-test, 47(78.4%) of participants had moderate stress, 8(13.3%) had severe stress, and 5(8.3%) had fairly low stress. After the Video-Assisted Teaching Programs, the majority of participants (32,53.3%) reported moderate stress, followed by 24 (40%), fairly law stress, and a percentage of 4(6.67%) had severe stress. Post-test mean of occupational stress was 20.73, which was lower than the pre-test mean 23.53 with mean difference 2.8. The effectiveness was tested using paired t test with obtained 't' value 12.44 and p value 0.0001 (less than 0.05), indicating that the results were significant
**Conclusion:** Findings revealed that the Video Assisted Teaching Program was effective in decreasing the level of occupational stress among nurses working in the ICU departments of selected hospitals of Guwahati, Assam.

**Keywords:** Assess, Effectiveness, Stress management, Video Assisted Teaching Program, Occupation, Occupational stress, Nurses and ICU.

## INTRODUCTION

"Adopting the right attitude can convert a negative stress in a positive one."

Hans Selye.

Stress is a psychological disturbance that manifests as physical and emotional tensions when a person encounters difficult or demanding situations. It is a normal and adaptive reaction that contributes the body and mind to handle possible stressors. Although stress is a normal human experience, our capacity to handle and react to it has a big impact on our general health and wellbeing.[6] There are three different levels of stress. Distress refers to displeased stress that can lead to health concerns. It affects both persons and organizations. In this situation, job requirements surpass personnel' capabilities. It may interfere with employees' physical and mental systems, resulting in low productivity as well as elevated levels of stress, which could be resulted in absenteeism, turnover, blunders, accidents, disappointment, and so on. Burnout is a type of fatigue caused by recurrent emotional pressure eustress, a positive and friendly stress that pushes people to perform better. It acts as a physical and mental ability trigger.

The term "Occupational stress" is used by Edwards and Burnard (2003) to characterize stress in the workplace. However, the National Institute for Occupational Safety and Health (NIOSH) defines occupational stress as "a mismatch between job demands and capabilities, resources, and needs of employees". Occupational stress arises when challenges and necessities of the job become

exaggerated, and the pressure of the workplace beyond the worker's ability to handle them.[1]

As nursing is acknowledged as one of the most stressful occupations, with multiple studies demonstrating a high prevalence and a diverse variety of contributing factors. Excessive workload, insufficient staffing, over time irregular shift schedules, emotional strains from dealing with death and dying, a lack of essential resources and equipment, as well inadequate communication with colleagues or supervisors are the most common causes of occupational stress for nursing staff. Occupational stress plays a significant concerned for nurses in various hospital settings, particularly in high-pressure areas like emergency departments and intensive care units. Particularly for those working in Intensive Care Units (ICUs), owing to the high-pressure environment, heavy workload, and emotional strain associated with caring for severely ill patients poses a serious concern. So, occupational stress in nursing is acknowledged as one of the most stressful occupations, with numerous studies demonstrating high prevalence rates and a diverse variety of contributing factors.

Stress management programs educate employees on the causes and consequences of occupational stress, as well as a variety of tactics and interventions with the goal of improving how they can organize their work environment. Stress management involves a variety of methods, including relaxation and meditation techniques. These frequently include promoting physical well-being through good nutrition and regular physical activity. Furthermore, stress management treatments may incorporate procedures that promote emotional and cognitive state of equilibrium. Stress reduction programs frequently include breathing exercises, meditation, body scan techniques, and moderate yoga-based movements. The exercises help people to become more aware of their emotions, thoughts, and physical sensations.

This study focuses into the efficacy of a video-assisted instruction approach in lowering occupational stress among ICU nurses. The study's goal is to investigate whether multimedia-based education may be a feasible and successful strategy for expanding mental strength and improving the overall well-being of critical care nursing personnel by assessing the level of their stress before and after the intervention.

This study focuses into the efficacy of a video-assisted instruction approach in lowering occupational stress among ICU nurses. The study's goal is to investigate whether multimedia-based education on yoga, meditation and pranayama may be a feasible and successful strategy for expanding mental strength and improving the overall well-being of critical care nursing personnel by assessing the level of their stress before and after the intervention.

The World Health Organization (WHO) recognizes stress as a global public health concern, emphasizing its pervasive impact and fatal consequences. Around 79% of employees globally are stressed at work, resulting in millions of lost workdays and lower productivity. Investing in stress management brings a bounty of enhanced health, productivity, and overall well-being.

In Assam, where healthcare systems are frequently faced with resource restrictions and high patient loads, ICU nurses are particularly susceptible. Their twin burden of professional obligations and emotional labour puts them at high risk for chronic stress. Despite an increasing awareness of mental health issues among healthcare personnel, stress management remains an underserved topic in many hospital settings.

In India found to have a high prevalence of occupational stress among ICU nurses, including 60% to 80% of nurses suffering moderate to severe occupational stress. Approximately 76.7% of intensive care unit nurses in tertiary teaching hospitals suffers from moderate levels of stress due to their high work load.

Scientific research has shown that habits like practicing Pranayama, yoga and meditation can reduce level of cortisol, improves sleep, mood and enhance focus—all of which are vital for ICU nurses to who deal with high-stakes clinical scenarios.EED OF THE STUDY.

Stress intensifies especially in intensive care units, where nurses face critical high-pressure scenarios involving complex decisions and acute patient needs. Chronic exposure to such emotionally and physically demanding conditions leads to high levels of occupational stress. This in turn has a negative impact on their well-being, quality of life and the effectiveness of care.

A recent cross-sectional study conducted by AB, Maryam AA, Afnan T, Aisha A, Nada Manea et al. (2024) in Saudi Arabia discovered that 91.3% of ICU nurses reported to have moderate level of stress, while 8.7% indicated high stress. The main pressures were related to the difficulties of caring for critically ill patients while juggling many obligations. Despite increasing awareness, effective and accessible stress-reduction strategies for ICU nurses remain a few. These study identified interventions such as meditation, technology-based skill upgrading, recreational activities, and cultivating a positive mindset as having clear promise for stress reduction.[2]

Ahmadi N. et al. (2021) conducted another applied naturalistic study to investigate the physiological correlates of professional stress in ICU nurses. They monitor via wrist-worn wearable devices of 23 nurses across 12-hour shifts and discovered substantial positive associations between stress, heart rate, and skin temperature. These results highlight the physiological manifestations of professional stress in high-intensity clinical settings[43].

Continuous exposure to difficult job conditions—such as lengthy shifts, understaffing, and critically sick patients—can lead to health concerns such as fatigue, headaches, musculoskeletal pain, gastrointestinal troubles, high blood pressure, and psychological discomfort like anxiety and depression. In India, these issues are exacerbated by high patient-nurse ratios, inadequate resources, and poor organizational support. Such stress compromises not only nurses' health, but also their job performance and the quality of patient care. Addressing this issue with specific interventions is crucial for improving nurse well-being, job satisfaction, and overall healthcare results.

**OBJECTIVES**

**GENERAL OBJECTIVE**

- To assess the effectiveness of video assisted teaching program on stress management in reduction of occupational stress among nurses working in ICU in selected hospitals of Guwahati.

**SPECIFIC OBJECTIVES**

1. To assess the level of occupational stress among nurses working in ICU.
2. To assess the effectiveness of Video Assisted Teaching Program on stress management in reducing occupational stress among nurses working in ICU.
3. To find out the association between pre-test level of occupational stress with selected demographic variables among nurses working in ICU.

**HYPOTHESIS**

- H1: There is significant effectiveness of the video assisted teaching program related stress management among the nurses working in ICU.
- H2: There is significant association between level of stress among nurses working in ICU with selected demographic variables.

**RESEARCH METHODOLOGY**

The present study was conducted to assess the effectiveness of video assisted teaching program on stress management in reduction of occupational stress among nurses working in Intensive Care Unit in selected Hospitals of Guwahati, Assam.
**Research approach:** Quantitative research approach
**Research design:** Pre experimental (one group pre-test post-test research design)
**Population:** Nurses working in Intensive Care Units.
**Target population:** The nurses working in Intensive Care Units (ICUs) in hospitals of Guwahati, Assam.
**Accessible population:** The ICU nurses working in Guwahati Neurological Research Centre (Dispur) and Hayat Hospital, Guwahati, Assam, who meet the set criteria and available during data collection.
**Sample:** 60 ICU nurses working in Guwahati Neurological Research Centre (Dispur) and Hayat Hospital, Guwahati, Assam.
**Sampling technique:** Non-probability (purposive sampling technique).
**Tools for data collection:** Section-A: Demographic Variables. Section (B): Workplace Stress Scale.
**Theoretical framework**- The conceptual framework choosen for the study is based on General System Theory.
**Descriptive Statistics**- Frequency, percentage, mean and standard deviation were used
**Inferential statistics:** Chi-square and paired t-test were used.

**Result**

SPSS 20 and a Microsoft Office Excel worksheet were used to assemble and analyze the data.

**Table 1. Frequency and percentage distribution of pre-test and post-test level of occupational stress among the ICU Nurses.**

**n =60**

| Level of stress | Pre-Test | | Post-Test | |
|---|---|---|---|---|
| | F | % | F | % |
| Chilled out and relatively calm | 0 | 0 | 0 | 0 |
| Fairly low | 5 | 8.3 | 24 | 40 |
| | | | | |
| Moderate stress | 47 | 78.4 | 32 | 53.3 |
| Severe stress | 8 | 13.3 | 4 | 6.7 |
| Stress level potentially dangerous | 0 | 0 | 0 | 0 |

Table 1. depicts that in the pre-test majority 47(8.3%) of participant had moderate level of stress, 8 (13.3%) had severe level of stress and 5 (8.3%) had fairly law stress. Whereas during post-test majority 32(53.3) of participant had moderate stress, followed by 24(40%) had fairly law stress and 4(6.67%) had severe stress.

n=60

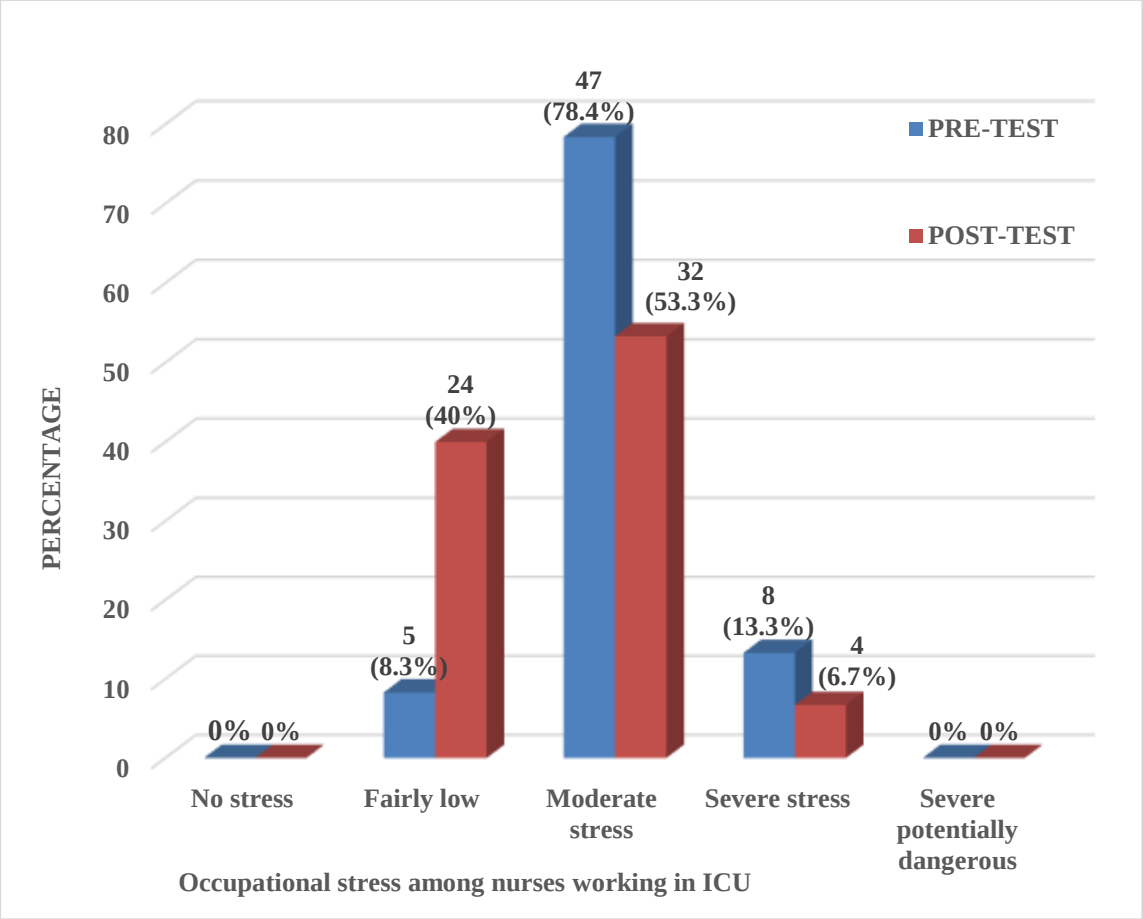


**Fig 1: Frequency distribution of pre-test and post-test level of occupational stress among nurses working in ICU.**

**Table 2: Descriptive statistics showing Minimum and Maximum Score, Range, Mean, Median, Mode, and Standard Deviation (SD) of pre-test and post-test level of occupational stress scores among ICU nurses.**

**n =60**

| Characteristics | Minimum | Maximum | Range | Mean | Median | Mode | Standard deviation |
|---|---|---|---|---|---|---|---|
| Pre-test | 19 | 28 | 9 | 23.43 | 23 | 25 | 2.15 |
| Post-test | 16 | 27 | 11 | 20.73 | 21 | 21 | 2.83 |

Table 2 demonstrates that mean post test score (20.73) was lower than the mean pre-test score (23.43). The median post-test occupational stress scale score (21) was lower than the median pre-test occupational stress scale score (23). The post test score SD (2.83) seemed to be little varying than the pre- test score SD (2.15). So, it is evident that the post-test occupational stress scale scores were lower than the pre-test occupational stress scale score.

**Table 3: Effectiveness of video assisted teaching program on stress management in reduction of occupational stress among ICU nurses.**

**n=60**

| Comparison of level of occupational stress | Mean | SD | Mean Difference | t test value | df | p value |
|---|---|---|---|---|---|---|
| Pre-test | 23.43 | 2.15 | 2.70 | 12.44 | 59 | 0.001* |
| Post-test | 20.73 | 2.82 | | | | |

***p<0.05 level of significance**

Table 3 depicts the effectiveness of video assisted teaching program (VATP) on stress management in reduction of occupational stress among the ICU nurses. Findings showed that, the mean pre-test score was 23.43 and the mean post-test score was 20.73 with mean difference of 2.70. The effectiveness was tested using paired t-test with obtained (t=12.44) at df 59 which was significant at p<0.05 level. Finding showed that Video Assisted teaching Program had improved the stress level among ICU nurses.

These findings concluded that there was a significant difference between pre-test and post-test level of occupational stress among ICU nurses at 0.05 level of significance. Hence, H1 hypothesis was accepted.

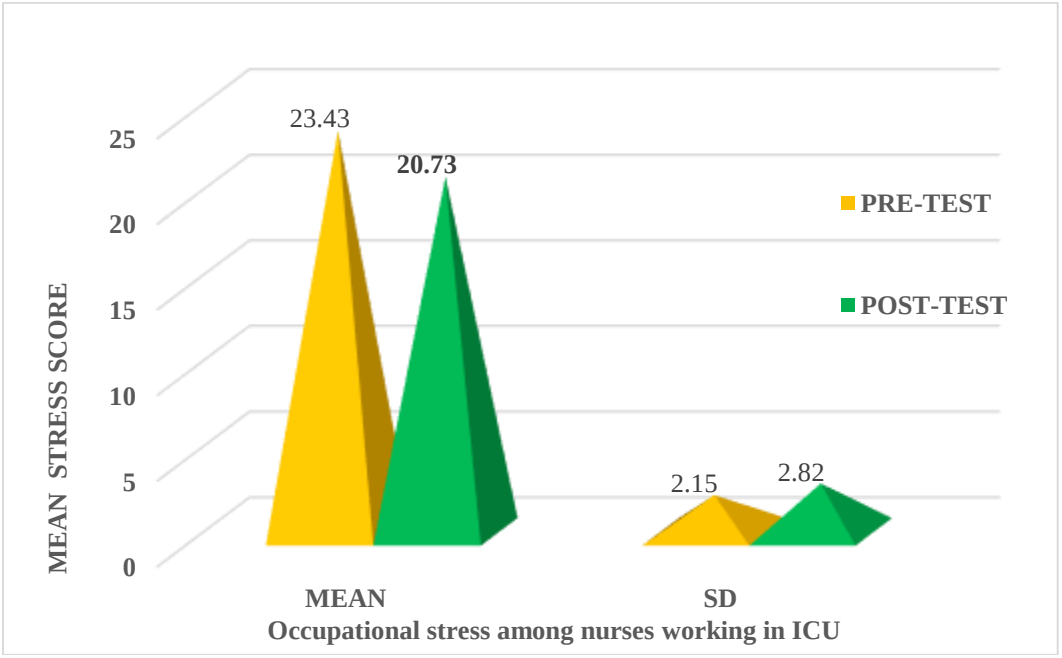


**Fig 2: Comparison of pre-test and post-test mean score and SD of level of occupational stress among ICU nurses.**

**Table 4: Association between pre-test level of occupational stress score with their socio-demographic variables.**

**n=60**

| Sl. no. | Demographic variables | Pre-test stress | | | χ2 value | df | p value |
|---|---|---|---|---|---|---|---|
| | | Fairly low | Moderate | Severe | | | |
| 1. | Age in years | | | | 7.130 | 6 | 0.309$^{NS}$ |
| | a. Below 25 years | 1 | 13 | 2 | | | |
| | b. 25 – 30 years | 3 | 26 | 2 | | | |
| | c. 31-35 years | 1 | 6 | 4 | | | |
| | d. Above 35 years | 0 | 2 | 0 | | | |
| 2. | Gender | | | | 0.727 | 2 | 0.695$^{NS}$ |
| | a. Male | 1 | 4 | 1 | | | |
| | b. Female | 4 | 43 | 7 | | | |
| 3. | Religion | | | | 4.522 | 6 | 0.606$^{NS}$ |
| | a. Hinduism | 2 | 14 | 5 | | | |
| | b. Islam | 1 | 7 | 0 | | | |
| | c. Christianity | 2 | 23 | 3 | | | |
| | d. Others | 0 | 3 | 0 | | | |
| 4. | Educational qualification | | | | 3.244 | 4 | 0.518$^{NS}$ |
| | a. GNM | 3 | 26 | 7 | | | |
| | b. B.Sc. Nursing | 1 | 12 | 1 | | | |
| | c. Post B.Sc. Nursing | 1 | 9 | 0 | | | |
| | d. M.SC Nursing | -- | -- | -- | | | |
| 5. | Type of family | | | | 1.456 | 2 | 0.483$^{NS}$ |
| | a. Nuclear | 4 | 32 | 7 | | | |
| | b. Joint | 1 | 15 | 1 | | | |
| 6. | Marital status | | | | 4.813 | 2 | 0.090$^{NS}$ |
| | a. Married | 0 | 10 | 4 | | | |
| | b. Unmarried | 5 | 37 | 4 | | | |
| | c. Divorced | -- | -- | -- | | | |
| | d. Separated | -- | -- | -- | | | |
| 7. | Number of children | | | | 13.57 | 4 | 0.009* |
| | a. One | 0 | 5 | 2 | | | |
| | b. Two | 0 | 2 | 3 | | | |
| | c. More than 2 | -- | -- | -- | | | |
| | d. Not applicable | 5 | 40 | 3 | | | |
| 8. | Years of experience in ICU | | | | 7.779 | 6 | 0.255$^{NS}$ |
| | a. Below 1 years | 2 | 13 | 1 | | | |
| | b. 1-3 years | 1 | 21 | 5 | | | |
| | c. 4-5 years | 0 | 8 | 2 | | | |
| | d. More than 5 years | 2 | 5 | 0 | | | |

***p value < 0.05 level of significance** **NS-Non Significant**

Table 4 depicts the association between pre-test level of occupational stress score with sociodemographic variables which was tested by using chi square test. Result showed that the demographic variable number of children of ICU nurses were found significant association at $p<0.05$ level but other demographic variables such as age, gender, religion, marital status, educational qualification, type of family and years of experience in ICU were found to be non-significant at $p<0.05$ level with pre-test level of score on occupational stress scale among ICU nurses.

Hence, it can be concluded that there is significant association between pre-test level of occupational stress scale score with sociodemographic variables among the ICU nurses. Therefore, research hypothesis $H_2$ is accepted.

**DISCUSSION**

- In the present study, based on the level of occupational stress before and after video Assisted teaching program among ICU nurses revealed in the pre-test majority 47(78.4%) of participant had moderate level of stress, followed by 8(13.3%) had severe level of stress and 5 (8.3%) had fairly law stress. Whereas, after the Video Assisted Teaching Program for 30 minutes on 6 continuous days in the post-test majority 32(53.3%) of participant had moderate stress,

followed by 24 (40%) had fairly law stress and 4(6.67%) had severe stress level. The findings supported by a study conducted by Petchiammal P. (2018, Oct) to assess the effectiveness of education module on Stress Management in reduction of occupational stress among Intensive Care Unit nurses at Rajiv Gandhi Government General Hospital, Chennai. Results showed that in the pre-test 28.3% had severe stress, followed by 55.0% had moderate stress and 16.7% had Fairly law stress. And in the post-test 8.3% had severe stress, 56.6% had moderate stress and 35.0% had fairly low stress. The value of pre-test mean and standard deviation was 23.98 ± 3.56 and the post-test mean and SD was 16.73 ± 2.82.[3]

- In this present study, the post-test mean of occupational stress was 20.73, which is lower than the pre-test mean of occupational stress score 23.53 with mean difference was 2.8, with 't' value 12.44 at df=59, the p value is 0.001 at $p<0.05$ which is found to be significant. Hence findings concluded that the Video Assisted Teaching Program (VATP) on stress management was effective in reduction of occupational stress among the ICU nurses. The findings are supported by a quasi-experimental study conducted by G. Solomon (2021) to assess the effectiveness of video assisted teaching program on yogic breathing exercise on stress reduction among clinical nurses in selected hospitals of Madhya Pradesh. The pre-test stress level was evaluated on day 1, on the same day the video-assisted teaching program was conducted among the participants. After the conduction of the program, the CD of video-assisted intervention on yoga was distributed to the participants, and they were instructed to perform Anuloma Viloma pranayama daily for 20 rounds in one sitting for six months. The mid-test stress level was evaluated on day 90 and the post-test stress level was evaluated on day 180. After intervention, physiological parameters revealed a significant decrease in pulse and respiration. The overall study result of psychosomatic responses revealed a significant decrease in stress level at $P<0.05$ among clinical nurses. The study emphasizes that yogic breathing as a unique method for balancing the autonomic nervous system and reducing stress-related disorders; hence, can be recommended as a stress management strategy among clinical nurses.[4]

- In this present study revealed an association between the level of occupational stress and socio-demographic variables of nurses, which was tested using the chi square test. Results showed that the chi-square value for number of children was found to have a statistically significant association with $p<0.05$ level of significance. The other sociodemographic variables, such as age, gender, religion, educational qualification, types of family, marital status and years of experience, were found to be statistically non-significant. A similar study was conducted by Werke E B, Weret Z S. (2022) to assess occupational stress and associated factors among nurses working at public hospitals of Addis Ababa, Ethiopia. The result of the study found that nearly half of the nurses (47.8%) experienced occupational stress. The factors associated with increased occupational stress included working in rotating shifts and nurses having children's. The findings showed that, nurses without children were 54% less anxious than nurses with children. Hence in this study, the association between the presence of children and occupational stress was found to be statistically significant.[5]

## CONCLUSION

The present study on VATP (Video Assisted Teaching Program) on stress management was found to be effective in reducing occupational stress among the ICU nurses. The chi-square value revealed number of children was statistically significant at $p<0.05$, but other demographic variables were found to be statistically non-significant with pre-test level of occupational stress. Further research should emphasize on methodologically strong studies by blinding the outcome assessors and employing Randomized Controlled Trial (RCT) design that incorporates both control and experimental group, incorporating enough details about the stress management intervention.

## ACKNOWLEDGMENT

I express my sincere gratitude to the Almighty God for his guidance and blessings. I am thankful to Prof. Mrs. Amrutha VK, Mrs. Kabita Baishya, and my research guide Mrs. Syed Ridhwaanah for their support and guidance. I thank the hospital authorities and study participants for their cooperation. I am deeply grateful to my parents Mrs. Dolirupa Saikia and Anil Saikia, my brother Rajdeep Saikia. I also thank my friends Karobi Doley, Jasmina Yesmin, Arpita Kalita and Mon Moyuri Choudhury for their encouragement and support.

## REFERENCES

1. Vati Jogindra. Principles and Practice of nursing management Administration. 2nd ed. New Delhi: Jaypee Brothers Medical Publisher (P) limited.2023
2. Babkair L A., Alaamri M, Tunsi A, Alhofaian A, Alsulmi NM, Hakami MY, Alshehri NA, Alsulmi WM. Assessment of stress level among intensive care nurses: A cross-sectional study. J Education Health Promot. [Internet]. 2024 Nov 29 Available at Doi: 10.4103/jehp.jehp_2136_23. PMID: 39811870; PMCID: PMC11731334.
3. Petchiammal P. (Oct, 2018) A study to assess the effectiveness of education module on stress management in reduction of occupational stress among nurses working in intensive care units at Rajiv Gandhi government general hospital at Chennai. Available at: https://core.acuk/download/pdf/235671252.
4. G. Solomon (2021) A quasi experimental study on assessing the effectiveness of Video-assisted teaching Program on Yogic breathing on Stress Reduction among Clinical Nurses in selected Hospitals of Madhya Pradesh. International Journal of Nursing Science Practice and Research. Vol 7, No 2 (2021) > Solomon. Available at: https://nursing.journal=IJNSPR&page=article&op=view&path%5B%5D.

5. Werke EB, Weret ZS. Occupational stress and associated factors among nurses working at public hospitals of Addis Ababa, Ethiopia, 2022: A hospital-based cross-sectional study. Frontiers in Public Health. 2023;11:1147086. doi:10.3389/fpubh.2023.1147086
6. World Health Organization. Stress [Internet]. Geneva: World Health Organization; 2023 Feb 21 [cited 2026 Feb 12]. Available from: https://www.who.in/ news-room // question and answer/item/ stress.
7. K. Nandita, B. Darshana, S. Sibyl. Jan 2018, stress among staff nurses: A hospital-based study. Journal of Nature and Science of Medicine.
8. Chaudhari D, Laddha KP, Patel P, Patel A. Occupational stress in nurses. Ann Indian Psychiatry. 2018;2(2):113-118. Available at: https://journals.lww.com/aips/fulltext/2018/02020/a profile of occupational stress in nurses.7.aspx.
9. Sharma KS Nursing Research and statistic. 4th edition. New Delhi Reed Elsevier India Pvt Ltd; 2023. p-112.
10. Sharma KS. Nursing Research and Statistics. 2nd ed. New Delhi Reed Elsevier. India Pvt. Ltd; 2017.
11. Polit DF, Beck CT. Nursing Research. Generating and assessing evidence for nursing practice, 8th edition. New Delhi; Wolters Kluwer (India) Pvt. Ltd:2008.
12. Basavanthappa BT. Nursing research.2nd ed New Delhi: Jaypee Brothers Medical Publishers Pvt. Ltd 2007: 188.
13. Werke EB, Weret ZS. Occupational stress and associated factors among nurses working at public hospitals of Addis Ababa, Ethiopia, 2022: A hospital-based cross-sectional study. Frontiers in Public Health. 2023;11:1147086. doi:10.3389/fpubh.2023.1147086
14. Hayter M. Nurses' experiences of the effects of mindfulness training: a qualitative systematic review and meta-synthesis. Prof Inferm. 2021 Oct-Dec;74(4):256. doi: 10.7429/pi.2021.744256a. PMID: 35363964.