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Effect of Mindfulness Therapy to Reduce Stress among Janitor Workers

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ABSTRACT

AIM:

To determine the effect of mindfulness therapy to reduce stress among janitor workers.

OBJECTIVES:

- To enforce **perceived stress scale** to determine the stress among janitor workers.
- To find out the effectiveness of perceived stress scale among janitor workers by **pre-test** and **post-test**
- To find out the effect of mindfulness therapy to reduce stress among janitor workers.

METHODOLOGY:

The present study was conducted among quasi experimental design and the convenient sampling technique was adopted to select client with stress among janitor workers in the age group of 30-45 years. The screening was done using perceived stress scale to score level of stress. Totally 30 clients were selected. And divided into 15 experimental group and 15 control group. The experimental group underwent mindfulness therapy and the control group underwent conventional occupational therapy intervention. The post- test were taken by using in both experimental and control group.

RESULT:

The statistically analyzed result showed that there was a significant change in the experimental group after receiving mindfulness therapy intervention.

CONCLUSION:

From this study, it was concluded that mindfulness therapy is an effective intervention for reducing stress among janitor workers.

KEYWORDS:

- Stress
- Perceived stress scale
- Mindfulness therapy

CHAPTER-1
INTRODUCTION
1.1 OCCUPATIONAL THERAPY:

The first definition of occupational therapy was given by the originator of the term, George Bardon, a founder of the profession. In 1914, Bardon asked, if there is an occupational disease, why not occupational

therapy. He hoped to provide a useful occupation for each organ, joint or muscles of the human body and thus provide an occupational therapy cure for every disease, injury or dysfunction.

The first formal definition of occupational therapy was written in 1922 by H.A Pattison. DR. Pattison defined occupational therapy as "any activity, mental or physical, definitely prescribed and guided for the distinct purpose of contributing to, and hastening recovery from, disease or injury". This definition explains the concepts of occupational therapy include the following

- A prescribed and guided treatment
- Mental and physical activity

Thus, DR. Pattison stresses that occupation have a mental as well as a physical component and that treatment using occupation should be viewed as a medical therapy and thus prescribed and guided toward hastening the recovery of the disease or injury.

It can be assumed, therefore, that DR. Pattison would not have approved occupation simply begin given to persons to keep them busy without regard for the prescribed therapeutic value to hasten recovery. (Kathlyn L. reed & Sharon nelson Sanderson-concept of occupational therapy)

1.2 OCCUPATIONAL THERAPY IN MENTAL HEALTH:

Mental health is a component of all occupational therapy intervention. Occupational therapy practitioners provide mental health treatment and prevention service for children, youth, the aging, and those with severe and persistent mental illness, with a focus on function and independence (American occupational therapy association). Occupational therapists working in the mental health setting focus on enabling individual to re-engage in meaningful occupation through a variety of skill sets such as skills development, establishing positive habits and routines, settings therapy goals, and understanding underlying physiological influences. In psychiatric field, occupational therapists help with barriers that affect a person's emotional, social and physical need. (AOTA res.2016b)

1.3 STRESS:

The term stress was coined by Hans Selye in 1939, who defined it as the non- specific response of the body to any demand for change. Stress can be defined as any type of change that causes physical, emotional, or psychological strain. Stress is your body's response to anything that require attention or action. Everyone experiences stress to some degree. The way you respond to stress, however, makes a big difference to your overall well-being. Stress can be positive, keeping us alert and motivated ready to avoid danger. (Cleveland clinic medical profession)

1.3.1 CAUSES:

Stress can trigger the body's response to a perceived threat or danger, known as a fight or flight response. During this reaction, certain hormones like adrenaline and cortisol are released. This speed the heart rate, slows digestion, shunts blood flow to muscle group and changes various other autonomic nervous a function that gives the body a burst of energy and strength.

1.3.2 SIGN:

- Change in mood
- Chest pain
- Muscle tension

- Dizziness
- Difficulty sleeping
- High blood pressure
- Shaking
- Sadness
- Feeling anxious
- Low energy
- Frequent sickness
- Headache
- Digestive problem

1.3.3 MANAGEMENT:

There are several ways to relax stress or reduce stress:

- deep breathing exercise
- mindfulness mediation
- relaxation to music
- mediation
- counseling (Lephuong ong, Wolfgang Linden.res.2004

1.4 WORK-RELATED STRESS:

Stress is a complex process affected by environmental and psychosocial factors. It initiates a cascade of information processing in both the peripheral nervous system and the central nervous system

- Stress can be acute (short- lasting) or chronic (occurring over an extended period of time)
- Under chronic stress condition, the body remains in a constant state response system as well as pf various of body's organs.

Work related stress is considered a major risk factor for the onset of physical and mental health disorders such as cardiovascular disease, metabolic syndrome, depression, cognitive impairment and cancer.

Work pressure may be associated with factors like the use of drugs, respiratory tract infection, etc., that may contribute to increase the stress response during the course of human life. Workers define stress they perceive at work as a (sense of fatigue)

Work-related risk factors including high work demands, low level of job control, the role of a worker within an organization, and relationship with co-workers and supervisors should be evaluated to improve the assessment of work-related stress. (Int. J. Environ. Res. Public Health res.2020)

Work is an important social determinant of health. The mental and physical health of workers depend not only on what they do at work but also on when they work and how long they work. The nature of the work we do and how it is organised also can affect our physical and mental health. Work stress can be defined as the harmful physical and emotional responses that occur when the requirement of the job does not match the capabilities, resources, need of the worker. Job stress can lead to poor health and even injury.

Working condition are affected by globalization and change in the work environment with new technology and practice. Work-related stress has increased in workplace because of performance requirement and competition-related changes in working life.

Stress is common and escalating in modern work organization due to downsizing and demand to work more efficiently. (AOTA. RES.2016b)

1.5 JANITOR WORKERS:

Janitors jobs require repetitive work with low control (skill discretion decision authority) and social support. Previous studies have found this constellation of work condition leads to high stress level. In general, work- related health problems may occur due to physiological imbalance or maladaptation of the human body (Monk et al., 1996) evidence suggests that the prevalence of injuries, illness and burnout among workers with nonstandard shift schedules is greater than that of conventional day shift workers. janitor workers, who may take on the additional workload of completing unfinished tasks from the day shift, report psychosocial stressors such as lack of respect and appreciation for their work, and poor supervisory conflict resolution skills, even mistreatment (Eggerth et al., 2019) In addition, they work under condition of poor communication, such as untimely feedback from co-workers, possible language barriers, and higher job site security risk compared to their daytime counterparts. (Nanette L. Yragui res.2022)

1.6 MINDFULNESS THERAPY;

Mindfulness can be defined as paying attention in a particular way, on purpose in the present moment, and non-judgmentally (Kabat-Zinn, 2005). In other words, it can be seen as a process of regulating attention in order to bring a quality of curiosity, openness, and acceptance to current experience (Bishop et al., 2004).

Baer, Smith, and Allen (2004) describe four core components of mindfulness:

- observing, noticing, or attending to internal and external experiences (e.g., cognitions, emotions, bodily sensations) and to pay attention to elements (e.g., location, intensity, duration),
- describing the observed experiences by single words such as “sadness” or “thinking” or when repetitive patterns of thoughts are observed by phrases such as “worrying about my job”,
- acting with awareness which means doing one thing at a time with in divided attention as opposed to behaving on “automatic pilot”,
- accepting without judgment which refers to allowing present-moment experiences to be as they are and to refrain from applying labels such as good/bad, right/wrong, or worth-while/worthless.

Another mindfulness-related construct is self-compassion, defined as the ability to treat yourself with care and concern when considering personal inadequacies, mistakes, failures, and painful situations (Neff, 2003a, 2003b). According to Neff (2003a, 2003b) self-compassion consists of three core components:

- mindfulness as being aware of one’s painful experiences in an equilibrated way (as opposed to over-identification with feelings or thoughts),
- common humanity or recognizing that failure is part of being human (as opposed to feelings of isolation
- self-kindness or the ability to be caring and understanding to oneself and to respond to own struggles with warmth (as opposed to being self-judgemental) (Lloyd, King, & Chenoweth, 2002)

Mindfulness based intervention have been suggested as one way to improve employee wellbeing in the workplace. High dose mindfulness training reduces both perceived and momentary assessment. These results provide well controlled evidence that mindfulness training program can reduce stress at work that may be necessary for improving workplace well-being outcomes. (Brian chin res.2019)

1.7 NEED FOR THE STUDY:

- **R1. Mary anna D. Klatt and Janet Buck worth (2008)** this study aimed to the effect of Mindfulness-Based Stress Reduction (MBSR-lD) on Working Adults.
- **Patricia A. Poulin and eric karayolas (2008)** conducted study on mindfulness training as an evidence- based approach to reduce stress and promote well- being among human service professionals Even though there is no significant study to show the effect of mindfulness- based stress reduction in night shift company workers. Hence there is a need for study to know the effect of mindfulness therapy to reduce stress among night shift janitor workers.

1.8 AIM AND OBJECTIVES:

AIM:

To determine the effect of mindfulness therapy to reduce stress among janitor workers.

OBJECTIVES:

- To enforce perceived stress scale to determine the stress among janitor workers
- Th find out the effect of conventional OT to reduce stress among janitor workers in conventional group
- To find out the effect of mindfulness in reducing stress among janitor workers in experimental group
- To compare the effect between conventional OT and mindfulness- based stress reduction in janitor workers

1.8 HYPOTHESIS:

ALTERNATE HYPOTHESIS:

There will be a significant improvement in reduction of stress on using mindfulness techniques among janitor workers

NULL HYPOTHESIS:

There will be no significant improvement in reduction of stress among janitor workers

CHAPTER-2
REVIEW OF LITERATURE

R1. Mary anna D. Klatt and Janet Buck worth (2008) this study aimed to the effect of Mindfulness-Based Stress Reduction (MBSR-lD) on Working Adults. The premeditation yoga stretching was important for individuals who spend the majority of their working day seated, bringing the focus to the breath and body and enabling meditative awareness. The workspace yoga postures were introduced with the intention of facilitating formal mindfulness meditation., conclusion Work-site location and yoga adapted for the work site were components of this intervention that were considered essential for the positive outcomes and good adherence.

R2. lin lin and Jin yan (2019) this study aimed to the effect of a Modified Mindfulness-Based Stress Reduction Program for Nurses. The program was an 8-week mindfulness-based group intervention included guided practice, education, and dialogues around participants' observations of their feelings, thoughts, and body sensations during practice. Conclusion - The modified MBSR program is an effective approach for nurses to decrease stress and negative affect and improve positive affect and resilience. In addition, the program has the potential to improve job satisfaction.

R3. Jong-Hyun and Kyung-Sun (2019) this study aimed for the effect of moderating mindfulness for job satisfaction and job-related stress among nurse, the present study surveyed 200 nurses employed at small-to- medium-sized hospitals in South Korea. mindfulness, health- promotion lifestyle, job satisfaction, stress factors, and turnover intention were analysed conclusion - the enhancing the effect of mindfulness in these relationships can suggest an important role of mindfulness in the relationship between life style and job attitude.

R4. Patricia A. Poulin and Corey S Mackenzie (2008) Conducted a study on Mindfulness training as an evidenced-based approach to reducing stress and promoting well-being among human services professionals Result on mindfulness-based interventions offer a unique opportunity for participants to reduce the effects of stress in their lives and improve their well-being. Outcome Measures used the 22-item Maslach burnout inventory to examine three dimensions of burnout: emotional exhaustion Depersonalization and reduced Personal accomplishment. Conclusion: experimental components of sessions included the body scan, sitting meditation, and a brief three-minute breather exercise for use in times of acute stress.

R5. Gerard Byron and Douglas (2015) this study aimed to the effect of Mindfulness Training for Mental Health Staff,

Homework assignments included the expectation to engage in the formal meditation practices for 45 min daily 6 days per week and in informal practices during daily life. conclusion: Occupational stress and burnout adversely impacts mental health care staff well-being and patient outcomes. Mindfulness training reduces staff stress and may improve patient care.

R6. Sungjin Park, and June-Hee Lee (2019) this study aimed to the effects of Workplace Rest Breaks on Health Problems Related to Long Working Hours and Shift Work among Male Apartment Janitors, Rest breaks at work are reported to reduce fatigue and job stress. Apartment janitors in Korea who perform night shift work and work long hours can be exposed to various health problems. This study was conducted to examine the relationships between long working hours, shift work, and insufficient rest breaks and HPs among Korean apartment janitors. Conclusion It is important to provide breaks at work to reduce HPs because of long working hours and shift work among aged workers such as apartment janitors.

R7. Naomi J. Anderson (2019) this study aimed to the Work-related injury burden, workers' compensation claim filing, and barriers: Results from a state wide survey of janitors. Methods: Data from an extensive multimodal (mail, phone, web) survey of janitors in Washington State were analysed to characterize their working conditions and Occupational health experiences. The survey included questions on demographics, Work organization and tasks, health and safety topics, and discrimination and harassment. The survey was administered in eight languages.

Conclusion: Janitors reported a high percentage of WRII, which exceeded previously published estimates from Washington State. Women and Latino janitors had significantly increased risk of WRII, and janitors' working conditions may influence the unequal distribution of risk. WRII surveillance via WC or medical care usage in janitors and other low-wage occupations may reflect substantial underreporting. Characterizing the nature of janitors' work experience can help identify avenues for prevention, intervention, and policy changes to protect the health and safety of janitors.

R8. Sharon praissman MS (2008) this study aimed to the Mindfulness-based stress reduction. Systemic review, Purpose: To provide nurse practitioners (NPs) with clinical research about Mindfulness-Based Stress Reduction (MBSR) and demonstrate its usefulness for reducing stress in a variety of populations. Conclusions: MBSR is an effective treatment for reducing stress and anxiety that accompanies daily life

and chronic illness. MBSR is also therapeutic for healthcare providers, enhancing their interactions with patients. No negative side effects from MBSR have been documented.

R9. Burrows & McGrath, (2000) & Farber & Heifetz (1982) this study aimed to the Mindfulness and acceptance-based trainings for fostering self-care and reducing stress in mental health professionals, Consists of weekly 2 to 2.5-hour sessions plus One silent retreat day (7-8 hours) and daily home assignments (45-60 minutes). The Program teaches formal and informal mindfulness practices. The formal practice Include: A body scan, hatha yoga, and different forms of meditation such as sitting and Walking meditation. The informal practices refer to mindfulness during daily activities Such as awareness of breathing, doing the dishes, or taking a shower by focusing one's Attention completely on that activity. The home assignments include primarily Practicing formal mindfulness by using guided audio CDs.

R10. DR. GanpatDevpura and DR. S. Manohar A study was conducted on diabesity patients by using jacobson's progressive muscle relaxation technique who are troubled with depression and stress. 30 diabesity patients were randomly taken into 15 control and 15 experimental groups. Used BD-11 SCALE was used to measure the patient Worked on reducing depressions and stress. Thus, the result is effective in reducing depression and stress.

R11. Burton, Burgess, Dean, Koutsopoulou, & Hugh-Jones (2017) this study aimed to the effect of Mindfulness-based interventions in general have been found to have a moderate effect on health professionals stress level,

In particular, for MBSR, the health professionals benefited the most Relative to other healthy stressed populations. Thirty-eight studies were included in the analyses, intervention had a significant moderate effect of anxiety depression and stress. result suggest mindfulness intervention are effective in reducing distress and improving well beings in health care professionals.

R12. Khoury, Sharma, Rush, & Fournier (2015) The current study aimed to examine mindfulness as well as acceptance-based Interventions in mental health professionals, including trainees, because they constitute A unique group in that they work with emotional stress. Average sample size of 25 individual per group (on the basis of previous meta analyse) a small to moderate effect size of 0.3 mindfulness to other active treatment. E.g. psychoeducation and a large heterogeneity among the studies, 15 studies comparing MBSR to an active treatment will be needed.

R13. Ruth Q. Wolver and Erin Fekete (2012) this study aimed on the Effective and Viable Mind-Body Stress Reduction in the Workplace: Mindfulness at Work. Mindfulness at Work is a 12-week(14-hr) stress management program based upon the principles and Practices of mindfulness meditation. Mindfulness has been described as the "non-judgmental observation of the ongoing stream of internal and external stimuli as they Arise" (Baer, 2003), or as the "practice of paying attention in a Particular way, on purpose, in the present moment and nonjudgmentally" (Kabat-Zinn, 1994). Participants in mindfulness pro-Grams learn to focus attention on feelings, thoughts, and sensations "exactly as they occur without elaboration, censorship, judgment or interpretation" (Wilbur, Engler & Brown, 1984).

R14. Sung won Park (2018) this study aimed on the effect Associations Between Workplace Exercise Interventions and Job Stress Reduction, the two studies (Caligiuri et al., 2016; Lin et al., 2015) whose exercise interventions were shown to significantly reduce job stress employed muscle-strength Exercise in sessions lasting 45 to 60 minutes. In Caligiuri et al.'s (2016) study, employees performed a bike and circuit-strength Sequence in four 45-minute sessions over 2 weeks, and in Lin Et al.'s (2015) study, employees engaged in yoga exercise in 12 - 60-minute sessions over 12 weeks. Based on the review

findings, the relationships between Workplace exercise interventions and job stress reduction Have not been sufficiently evaluated in the literature.

R15. Jina Suh and Mehrab Bin Morshed (2022) this study aimed on Design of Digital Workplace Stress-Reduction Intervention Systems: Effects of Intervention Type and Timing

Interventions based on components of Cognitive Behavioural Therapy (CBT) and Dialectical Behavioural Therapy (DBT), two empirically supported front-line psychotherapy modalities that are used to flexibly treat a wide range of mental health and well-being concerns Examined the impact of digital micro-intervention delivery timing and content type on usage patterns and stress reduction throughout the workday for N=86 information workers.

CHAPTER-3
METHODOLOGY
3.1 RESEARCH TYPE
Quantitative study
3.2 RESEARCH DESIGN
Quasi experimental research design

3.3 SAMPLING TECHNIQUE, SIZE AND SETTING
Convenience sampling technique was taken

3.4 VARIABLES:
- Independent variable- mindfulness therapy
- Dependent variable- stress

3.5 SELECTION CRITERIA
Inclusion criteria
- Both males and females.
- Age group between 30-45 years.
- Able to attend the intervention.
- People who are voluntarily interested to participate in this study
- People who have mild to moderate stress rate in perceived stress scale questionnaire.

Exclusion criteria:
- Those who are already undergoing therapy or under medication.
- Those who have hearing impairment and cognitive disturbances
- Those who have physical disabilities and other psychiatric condition.

3.6 INSTRUMENT USED
PERCEIVED STRESS SCALE

The perceived stress scale is a psychological instrument for measuring the perception of stress. It is a measure of the degree of the degree to which situation in one's life are appraised as stressful. Items were designed to tap how unpredictable, uncontrollable and overloaded respondents find their lives. The scale

also includes some direct queries about current level of experienced stress. The questions in the PSS ask about feeling and thoughts during the last month. A higher score indicates greater stress.

SCORING METHOD

You can determine your PSS score by following these directions:
First, reverse your scores for questions 4, 5, 7, and 8.
On these 4 questions, change the scores like• this: 0 = 4, 1 = 3, 2 = 2, 3 = 1, 4 = 0. Now add up your scores for each item to get a total. • My total score is _____.
Individual scores on the PSS can range from 0 to 40 with higher scores indicating higher perceived stress.
► Scores ranging from 0-13 would be considered low stress.
► Scores ranging from 14-26 would be considered moderate stress.
► Scores ranging from 27-40 would be considered high perceived stress.

RELIABILITY AND VALIDITY

This scale has Cronbach's alpha coefficient were 0.87. The pre-retest reliability scores were 0.86.
The PSS-10 showed adequate reliability and validity supporting its use in this population.

3.7 DURATION

2 session per week for 40 minutes for 3 months (36 sessions)

3.8 PROCEDURE DATA COLLECTION

The study was conducted at SAVEETHA UNIVERSITY CHENNAI PSS scale was administered and the person with a score between 14 and 26 was selected.
Totally 30 subjects are selected according to the inclusion criteria. The subject's negative concern is measured using the international stress management association (ISMA) stress questionnaire to get the pre-test values and the perceived stress scale for finding the outcome measures. Then the sample are conveniently allocated and divided equally, 15 samples in the control group and 15 samples in the experimental group.

CONTROL GROUP

The control group underwent conventional occupational therapy for reducing stress levels among janitor workers for 40 minutes and 5 minutes break in between.

EXPERIMENTAL GROUP

The experimental group underwent mindfulness therapy, sessions that lasted 40 minutes. All therapy sessions are held at the same college of occupational therapy department. The pre-test and post-test values are used to find out the result of stress in the janitor workers.

INTERVENTION PROTOCOL

OCCUPATIONAL THERAPY INTERVENTION

CONTROL GROUP:

The following occupational therapy intervention were given to the control group. The activities were given to the patient for relaxation purpose, the duration of each session was 45 minutes. Where 40 minutes of intervention was given along with 5 minutes of rest in between.

- Jacobson relaxation technique has been given
- Relaxation therapy like deep breathing, massage, meditation, and music therapy.

EXPERIMETAL GROUP:

The following occupational therapy intervention were given to the experimental group, mindfulness therapy. The duration of each activities was 40 minutes. Where 20 minutes of intervention was given along with 5 minutes of rest in between.

PROGRAM:

SESSION 1

- Pre-test – PSS
- General interaction among one another, Introducing about mindfulness therapy and giving awareness about the complications of stress. Briefly explaining about further therapy session

SESSION 2

- A to Z mindfulness activity
- Material used: A to Z mindfulness chart

SESSION 3

- Deep breathing circle
- Material used: clock drawn in the chart
- Technique used: draw a circle on the chart make a clock mark from top to bottom of the circle, in clockwise direction trace a finger along the circle inhale slowly, when they reached the bottom of the circle, begin to trace the finger back upward the circle exhaling.

SESSION 4

- Sitting meditation
- Material used: mattress and timer
- Technique used: asking the person to sit on the floor, close the eyes and inhale and exhale slowly for 30-40 minutes. With frequent break of every 5 min

SESSION 5

- Head to toe body scan
- Technique used: lie on the floor in supine with palm facing towards upward your feet slightly apart
- Close the eyes and focus on breath making it steady
- Move the attention to feet
- Focus on the one area at a time, move slowly up to the body until you focus towards head
- Return the attention to breath
- Open the eyes and notice the difference

SESSION 6

- Mindfulness break activity
- Material used: mindfulness break chart and mattress

SESSION 7

- sense activity
- Technique used
- mindful listening: sit comfortably on a chair and gently close the eyes bring the awareness to the sounds around you and allow the sound to come and go • Mindfulness standing: stand with your feet hip width and gently close your eyes gently rock your weight

SESSION 8

- mindful breathing activity
- Material used: mindfulness breathing freebie chart
- Technique used: according to the instructions of breath In and breath out trace the chart drawn rainbow with finger and inhale and exhaling slowly

SESSION 9

- Walking with barefoot with mindful music for 30-40 mins
- Material used music player
- Technique used: ask the person to be in barefoot and listen to the music for 3040 minutes without any distractions

SESSION 10

- Mindfulness breathing activity
- Material used: mindfulness scavenger hunt chart
- Technique used: according to the picture in the chart inhale and exhale slowly

SESSION 11

- Mindful bingo
- Material used: mindful bingo chart
- Technique used: asking the person to answer the question according to chart

SESSION 12

- Tenses and release (muscle relaxation)
- Technique used: starting at the feet, gently squeeze the muscle in the feet by tightening them, then slowly releasing
- Next squeezing the large muscle in the claves for 5 seconds then gently release • Continue the moving up the body for more relaxation

SESSION 13

- Mindful colouring
- Material used: colouring chart
- Technique used: colouring the drawn chart as per the given instruction within 45 minutes

SESSION 14

- going on a safari
- Technique used: go outside park or garden, try picking up a small rock or touching a plant or flower, walk mindfully pay a close attention to everything around you. Make sure of walking in the silence

SESSION 15

- heartbeat exercise
- Technique used: ask the women to stand up and with jump up and down • At the end of the minute, asking them to place their hand on their heart and pay attention their heartbeat and their breathing feels

SESSION 16

- Bubble blowing
- This is to give up on the uncomfortable thoughts or feelings that they need to let go

SESSION 17

- Calm cards
- They have to draw pictures of the activities like drinking water and reading a book, this is a tool to take them in their day to day

SESSION 18

- Mindful movement
- Involves moving the body along to music without thinking about appearance

SESSION 19

- Sitting meditation
- Material used: mattress and timer
- Technique used: asking the person to sit on the floor, close the eyes and inhale and exhale slowly for 30-40 minutes. With frequent break of every 5 mins

SESSION 20

- Head to toe body scan
- Technique used: lie on the floor in supine with palm facing towards upward your feet slightly apart
- Close the eyes and focus on breath making it steady
- Move the attention to feet
- Focus on the one area at a time, move slowly up to the body until you focus towards head
- Return the attention to breath
- Open the eyes and notice the difference

SESSION 21

- Mindfulness break activity
- Material used: mindfulness break chart and mattress

SESSION 22

- A to Z mindfulness activity
- Material used: A to Z mindfulness chart

SESSION 23

- Deep breathing circle
- Material used: clock drawn in the chart
- Technique used: draw a circle on the chart make a clock mark from top to bottom of the circle, in clockwise direction trace a finger along the circle inhale slowly, when they reached the bottom of the circle, begin to trace the finger back upward the circle exhaling.

SESSION 24

- mindful breathing activity
- Material used: mindfulness breathing freebie chart

- Technique used: according to the instructions of breath In and breath out trace the chart drawn rainbow with finger and inhale and exhaling slowly

SESSION 25

- Walking with barefoot with mindful music for 30-40 mins
- Material used music player
- Technique **used**: ask the person to be in barefoot and listen to the music for 3040 minutes without any distractions

SESSION 26

- Mindfulness breathing activity
- Material used: mindfulness scavenger hunt chart
- Technique used: according to the picture in the chart inhale and exhale slowly

SESSION 27

- Mindful bingo
- Material used: mindful bingo chart
- Technique used: asking the person to answer the question according to chart

SESSION 28

- Tenses and release (muscle relaxation)
- Technique used: starting at the feet, gently squeeze the muscle in the feet by tightening them, then slowly releasing
- Next squeezing the large muscle in the claves for 5 seconds then gently release • Continue the moving up the body for more relaxation

SESSION 29

- Mindful colouring
- Material used: colouring chart
- Technique used: colouring the drawn chart as per the given instruction within 45 minutes

SESSION 30

- going on a safari
- Technique used: go outside park or garden, try picking up a small rock or touching a plant or flower, walk mindfully pay a close attention to everything around you. Make sure of walking in the silence

SESSION 31

- craft therapy
- Paper craft works and leisure activities

SESSION 32

- Mindful eating
- It involves observing how the food makes you feel and the signals your body sends about taste and satisfaction

SESSION 33

- Guided imagery
- Relaxation that involves dwelling on a positive mental image, it reduces stress and anxiety

SESSION 34

- A gratitude journals
- List out 10 new things you are thankful for everyday

SESSION 35

- Bubble blowing
- This is to give up on the uncomfortable thoughts or feelings that they need to let go

SESSION 36

- Feedback
- Post -test – PSS

CHAPTER – 4
DATA ANALYSIS AND RESULTS

Statistical method

A quantitative study was carried out by analysis of inferential statistics in this study. Mean and standard deviation (minimum-maximum) were used as measurement criteria on a repeated basis for the results.

The analysed data was used by SPSS software version 23. The descriptive statistics examined records distribution to summarize the data. The results were measured and categorized in number (%)

Since the sample belonged to sample size (30), a non-parametric method was used to test the statistical difference between pre-test and post-test score of control and experimental groups. Wilcoxon signed-rank test and Mann Whitney U test were analysed in finding the hypothesis being tested identifies whether there exists a statistically significant difference in consideration of the treatment given. An alpha level of P = 0.005 was measured to be statistically significant. The statistical analysis done with help of IBM SPSS version 23.0

TABLE 4.1 Statistical analysis of pre- test and post- test in control group

Test	Mean	SD	N	Z value	p value
Cntr_Pre	23.6	2.97129	15		
Cntr_Post	21.2	3.29935	15	-3.33	0.001*

*** Significant at 5% alpha level**

Since the p value of 0.001 is lesser than 0.05, alternate hypothesis is accepted. Hence, there is statistically significant difference between pre- test and post test scores in the Control Group of the PSS. This suggests that the intervention received by the control group had significant improvement.

FIGURE 4.1 COMPARISON OF PRE-TEST AND POST-TEST IN THE CONTROL GROUP

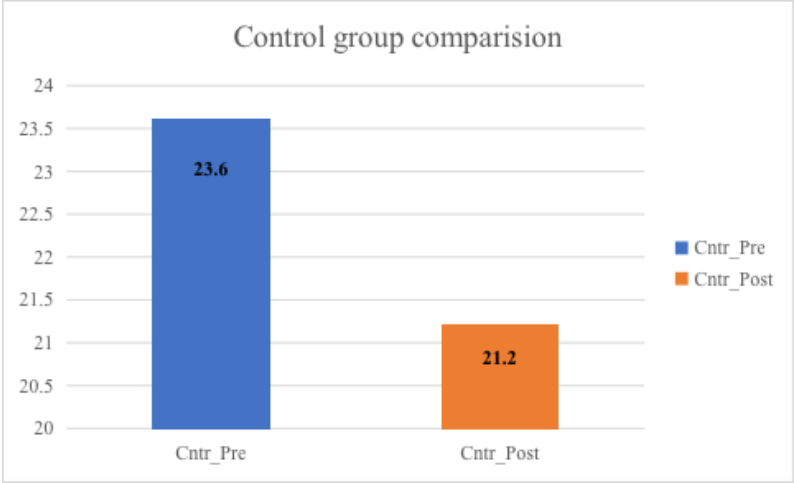


TABLE 4.2 Statistical analysis of pre- test and post- test in experimental group

Test	Mean	SD	N	Z value	p value
Expt_Pre	24	3.54562	15		
Expt_Post	17.8	2.93258	15	-3.428	0.001*

*** Significant at 5% alpha level**

In the Experimental group, since the p value of 0.001 is less than 0.05, alternate hypothesis is accepted. Hence, there is statistically significant difference in Experimental Group between pre-test and post test scores of PSS. This suggests that the intervention received by the experimental group had significant improvement.

FIGURE 4.2 COMPARISON OF PRE-TEST AND POST-TEST OF EXPERIMENTAL GROUP

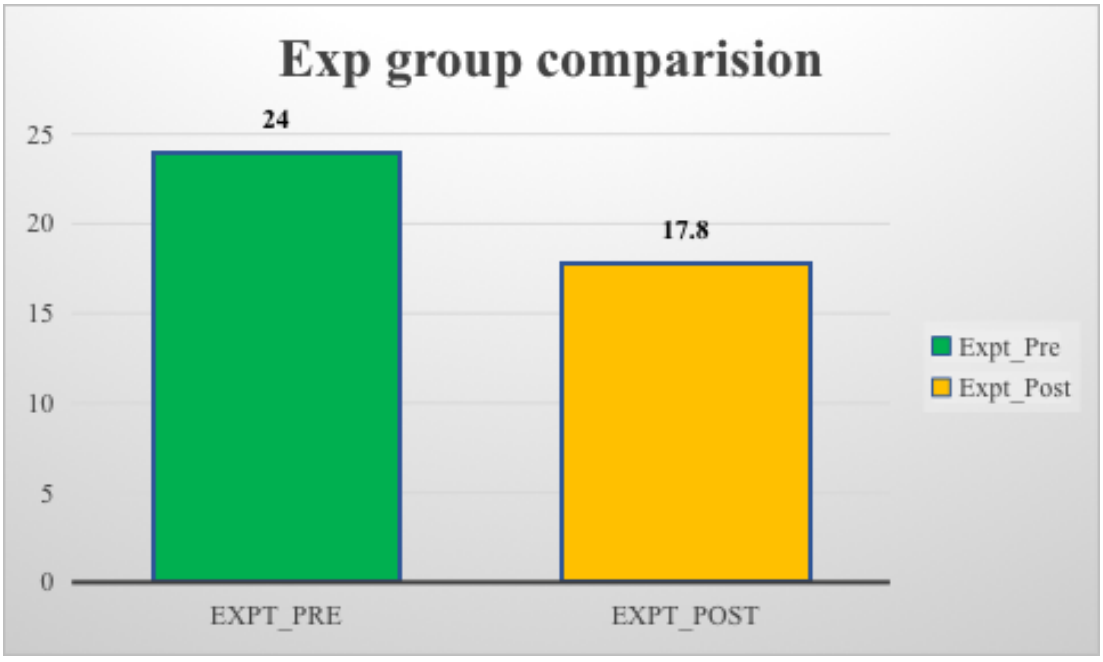


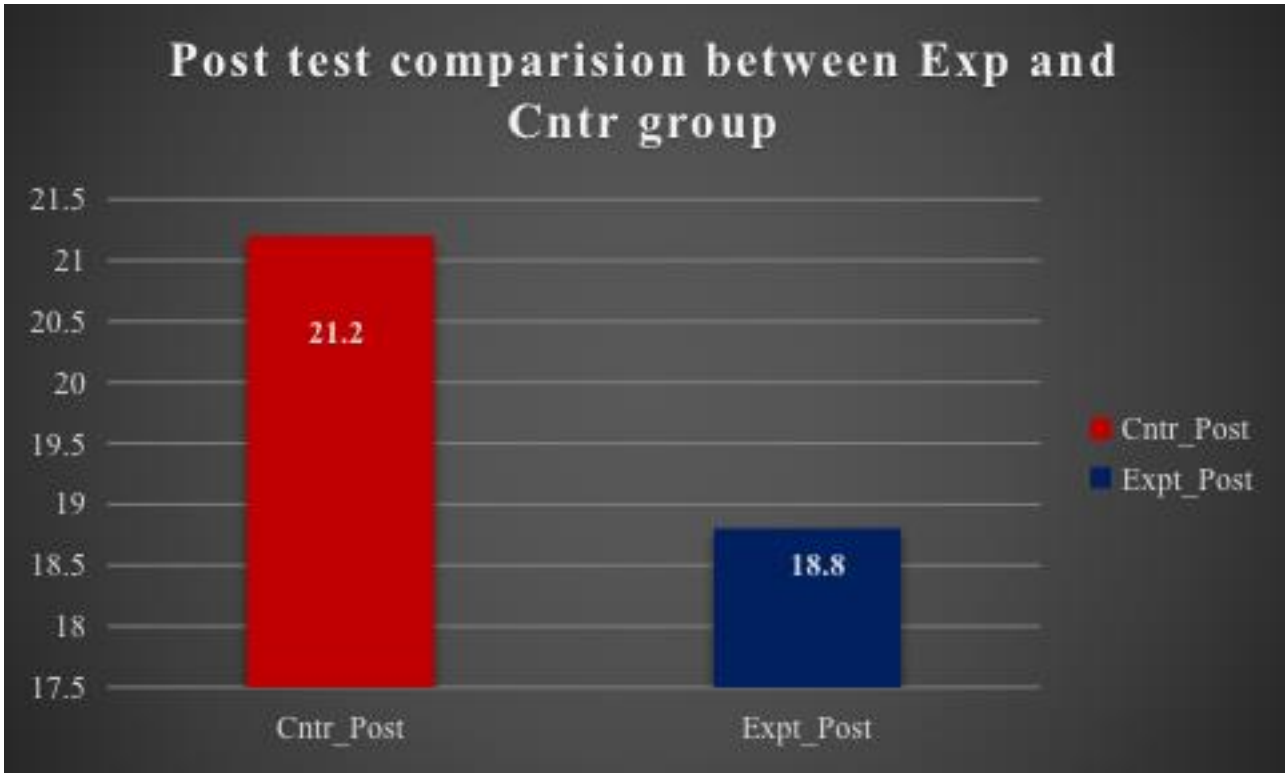
TABLE 4.3 Statistical analysis between the post- test scores of the control and experimental group

Group	Mean	SD	N	Z value	p value
Cntr_Post	21.2	3.29935	15		
Expt_Post	18.8	2.93258	15	2.5509	0.010*

***Significant at 5% alpha level**

Since the p value of 0.010 is lesser than 0.05, alternate hypothesis is accepted. Hence, there is statistically significant difference in post test scores between Experimental and Control Group of the PSS. This suggests that the intervention received by the experimental group had more improvement when compared to the control group.

FIGURE 4.3 COMPARSION BETWEEN POST-TEST IN CONTROL AND EXPERIMENTAL GROUP



CHAPTER-5
DISCUSSION

The purpose of this study was to examine the impact of mindfulness therapy to reduce stress among janitor workers. The study was conducted for 36 sessions.

A total of 30 samples were selected for a study and were randomly allocated to the experimental and control group, these samples were picked up after the per test.

The pre-test results of two group statistically calculated to find out the difference among the sample in the group.

The experimental group undergoes conventional occupational therapy (COT) and mindfulness therapy whereas the control group underwent COT activities. The post-test evaluation was done both groups and the scores were calculated and results. The control group focused on the effect of conventional occupational therapy on stress.

Table 4.1 and figure 4.1 explains (p = 0.00, Z = 3.33) Since the p value of 0.001 is lesser than 0.05, alternate hypothesis is accepted. Hence, there is statistically significant difference between pre- test and post test scores in the Control Group of the PSS. This suggests that the intervention received by the control group had significant improvement.

R10 by DR. GanpatDevpura, DR.S. Manohar to diabesity patient by using **Jacobson's progressive muscle relaxation.** This was the first study conducted on such patient. This technique greatly improved diabetic patient to reduce stress and depression.

Table 4.2 and figure 4.2 In the Experimental group, since the p value of 0.001 is less than 0.05, alternate hypothesis is accepted. Hence, there is statistically significant difference in Experimental Group between pre-test and post test scores of PSS.

R1. Mary anna D. Klatt and Janet Buck worth (2008) this study aimed to the effect of Mindfulness-Based Stress Reduction (MBSR-lD) on Working Adults.

The premeditation yoga stretching was important for individuals who spend the majority of their working day seated, bringing the focus to the breath and body and enabling meditative awareness. The workspace yoga postures were introduced with the intention of facilitating formal mindfulness meditation., conclusion Work-site location and yoga adapted for the work site were components of this intervention that were considered essential for the positive outcomes and good adherence.

Table 4.3 and figure 4.3 p value of 0.010 is lesser than 0.05, alternate hypothesis is accepted. Hence, there is statistically significant difference in post test scores between Experimental and Control Group of the PSS. This suggests that the intervention received by the experimental group had more improvement when compared to the control group.

R2. lin lin and Jin yan (2019) this study aimed to the effect of a Modified Mindfulness-Based Stress Reduction Program for Nurses. The program was an 8-week mindfulness-based group intervention included guided practice, education, and dialogues around participants' observations of their feelings, thoughts, and body sensations during practice. Conclusion - The modified MBSR program is an effective approach for nurses to decrease stress and negative affect and improve positive affect and resilience. In addition, the program has the potential to improve job satisfaction.

CHAPTER-6
CONCLUSION

The study was conducted over 3 months 30 samples were selected for this study, and divided into two groups. 15 samples were in control group and 15 samples were in experimental group. Pre and post–test were conducted in both groups. The experimental group underwent mindfulness therapy intervention whereas the control group underwent conventional occupational therapy intervention.

The result shows that there was a significant improvement in the experimental group than the control group. Thus, this study proves the impact of mindfulness therapy to reduce stress among janitor workers.

CHAPTER-7
LIMITATIONS AND RECOMMENDATION

LIMITATION: -

The limitations of this study were as follows

1.This study was done on a small sample size

2.This study was conducted for a shorter period of time

3. This study was done only for the janitor workers

RECOMMENDATIONS: -

- This study can be done for a large size
- A comparative study can be done with different complementary therapy like mindfulness therapy
- This study can be performed for other patients

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APPENDICES

APPENDIX- I

SAVEETHA
COLLEGE OF OCCUPATIONAL THERAPY
Saveetha Nagar, Thandalam - 602 105.
Ph : 044 - 6672 6618 Extn : 4161
Rehabilitate To Excel

28/03/2023

REF NO: SCOT/ISRB/150/2023

CERTIFICATE OF ETHICS APPROVAL

Principal Investigator : PRADEEPA . S

Title of the Project : Effect of mindfulness therapy to reduce stress among janitor workers

Has been approved by the Institution Scientific Review Board (ISRB) of Saveetha College of Occupational Therapy.

Dr.M.Arun Kumar
Chairperson

Dr.P.Punitha
Member Secretary

Dr.R.V.Benielraja Gnanadurai
Member

SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCES
(Established under Section 3 of the UGC Act 1956 vide Notification No. F.3/2002 - U.3 dated 18.03.2005 of the Government of India)
NAAC A++ Grade

ETHICAL CERTIFICATE

APPENDIX – II

CONSENT FORM

This is a research study conducted by myself PRADEEPA.S. I am studying in Saveetha University, final year student of Occupational Therapy. I am doing a research in the topic "**EFFECT OF MINDFULNESS**

THERAPY TO REDUCE STRESS AMONG JANITOR WORKER'S".
Your permission is requested for your clients to participate in my research work. It is beneficial for your clients to reduce stress. If you have any inconvenience, you can stop the therapy whenever you want.

The data collected in this research project will be kept confidential. Your clients name will not be stored with the data. Your clients' participation in this study is entirely voluntary. I will be glad to answer to any question about the procedures of this study.

Institutional Head:

I voluntarily consent for my clients to participate in this study.

Sign of Institutional head: _____

Date: _____

Sign of Researcher: _____

CLIENT CONSENT FORM
This is a research study conducted by myself, PRADEEPA.S am studying in SAVEETHA UNIVERSITY final year student of OCCUPATIONAL THERAPY. I am doing research on the topic of EFFECT OF MINFULNESS THERAPY TO REDUCE STRESS AMONG JANITOR WORKERS.

Your consent requested for your participation in my research work. It is beneficial for you to reduce the level of stress and to improve the quality of life. If you have any inconvenience you can stop the therapy session if you want.

The data collected in this research project will be kept confidential. Your name will not be stored with the data. Your participation in this study is entirely voluntary. I will be glad to answer to any question about the procedures of this study. I voluntarily consent for my participate in this study,

Sign: _____

Date: _____

Name of the parent: _____

Sign of Researcher: _____

APPENDIX -III
SCALES

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts **during the last month**. In each case, you will be asked to indicate by circling *how often* you felt or thought a certain way.

Name _____ Date _____

Age _____ Gender (*Circle*): **M F** Other _____

0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

1. In the last month, how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
2. In the last month, how often have you felt that you were unable to control the important things in your life?	0	1	2	3	4
3. In the last month, how often have you felt nervous and "stressed"?	0	1	2	3	4
4. In the last month, how often have you felt confident about your ability to handle your personal problems?	0	1	2	3	4
5. In the last month, how often have you felt that things were going your way?	0	1	2	3	4
6. In the last month, how often have you found that you could not cope with all the things that you had to do?	0	1	2	3	4
7. In the last month, how often have you been able to control irritations in your life?	0	1	2	3	4
8. In the last month, how often have you felt that you were on top of things?	0	1	2	3	4
9. In the last month, how often have you been angered because of things that were outside of your control?	0	1	2	3	4
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	0	1	2	3	4

APPENDIX-IV
MASTER CHART
EXPERIMENTAL GROUP

S.NO	AGE	GENDER	PRE-TEST	POST-TEST
1	35	F	25	19
2	42	F	20	16
3	32	F	28	22
4	40	F	20	16
5	38	F	19	14

6	38	F	20	14
7	30	F	29	24
8	36	F	24	19
9	30	F	27	20
10	35	F	20	14
11	40	F	23	17
12	39	F	24	17
13	43	F	27	17
14	31	F	29	20
15	41	F	25	18

CONTROL GROUP

S.NO	AGE	GENDER	PRE-TEST	POST-TEST
1	**33**	**F**	**25**	**24**
2	**35**	**F**	**27**	**26**
3	**35**	**M**	**28**	**25**
4	**38**	**M**	**28**	**26**
5	**30**	**M**	**20**	**17**
6	**40**	**M**	**24**	**22**
7	**31**	**F**	**22**	**22**
8	**40**	**M**	**23**	**20**
9	**38**	**F**	**20**	**18**

10	**38**	**F**	**23**	**21**
11	**31**	**F**	**26**	**23**
12	**38**	**M**	**19**	**17**
13	**32**	**F**	**22**	**19**
14	**32**	**M**	**21**	**16**
15	**42**	**F**	**26**	**22**

APPENDIX – V
PHOTOS