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## Effects of Relaxation Techniques on Reduction of Stress and Anxiety Among Industrial Workers in Selected Industries of Dadar and Nagar Haveli

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### ABSTRACT:

People's physical, psychological, and social well-being can be negatively impacted by a condition known as Work-Related Stress, which is one of the most prevalent forms of mental illness and stress disorder in the Indian population. Because of the demanding nature of their jobs, workers in the industrial sector are frequently subjected to stress and strain. In order to combat the harmful effects of stress in the workplace, there is an urgent want for the adoption of measures that are uncomplicated, economical, and straightforward to put into practice. Relaxation Techniques has been taken into consideration as a potential employee for this position. The reviewers looked through a variety of databases to find relevant publications. These papers were found by using search engines like as PubMed, Medline, Research gate, and Google Scholar using the following key words: "Relaxation techniques, Stress, Anxiety, Industrial workers, etc." In conclusion, the practice of relaxation techniques has a considerable impact on lowering levels of stress and anxiety among those who work in industrial settings. By using these strategies in the workplace, businesses have the potential to improve their employees' health and well-being, as well as to increase their productivity and provide a more pleasant location to do their jobs. A complete employee wellness program in the industrial sector should always make mental health a priority and offer employees resources to help them reduce stress. This should be one of the program's main components.

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### INTRODUCTION <sup>[1-6]</sup>

Stress and anxiety are a major public health concern as of recent decade. An imbalance between excessive demands and a person's ability to cope with them, ultimately leads to stress. Stress has harmful consequences on the physical, psychosocial and mental health thus causing deleterious effect on the individual, organisation and the society. 1

Stress and anxiety are sudden biological changes. It has become the curse of 21st century and is silent killer in the modern world. Stress is the greatest danger to the information era. Stress is the priceless poison for human life in the universe. It can disturb any one's physical,

mental, emotional and behavioural balance. Stress can damage different parts of human body from muscles from tissues to organs and blood vessels. It can speed up pulse rate and respiration. It can raise blood pressure and body temperature. It can also interfere with the body metabolism, digestion, appetite, sleep, sexuality and even fertility. 2

Mental health disorders account for 13–14% of the world's total burden from ill-health. India is estimated to have 10–20 persons out of 1,000 suffer from severe mental illness and three to five times more have an emotional disorder. India has a 1-year prevalence rate of depression from 5.8 to 9.5. The prevalence rate for

anxiety disorders is around 16.5. In India, prevalence of moderate level of stress was reported at 9.5% in a study which also found most stressors were work related. 3 Seven in ten Indian workers say they're experiencing stress at work on at least a weekly basis, according to the new data out from global payroll and HR leader ADP this week. The data was collected as part of ADP's Global Workforce View 2020 report exploring employees' attitudes and opinions towards the current world of work and what they expect and hope for from the workplace of the future. In a survey of 1,908 workers in India, 70 percent of them said they were experiencing stress at least once during the working week on a regular basis. Levels of stress amongst the Indian workforce are significantly higher than the Asia-Pacific average of 60 percent. 4

Evidence suggests that stress relaxation techniques are one of the most effective training programs to enhance psychological resources and reduce psychological distress. Majority of stress relaxation techniques are considered safe in healthy adults and there have been no severe adverse effects reported. Hence, health education in the form of individual-focused Progressive Muscle Relaxation (PMR) therapy is essential in coping with stress. PMR is an effective and widely used strategy for stress relief that creates a state of deep relaxation by involving alternate tensing and relaxing of muscles. It was developed by Edmund Jacobson based on the theory of psychobiological state called neuromuscular hypertension as the basis for a variety of negative emotional states and psychosomatic diseases. 5,6

**Material and method**

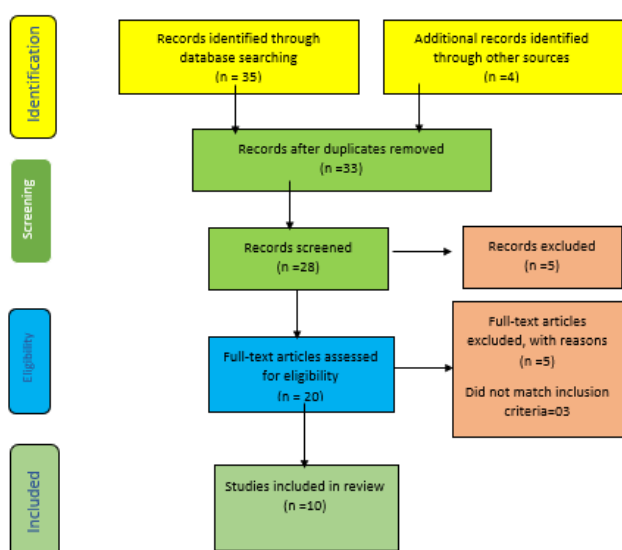


Figure: PRISMA Diagram

Reviewers searched various databases for systematic reviews published in English language peer-reviewed journals. Relevant articles were identified by search engine; PubMed, Medline, Research gate, and Google Scholar with the following key words: "Relaxation techniques, Stress, Anxiety, Industrial workers, etc".

**Discussion**

The implementation of relaxation techniques has shown to have a significant positive effect on reducing stress and anxiety among industrial workers. Numerous studies have highlighted the benefits of incorporating these techniques into the workplace environment are as follows, Bhat, P. S., et al. (2012). Conducted study on Psychological benefits of yoga in industrial workers. Yoga was found to have more beneficial psychological effect comparable to physical training (PT). However maximum benefit was obtained when Yoga was combined with PT. Yoga has got positive psychological benefits in general duty workers when practiced regularly. The benefits are enhanced when Yoga is combined with PT. 7

A. Anbazhagan and colleagues (2013). conducted a study on the workplace stress of Puducherry's hotel workers. Physical or mental strain brought on by associated stimuli is referred to as stress. In our professional lives, stress is a component that is growing more and more significant. Each person encounters a variety of pressures in their personal and professional lives. Certain occupations in the workplace are more stressful than others, and each person will respond to the circumstance differently. Additionally, pressure can be beneficial and enhance productivity. Stress is nonetheless brought on when this pressure exceeds normal levels. Problems arise when a person's stress levels appear to be unmanageable or overpowering. In other words, people believe they lack the ability to handle stress and the essential coping mechanisms. There are some circumstances that have the potential to stress us out. Once these are recognized, we can take action to change the circumstance or how we see it. It is not enough to recognize unrelieved stress and be aware of how it affects one's life to lessen its negative effects. There are numerous ways to manage stress, just as there are numerous sources of it. To avoid anxiety or mental strain and maintain focus on work, all things, however, involve striving toward change—changing the source of stress or altering one's response to it. According to a survey on the hotel industry, 93.33% of the workers experience stress. Even if there are fewer employees who experience little stress, they still do not practice effective coping mechanisms. In order to help employees manage

their stress, management should offer organization-wide stress avoidance and coping practices. 8

Benjamin John Benhur (2014). conducted a study in Vellore on the impact of music therapy on workplace stress among working women in a particular shoe firm. Regarding the symptoms of stress, out of the 60 samples, 60% had moderate stress level (36), and 40% had severe stress level (24). However, following music therapy, 83% of the sample had copable stress levels (50), and 17% had light levels (10) of stress. The pre-test mean percentage was 75.65 of the sample of 60, while the post-test mean percentage was 33.68 of the sample of 60. The pre-test standard deviation for the sample of 60 was 9.99, and the post-test standard deviation was 7.04 for the same sample. According to the study's findings, the mean occupational stress score after the test (33.68 7.04) was lower than the mean score before the test (75.65 9.99). As a result, the null hypothesis (H1) was accepted, and it was discovered that music therapy was successful in reducing occupational stress. Using paired "t" tests, it was determined that there was no significant difference between the pre-test and post-test stress scores. The value of 28.78 (P0.05) shows that this is the case. There was no connection between work stress and music therapy. It was clear from the current study that there was no significant correlation between the use of music therapy and occupational stress when the chi-square 90 value was computed for age, marital status, religion, type of family, number of duty hours per day, number of dependents, work experience, personal habits, and current health status. But the demographic factors indicating such significance are there, such as education and monthly income. As a result, it is partially accepted and partially rejected by the researcher. Thus, it is evident that applying music therapy to the sample was successful in reducing occupational stress levels. According to the study's findings, the majority of working women had moderate to severe levels of occupational stress. In a particular shoe manufacturer, Vellore, working women reported lower levels of occupational stress after receiving music therapy. 9

B. M. Sundram et al. (2016). conducted a study on the efficiency of progressive muscle relaxation therapy as a program for promoting workplace health on the assembly line for cars. The objective of this study was to conduct a quasi-experimental trial to assess the efficacy of Progressive Muscle Relaxation (PMR) as a component of a Worksite Health Promotion Program on self-perceived stress, anxiety, and depression among male automotive

assembly-line workers. One assembly plant received PMR therapy, and the other received pamphlets. Two assembly factories were chosen. A study was done to determine whether relaxation therapy was successful using an intention-to-treat analysis. The streamlined DASS-21 questionnaire was used to gauge levels of stress, depression, and anxiety. To determine the significance of the intervention's effects on the measures of stress, depression, and anxiety (time \* group), data were analyzed using Chi-square, Independent Sample t Test, and Repeated Measures Analysis of Variance. In comparison to the Pamphlet group (Effect size=0.2), the PMR group showed significantly positive intervention effects on stress (Effect size=0.6). Stress levels showed a significant group \* time interaction impact (p 0.001). Both groups' baseline levels of depression and anxiety were low, and neither group experienced much of a decline. The reduction in stress levels demonstrated the effectiveness of PMR therapy as a coping mechanism at work. In order to investigate the positive benefits of coping methods in the workplace, more study in this area is required. 10

P. Torrente and colleagues, 2017. conducted research on the impact of park walks and relaxation exercises on physiological recovery during lunch breaks at work. 153 knowledge workers from seven different firms participated in a four-week randomized controlled experiment and were randomly assigned to one of three groups: control, relaxation, or park stroll. For two consecutive weeks, each member of the intervention groups was expected to complete either a park walk or a relaxation activity during their lunch break. Data were gathered at the start of the intervention, during the two weeks of the intervention, and the following week. Analyses of variance (ANOVA) with mixed designs were carried out. Neither the cortisol awakening response (CARi) nor the cortisol drop during the day (CDD) showed any positive intervention effects. Each group's blood pressure considerably dropped in the afternoon while they were at work. Compared to the relaxation (d =.18-.28), control (d =.31-.41), and park walk groups, this drop was more pronounced in the park walk group (d =.51-.58). Our research found that short-term changes in knowledge workers' lunchtime routines have no effect on cortisol excretion, but they may drop blood pressure at the conclusion of the workday. The fact that the controls' blood pressure also appeared to drop supports the idea that monitoring and measuring blood pressure might be an intervention. To produce stronger and long-lasting

physiological healing benefits, longer interventions are necessary.<sup>11</sup>

### CONCLUSION

Numerous studies have shown that the implementation of relaxation strategies has a beneficial effect on the emotional and mental well-being of workers in manufacturing and other industrial settings. Hence it is concluded that the practice of relaxation techniques has been shown to be effective in lowering levels of stress and anxiety experienced by industrial workers.

### CONFLICT OF INTEREST

The authors have no conflict of interest.

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