EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON PROGRESSIVE MUSCLE RELAXATION TECHNIQUE TO REDUCE STRESS AMONG COTTON MILL WORKERS IN SELECTED INDUSTRIES AT DINDIGUL.

A DISSERTATION SUBMITTED TO,
THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING

2008 - 2010
EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON PROGRESSIVE MUSCLE RELAXATION TECHNIQUE TO REDUCE STRESS AMONG COTTON MILL WORKERS IN SELECTED INDUSTRIES AT DINDIGUL.

Certified Bonafide Project Work
Done By

Ms. K. MUTHULAKSHMI
M.Sc., Nursing II Year
Bishop’s College of Nursing
Dharapuram.

_________________________   _______ __________________
Internal Examiner     External Examiner

COLLEGE SEAL

A DISSERTATION SUBMITTED TO
THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI
IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE
DEGREE OF MASTER OF SCIENCE IN NURSING

2008 - 2010
CHAPTER - I

INTRODUCTION

*What a Job should not look like*
*Out I want to know what a health*
*Promoting Job does look like*

- Gunn Johnson

BACKGROUND OF THE STUDY

Mental health as a continuum. Thus, an individual's mental health may have many different possible values. Mental wellness is generally viewed as a positive attribute, such that a person can reach enhanced levels of mental health, even if they do not have any diagnosable mental illness. The definition of mental health highlights emotional well being, the capacity to live a full and creative life and the flexibility to deal with life's inevitable challenges.

Mental Health as "A state of emotional and psychological well-being in which an individual is able to use his or her cognitive and emotional capabilities, function in society, and meet the ordinary demands of everyday life."

Merriam,W., (1989)
Stress is the body's reaction to a change that requires a physical, mental or emotional adjustment or response.

Angela Morrow, R., (2009)

The seven leading causes of stress, which represented as, 23 percent of respondents due to finances, 21 percent of those responding due to work, family, Personal concerns that are only indirectly created by others are another. Most people find that personal health is a leading cause of stress; probably the most wrenching cause of stress is the death of a loved one or close friend

Thomas, T., (2006)

According to U.S National Institute of Occupational Safety & Health, (2009) Job stress as the harmful physical and emotional response that occurs when the requirements of job do not match the capabilities, resources or need of the works. Stress also occurs when the situation has high demands and the work has little or no control over it.

According to National Institute for Occupational Safety and Health (2009) Job conditions that may lead to stress (i) The design of tasks: Heavy workload, infrequent rest breaks, long works hours and shift work; hectic and routine tasks that have little inherent meaning, do not utilize workers' skills, and provide little sense of control. (ii)
Management style: Lack of participation by workers in decision-making, poor communication in the organization and lack of family-friendly policies. (iii) Interpersonal relationships: Poor social environment and lack of support or help from co-workers or supervisors. (iv) Work roles: Conflicting or uncertain job expectations, too much responsibility, too many "hats" to wear. (v) Career concerns: Job insecurity and lack of opportunity for growth, advancement, or promotion; rapid changes for which workers are unprepared. (vi) Environmental conditions: Unpleasant or dangerous physical conditions such as crowding, noise, air pollution, or ergonomic problems.

According to Northwestern National Life Insurance Company report (2009) 40% of respondents said their jobs were very stressful, 34% said they didn’t have enough time to get their work done, 69% said stress reduced their personal productivity, 33% of respondents said at the time of responding they had some stress-related physical or mental condition, 72% said they experienced three or more stress-related physical or mental conditions simultaneously somewhat or very often, 34% said they expected to burn out on the job.

According to European report (2005) the highest stress levels are observed among middle aged workers, and the lowest among older and
younger workers. It is also true, however, that physical violence is most often reported by workers from the 25-39 age group, and harassment and unwanted sexual attention by the youngest group (“24 or less”). It is also worth mentioning that between 2000 and 2005, stress prevalence in the 40-54 age group decreased by 9 percentage points, from 32% in 2000 to 23% in 2005. However, anxiety and irritability indices remained almost at the same level for this age group. Sleeping problems, anxiety, and irritability increased slightly in the 25-39 and +55 age groups. The overall fatigue indicator has dropped in all age categories.

According to European report (2005) stress is a little more prevalent among men (23%) compared to women (20%). Stress indicators, with the exception of anxiety, were slightly more prevalent among men. Women are more at risk of harassment than men, but the prevalence of physical violence is similar for both genders.

Srihari Dutta, S et.al., (2007) estimated the prevalence rate for psychiatric morbidity of one month in India was 51.7% substance use, depression, anxiety and sleep disorders were common at a significant proportion of industrial employees had psychiatric morbidity due to Job stress.
There are potentially many ways that job stress can affect the risk of ill health. The stress first influence is the biophysiological stress reactions that can exacerbates the effects of physical strain and limit the ability of the body’s defense and repair systems to deal with micro trauma, the second influence is the effects of stress on the behaviour of the individual that may increase exposures or decrease the motivation to seek help. The third is the general sensitization of the individual psychologically and physiologically by exposure to job stress; this may lead to greater perceived pain and poorer overall health and vital capacity.


Excess stress can manifest itself in a variety of emotional, behavioral, and even physical symptoms, and the symptoms of stress vary enormously among different individuals. Common somatic (physical) symptoms often reported by those experiencing excess stress include sleep disturbances, muscle tension, headache, gastrointestinal disturbances, and fatigue. Emotional and behavioral symptoms that can accompany excess stress include nervousness, anxiety, changes in eating habits including overeating, loss of enthusiasm or energy, and mood changes. Of course, none of these signs or symptoms means for
certain that there is an elevated stress level since all of these symptoms can be caused by other medical and/or psychological conditions.

Folkman, S., (2008)

According to statistical report of Canada (2009) the annual cost to Canadian companies due to stress-related disorders is $12 billion. Absenteeism due to stress has increased by over 300% since 1995.

Once the cause is known appropriate control strategies can be put into place, other techniques have been useful in reducing stress; include physical exercise, recreational activities, and relaxation techniques.

NEED FOR THE STUDY:

In modern times, life runs on a fast lane everyone in the world is forced into stressful situation. Its employees who are more vulnerable to this situation stress are known to be the back bone of all psychiatric disorders.

According to Regus Business Tracker global economic indicator survey (2009) over three lakh respondents in 11,000 companies across 13 countries which concentrated on their experience at the workplace during the tough times. It was found that the most significant increase in stress occurred in China, with about 86% of employees reporting a rise in stress. The least rise, 47%, was reported in The Netherlands.
According to Roper Starch world wide survey report (2009) 30,000 people between the ages of 13 and 65 in 30 countries showed women who work full time and has children under the age of 13 report the greatest stress world wide, nearly one in four mother who work full time and have children under 13 feel stress almost every day, globally 23% of women executives and professionals and 19% of this male peers say the full ‘super stressed’.

Gallup Poll, (2000) estimated that 80% of workers feel stress on the job, nearly half say they need help in learning how to mange stress and 42% say their 10 workers need such help 14% felt like scrambling or shouting because of job stress, 10% an concerned about an individual at work, they fear would become violent, 9% at are aware of an assault or violent act in their workplace and 18% had experienced some sort of threat or verbal intimidation in the part year.

Dawn Aufuso,D., (2009) estimated that 64% of American workers describe themselves as either struggling or suffering due to economic stress.

According to National institute for occupational safety and health (2009) job burn out experienced by 25% to 40% of US workers is blamed on stress, depression only one types of stress reaction, is
predicted to be the leading occupational disease of the 21st century, nearly 50% higher for workers who report stress.

Around 1 in 6 considers their work to be very or extremely stressful; stress is the second most commonly reported reason for work related ill health in UK.

Swinton, L., (2008)

According to Labour force survey report (2009) around 16.7% of all working individuals thought their job was very or extremely stressful. The annual incidence of work-related mental health problems estimated was approximately 5,126 new cases per year, 230,000 people, who worked in the last 12 months, first became aware of work-related stress (incidence), depression or anxiety in an annual incidence rate of 760 cases per 100,000 workers, depression or anxiety accounted for an estimated 11.4 million lost working days in Britain.

Workers view job stress as more prevalent than work related injury, the cost of work time lost to stress in Canada at 30 billion for annum, job related stress has been identified as world wide epidemic.

WHO (2005)
About 37% of full-time workers felt stress at work as a result of too many demands or hours, compared with 20% of part-time workers. 34% of working Canadians cited too many demands or hours as the most common source of workplace stress.

Cara Williams, (2003)

According to Aventis Healthcare Survey report (2002) 1% of Canadian employees experience a great deal of stress at work. 25% of these employees have been physically ill from workplace stress.

The prevalence of work related stress in Sweden, estimated that 10% of group reported high perceived stress owing to individual demands and commitment, 20% reported low influence at work and 33% reported work interference with leisure time.

Holmgren,K et.al., (2009)

According to Fourth European Risk Observatory Report (2005) Stress at work is common throughout Europe. Survey of Working Conditions, carried out in 2005 in all Member States, stress was experienced by an average 22% of working Europeans. In 2002, the
annual economic cost of work-related stress in the EU15 was estimated at EUR 20,000 million.

Occupational stress among Australian workers, perceived stressors and revealed that 33% employees are suffered by job stress.

Kendall, T et.al., (2008)

Taiwan - Survey results estimated that Overall, 7.6% of men and 6.5% of women reported often or always feeling very stressed at work. Higher levels of perceived job stress were found among subjects who were younger, with higher education level, working in a larger firm, working for longer hours per week, and who were administrators or managers

Yawen Cheng, (2001)

Occupational stress and work-related unintentional injuries among Iranian car manufacturing workers. The prevalence of job stress was 21.3%. The main occupational stressors were time pressure (78.5%), mode of payment and evaluation (56.4%), and interaction with people and machines (41.3%).

Soori, M et.al.,(2008)
An epidemiological survey of job stress and health in four occupational populations in Fuzhou city of China. The relative risks of high job stress level for peptic ulcer, depression, anxiousness, bad temper, sleep disturbances, fatigue, having a poor appetite and backache, adjusted for age, sex and smoking, are 1.86, 6.55, 14.16, 7.09, 2.05, 1.75, 2.52 and 1.70 (p < 0.05), respectively. Results may suggest that the intellectuals in China have suffered a high risk of high level of job stress, and this stress has impacted on their bodily and mental health.


Survey on work-related stress in India. It is estimated that Approximately 12,000 employees from 400 companies were interviewed. The workers experienced a slightly lower increase with 57% reporting a 'higher' or 'much higher' growth over the past two years

Deepa Suryanarayan, (2009)

India’s industry body association (2007) had revealed that the menace of stress and mental fatigue has intensified in recent times at the top and middle position sectors comprising construction, shopping banks, government hospitals, trading homes, electronic and print
media, courier companies, small scale industries, retail and card franchise company. Employees of small scale industries in India have to work 15 - 16 hours, adversely altering their mental health and leading to depression and stress.

Progressive Muscle Relaxation (PMR) is a tension-reducing technique that involves the systematic tension and relaxing of specific muscle groups.

One stress management technique which may be effectively implemented on the job for clerical workers is progressive muscle relaxation. In primary prevention, nursing intervention strives to reduce the effects of harmful stress by identifying and assessing stressors and then implementing measures to strengthen lines of defense.

Vaughn, M et al., (1989)

The investigator during her service period in mental health centre observed many clients were attending the psychiatric clinic with a referral letter from the employers stating the adjustmental problems.
Therefore nurses in the industrial setting have the primary responsibility of integrating mental health care along with community and general health care this integration is accepted as the most important step for extending mental health care to the individuals in the community.

STATEMENT OF THE PROBLEM:

A study to assess the effectiveness of video assisted teaching programme on progressive muscle relaxation technique to reduce stress among cotton mill workers in selected industries at Dindigul.

OBJECTIVES:

1. To assess the pretest level of stress scores among cotton mill workers.
2. To assess the posttest level of stress scores among cotton mill workers.
3. To compare the pre test and post test stress scores of cotton mill workers.
4. To find the association between post test stress scores of cotton mill workers with their selected demographic variables.
OPERATIONAL DEFINITIONS:

Effectiveness:

It producing the intend result.

In this study effectiveness refers to determine the extent to which the teaching programme has brought intended result in terms of significant difference in pre and post test stress scores which is measured by statistical measurements.

Video Assisted Teaching Programme:

It’s a process of showing set of pictures and information using laptop/television.

In this study video assisted teaching programme refers to showing pictures and demonstrating the progressive muscle relaxation techniques for a period of 30 minutes by using Laptop for a group of cotton mill workers.

Stress:

Stress is prolonged unpleasant emotional state such as harmful physical and emotional state such as fear or anger.

In this study the stress refers to harmful physical and emotional responses that occur when the requirements of job do not match the
capabilities, resources or needs of workers which will be measured by Job stress inventory given by Arbor Employee Assistance, Omaha.

**Progressive muscle relaxation techniques:**

One method of reducing muscle tension through a technique called Progressive Muscle relaxation in which muscles are relaxed part by part.

In this study Progressive Muscle Relaxation (PMR) is a tension-reducing technique that involves the systematic tension and relaxing of specific muscle groups, helps to maintain positive attitude to make feel better emotionally, improve behavioural skills and enhance feelings of control on Job stress.

**Cotton Mill Workers:**

People who are working in the cotton mill industries.

**HYPOTHESES:**

\[ H_1 \] - The Mean post test stress score is significantly lower than the mean pre test stress score among cotton mill workers.

\[ H_2 \] - There is a significant association between post test stress scores of the cotton mill workers with their selected demographic variables.
ASSUMPTIONS:

- Cotton mill workers may have stress towards their job.
- Progressive muscle relaxation technique is helpful in reducing job-related stress.

DELIMITATIONS:

- The data collection period is limited to 4 weeks only.
- The sample of the study is restricted to 60.

PROJECTED OUTCOME:

The study will provide data regarding the level of stress among cotton mill workers. The findings of this study will help to practice progressive muscle relaxation techniques regularly and improve their psychological well-being among cotton mill workers which in turn will help to reduce the occurrence of mental health problems.
CONCEPTUAL FRAME WORK

MODIFIED ROY’S ADAPTATION MODEL:-

Roy (1984) stated that the recipient of nursing care may be the person, a family, a group, a community, or a society. Each is considered by the nurse as a holistic adaptive system. According to Roy “a person is bio-psycho-social being, in constant interaction with a changing environment”. The person as living system is whole made up of parts or subsystems that function as unity for some purpose”.

The idea of an adaptive system combines the concepts of system and adaptation as follows.

SYSTEM:

In her model Roy conceptualizes the person as a holistic perspective. Individual aspects of parts act together to form a unified being. Additionally, on living systems, persons are in constant interaction with their environment. Between the system and the environment occurs an exchange of information, matter and energy. Characteristics of a system include input, control process and feed back.
In this study, the system is cotton mill workers and the environment is work setting. Both will have constant interaction with each other.

**INPUT:**

The adaptive system has input of stimuli and adaptation level, output as behavioral responses that serve as feedback, control process known as coping mechanisms.

**Focal stimuli:** The internal or external stimulus most immediately confronting the person, the object or event that attracts one’s attention “a degree of change that precipitates adaptive behavior, stimulus most immediately confronting the person, the one to which he must make an adaptive response, stressor.

**Contextual stimuli:** All other stimuli of the person’s internal and external world that can be identified as having a positive or negative influence on the situation.

**Residual stimuli:** Internal (or) external factors having an indeterminate effect on the person’s behavior that effect has not (or) cannot be validated. Environmental factors within (or) outside the person whose effects in the current situation are unclear, possible yet
uncertain, influencing stimuli, includes beliefs, attitudes, experience (or) trails, knowledge level, strengths and / or limitations.

Demographic variables of the cotton mill workers such as age, sex, education, years of experience, type of placement. (internal factors) and religion, marital status, area of residence, type of family, income (external factor) precipitates the coping mechanism of the cotton mill workers reflected either as adaptive or maladaptive responses. Because of internal and external factors interaction, most of the cotton mill workers will have stress and reduced coping abilities. Stress levels were assessed by modified job stress assessment rating scale.

CONTROL PROCESS/COPING MECHANISMS:

Roy had used the term coping mechanism to describe control processes of the person as an adaptive system, which are called the “Regulator” and “Cognator”.

Regulator subsystem

A regulator subsystem is a coping mechanism which responds automatically through neural chemical endocrine processes. In this study the researcher was not measured the Regulator subsystem.
**Cognator subsystem:**

A cognator subsystem is a coping mechanism which responds through complex perception and information processing through learning, judgment and emotion.

The maladaptive pattern of stress response alters both regulator and cognator subsystem. The changes in regulator subsystem can be noted as palpitation, shallow breathing, sweating, poor appetite, poor sleep pattern. The changes in cognator subsystem can be noted as reduced concentration, poor memory, irritability etc.

There is imbalance of regulator and cognator subsystem because of maladaptive stress response. It is balanced by practicing progressive muscle relaxation technique.

Video assisted teaching programme on progressive muscle relaxation techniques was given to the group of cotton mill workers by using laptop for 30 minutes. Progressive muscle relaxation technique is the coping mechanisms which help to reduce the level of stress among cotton mill workers.

**EFFECTORS/ADAPTIVE MODES:**

Although cognator and regulator processes are essential to the adaptive responses of the person, these processes are not directly
observable. The adaptive modes are the physiological self concept, role function and interdependence modes. By observing the person’s behavior in relation to the adaptive modes, the nurse can identify adaptive or ineffective responses in relation to health & illness.

The four adaptive modes for assessment are as follows.

Physiological mode:

The physiological mode represents physical response to environmental stimuli and properly involves the regulator subsystem. The basic need of this mode is physiologic integrity comprised of the needs associated with oxygenation, nutrition, elimination, activity and rest and protection. The complex processes of this mode are associated with all senses, fluids and electrolytes, neurological function and endocrine functions.

The adaptive responses in physiological mode is normal heart beat, normal breathing pattern, maintaining normal sleep and appetite, in role function mode increased social interaction.

Role function mode:

It involves behaviour based on a person’s position in society. It is dependent on how a person interacts with others in a given situation.
The adaptive responses in role function mode is increased concentration, able to make decisions independently, job responsibilities, reduced level of anxiety, increased family, job satisfaction.

**Self concept mode**

The self concept mode relates to the basic need of psychic integrity. It is focused on the psychological and spiritual aspects of the person.

The adaptive response in self concept mode is increased self esteem, and decreased feeling of inadequacy.

**Interdependent mode**

Interdependent mode is where affectional needs are met.

The adaptive response in interdependent mode is to maintain social integrity.

**OUT PUT AND FEED BACK:**

Adaptive responses are those, which promote the integrity of the person.

Practicing progressive muscle relaxation technique may increase the coping mechanisms which reflect in reduction of stress that is assessed through modified job stress assessment rating scale. Cotton
mill workers with moderate and severe level of stress will gain knowledge and able to practice progressive muscle relaxation technique to reduce the level of stress under the guidance of researcher and it is followed regularly by the workers. Those who are exhibiting low level of stress also encouraged and motivated to practice progressive muscle relaxation technique continuously.
**Cotton mill workers**
**Internal stimuli.**
Age, Sex, years of experience, type of placement, education

**External stimuli.**
Religion, Marital Status, Type of Family, Area of Residence.

**Pre test**
Through Modified job Stress assessment Rating Scale

**Video assisted teaching programme**
Progressive muscle relaxation technique by using laptop for 30 minutes

**Regulator sub system**
Cognator sub system

**Post test**
Through Modified Job Stress assessment Rating Scale

**Physiological mode**
- Balance in bio-physiological function
- Increased rest and sleep

**Role Function mode**
- Increased concentration
- Able to make decisions independently
- Problem solving
- Job responsibilities
- Reduced level of anxiety
- Family, job satisfaction

**Self concept mode**
- Increased self esteem
- Decreased feeling of inadequacy

**Interdependent mode**
- Able to maintain social integrity

**Fig: 1- MODIFIED ROY’S ADAPTATION MODEL – (1984)**
CHAPTER-II

REVIEW OF LITERATURE

Review of literature consists of

- Part I- Overview of stress
- Part II- Studies related to job stress
- Part III- Studies Related to Effectiveness Of Progressive Muscle Relaxation Technique on stress

PART I- OVERVIEW OF STRESS:-

It is an essential component of work while studying in any field of knowledge. It helps the investigator to gain information on what has been done previously and gain deeper insight into the research problem. The more developed, the network linking of a research topics and existing knowledge are generally developed by through review of prior researcher on a topic and by a framework for the topic on the basis of what is studied.

Stress is simply a fact of nature forces from the outside world affecting the individual. The individual responds to stress in ways that affect the individual as well as their environment. Hence, all living creatures are in a constant interchange with their surroundings (the ecosystem), both physically and behaviorally.
In general, stress is related to both external and internal factors.

(i) External factors include the physical environment, including job, relationships with others, home, and all the situations, challenges, difficulties, and expectations you're confronted with on a daily basis.

(ii) Internal factors determine body's ability to respond to, and deal with, the external stress-inducing factors. Internal factors which influence your ability to handle stress include your nutritional status, overall health and fitness levels, emotional well-being, and the amount of sleep and rest you get.

Job stress is defined as “a situation in which some characteristics of the work situation are thought to cause poor psychological or physical health, or to cause risk factors making poor health more likely.”


Occupational stress is a major hazarded for many workers. Increased workloads downsizing, out time hostile work environment and shifts are few causes of stressful working condition. Occupations stress can affect health when the structures of work place exceed ability
the employee’s ability to have some control on situations or cope in their ways. Workers are overburdened with workload that remains high regard for of their efforts. The workload is the ‘STRESSORS’ employee feels anxious and their heart rate speeds up because they cannot, control their workload that is ‘STRESS’ Increased blood pressure insomnia, or chronic headache that is ‘STRAIN’.

Stress results from an imbalance between various elements of the work system. This imbalance produces a ‘load’ on the human responses mechanisms that can produce adverse reaction, both psychological and physiological. The human response mechanisms, which include behaviour, psychological reaction and cognition act to bring control over the environmental factors that are creating imbalance. These efforts coupled with an inability to achieve balance, produce overloading of the response mechanisms that leads mental and physical fatigue. Prolonged exposure to fatigue leads to strain and disease.

Carayon Sainfort, (1989)
STAGES OF STRESS:

Stress is how the body reacts to a stressor, real or imagined, a stimulus that causes stress. Acute stressors affect an organism in the short term; chronic stressors over the longer term.

Han's Selye labeled this universal response to stressors the general adaptation syndrome or GAS into 3 stages

(i) Alarm is the first stage. When the threat or stressor is identified or realized, the body's stress response is a state of alarm. During this stage adrenaline will be produced in order to bring about the fight-or-flight response. There is also some activation of the HPA axis, producing cortisol.

(ii) Resistance is the second stage. If the stressor persists, it becomes necessary to attempt some means of coping with the stress. Although the body begins to try to adapt to the strains or demands of the environment, the body cannot keep this up indefinitely, so its resources are gradually depleted.

(iii) Exhaustion is the third and final stage in the GAS model. At this point, all of the body's resources are eventually depleted and the body is unable to maintain normal function. At this point the initial
autonomic nervous system symptoms may reappear (sweating, raised heart rate etc.). If stage three is extended, long term damage may result as the capacity of glands, especially the adrenal gland, and the immune system is exhausted and function is impaired resulting in decompensation.


MANIFESTATION OF STRESS:-

Physiological changes:

a. acute increased heart rate
b. increased respiration
c. pupils of eye widens
d. chronic release of corticosteroids
e. physiological collapse

Changes in thought:

a. poor concentration
b. memory loss
c. intensive negative thoughts
d. irritability
Changes in behaviour:

a. Increased Smoking
b. Increased Alcohol Consumption
c. Changes In Diet
d. Decreased Ability To Cope
e. Social Withdrawal
f. Aggressiveness
g. Impatience
h. Hyperactivity
i. Absenteeism

It is also known that people under stress have a greater tendency to engage in unhealthy behaviors, such as excessive use or abuse of alcohol, and drugs, cigarette smoking, and making poor nutritional choices, than their less-stressed counterparts. These unhealthy behaviors can further increase the severity of symptoms related to stress, often leading to a "vicious cycle" of symptoms and unhealthy behaviors.
STRESS MANAGEMENT TECHNIQUES:-

If your methods of coping with stress aren’t contributing to your greater emotional and physical health, it’s time to find healthier ones. There are many healthy ways to manage and cope with stress, but they all require change. You can either change the situation or change your reaction. When deciding which option to choose, it’s helpful to think of the four as: avoid, alter, adapt, or accept.

Strategy #1: Avoid unnecessary stress

Not all stress can be avoided, and it’s not healthy to avoid a situation that needs to be addressed.

- Learn how to say “no” – Know your limits and stick to them. Whether in your personal or professional life, refuse to accept added responsibilities when you’re close to reaching them
- Avoid people who stress you out
- Take control of your environment
- Avoid hot-button topics
- Pare down your to-do list – Analyze your schedule, responsibilities, and daily tasks.
Strategy #2: Alter the situation:

If you can’t avoid a stressful situation, try to alter it. Figure out what you can do to change things so the problem doesn’t present itself in the future. Often, this involves changing the way you communicate and operate in your daily life.

- Express your feelings instead of bottling them up.
- Be willing to compromise
- Be more assertive
- Manage your time better

Strategy #3: Adapt to the stressor:

If you can’t change the stressor, change yourself. You can adapt to stressful situations and regain your sense of control by changing your expectations and attitude.

- Reframe problems. Try to view stressful situations from a more positive perspective
- Look at the big picture. Take perspective of the stressful situation. Ask yourself how important it will be in the long run.
- Adjust your standards. Perfectionism is a major source of avoidable stress. Stop setting yourself up for failure by
demanding perfection. Set reasonable standards for yourself and others, and learn to be okay with “good enough.

- Focus on the positive.

**Strategy #4: Accept the things you can’t change:**

Some sources of stress are unavoidable. You can’t prevent or change stressors such as the death of a loved one, a serious illness, or a national recession. In such cases, the best way to cope with stress is to accept things as they are. Acceptance may be difficult, but in the long run, it’s easier than railing against a situation you can’t change.

- Don’t try to control the uncontrollable.
- Look for the upside. As the saying goes, “What doesn’t kill us makes us stronger.” When facing major challenges, try to look at them as opportunities for personal growth
- Share your feelings
- Learn to forgive.

**Strategy #5: Make time for fun and relaxation:**

- Set aside relaxation time.
- Connect with others. Spend time with positive people who enhance your life.
• Do something you enjoy every day.

• Keep your sense of humor.

Strategy #6: Adopt a healthy lifestyle:

• Exercise regularly. Physical activity plays a key role in reducing and preventing the effects of stress. Make time for at least 30 minutes of exercise, three times per week. Nothing beats aerobic exercise for releasing pent-up stress and tension.

• Eat a healthy diet.

• Reduce caffeine and sugar.

• Avoid alcohol, cigarettes, and drugs.

• Get enough sleep. Adequate sleep fuels your mind, as well as your body.

Fortinash, (2000)
PART II: STUDIES RELATED TO JOB STRESS:-

STUDIES RELATED TO INCIDENCE, PREVALENCE OF JOB STRESS:

Job stress is something we all face as workers and we all handle it differently. There is no getting around it but not at all stress is bad, and learning how to deal with and manage stress is critical to our maximizing our job performance staying safe on the job, and maintaining on physical and mental health.

Elizabeth scott,(2008) the percentage of American who are extremely stressed at work range between 29-40%. Over half of respondents are so stressed at work that they feel close to or consumed by burnout much.

Orietta Gurrea, (2008) stated that 17% of working women suffering depression could attribute their condition to job stress, compared with 13% of working men with depression in Australia.

American “Integra Survey” (2000) reported that 65% of workers said that workplace stress had caused difficulties and more than 10% described the major effects, 12% had called in sick because of job stress.
Salleh, et al., (2008) conducted a study on how detrimental is job stress in Malaysian furniture industry and the study results revealed that 35.85% of the respondents feel they are stressful at work.

Madhan Mohan, (2008) prevalence of job strain among Indian foundry shop floor workers were experiencing high job strain, hazardous working conditions, limited decision making authority appeal to be main contributing factors for the higher levels of strain.

Noronha, et al., (2001) revealed that more than 1/3 of workers had yet not recovered from their economic, social and job related problems.

Sripathy. M and Bhate, et al., (1990) carried out a retrospective study in Kudremuch field employees in Karnataka and observed the prevalence of psychiatric morbidity among it workers. The Results revealed that the mental morbidity in that industry is not very high, that is 125/1590. Depressive Neurosis is found to be the major psychiatric problem. 12% of cases presented as a psychogenic headache, 11% of case had anxiety neurosis, 85% of cases had schizophrenia and other 8% of cases were having manic depressive illness.
Soma sundaram, et al., (1979) reported that out of 99 industrial workers referred for psychiatric opinion in a period of 7 month, 40 had Neurosis; they were compared with a control group for social factor. The study indicated that younger age group, single workers, lower income groups, and person coming from large families were more prone to the development of neurosis.

STUDIES RELATED TO SOURCES OF JOB STRESS:

Randall, (2009) According to one theory differences in individual characteristic such as personality and coping style, are best at predicting what stress one person but no another, the theory proposes that certain working conditions are inherently stress as fear of job loss, excessive workload, demands, lack of control or clear directions, poor or dangerous physical working conditions, flexible work hours and conflicting job experiences.

Zielke, M et al., (2009) Changing demands made by the workplace may be associated with psychomental and socioemotional stresses. Underlying reasons involve work organization and specific work content, as also social relationships at the workplace, the remuneration situation, and the risks related to the occupational biography of the individual. Changes in the workplace-related risks
necessitate further investigations into the work and performance process relevant to the individual case.

**Spector Paul, et al. (2008)** Interpretation of observed relation between job stressors and job strain in cross-sectional survey revealed that relations between job stressors and job strains, however, work is most cases not affected significantly when prior strains and negative affectivity were controlled for. The results suggested that “negative affectivity” measures are subject to occasions factors only on the job. Evidence found that some background factors affected.

**Vanroelen, et al. (2009)** reported that the occupational stressors contribute five dimensions immaterial demands, physical demands, control over work environment, social relationship at work and employment uncertainty are all significantly related with at least one of the health outcomes—with immaterial demands having the strongest effects.

**Akizumi Tsutsumi, (2008)** large-scale prospective cohort study on psychosocial job characteristics and depression and the related outcomes in Japanese workers Among Multiple worksites (metal, automobile, electric, other manufacturing and electric power industries). A total of 15438 employed men without history of
psychiatry diseases were followed from 1997 to 2003. Depression cases with sickness absence of $\geq$ 30 days were registered by the occupational physician. Job characteristics were measured by NIOSH Generic Job Stress Questionnaire. Results showed that men with low job control had significantly higher 95% for depression (RR 2.6; CI 1.2-5.6), role ambiguous and role conflicts were also associated with depression (2.1; 0.9-4.7, and 2.6; 1.2-5.8, respectively). The data suggest that psychosocial job characteristics, in particular low job control, predict depression and the related outcomes.

Chen, W.Q et al., (2009) to explore the influence of occupational stress on mental health in off-shore oil production. A cross-sectional survey was conducted among 561 Chinese off-shore oil workers. After controlling for age, educational level, marital status and years of off-shore work, poor mental health was found to have a significant positive association with seven of the nine identified sources of occupational stress. They were: conflict between job and family/social life, poor development of career and achievement at work, safety problems at work, management problems and poor relationship with others at work, poor physical environment of the work place, uncomfortable ergonomic factors at work, and poor organizational structure at work. All of these occupational stress sources together explained 19.9% of the
total variance. The results confirmed that occupational stress was a major risk factor for poor mental health among Chinese off-shore oil workers. Reducing or eliminating occupational stressors at work would benefit workers' mental health.

**Vijay rao, (2000)** conducted study at nuclear level complex Hyderabad to assess the shift workers problem. Effect on personal as well as social life was assessed and clearly demonstration that in there is no significant adverse effects observed in the group as well as shift work.

**Gonz ileum, et.al., (2007)** conducted a study on contribution of mental workload to job stress in industrial workers of the 95 worker participants, 26.3% presented high level of job stress and 17.9% of the workers were found to present high levels of mental workload. The result showed that working hours, mental demand, temporal demand, and frustration when faced with a given task may be considered risk factors for job stress.

**Harada,H et.al.,(2005)** conducted a study on three shift system increases job related stress in Japanese workers. The logistics regression analysis revealed that the odd ratios for having one or more stressor items in an unfavorable condition were significantly higher for shift
workers compared to day workers. Study revealed that the 3 shift system of employment increases work related stress, and that job control is low among shift workers.

Dori, B. Reissman, (1999) conducted a study to measure psychological distress and stress inducing work demands after 6 months of rumor about upcoming corporate downsizing event. Higher stress levels were seen among older, more educated workers, who had longer company tenure, and role boundary problems, noxious physical environments, and company tenure were retained in the final multivariable model predicting distress level.

Agarwal, et al., (1998) evaluated the occupational stress among employees in the technical field. Results shown that the technical and field staff including inspectors experienced a higher level of occupational stress. When as depot management staff expressed at least amount of occupational stress, lack of staff trainings shortage of original space parts, lack of feeling of in policy making are the mediation of occupational stress.
STUDIES RELATED TO IMPACT OF JOB STRESS:

Holmes, (2001) assessed work related stress, the paper reviews the concept of work related stress showing how it’s deleterious impact on the work force thus affecting both individual and organizational effectiveness.

Nuttman shwartz, et.al.,(2009)The present study of 134 Israeli women aged 30-45 years aimed to examine how recurrent job loss affected individual women's perceptions of the event and the extent to which it generated emotional stress and psychiatric symptoms. Most of the women perceived job loss as a challenging event and their assessments of job loss had a stronger impact on the development of mental health consequences than did the number of times they had actually been laid off. The more the women perceived job loss as threatening, the more they reported emotional stress and psychiatric symptoms. Conversely, the more they perceived job loss as challenging, the lower their levels of emotional stress. Never-married women were laid-off more, and they reported more mental health symptoms following recurrent job loss than did married women. The findings suggest that perception of job loss as a threatening event might cause mental health problems as results of lay-off.
Inoue A et al., (2009) the study is to investigate the prospective associations of job strain, role stressors, and job security with long term sick leave due to depressive disorder. Results shows that During 5.14 years of follow up on average, 47 incident cases of sick leave of 30 days or more to depression disorders were observed, High job control at baseline was associated with adjusting for demographic variables, depression symptoms, and neuroticism at baseline, high role ambiguity was associated with the higher risk. Job control and role ambiguity may be important predictors of long term sick leave due to depressive disorder among male employees, independent of depressive symptoms and neuroticism.

Clays E. and De Bacquer, D., (2009) the aim of this study was to explore the prospective relation between job stress and symptoms of depression within a cohort study. Altogether 2821 workers were involved in the longitudinal Belstress study (Belgian) there were two measurements with a mean follow-up time of 6.6 years. Results found that within a population free of high depression scores at baseline, job stress increased the risk of developing high levels of depression symptoms after a mean follow-up time of 6.6 years. Independent associations were found for low decision latitude, high job strain, and isolated strain among women, but not among men. Repeated high job
strain was associated with a more elevated risk of developing high levels of depression symptoms among both the women and the men.

**Park, S.G et.al., (2009)** study was conducted to investigate the association between depressive symptoms and job stress. Job stress scales reveal the effect for males is job demand, inadequate social support, and lack of rewards, were associated with depressive symptoms, whereas for females organizational injustice was associated with depressive symptoms. Results indicate that job stress may play a significant role in increasing the risk of depressive symptoms.

**Akizumi Tsutsumi, (2008)** large-scale prospective cohort study on psychosocial job characteristics and depression and the related outcomes in Japanese workers Among Multiple worksites (metal, automobile, electric, other manufacturing and electric power industries). A total of 15438 employed men without history of psychiatry diseases were followed from 1997 to 2003. Depression cases with sickness absence of >= 30 days were registered by the occupational physician. Job characteristics were measured by NIOSH Generic Job Stress Questionnaire. Results show that men with low job control had significantly higher 95% for depression (RR 2.6; CI 1.2-5.6), role ambiguous and role conflicts were also associated with depression (2.1; 0.9-4.7, and 2.6; 1.2-5.8, respectively). The data suggest that
psychosocial job characteristics, in particular low job control, predict depression and the related outcomes.

**Takashi Amagase, et.al., (2005)** conducted study on 22 cases of work related suicide. Results indicated that 27 had experienced personnel changes, such as promotion or transfer, low social support was recognized in 18, high psychological demand in 18, low decision latitude in 17, and long working hours in 19 cases. The subjects had depressive episodes by the ICD-10 criteria and showed that long working hour, heavy workloads, and low social support may cause depression, which can lead to suicide.

**Gupta, et.al., (2000)** 400 workers were randomly selected in an industry of Jaipur who were administered General health questionnaire and who scored above a pre defined out off point were administered interpersonal inventory scale and were diagnosed according to ICD-10. It was found that 14.25% of workers found to be suffering from psychiatric disorders. Diagnosis break up showed that 8.25% had dysthymic disorder, 3% Generalized Anxiety disorder, 1 – 25% were having major depression and 0.5% mood disorders. The frequent alcohol users were 40% some factor associated with high mental morbidity including low literacy status, parental deprivations, disturbed interpersonal relationship in the family and perceived job stress.
Ota and Masue, A et al., (2009) study conducted on psychosocial job characteristics and insomnia among Japanese workers. Results suggest that who were insomnics at the baseline low social support and effort reward imbalance at the baseline had a significantly relationship to insomnia at the follow up.

De Lange, A.H et al., (2009) This prospective four-wave study examined (i) the causal direction of the longitudinal relations among job demands, job control, sleep quality and fatigue; and (ii) the effects of stability and change in demand-control history on the development of sleep quality and fatigue. Based on results of a four-wave complete panel study among 1163 Dutch employees, we found significant effects of job demands and job control on sleep quality and fatigue across a 1-year time lag, supporting the strain hypothesis. Furthermore, our results revealed that cumulative exposure to a high-strain work environment (characterized by high job demands and low job control) was associated with elevated levels of sleep-related complaints. Cumulative exposure to a low-strain work environment (i.e. low job demands and high job control) was associated with the highest sleep quality and lowest level of fatigue. Our results revealed further that changes in exposure history were related to changes in reported sleep quality and fatigue across time. As expected, a transition from a non-
high-strain towards a high-strain job was associated with a significant increase in sleep-related complaints.

Akinori Nakata,(2007) A study to examine the association of job stress with sleep-related breathing disturbance (SBD), a cross-sectional sample of 1940 males aged 17-83 (mean 45) years in 292 small and medium-sized enterprises in Japan were surveyed by means of a self-administered questionnaire. Risk of SBD through job stress was estimated using logistic regression with odds ratios and 95% confidence intervals as measures of association. Prevalence of study-defined SBD was 6.7%. Participants who perceived the lowest level of social support from supervisors, and highest levels of job future ambiguity, interpersonal conflict at the workplace, job dissatisfaction, variance in workload, and quantitative workload had significantly increased risk of SBD after adjusting for potential confounders. High depressive symptoms, as measured scores of 16 or higher, were also significantly associated with increased SDB. Results also indicate that job stress should be considered when evaluating SBD in occupational and clinical settings.
Nakata. A et al., (2008) study on perceived psychological job stress and sleep bruxism among male, female workers. Results indicated that overall 30.9% of males and 20.2% females reported sleep bruxism. In male workers with low social support from superiors, or from colleagues, and high depressive symptoms had a significantly increased risk of sleep bruxism, no significant association was found in females.

Nishitani. N et al., (2009) study conducted on eating behaviour related to obesity and job strain in male Japanese workers. Results stated that obesity was associated with eating behaviours such as eating to safety, eating fast and substitution eating from irritability. These eating behaviours were related to high job demands of quantitative workload. The eating behaviours were also correlated with psychological stress responses to fatigue, tension, anxiety, and depression, which were associative with quantitative workload. Increased workplace stress from job strain may affect the workers through eating behaviours to eat a lot that contribute to obesity.

Peretti watel, et al., (2009) study on working condition, job dissatisfaction and smoking behaviours among workers. Result suggest that subjects who reported strong dissatisfaction toward unhealthy working conditions also reported more frequently current smoking,
tobacco dependence, potential alcohol dependence and perceived stress. After adjusting for demographic confounders, perceived working conditions and job dissatisfaction remained with smoking and tobacco dependence.

Andrew Steptoe, et.al.,(2008) The effects of workload in psychological well being, cortisol, smoking and alcohol consumption were examined, results suggests that salivary cortisol was universally associated with job strain and did not vary across sessions, females but not male smokers consumed more cigarette’s during periods of long working hours, and self reported smoking and nicotine concentration were greater among smokers with higher nicotine dependency scores. Men but not women with poor social supports consumed more alcohol as work hours lengthened. These data indicate that health behaviours are affected only to a limited extent by variation in workload.

Melvin Chagas Silva, et.al.,(2003) The study to describe the prevalence and associations of hazardous drinking in a male industrial worker population in India. A total of 984 subjects from a randomly selected sample of 1013 workers from four industries in Goa, India, were recruited. Interviews included the 10-item Alcohol Use Disorders Identification Test as an indicator of hazardous drinking and the 12-item General Health Questionnaire as a measure of common mental
disorders. Results found that the prevalence of hazardous drinking, defined as an AUDIT score of more than 8 was 21%. There was a significant association with CMD. Hazardous drinking was significantly associated with severe health problems, such as head injuries and hospitalization, whereas CMD was found to be a confounder in its association with adverse economic outcomes. Hazardous drinking is common among male industrial workers in Goa. Interventions in the workplace must target both drinking problems and CMDs, since they often co-exist and are associated with different types of adverse outcomes.

Ames, G.M et.al., (2000) An empirical study to find the relationship of drinking and hangovers to workplace problems. Analysis indicates that overall drinking, heavy drinking outside of work, drinking at or just before work and coming to work hangover were related to the overall number of work problems experienced by respondents as well as to specific problems such as conflicts with supervisors and falling asleep on the job. Work-related drinking and hangovers may have important implications for the productivity, safety and quality of working life. Characteristics of the work environment, along with personal demographic factors, influence work-related drinking.
Tsutsumi, A et.al., (2009) conducted a study on “occupational stress and risk of stroke”. Results revealed that more than 2-fold increase in the risk of total stroke among men with strain (combination of high job demand and low job control) compared with counterpart men with low strain results shows that no significant differences were found for any stroke incidence among women’s, occupational stress related to job strain was associated with incident strokes among men.

Krisztina, et.al., (2008) A nation wide representative survey on work related stress factors and menstrual pain among women’s aged 18-55yrs. Results found that 15.5% of women reported to experience menstrual pain that limits their daily activities. Low job control, low co-worker support and low job security were found to be associated with a higher risk for menstrual pain even after controlling for the effect of age, educational attainment, parity status, smoking, body mass index and treatment for gynecological problems.

Block, J.P et.al., (2009) the associations of psychosocial stress with weight gain may have important implications for clinical practice and workplace and public health interventions. To determine whether multiple domains of psychosocial stress were associated with weight gain from 1995 to 2004, the authors analyzed a nationally representative
longitudinal cohort of 1,355 men and women in the United States. Change in body mass index was assessed for multiple domains of psychosocial stress related to work, personal relationships, life constraints, and finances, controlling for other factors associated with weight gain. Among men with high baseline body mass index, weight gain was associated with increasing levels of psychosocial stress related to job-related demands, lack of skill discretion, lack of decision authority, and difficulty paying bills. Among women with high baseline body mass index, weight gain was associated with job-related demands for interaction with baseline body mass index, perceived constraints in life strain in relations with family, and difficulty paying bills. Interventions to address psychosocial stress may limit weight gain among overweight and obese men and women.

Bunker, S.J et.al., (2003) stated that the increased risk contributed by these psychological factors (job demands and strains, dissatisfaction) is of similar order to the more conventional coronary heart disease risk factors such as smoking, dyslipidemia and hypertension. The identified psychological risk factors should be taken into account during the individual risk assessment and management.
California Utility Company (2001) reported that men between the ages of 40 and 60 who reported high job stress, had a 36% chance of having signs of Atherosclerosis in their carotid arteries. Only 21% who reported low job stress had signs of Atherosclerosis.

Chen, W et.al.,(2005) study on impact of occupational stress and other psychosocial factors on musculoskeletal pain among Chinese workers. The prevalence of musculoskeletal pain over the previous 12 months varied between 7.5% for elbow pain and 32% for low back pain; 56% workers had at least one complaint. Significant associations were found between various psychosocial factors and musculoskeletal pain in different body regions after adjusting for potential confounding factors. Occupational stressors, in particular stress from safety, physical environment, and ergonomics, were important predictors of musculoskeletal pain, as was coping by eating behaviour.

PART III- STUDIES RELATED TO EFFECTIVENESS OF PROGRESSIVE MUSCLE RELAXATION TECHNIQUE ON STRESS:-

Mark Bobella, (2004) had stated that exercise is an excellent method for reducing stress, espesciating in short term. Exercises are the first step of mental health with a regular routine which relieves stress, promotes self esteem and coping, in enhancing immune function.
De macro sinata, (2000) had conducted a study to assess the relaxation training as a holistic nursing intervention. Relaxation technique can be employed by nurses to reduce the negative effects of stress, illness and surgery while promoting healing and self efficacy. Holistic nursing approach supports an innovative model of caring for nursing practice.

Dr. Gurumurthy, (2004) had stated that exercise promotes well being and overall quality of one’s life. Exercise reduces the blood pressure and helps to overcome the stress and fatigue. It promotes clarity of thought, creativity and problem solving skills.

Coach Yip,(2009) stated that the progressive muscle relaxation techniques offer a good foundation or pathway where individual can use it to initiate the body relaxation, then transferring this relaxation state into Taichi practice where it can further be used to achieve both mind and body relaxation and lastly to habitualise it into daily activities.

Agee, JD et.al., (2009) this study sought to compare a five-week mindfulness meditation (MM) course to a five-week course that taught progressive muscle relaxation (PMR). Forty-three adults from the community were randomly assigned to either MM (n = 19) or PMR (n = 24). Mindfulness meditation participants practiced meditation
significantly more often than PMR participants practiced relaxation during the intervention period. Although there were no differences between groups on any of the primary outcome measures, across both treatment conditions there were statistically significant reductions from pretreatment to post treatment in general psychological distress.

**Bradley, B.W et al., (2009)** Forty-eight male subjects with no previous meditative experience engaged in either progressive relaxation (PR), a meditative treatment designed to induce the relaxation response (RR), or a no-treatment control experience (C) during four sessions on consecutive days. Negative expectations regarding the effectiveness of each technique for reducing physiological responses to stress were induced for half of the subjects in each treatment condition, and positive expectations were induced for the other half. Subjects viewed a stressful film following practice of their technique during the first and fourth sessions. Heart rate and electrodermal responding were recorded continuously during practice of the techniques and during the stressful film throughout the first and fourth sessions. Results indicated lowered heart rate levels prior to the film for subjects in the PR-positive expectancy condition and during the film for subjects in the RR-positive expectancy condition. It is suggested that subjects' expectancies concerning meditation may affect cardiovascular responding during
stress, although meditative treatments in general do not appear to reduce stress responding as effectively as previously suggested.

Archana Khanna, et al. (2007) a study to compare the effectiveness of GSR biofeedback training and progressive muscle relaxation training in reducing blood pressure and respiratory rate among highly stressed individuals, Amritsar, India. Out of the 120 females, only those whose anxiety scores were greater than 40 and percentile greater than 70 were selected for the study. Ultimately, 30 highly stressed females with high anxiety scores, who were free from any ailments and not undergoing any kind of medication treatment were chosen for the study. Of these subjects, 20 were randomly assigned to one of the two training groups: GSR biofeedback training and PMR training. The remaining 10 subjects were taken as control. The training was provided for 20 min daily for 10 consecutive days only group 1 showed significant reduction in post training values of respiratory rate on day 10 as compared to day 1. Statistically significant differences were observed on intercrop comparison between GSR biofeedback and control group (t = 2.79) and between PMR and control group (t = 3.19). Present study has shown PMR training to result in significant decrease in blood pressure whereas GSR biofeedback training showed a decrease in respiratory rate. Both techniques are
simple and easy to use. These can be well adopted by people who face stressful work conditions.

Yoon Bok Hann, et.al., (2007) assess the effectiveness of the thermal biofeedback training combined with the progressive muscle relaxation then treatment of patients with essential hypertension, blood pressure decline was measured on the treatment group who had thermal biofeedback and progressive muscle relaxation training, and on the control group who had only the progressive muscle relaxation training. A significant decline of the systolic and diastolic pressure was observed in the treatment group.

Prabhu,K., (2006) A study to assess the effectiveness of progressive muscle relaxation on stress and coping among single old age men in Chevvayur. Results suggested that in post intervention, among 60 samples 25(41.5%) had less stress and adequate coping, 35(58.3%) had moderate stress, none of them had increased stress and inadequate coping. The data implies that the effectiveness of progressive muscle relaxation in single old age men was highly significant.

Laura,A et.al., (2005) study on the impact of abbreviated progressive muscle relaxation on salivary cortisol and salivary
immunoglobulin A (sIgA). Members of age- and gender-matched undergraduate student pairs were randomly assigned to an experimental or control group. Forty-one experimental subjects were led through Abbreviated Progressive Relaxation Training (APRT) during a 1-h laboratory session; 14 control subjects merely sat quietly in the laboratory for an equal amount of time. All subjects provided pre- and post-intervention saliva samples and self-report data on state anxiety, perceived stress, and relaxation levels. Heart rate was also monitored immediately before and after APRT or quiet sitting. Results indicated that a brief relaxation exercise led to experimental subjects having significantly lower levels of post-intervention salivary cortisol and significantly higher levels of post-intervention sIgA concentration and secretion rate than control subjects. The data suggest that relaxation training may play a role in immunoenhancement.

Ghoncheh, S et.al.,(2004) This study compared the psychological effects of progressive muscle relaxation (PMR) and yoga stretching (hatha) exercises. Forty participants were randomly divided into two groups and taught PMR or yoga stretching exercises. Both groups practiced once a week for five weeks and were given the Smith Relaxation States Inventory before and after each session. PMR displayed higher levels of relaxation states (R-States) Physical
Relaxation and Disengagement at Week 4 and higher levels of Mental Quiet and Joy as a post training aftereffect at Week 5. Results suggest the value of supplementing traditional somatic conceptualizations of relaxation with the psychological approach embodied in ABC relaxation theory.

Malcolm, R.J et.al.,(2003) The purpose of this study was to determine whether a relaxation intervention (Abbreviated Progressive Muscle Relaxation Therapy, APRT) that has been shown to significantly reduce stress levels in normal, healthy adults would also benefit an night eating syndrome sample. A total of 20 adults with NES were randomly assigned to either a relaxation training (APRT) or a Control (quietly sitting for the same amount of time) group, and all subjects attended two laboratory sessions 1 week apart. Pre- and post session indices of stress, anxiety, relaxation, and salivary cortisol were obtained, as well as Day 1 and Day 8 indices of mood. Food diaries and hunger ratings were also obtained. The results indicated that 20 min of a muscle relaxation exercise significantly reduced stress, anxiety, and salivary cortisol immediately post session. After practicing these exercises daily for a week, subjects exhibited lowered stress, anxiety, fatigue, anger, and depression on Day 8. APRT was also associated with significantly higher a.m. and lower p.m. ratings of hunger, and a trend of both more
breakfast and less night-time eating. These data support the role of stress and anxiety in NES and suggest that practicing relaxation may be an important component of treatment for this condition.

**Pawlow, et.al.,(2002)** study conducted on abbreviated progressive muscle relaxation on salivary control. Result suggests that subjects in the experimental group had significantly lower heart rate, state anxiety, perceived stress and salivary control, than control subjects, reported higher levels of relaxation.

**Matsumoto,M et.al.,(2001)** This study compared the psychological effects of Progressive Muscle Relaxation (PMR) and breathing exercises. Forty-two students were divided randomly into two groups and taught PMR or breathing exercises. Both groups practiced for five weeks and were given the Smith Relaxation States Inventory before and after each session. PMR practitioners displayed greater increments in relaxation states (R-States) Physical Relaxation and Disengagement, while breathing practitioners displayed higher levels of R-State Strength and Awareness. Slight differences emerged at Weeks 1 and 2; major differences emerged at Weeks 4 and 5. A delayed and potentially reinforcing aftereffect emerged for PMR only after five weeks of training--increased levels of Mental Quiet and Joy.
Van Der Klink, (2001) this quantitative meta-analysis sought to determine the effectiveness of occupational stress-reducing interventions and the populations for which such interventions are most beneficial. Four intervention types were distinguished: cognitive-behavioral interventions, relaxation techniques, multimodal programs. Biofeedback was the least frequent technique used in work settings and also seemed to be the least effective technique. Meditation produced the most consistent results across outcome measures but was used in only six studies. In general, studies using a combination of techniques (e.g., muscle relaxation plus cognitive-behavioral skills) seemed to be more effective across outcome measures than single techniques.

Scheufele, (2000) had conducted a study on the effect of the progressive muscle relaxation on measurement of attention, relaxation and stress response. With 67 male volunteers, were exposed to stress manipulation condition and then to a progressive muscle relaxation, music, attention control and silence. Results reveal that all four groups showed a reduction in physiological arousal following their relaxation or control condition, as well as decreased heart rate. However, progressive muscle relaxation resulted in the greatest effects on behavioural and self report measures of relaxation.
Youngshin Kim, (2008) study was to investigate the effects of two music therapy approaches, improvisation-assisted desensitization, and music-assisted progressive muscle relaxation and imagery on ameliorating the symptoms of music performance anxiety (MPA) among student pianists. Thirty female college pianists were randomly assigned to one of two conditions: All participants received 6 weekly music therapy sessions according to their assigned group. Two lab performances were provided; one before and one after the 6 music therapy sessions, as the performance stimuli for MPA. Participants' finger temperatures were also measured. When results of the music-assisted PMR and imagery condition were compared from pretest to posttest, statistically significant differences occurred in 6 out of the 7 measures—MPA, tension, comfort, STAI, MPAQ, and finger temperature, indicating that the music-assisted PMR and imagery treatment was very successful in reducing MPA. For the improvisation-assisted desensitization condition, the statistically significant decreases in tension and STAI, with increases in finger temperature indicated that this approach was effective in managing MPA to some extent.

William Rhenen, et al., (2003) conducted a study on the effect of a cognitive and physical stress reducing programme on psychological complaints. One programme was a cognition focused programme, the
other was a newly developed intervention in which physical exercise and relaxation were combined. From a working population engaged in a periodic health check up, employees above a minimum stress level were randomly selected. Results found that both intervention revealed a positive impact on psychological complaints, burn out and fatigue, both at short term and at 6 month follow up. Clinical significance of the effects indicated that 50% of the employees with psychological complaints who participated in the physical intervention and 60% of the employees in the cognitive intervention improved and returned to functioning within normal range both in short term and in the long term at 6 months. The data indicate that intervention were equally effective on psychological complaints, burn out and fatigue.
CHAPTER – III

METHODOLOGY

This Chapter of Research Methodology is a way to systematically solve the research problems. It includes the step of process and strategic for valid reliable data for the study. It includes the research approaches, research design, sampling and selection, research settings and data analysis.

RESEARCH APPROACH:

An evaluative approach was used for the study to determine the effectiveness video assisted teaching programme on progressive muscle relaxation technique to reduce stress among cotton mill workers.

RESEARCH DESIGN:

Quasi experimental; one group pre test and post test design. Which is represented below,

<table>
<thead>
<tr>
<th>Groups</th>
<th>Pretest</th>
<th>Intervention</th>
<th>Post test</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>O₁</td>
<td>X</td>
<td>O₂</td>
</tr>
</tbody>
</table>
The symbols used:

\[ O_1 \] - Collection of demographic data. Pretest assessment of level of stress among cotton mill workers.

\[ X \] - Video assisted teaching programme on progressive muscle relaxation technique.

\[ O_2 \] - Post test done to assess the level of stress among cotton mill workers

RESEARCH SETTINGS:

The study was conducted in Vishnuram Textiles Limited located in Kalikkampatty, Dindigul District, approximately 5 Km from Dindigul and totally 200 employees are working in this Industry. It consists of 5 departments such as Blow room, winding, spinning, guarding, and cone Winding. The duty hours are divided into 3 shifts with 8 hours, timings 6am-2 pm, 2 pm-10 pm, 10 pm-6 am, on the whole 50 persons per shift, 15 persons are working per shift in each department.

POPULATION:

The population of the study was the cotton mill workers who are working in selected industries.
SAMPLE:-

Sample constitutes of workers who were working in Vishnuram textiles, Dindigul.

CRITERIA FOR SAMPLE SELECTION:

Inclusion Criteria:

- Workers who are aged between 20 –40 Years.
- Both male and female workers.
- Workers who are available during data collection period.

Exclusion Criteria:

- Workers who are on Leave.
- Workers who are not willing to participate.

SAMPLE SIZE:

The sample size comprised of 60 members who are working in the cotton mill.

SAMPLING TECHNIQUE:

Stratified random sampling technique was used in this study. There are five departments. Each department is considered as one stratum. From each department, four subjects were selected in the morning shift, four subjects in the afternoon shift by using lottery method.
INSTRUMENTS AND SCORING PROCEDURE:-

a) Description of the Instrument

Part I:

It consists of Demographic Variables such as age, sex educational status, Marital status, monthly income, religion, area of residence, type of family, years of experience, type of placement.

Part II:

Through structured interview schedule modified job stress inventory was used to assess the level of Stress by Arbor Employee Assistance, Omaha. It consists of rating scale, which has 5 responses such as never, occasionally, somewhat often, frequently, and almost always.

b) Scoring Procedure and Interpretation:

Five point rating scale was used to assess the level of stress among cotton mill workers. It consists of 65 questions. Total score is 260.

0 = Never
1 = Occasionally
2 = somewhat often
3 = Frequently
4 = Almost always
LEVEL OF STRESS | SCORES | PERCENTAGE
---|---|---
mild | Below 86 | 0-33%
moderate | 87-172 | 34-66%
severe | 173-260 | 67-100%

VALIDITY AND RELIABILITY:

Validity:
The validity of tool was established in consultation with experts, psychiatrists, community medicine, psychiatric nursing experts. The tool was modified according to the suggestions and recommendations of the experts and finalized.

Reliability:
The reliability of the tool was established by the test retest method the Karl Pearson co-efficient formula was used to find out the stability of the tool and found to be reliable (r=0.91). The split half method, the Spearman’s Browns Prophecy Formula was used to find out the internal consistency of the tool and found to be reliable (R=0.90).
PILOT STUDY:

Pilot study was conducted for a period of two weeks in Dharani textiles at Vadadumurai. The investigator obtained written permission from the manager prior to the study. The researcher introduced about the study to the workers and established rapport with them and demographic variables were collected. 10 workers were selected by using stratified random sampling technique that satisfies the inclusion criteria. The level of stress was assessed by using structured interview schedule using rating scale. Immediately after pretest video assisted teaching programme on progressive muscle relaxation technique was given in the form of group teaching in a common place by using laptop for 30 minutes. The effectiveness was assessed on 15th day by using same interview schedule.

The mean value of post test level of stress (46.8) was lower than the mean value (118.5) of the pretest respectively. It showed that video assisted teaching programme on progressive muscle relaxation technique was effective. After the pilot study it was found to be feasible and practicable to conduct the main study.
DATA COLLECTION PROCEDURE:-

The study was conducted at Vishnuram Textiles, Kalikkampatty in rural area of Dindigul. Before conducting the study, written permission was obtained from Manager. The data was collected in the month of August. The verbal consent was obtained from the participant. The cotton mill workers were selected as subjects using stratified random sampling technique. There are five departments (blow room, winding, spinning, guarding, cone winding). In first week the investigator collected the data from 8 workers per day; 4 workers in the morning and 4 workers in the afternoon shift in one department. Pre test was conducted in the time period of 20 mts for each sample. After pretest, on the same day video assisted teaching programme on progressive muscle relaxation technique was given to a group of four cotton mill workers for 30 minutes. In the second week, 4 workers were selected in the morning shift, the pre test and intervention was given. Intervention was given at 2.00-2.30 P.M for morning shift; 4.30-5.00 P.M for afternoon shift. Post test was conducted on the 15th day. The time period for data collection was 8-5 pm. The data were analyzed using statistical measurements.
PLAN FOR DATA ANALYSIS:

Descriptive and inferential statistics were used for data analysis.

<table>
<thead>
<tr>
<th>Data analysis</th>
<th>Method</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptive</td>
<td>Frequency, Percentage, Mean,</td>
<td>To describe the demographic</td>
</tr>
<tr>
<td>Statistics</td>
<td>Standard Deviation.</td>
<td>variables of common mill workers</td>
</tr>
<tr>
<td>Inferential</td>
<td>Paired ‘t’ test</td>
<td>To assess the level of pre test and post test stress scores</td>
</tr>
<tr>
<td>Statistics</td>
<td>Chi square test</td>
<td>To evaluate the effectiveness of video assisted teaching programme</td>
</tr>
<tr>
<td></td>
<td></td>
<td>between pre test and post test stress scores</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To find the association between post test stress scores with</td>
</tr>
<tr>
<td></td>
<td></td>
<td>their selected demographic Variables.</td>
</tr>
</tbody>
</table>

PROTECTION OF HUMAN SUBJECTS:

The study was performed after getting approval from the Dissertation Committee. The written permission was obtained from the General Manager of Vishnuram textiles, Dindigul. The oral consent was obtained by the researcher from the subjects before data collection. Assurance was given to them that confidentiality will be maintained.
CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretation of the data collected to assess the effectiveness of video assisted teaching programme on progressive muscle relaxation technique to reduce stress among cotton mill workers.

The Analysis of data collected from 60 cotton mill workers to assess the effectiveness of video assisted teaching programme on progressive muscle relaxation technique to reduce stress.

The Data has been tabulated and organized as follows.

SECTION - A: Description of the sample according to their Demographic variables.

SECTION - B: Comparison of pre and post test stress scores among Cotton mill workers.

SECTION -C: Association between post test stress scores among Cotton mill workers with their selected Demographic variables.
### Table 1: Frequency and Percentage distribution of cotton mill workers according to their demographic variables.

**n=60**

<table>
<thead>
<tr>
<th>S.No</th>
<th>Demographic Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Age (in years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. 20-25</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>b. 25-30</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>c. 30-35</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>d. &gt;35</td>
<td>28</td>
<td>47</td>
</tr>
<tr>
<td>2.</td>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Male</td>
<td>32</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>b. Female</td>
<td>28</td>
<td>47</td>
</tr>
<tr>
<td>3.</td>
<td>Educational Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. No formal education</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>b. Primary education</td>
<td>38</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>c. Secondary education</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>d. Graduate</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Married</td>
<td>51</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>b. Unmarried</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>c. Widow</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5.</td>
<td>Monthly Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. &lt; Rs. 1,500</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>b. Rs.1,500 – 3,000</td>
<td>24</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>c. Rs.3,000 – 4,500</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>d. &gt; Rs.4,500</td>
<td>25</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Religion:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>a. Hindu</td>
<td>47</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>b. Christian</td>
<td>13</td>
<td>22</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Area Of Residence</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. Urban</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>b. Rural</td>
<td>53</td>
<td>88</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Type Of family</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. Nuclear</td>
<td>43</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>b. Joint</td>
<td>17</td>
<td>28</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Years Of Experience</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. &lt;1 Yr</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>b. 1-5 yrs</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>c. 5-10 yrs</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>d. &gt;10 yrs</td>
<td>28</td>
<td>47</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Type Of Placement</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. Temporary</td>
<td>34</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>b. Permanent</td>
<td>26</td>
<td>43</td>
</tr>
</tbody>
</table>

Table 1 showed the distribution of demographic variables age, sex, educational status, marital status, monthly income, religion, area of residence, type of family, years of experience and type of placement.

Distribution of cotton mill workers according to their age group depicts that the highest percentage 47% (28) of workers were in the age group of > 35 years, where as 25% (15) were in the age group of 30-35 yrs and 20% (13) were in the age group of 20-25 yrs. Only 6 % ( 4) of
workers in the age group of 25-30 yrs. It shows that most of the workers were above > 35 yrs of age. (Fig: 2).

The highest percentage 53 % (32) of workers were male and 47 % (28) of workers were female. (Fig:3).

The highest percentage 63% (38) of workers had primary education, 22% (13) of workers had secondary education and 12% (7) of workers had no formal education. Only 3% (2) of workers were graduate. It shows that most of the workers had primary education. (Fig:4).

The majority 85% (51) of workers were married, where as 12% (7) were unmarried. Only 3% (2) were widowers. It shows that most of the workers were married. (Fig:5).

The highest percentage 42% (25) of workers belongs to income group of >4500, where as 40% (24) were belongs to income group of Rs. 1500-3000, however 12% (7) were belongs to the income group of 3000-4500 and only 6% (4) of them belongs to income group < 1500. It shows that most of the workers were belongs to the income group above 4500. (Fig:6).
The majority 78%(47) of workers were Hindu, where as 22%(13) of them were Christian. It shows that the most of the workers were belongs to Hindu Religion. (Fig: 7).

The majority 88%(53) of workers were from rural area, where as 12%(7) of workers were from urban area. It shows that the most of the workers were from rural area because the cotton mill is located in rural area. (Fig: 8).

The highest percentage 72%(43) of workers belong to nuclear family, 28%(17) belong to joint family. It shows that, three fourth of the workers belong to nuclear family. It may be due to that, now days the joint family system is changing in to nuclear family in India. (Fig: 9).

The highest percentage 47%(28) of workers had> 10yrs of experience, where as 22%(13) of workers had 1 -5 yrs of experience. However 18%(11) of workers had <1yr of experience and 13%(8) had 5- 10yrs of experience. It shows that, around half of the workers had >10yrs of experience. (Fig: 10).

The highest percentage 57%(34) of workers were temporary employees and 46 %(26) were permanent employee. (Fig: 11).
Fig: 2 Percentage distribution of cotton mill workers according to their age
Fig: 3 Percentage distributions of cotton mill workers according to their sex
Fig: 4 Percentage distribution of cotton mill workers according to their Educational Status
Fig: 5 Percentage distribution of cotton mill workers according to their Marital Status
Fig 6: Percentage distribution of cotton mill workers according to their Monthly Income.
Fig: 7 Percentage distribution of cotton mill workers according to their Religion
Fig.: 8 Percentage distribution of cotton mill workers according to their Area of Residence
Fig. 9 Percentage distribution of cotton mill workers according to their Type of family
Fig : 10 Percentage distribution of cotton mill workers according to their Years of experience
Fig: 11 Percentage distribution of cotton mill workers according to their Type of Placement
Table-2

Comparison of pre and post test stress scores of cotton mill workers.

n=60

<table>
<thead>
<tr>
<th>Level of stress</th>
<th>Pre test</th>
<th>Post test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage (%)</td>
</tr>
<tr>
<td>Mild</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Moderate</td>
<td>57</td>
<td>95</td>
</tr>
<tr>
<td>Severe</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2 showed the Comparison of pre test and post test stress scores of cotton mill workers.

Among 60 workers, almost all the workers 95%(57) had moderate level of stress and 3%(2) of workers had mild stress. Only 2 %(1) of workers had severe stress, where as none of them had found without stress in pretest.

In post test the majority 88 %( 53) of workers had mild stress, and only 12%(7) of workers had moderate stress.

It revealed that the most of the workers had mild stress after teaching progressive muscle relaxation technique.
Fig: 12 Comparison of pre test and post test stress scores of cotton mill workers
Table -3

Comparison of mean, standard deviation and `t` test value of pre and post test stress scores among cotton mill workers.

<table>
<thead>
<tr>
<th>S.NO</th>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th><code>t</code> Value</th>
<th>Table Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pre test</td>
<td>112.95</td>
<td>24</td>
<td>19.01</td>
<td>1.671</td>
</tr>
<tr>
<td>2</td>
<td>Post test</td>
<td>63.7</td>
<td>22.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table 3 showed that mean scores of pre test and post test stress scores of the cotton mill workers were 112.95 (SD±24) and 63.7 (SD±22.3) respectively.

The post test stress scores were lower than pretest stress scores. The ‘t’ value is 19.01 which was significant at 0.05 level.

The hypothesis stated as the mean post test stress score is significantly lower than the mean pre test stress score, is accepted by the above findings.
SECTION – C

Association between post test stress scores among cotton mill workers with their selected demographic variables.

Table - 4

Association between post test stress scores among cotton mill workers with their selected demographic variables.

n= 60

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Level of stress</th>
<th>χ²</th>
<th>Table Value</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mild</td>
<td>Moderate</td>
<td>Severe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No %</td>
<td>No %</td>
<td>No %</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 -25 yrs</td>
<td>12</td>
<td>20</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>25 -30 yrs</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>30 -35 yrs</td>
<td>14</td>
<td>23</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>35 -40 yrs</td>
<td>26</td>
<td>43</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>32</td>
<td>54</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Female</td>
<td>23</td>
<td>38</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Educational status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>3.1</td>
<td>No Formal education</td>
<td>5</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>3.2</td>
<td>Primary Education</td>
<td>35</td>
<td>59</td>
<td>3</td>
</tr>
<tr>
<td>3.3</td>
<td>Secondary education</td>
<td>13</td>
<td>22</td>
<td>-</td>
</tr>
<tr>
<td>3.4</td>
<td>Graduate</td>
<td>2</td>
<td>3</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Marital Status</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Married</td>
<td>46</td>
<td>77</td>
<td>5</td>
<td>8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4.2</td>
<td>Unmarried</td>
<td>7</td>
<td>12</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4.3</td>
<td>Divorced</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Monthly Income</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Rs 1500</td>
<td>4</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5.2</td>
<td>Rs.1500-3000</td>
<td>19</td>
<td>32</td>
<td>5</td>
<td>8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5.3</td>
<td>Rs3000-4500</td>
<td>7</td>
<td>12</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5.4</td>
<td>Rs&gt;4500</td>
<td>25</td>
<td>42</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Religion</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1</td>
<td>Hindu</td>
<td>42</td>
<td>70</td>
<td>5</td>
<td>8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6.2</td>
<td>Christian</td>
<td>13</td>
<td>22</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Area Of residence</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1</td>
<td>Town</td>
<td>5</td>
<td>9</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7.2</td>
<td>Village</td>
<td>50</td>
<td>83</td>
<td>3</td>
<td>5</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
It was found that there was an association between sex (6.4), monthly income (12.145), and area of residence (4.276). Other demographic variables (Age, education, marital status, Religion, type of family, years of experience, type of placement had no association with stress scores among cotton mill workers.
 CHAPTER-V

DISCUSSION

This chapter presents the interpretation of the statistical findings.

The aim of the study was to assess the effectiveness of video assisted teaching programme on progressive muscle relaxation technique to reduce stress among cotton mill workers in selected industries at Dindigul. The sample of 60 workers who met the inclusion criteria were selected for the study by using stratified random sampling method. After the pretest video assisted teaching programme was given. Post test was given after 15 days of intervention.

Description of sample characteristics:

Among 60 workers, 47 %( 28) of workers were in the age group of 35-40 years, and only 6 %( 4) of workers in the age group of 25-30 yrs. The study findings consistent with the report of the state of working Victoria-project, Melbourne (2005), stated that more than two thirds (68 percentage) of the Victoria workforce are aged under 45 years.
Most of the workers 53%(32) of workers were male, and 47%(28) of workers were female. This finding is not supported with the report of “the state of working Victoria project” Melbourne (2005) stated that 22 percent of male aged over 50 years.

Majority 63%(38) of workers had primary education, only 3%(2) of workers were graduate. This finding is more or less similar with the report of 9th five year plan; India 52% of workforce was below the primary level of education.

Majority 85%(51) of workers were married, Only 3%(2) were widowers. This finding is consistent with the study conducted by Geevarghese,M. Kerala, (2004) of the total sample workers 95.94% are married.

Highest percentage 42%(25) of workers belongs to income group Rs. > 4500, only 6%(4) of them belongs to income group < 1500. This findings are more or less similar with the study conducted by Geevarghese,M. Kerala (2004) the majority (53.68%) of B-sector workers have average income above Rs. 35000.
Majority 78 % (47) of workers were Hindu religion, and only 22 % (13) of them were Christian. The finding is contradicted with the study conducted by Geevarghese, M. Kerala (2004) reported that 40.31% of the workers belongs to forward community Hindus.

Majority 88 % (53) of workers from rural areas, and only 12 % (7) of workers were from urban area. The finding is more or less similar to the state of working Victoria project, Melbourne (2005) rural workers aged between 30 and 49 have a higher number of workers than urban area workers.

The highest percentage 72 % (43) of workers belong to nuclear family, and 28 % (17) of the workers belong to joint family. The finding is not supported by the study conducted by Geevarghese, M. Kerala, (2004) 55.56 % of C-sector workers belong to small family size.

The highest percentage 47 % (28) of workers had > 10 years of experience, and 13 % (8) had 5-10yrs of experience.

Majority 57 % (34) of workers were temporary employees, and 46 % (26) were permanent employee.
These findings are discussed under the following headings.

1. Assess the pre test level of stress scores among cotton mill workers
2. Assess the post test level of stress scores among cotton mill workers
3. Compare the pre test and post test stress scores among cotton mill workers
4. Find the association between post test stress scores among cotton mill workers with their selected demographic variables.

First Objective: Assess the pre test level of stress scores among cotton mill workers.

Pre test stress scores among 60 cotton mill workers were assessed; almost 95 % (57) of the workers had moderate level of stress. It revealed that there was a need for video assisted teaching programme for workers on progressive muscle relaxation technique.

The finding is more or less similar to the study conducted by Hemalatha, J., (2006) assessed the level of stress among workers in selected metropolitan transport corporation at Chennai. 60 samples were selected by simple random sampling technique. The results estimated that over all level
of stress was 16.6% (10) had mild stress, 83.3% (50) of workers had moderate level of stress and none of them had severe level of stress.

Second Objective: Assess the post test level of stress scores among cotton mill workers:

The assessment of post test stress scores among 60 workers, Majority 88 % (53) of workers had mild stress. After being exposed to Video assisted teaching programme on progressive muscle relaxation technique the level of stress scores had been markedly decreased.

The study is consistent with the study conducted by Prabhu, K., (2006) on effectiveness of Jacobson’s progressive muscle relaxation technique on stress and coping among single old age men in Chevvayur town. The samples were selected by simple random sampling technique. Among 60 single old age men 25(41.7%) of them had mild stress and adequate coping, 35(58.3%) had moderate level of stress and moderate coping, none of them had severe stress and inadequate coping. The data implies that the effectiveness of progressive muscle relaxation technique in single old age men is statistically significant.
Third Objective: Compare the pre test and post test stress scores among cotton mill workers:

The assessment of level of stress scores of cotton mill workers after being exposed to Video Assisted Teaching programme on progressive muscle relaxation technique showed that level of stress had been markedly decreased as evidenced by the post test analysis. It revealed that level of stress among cotton mill workers in post test mean score of 63.7 (SD $\pm$ 22.3) which was lower compared to the mean score of 112.95 (SD $\pm$ 24) in the pre test at p<0.05 level of significance.

It can be interpreted that H1 mean post test stress score was significantly lower than mean pre test stress score, which is accepted.

Fourth Objective: Find the association between post test level of stress scores among cotton mill workers with their selected demographic variables.

It revealed that there was a significant association between sex ($\chi^2$=6.4), monthly income ($\chi^2$=12.145), and area of residence ($\chi^2$ = 4.276), with the post test stress scores of workers. Other demographic variables age ($\chi^2$=0.353), educational status ($\chi^2$=0.1764), religion ($\chi^2$=1.508), type of family ($\chi^2$=2.754), years of experience
\( \chi^2 = 0.908 \), type of placement \( \chi^2 = 1.266 \) had no association with stress.

The finding is consistent with the study conducted by Steinkopff T., (2000) Turkey, to determine the separate effects of social class, income, education, and area of residence on psychological distress. Results found that psychological distress was significantly associated with class status, after adjusting for income, educational status, area of residence and other potential confounders (age, sex, and marital status). The findings support the view that the recent widening of inequalities among social classes in Turkey places a substantial threat to health.

The study shows that Video Assisted Teaching programme on Progressive Muscle relaxation technique was highly effective in reducing stress among cotton mill workers.
SUMMARY, CONCLUSION, IMPLICATION, RECOMMENDATIONS AND LIMITATION

This chapter deals with

- Summary of the study
- Conclusion
- Implications for nursing
- Recommendations
- Limitation

SUMMARY OF THE STUDY:

The study was done to assess the effectiveness of video assisted teaching programme on progressive muscle relaxation technique to reduce stress among cotton mill workers.

An evaluative approach, Quasi experimental, one group pre test post test design was used. The study was conducted in Vishnuram textiles, Kalikkampatti, Dindigul (Dt). The conceptual frame work based on the Roy’s Adaptation model (1964). The sample of 60 who met
the inclusion criteria were selected by using stratified random sampling method

The instrument used for data collection to assess the level of stress among cotton mill workers, it consists of two parts, Demographic Variables, Rating Scale.

Pilot study was conducted in the month of July and found to be feasible to conduct the main study.

The study was conducted at Vishnuram textiles, Kalikkampatty, Dindigul. Workers were included in the study and confidentiality was assured. The investigator gave brief introduction and pre test was conducted for 20 mts and video assisted teaching programme was conducted for 30 mts. Post test was done on 15th day. The data collected were analyzed by using descriptive and inferential statistics. There was a decreased level of stress among cotton mill workers in post test.

The finding showed that video Assisted teaching programme on progressive muscle Relaxation technique was highly effective in reducing the stress among cotton mill workers.
The major findings are summarized as follows:-

- Highest percentages of the workers (47%) were in the age group of > 35 years.
- Most of the workers (53%) were male.
- Highest percentage of the workers (63%) had primary education.
- Majority of the workers (85%) were married.
- Highest percentage of the workers (42%) belong to income group of >4500.
- Majority of the workers (78%) were Hindu.
- Most of the workers (88%) from rural area.
- Most of the workers (72%) belong to nuclear family.
- Most of the workers (47%) had > 10 yrs of experience.
- Highest percentages of the workers (57%) were temporary employees.
- Prior to implementation of Video assisted teaching programme 2%(1) of workers had severe stress and 95%(57) had moderate level of stress and 3%(2) of workers had mild stress. Whereas after implementation of video assisted teaching programme 88% (53) of workers had mild stress, and only 12% (7) of workers had moderate stress.
The mean post test stress score (63.7) was significantly lower than mean pre test stress score (112.95). The `t` value (19.01) which was significant at 0.05 level.

Significant association was found between post test stress scores, sex ($\chi^2$=6.4), monthly income ($\chi^2$=12.145) and area of residence ($\chi^2$=4.276) with the post test stress scores of cotton mill workers.

CONCLUSION:-

Based on the findings of the study the following conclusions were drawn.

Prior to implementation of Video assisted teaching programme 95 %( 57) of workers had moderate level of stress where as after implementation of video assisted teaching programme, 88 %( 53) of workers had mild stress.

The existing levels of stress among workers were moderate. After implementing video assisted teaching programme there was a significant decrease in the level of stress as evidenced by the`t` value of (19.01) among cotton mill workers.
It is evident that the progressive muscle relaxation technique significantly decreased the stress level, will help the workers to improve their psychological well being which in turn will reduce the occurrence of mental health problem in their life.

**IMPLICATIONS FOR NURSING:-**

**Nursing Service:**

- The progressive muscle relaxation technique can be used to improve psychological well being among workers by that the psychiatric morbidity and mortality rates of the workers will be reduced.
- Nurses practicing in the health care setting should be equipped with the knowledge on various muscle relaxation techniques.
- Nursing service department can have a group of adequately trained nurses for demonstrating relaxation exercises to the various levels of workers.
- Nursing personnel working in the occupational health department, community, should be given in service education to update and improve their knowledge regarding progressive muscle relaxation technique.
- Health promotion is a vital function of the nurse and nurse can use this video assisted teaching programme on three levels of prevention. (i.e. Primary, secondary, and tertiary)
Nursing Education:-

- Students can utilize the video assisted teaching programme to give health education to industrial workers.
- Teacher can utilize the video assisted teaching programme to teach nursing students in classroom and clinical settings.
- CD ROM can be used in hospital setup.
- The video assisted teaching programme can be utilized by the nurses to educate the cotton mill workers in the small scale and large scale industries.

Nursing Administration:-

- Nurse administrators can utilize the video assisted teaching programme while conducting in service education programme for directing and motivating staff towards progressive muscle relaxation technique.
- Nurse administrators have more responsibility as supervisors on creating awareness among workers regarding muscle relaxation technique by facilitating free distribution of booklets, handouts, charts, regularly to workers in all the level of organization.
- Periodical performance appraisal in nursing service personnel on all aspects of psychiatric nursing care will in turn promote psychological well being.
• Administration of hospital, nursing and psychiatric department can use the present video assisted teaching programme as a model for preparing other teaching material such as compact disc.

Nursing Research:-

• This study can be effectively utilized by the emerging researchers.

• This study can be baseline for further studies to build upon.

RECOMMENDATIONS:-

• This similar study can be conducted in the hospital set up.

• Comparative study can be conducted in small and large scale industries.

• A comparative study can be conducted between progressive muscle relaxation and other stress management techniques.

• This similar study can be replicated on large sample there by findings can be generalized for a large population.

LIMITATION:-

• It was time consuming for the investigator as it took 30-40 mts to interview the sample.
BIBLIOGRAPHY

BOOK REFERENCE:-


JOURNAL REFERENCE:-


UNPUBLISHED THESIS:-


NET REFERENCE:-


APPENDIX – F

VIDEO ASSISTED TEACHING PROGRAMME ON

PROGRESSIVE MUSCLE RELAXATION TECHNIQUE

<table>
<thead>
<tr>
<th>Topic</th>
<th>Progressive Muscle Relaxation Techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects</td>
<td>Cotton mill workers</td>
</tr>
<tr>
<td>Number of Subjects</td>
<td>60</td>
</tr>
<tr>
<td>Place</td>
<td>Textiles</td>
</tr>
<tr>
<td>Duration</td>
<td>30 mts</td>
</tr>
<tr>
<td>Medium of instruction</td>
<td>Tamil</td>
</tr>
<tr>
<td>Teaching Aids</td>
<td>Laptop</td>
</tr>
<tr>
<td>Method of Teaching</td>
<td>Demonstration, Lecture</td>
</tr>
</tbody>
</table>
CENTRAL OBJECTIVES:

The Cotton Mill workers will be able to acquire knowledge regarding progressive muscle relaxation techniques and develop desirable attitude and Skill in apply in their personal life situation.

SPECIFIC OBJECTIVES:

At the end of the teaching workers will be able to
- define the terms
- explain the benefits
- enlist the principles
- describe the mechanism of action
- enumerate the guidelines
- discuss the steps
- enumerate the techniques
- paraphrase the procedure
- discuss the instructions
- describe the limitations and special considerations
**Specific Objectives**

- Define the terms

<table>
<thead>
<tr>
<th>Content</th>
</tr>
</thead>
</table>
| **Introduction:**
One method of reducing muscle tension in through a technique called Progressive Muscle relaxation. Relaxation based on this method has been used for many years. Many people have found it helpful in reducing muscle tension that has resulted from prolonged periods of anxiety. In progressive muscle relaxation exercise, you turn up particulars muscles and then relax them, and then you practice this technique consistently.

**Definition:**
Progressive Muscle Relaxation (PMR) is a tension-reducing technique that involves the systematic tension and relaxing of specific muscle groups. Starting with the muscles in the face, the participant completely tenses all muscles and holds the tension for several seconds (usually to the count of ten), completely relaxes for the same period of time, then repeats the process with the next set of muscles (the neck, the shoulders, etc.) until every area of the body has been relaxed. |

<table>
<thead>
<tr>
<th>A.V. Aids</th>
<th>Teacher Learner activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture cum discussion</td>
<td></td>
</tr>
<tr>
<td>Specific Objective</td>
<td>Content</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>explain the benefits</td>
<td>Relaxed. With practice, the participant learns to completely relax the body within seconds and keep from storing up tension and stress in the body, a practice known as Deep Muscle Relaxation.</td>
</tr>
<tr>
<td></td>
<td><strong>BENEFITS</strong></td>
</tr>
<tr>
<td></td>
<td>• A decrease in generalized anxiety.</td>
</tr>
<tr>
<td></td>
<td>• A decrease in anticipatory anxiety related to phobias.</td>
</tr>
<tr>
<td></td>
<td>• Reduction in the frequency and duration of panic attacks.</td>
</tr>
<tr>
<td></td>
<td>• Improved ability to face phobic situations through graded exposure.</td>
</tr>
<tr>
<td></td>
<td>• Improved concentration.</td>
</tr>
<tr>
<td></td>
<td>• An increased sense of control over mood.</td>
</tr>
<tr>
<td></td>
<td>• Increased self-esteem.</td>
</tr>
<tr>
<td></td>
<td>• Increased spontaneity and creativity.</td>
</tr>
<tr>
<td>Specific Objectives</td>
<td>Content</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| enlist the principles | There are no contraindications for progressive muscle relaxation unless the muscle groups to be tensed and relaxed have been injured. If you take tranquilizers, you may find that regular practice of progressive muscle relaxation will enable you to lower your dosage. The regular practice of progressive muscle relaxation can go a long way toward helping you to better manage your anxiety, face your fears, overcome panic, and feel better all around. **SCIENTIFIC PRINCIPLES:** Relaxation techniques are thought to provide 3 main changes for the person in corpora ting these practices into a daily routine.  
- Refocusing of alteration, which may in vote refreshing thoughts.  
- Increased body awareness.  
- Reintegration of the body and mind through practices such as conscious breathing and meditations. |          | Lecture cum discussion |
<table>
<thead>
<tr>
<th>Specific Objectives</th>
<th>Content</th>
<th>A.V. Aids</th>
<th>Teacher Learner activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>describe the mechanism of action</td>
<td><strong>MECHANISM OF ACTION</strong></td>
<td></td>
<td>Lecture cum discussion</td>
</tr>
<tr>
<td></td>
<td>Relaxation technique work by eliciting the relaxation response as described in this historical background section (sultanolf and zalaqutte 2000). The relaxation response is characterized by decreased heart rate, respiratory rate, oxygen consumption, and muscle tension, as well as increased alpha wave activity as measured by EEG.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>enumerate the guidelines</td>
<td><strong>GUIDELINES FOR PRACTICING PROGRESSIVE MUSCLE RELAXATION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The following guidelines will help you make the most use of progressive muscle relaxation. They are also applicable to any form of deep relaxation you undertake to practice regularly, including self-hypnosis, guided visualization, and meditation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Objectives</td>
<td>Content</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>---------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. <strong>Practice at least 20 minutes per day.</strong> 20-minute periods are preferable. Once a day is mandatory for obtaining generalization effects. (You may want to begin your practice with 30-minute periods. As you gain skin in relaxation technique, you will find that the amount of time you need to experience the relaxation response will decrease.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. <strong>Find a quiet location</strong> to practice where you won't be distracted. Don't permit the phone to ring while you're practicing. Use a fan or air conditioner to blot out background noise if necessary.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. <strong>Practice at regular times.</strong> On awakening, before retiring, or before meals are generally the best times. A consistent daily relaxation routine will increase the likelihood of generalization effects.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. <strong>Practice on an empty stomach.</strong> Food digestion after meals will tend to disrupt deep relaxation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. <strong>Assume a comfortable position.</strong> Your entire body, including your head, should be supported. Lying down on a sofa or bed or sitting in a...</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Reclining chair are two ways of supporting your body most completely. (When lying down, you may want to place a pillow beneath your knees for further support.) Sitting up is preferable to lying down if you are feeling tired and sleepy. It's advantageous to experience the full depth of the relaxation response consciously without going to sleep.

6. **Loosen any tight clothing** and take off shoes, watch, glasses, contact lenses, jewelry, and so on.

7. **Make a decision not to worry about anything.** Give yourself permission to put aside the concerns of the day. Allow taking care of yourself and having peace of mind to take precedence over any of your worries. (Success with relaxation depends on giving peace of mind high priority in your overall scheme of values.)

**Assume a passive, detached attitude.** This is probably the most important
<table>
<thead>
<tr>
<th>Specific Objectives</th>
<th>Content</th>
<th>A.V. Aids</th>
<th>Teacher Learner activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>discuss the steps</td>
<td>Element. You want to adopt a &quot;let it happen&quot; attitude and be free of any</td>
<td></td>
<td>Lecture cum discussion</td>
</tr>
<tr>
<td></td>
<td>worry about how well you are performing the technique. Do not try to</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>relax. Do not try to control your body. Do not judge your performance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEPS</td>
<td>The few important steps involved in learning how to use progressive</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>muscle relaxation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>i Differentiating between muscle groups.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For those of use who don’t think about our muscles very often, when we</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>try to tense up our hand and forearm, we may end up tensing our whole</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>arm, learning this technique involves learning to tense and relax</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>specific parts of the body.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Objectives</td>
<td>Content</td>
<td>A.V. Aids</td>
<td>Teacher Learner activity</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------</td>
<td>-----------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>ii. Distinguish between tense and relaxed muscle.</td>
<td>If you have panic disorder, agoraphobia or other types of anxiety disorder, you may experience frequent, muscle tension. In fact chronic muscle tension may be so automatic that it seems normal, and you may forgotten what it feels like when your muscles completely relaxed. By employing the progressive muscle relaxation technique you will be able to quickly discover the distinctions between relaxation and tension of various muscle groups.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. Allowing youself to relax and let go of the tension.</td>
<td>iv. Practice, practice and more practice.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TECHNQIUE:</td>
<td>Progressive muscle relaxation, involves tensing and relaxing, the</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Specific Objectives</strong></td>
<td><strong>Content</strong></td>
<td><strong>A.V. Aids</strong></td>
<td><strong>Teacher Learner activity</strong></td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------</td>
<td>---------------</td>
<td>-----------------------------</td>
</tr>
</tbody>
</table>
| enumerate the techniques | Succession 16 difficult muscle groups of the body.  
➢ The idea is to tense each muscle group hard (not so hard, that you strain) for about 10 sec and then to let go of it suddenly.  
➢ You then give yourself 15 - 20 sec to relax, noticing how the muscle group feels when relaxed in contrast to how it felt when tensed before going on to the next group of muscles.  
➢ You might also say to yourself “I am relaxing `letting go` let the tension flow away” or any other relaxing phrase during each relaxation period between successive muscle groups.  
➢ Throughout the exercise maintain you focus on your muscles.  
➢ When your attention wanders, bring it back to the particular group you are working on.  
➢ Make sure you are in a setting that is quiet and comfortable, observe | | Lecture cum discussion |
<table>
<thead>
<tr>
<th>Specific Objectives</th>
<th>Content</th>
<th>A.V. Aids</th>
<th>Teacher Learner activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The guidelines for practicing relaxation that was previously described.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- When you turn a particular muscle group does so vigorously without straining for 7 - 10 sec. You may want to want one thousand one. One thousand two and so on as a way of making off sounds.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Concentrate on what is happening, feel the build up of tension in each particular muscle group.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- It is often helpful to visualize the particular muscle group being formed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- When you relax the muscles, do so abruptly, and then relax, enjoying the sudden feeling of timeliness.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Allow the other relaxation to develop for at least 15 - 20 sounds before going on to the next group of muscles.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Allow all the muscles in your body to remain relaxed, as for as possible, while working on a particular muscle group.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Objectives</td>
<td>Content</td>
<td>A.V. Aids</td>
<td>Teacher Learner activity</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>paraphrase the procedure</td>
<td>o Tense and relax each muscle group once, but if a particular areas feel especially fight you can tense and relax it two or three times, waiting about 20 sounds between each cycle.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>TENSION - RELAXATION PROCEDURE:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step i : Tension</strong></td>
<td>The process of applying tension to a muscle is essentially the same regardless of which muscle group you are using.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>First focus your mind on the muscle group eg. Your right hand. Then inhale and simply squeeze the muscle as hard as you can for about 8 seconds, in the example, this would involve working a tight fist with your hand.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Note:**           | Beginners usually make the mistake of allowing muscles other than the
<table>
<thead>
<tr>
<th>Specific Objectives</th>
<th>Content</th>
<th>A.V. Aids</th>
<th>Teacher Learner activity</th>
</tr>
</thead>
</table>
|                     | Intended group to tense as well, in the eg. this would be tensing muscle in your right arm and shoulders, not just in your right hand with practice you will learn to make very five discrimination among muscle for the moment just do the best you can.  
  ➢ It is important to really feel the tension, done properly the tension procedure will relax the muscle to start to shake, and you will feel some pain.  
  ➢ Be careful not to hurt yourself, as compared to feeling mild pain, contracting the muscles in you feel and your back, especially, can cause serious problems if not done carefully. ie Gently but deliberately.  
**Step. ii (releasing the tension)**  
This is the best part because it is actually pleasurable. |           |                          |
<table>
<thead>
<tr>
<th>Specific Objectives</th>
<th>Content</th>
<th>A.V. Aids</th>
<th>Teacher Learner activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ After the 8 seconds, just quickly and suddenly let go, let all the tightness and pain flow out of the muscles as you simultaneously exhale.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ This would be imagining tightness and pain flowing out of your hand though your fingertips, as you exhale. Feel the muscle relax and become loose and limp tension following away like water out of a faucet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Focus on and notice the difference between tension and relaxation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note:</td>
<td>The point here is to really focus on the change that occurs as the tension is let go. Do this very deliberately because you are trying to learn to make some very subtle distinctions between muscular tension and muscular relaxation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stay relaxed about 15 seconds and the repeat the tension relaxation cycle. You will probably notice more sensations the sound time.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Specific Objectives

**Discuss the instructions**

### Content

#### INSTRUCTIONS

Once you are comfortably supported in a quiet place, follow the detailed instructions below:

1. To begin, take three deep abdominal breaths, exhaling slowly each time. As you exhale, imagine that tension throughout your body begins to flow away.

2. **Clench your fists**. Hold for 7-10 seconds and then release for 15-20 seconds. Use these same time intervals for all other muscle groups.

3. **Tighten your biceps** by drawing your forearms up toward your shoulders and "making a muscle" with both arms. Hold... and then relax.

### A.V. Aids

Lecture cum discussion
<table>
<thead>
<tr>
<th>Specific Objectives</th>
<th>Content</th>
<th>A.V. Aids</th>
<th>Teacher Learner activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>Tense the muscles in your forehead by raising your eyebrows as far as you can. Hold ... and then relax. Imagine your forehead muscles becoming smooth and limp as they relax.</td>
<td>![Image of forehead tense]</td>
<td></td>
</tr>
<tr>
<td>Specific Objectives</td>
<td>Content</td>
<td>A.V. Aids</td>
<td>Teacher Learner activity</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------</td>
<td>-----------</td>
<td>-------------------------</td>
</tr>
<tr>
<td></td>
<td>With this muscle group to avoid injury. Focus only on tensing the muscles in your neck. Hold ... and then relax. Since this area is often especially tight, it's good to do the tense-relax cycle twice.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Take a few deep breaths</strong> and tune in to the weight of your head sinking into whatever surface it is resting on.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. <strong>Tighten your shoulders</strong> by raising them up as if you were going to touch your ears. Hold ... and then relax.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. <strong>Tighten the muscles around your shoulder</strong> blades by pushing your shoulder blades back as if you were going to touch them together. Hold the tension in your shoulder blades ... and then relax. Since this area is often especially tense, you might repeat the tense-relax sequence twice.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Objectives</td>
<td>Content</td>
<td>A.V. Aids</td>
<td>Teacher Learner activity</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------</td>
<td>-----------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>11. Tighten the muscles of your chest by taking in a deep breath. Hold for up to 10 seconds ... and then release slowly. Imagine any excess tension in your chest flowing away with the exhalation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. <strong>Tighten your stomach muscles</strong> by sucking your stomach in. Hold ... and then release. Imagine a wave of relaxation spreading through your abdomen.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. <strong>Tighten your lower back</strong> by arching it up. (You should omit this exercise if you have lower back pain.) Hold ... and then relax.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. <strong>Tighten your buttocks</strong> by pulling them together. Hold ... and then relax. Imagine the muscles in your hips going loose and limp.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. <strong>Squeeze the muscles in your thighs</strong> all the way down to your knees. You will probably have to tighten your hips along with your thighs, since the thigh muscles attach at the pelvis. Hold ... and then relax. Feel your thigh muscles smoothing out and relaxing completely.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Objectives</td>
<td>Content</td>
<td>A.V. Aids</td>
<td>Teacher Learner activity</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------</td>
<td>-----------</td>
<td>--------------------------</td>
</tr>
</tbody>
</table>
| describe the limitations and special considerations | 16. **Tighten your calf muscles** by-pulling your toes toward you (flex carefully to avoid cramps). Hold ... and then relax.  
17. **Tighten your feet** by curling your toes downward. Hold ... and then relax  
18. **Mentally scan your body** for any residual tension. If a particular area remains tense, repeat one or two tense-relax cycles for that group of muscles.  
19. **Now imagine** a wave of relaxation slowly spreading throughout your body, starting at your head and gradually penetrating every muscle group all the way down to your eyes.  
20. The entire progressive muscle relaxation sequence should take you 20 - 30 mts the first time with practice your may decrease the time needed to 15 - 20 sec. | ![Image] | Lecture cum discussion |
<table>
<thead>
<tr>
<th>Specific Objectives</th>
<th>Content</th>
<th>A.V. Aids</th>
<th>Teacher Learner activity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What to expect or perhaps it so different to what they are used to that they are not sure what will happen.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ Remind yourself that we are in control four minds, body and feelings and that relaxation can be stopped at any time.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>II. Unusual bodily sensations:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Some people feel tingling or hot and / or cold sensation, jumping muscles of heaviness in the limbs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ These are normal sensations which are experienced as we loosen up and become more aware of different muscles in the body.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>iii. Limited success in the beginning:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Relaxation is skill like any other, the more practices the easier it gets, so try to preserve with your relaxation sessions.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### iv. A wandering mind:

When an individual practicing relaxation exercise, they may have difficulty concentrating or focusing on what they are supposed to be doing this may be frustrating. If your mind starts to wander, just allow the thought to pass away and then bring your attention back to the relaxation exercise.

**Special Considerations**

- If you experience feelings of emotional distress while using progressive muscle relaxation, stop and talk to your doctor.
- If your muscles are sore or if you have an injury to any body part that you want to target with PMR, talk to your doctor before using this technique.
- If you experience any intense muscle pain while performing this exercise, stop immediately and call your doctor.
Specific Objectives

Content

Note that this advice does not replace psychological or medical advice from a licensed medical professional.

CONCLUSION:

Progressive muscle relaxation is a systematic technique for achieving a deep state of relaxation fearing to train your body to respond differently take stime. It might ful

strange at first but proacticing is the key to getting your body and to relaxing so practice theus techniques in your daily like to get relieve from strus related problems.
N[f;fg;]dpd; ,af;Fjir jsh;T gapw;rp

முற்றக் காரணம் பொருள் எடுத்துப் பாதுகாக்க அவசரங்கள் நேரத்திற்கும் பின்னர் காரணம் உற்பத்தி தேவை மனிதம் பிரிவுக்கும் பாதுகாப்பு.முற்ற பொருளில் காரணமாக தேவைக்கும் அவசரமான தக்கவைகளும் மற்றும் 8 முதல் 10 முடிவுக்கும் பிரிவுக்கும் பின்னர் காரணம் உற்பத்தி மனிதம் பிரிவுக்கும் முற்றக் காரணமாக முன்னேறுவது.

முற்றக்குரியான:

- காரணம் கண்டுபிடித்து
- மேம்படுத்தும் நேர
- பாதுகாப்பு நேராக்கும் நேர
- காரணமாக்கு
- காரணமாக்கு
- பிடித்து பிடித்து
- பிடித்து பிடித்து
- பிடித்து பிடித்து

உண்மையை பிரிவுக்குரியான:

1. காரணம் காரணம் 20 முதல் காரணம் முனிவர் உயிரியல் காரணமாக விளக்கப்பட்டது. இங்கு காரணம் காரணம் உயிரியல் பிரிவுக்கு விளக்கப்பட்டது. இங்கு காரணம் பிரிவுக்கு விளக்கப்பட்டது அதிமுக்கியமான விளக்கப்பட்டது.
2. பாடியுள்ளே பொருள் கருத்தரங்க வளது அறிமுகம், காண்பாறியின் கல்விக்குறிப்பிட்டு தேசிய தொடர்கள் அறிவிக்குறிக்கொள்ளப்

3. பார்வையிலும் நூறு அவசமிங்கள்களை பிற்று குறிக்குறிக் (அவசமில்லை) ஒன்றியம் பார்வையின் தொடர்விளக்கமுடிய

4. பார்வையில் காண்பாறியின் அவசமிங்கள் வளது தொடர்விளக்க ஆலமாக செய்கிறது

5. பார்வையிலும் கிட்டுதல் அதிகான தொடர்விளக்கங்கள் காண்பிக்கப்படவேண்டும்.

6. முதலில் நூறு அவசமிங்களை காண்பியும் விளக்கமுடியாது. பின்னர் தொடர்விளக்கங்கள் முதலில் காண்பியும் அவசமிங்களை விளக்கமுடியாது

7. முதலில் நூறு அவசமிங்களை பார்வையின் தொடர்விளக்கங்கள் காண்பியும் அவசமிங்களை விளக்கமுடியாது

8. முதலில் பார்வையிலும் பொருள் வளது தொடர்விளக்கங்கள் பார்வையிலும் வளது தொடர்விளக்கங்கள் காண்பியும் காண்பியும்

9. முதலில் பார்வையிலும் அவசமிங்கள் வளது தொடர்விளக்க வளது தொடர்விளக்க வளது தொடர்விளக்க

15-20 விளக்கங்களுக்கின்று ஒன்றான் விளக்கமு

அறிவியல் நிதியான பார்வையில்:

- எச்சரித்ர புதுக்காலம் விளக்க விளக்கமு
- விளக்கம் விளக்கம் விளக்கம் பாடும் பாடும் விளக்கம், விளக்கமும்
- விளக்கமும் விளக்கமும்
- விளக்கமில்லை விளக்கமும்

ஆர்வையும் விளக்கங்கள்:

தொடர்விளக்க விளக்கம் முதலில் முதலில் விளக்கமு விளக்கமு விளக்கமு விளக்கமு விளக்கமு

xxvii
அப்படி விளக்கம் பெறுவது முடியாது. வனாடியான நான்கு சமயங்களின் நோக்கம் மிகவும் திறமையானது என்பது பொய்யாகவே இருக்கிறது.

காட்டு பலளி: -

வாழ்க்கையில் கையாள்வது மின்னணு விளக்கத்தில் 7 வருடம் 20 விளக்கக்குறுத்து புகழ்பெற்று 15 வருடம் 20 விளக்கக்குறுத்து புகழ்பெற்று காணக்கொள்ளும்.

விற்பனைச்செயல் குறுக்கு பலளி: -

விற்பனைச்செயல் பைப்பு குறுக்கு வருவாகத் திறந்து பிற்று விளக்கம் காணக்கொள்ளும். இக்கு வாய்ந்தது விற்பனைச்செயல் வைக்கப்பட்டு விளக்கம் காணக்கொள்ளும்.

பெண் காலப்பு பலளி: -

திருத்தம் புதுக்கும் வருவாகத்தில் வைத்து பிறந்து விளக்கம் காணக்கொள்ளும். இது வாய்ந்து பைப்பு குறுக்கு வருவாகத் திறந்து விளக்கம் காணக்கொள்ளும் தர்க்கத்தை வைக்கப்பட்டு விளக்கம் காணக்கொள்ளும்.

கதன் பலளி: -

திருத்தம் கால்செயல் விளக்கத்தில் வருவாகத் திறந்து விளக்கம் காணக்கொள்ளும். இது வாய்ந்து விளக்கம் காணக்கொள்ளும் தர்க்கத்தை வைக்கப்பட்டு விளக்கம் காணக்கொள்ளும்.

வாய்ந்த பலளி:

வாய்ந்த கையாள்வது வைக்கப்பட்டு விளக்கம் காணக்கொள்ளும். பிருட்பு குறுக்கு வருவாகத் திறந்து விளக்கம், பிருட்பு விளக்கம் காணக்கொள்ளும்.
தாக்கும் பாடிகை:

அரசத்தை காணமுக்கவும் கால்நடை திகட்டு மானப்பினம் விளக்கியது ரீகமாக. விளங்கும் போது பல்வலங்களை அகழான இணைந்த பொருளிலை மிகுத்து
குறுக்குத்தை பூச்சை செய்யவும்.

குறுக்கும் பாடிகை:

குறுக்கும் பாததில் விளங்கவும் கால்நடை விளங்கியது குறுக்குவர்
இணைந்த பொருளிலை மிகுத்து குறுக்குத்தை பூச்சை செய்யவும்.

புதுப்ப்பிகை:

புதுப்ப்பு காலத்தை புரித்துகொண்டு விளங்கும் புதுப்பு காலத்தை குறுக்கு
விளங்கியது பௌத்த மிதமாகவும் பௌத்த விளங்குவதற்கு
குறுக்குத்தை பூச்சை செய்யவும்.

சக்திக்கைப்பள்ள பாதிகை:

சக்திக்கை சக்திக்கைப்பள்ளத்தை விளங்கும் சக்திக்கை விளங்கியது
சக்திக்கைப்பள்ளத்தை பூச்சை செய்யவும்
சாதையம் குறுக்குத்தை பூச்சை செய்யவும்.

அணிகைக் காலம் பாதிகை:

அணிகை காலத்தை விளங்கும் அணிகை விளங்கியது
அணிகை விளங்குவதற்கு
அணிகைக் காலம் சாதிக்கை
அணிகைக் காலந விளங்கப்பட்டது.
பதிகம் புனிதமாக

பிறம் குறை பிரதானசமய அல்லது பரவலம் நிலைக்கு மாற்றத்தைச் செய்ய வேண்டும் மீண்டும் பிறம் நிலைக்கு மாற்றத்தைச் செய்ய வேண்டும். இது என் சார்ந்தவர் தெற்கு செய்ய வேண்டும்.

புநர்மூலம்:

மீண்டும் நிலைச்சாய்வு நிலைக் குறுக்காக பிழைந்து மாற்றத்தைச் செய்ய வேண்டும். பின்னர் பிரதானசமய மாற்றத்தைச் செய்ய வேண்டும். பின்னர் பிரதானசமய மாற்றத்தைச் செய்ய வேண்டும்.

நுட்ப தகவல் புனிதமாக

முனிவர் காலங்கள் பரிஷத்தில் புனிதமாக நிலைக்கு மாற்றத்தைச் செய்ய வேண்டும். பின்னர் பிரதானசமய மாற்றத்தைச் செய்ய வேண்டும். இந்த பாதுகாப்பு அதிகாரங்கள் மாற்றத்தைச் செய்ய வேண்டும்.

பகுதி புனிதமாக

காலவரை பல்வேறு நுட்பக்காலங்கள் பனிக்கும் நிலைக்கு மாற்றத்தைச் செய்ய வேண்டும். மீண்டும் நிலைக்கு மாற்றத்தைச் செய்ய வேண்டும்.
பொருள் வாரியர் பிள்ளை குழுவடம் குளத்தம் குறிப்பிட்டத்தக்க பிரித்து
மாற்றும். பிரித்துக்காக விளக்க விளக்கம் இந்தகைத் தேர்வு
இல்லாததால் அனைத்து பொருளினருக்கும் பொருளினர் திரும்பு வெவ்வேறு.

பிரித்துக்காக:
- பொருளினர் பிள்ளை வேலா மற்றும் அறிவியல் பிள்ளை குளத்தம்
  குறிப்பிட்டத்தக்க பிரித்து மற்றும் அனைத்து வெவ்வேறு.
- கல்வி மற்றும் பிள்ளை குளத்தம் பொருளினர் தமது குறிப்பிட்டத்தக்க
  பிரித்துக்காக.
- பொருளினரால் பிள்ளை வேலா வெவ்வேறு பொருளினர் திரும்பு வெவ்வேறு.

மற்றும் பொருளினரால் கிளையாக 20 மில்லியனுக்கும் மேற்பட்ட வாய்ந்த
விளக்கம், தேர்வு மற்றும் அறிவியல் பிள்ளை வெவ்வேறு பிரித்து
குறிப்பிட்டத்தக்கவை. இந்தக் கல்வி மற்றும் பிள்ளை குளத்தம் பிரித்துக்காக
கூடியவை அறிவியல் மற்றும் பிள்ளை வெவ்வேறு.
APPENDIX - G

Structured interview schedule for assessing the level of stress among cotton mill workers.

PART - I

DEMOGRAPHIC DATA

Instructions to the respondent:

Dear participants, I would like to ask you some personal questions. Please give necessary information. All the information provided will be kept confidential.

1. Age (years)
   a) 20 - 25 Yrs
   b) 25 - 30 Yrs
   c) 30 - 35 Yrs
   d) >35 Yrs

2. Sex
   a) Male
   b) Female

3. Educational Status
   a) No formal education
   b) Primary Education
   c) Secondary Education
   d) Graduate

4. Marital Status
   a) Married
   b) Un Married
   c) Widow
5. Monthly Income
   a) <Rs.1,500
   b) Rs. 1,500 – 3,000
   c) Rs. 3,000 – 4,500
   d) > Rs. 4,500

6. Religion
   a) Hindu
   b) Christian
   c) Muslim

7. Area of Residence
   a) Urban
   b) Rural

8. Type of family
   a) Nuclear family
   d) Joint family

9. Years of Experience
   a) < 1 Year
   b) 1-5 years
   c) 5-10 years
   d) >10 years

10. Type of placement
    a) Temporary
    b) Permanent
It deals with statements regarding stress among workers. Please listen the following statements carefully and state the response that suits you.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Contents</th>
<th>Never</th>
<th>Occasionally</th>
<th>Somewhat often</th>
<th>Frequently</th>
<th>Almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I feel little enthusiasm for doing my job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>I feel tired even with adequate sleep</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>I feel frustrated in carrying out my responsibilities at work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>I am moody, irritable, or impatient over small inconveniences.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>I want to withdraw from the constant demands on my time and energy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>I feel negative, futile, or depressed about my job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>My decision making ability seems less than usual.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>I think that I am not as efficient as I should be</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>The quality of my work is less than it should be.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>I feel physically, emotionally or spiritually depleted.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>My resistance to illness is lowered.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>My interest in sex is lowered.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>I am eating more or less, drinking more coffee, tea or sodas, smoking more cigarettes, or using more alcohol or drugs in order to cope with my job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>I am feeling emotionally callous about the problems and needs of others.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>My communication with my boss, co-workers, friends, or family seems strained.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>I am forgetful.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>I am having difficulty concentrating.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>I am easily bored.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>I feel a sense of dissatisfaction, of something wrong or missing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>When I ask myself why I get up and go to work, the only answer that occurs is “my paycheck.”</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lack of control</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td>I lack the authority to carry out certain responsibilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>I feel trapped in a situation without any real options.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>I am unable to influence decisions that affect me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24.</td>
<td>There are a lot of requirements that get in the way of my doing certain tasks.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>I can’t solve the problems assigned to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Information Gap</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>I am unsure about the responsibilities of my job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27.</td>
<td>I don’t have enough information to carry out certain tasks.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28.</td>
<td>I am under qualified for certain tasks I’m expected to do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29.</td>
<td>Others I work with are not clear about what I do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30.</td>
<td>I don’t understand the criteria used to evaluate my performance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cause and Effect</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. There is no relationship between how I perform and how I am rated.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32. I sense that popularity and politics are more important than performance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33. I don’t know what my supervisor thinks of my performance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34. I don’t know what I am doing right and what I am doing wrong.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35. I can’t solve the problem. If I give suggestions, my supervisor does not include them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>36. I am expected to satisfy conflicting needs.</td>
</tr>
<tr>
<td>37. I disagree with co-workers</td>
</tr>
<tr>
<td>38. I disagree with my supervisor</td>
</tr>
<tr>
<td>39. I am caught in the middle.</td>
</tr>
<tr>
<td>40. I can’t get what I need to get the job done.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alienation</th>
</tr>
</thead>
<tbody>
<tr>
<td>41. I feel pessimistic about opportunities for advancement or growth in my job.</td>
</tr>
<tr>
<td>42. My supervisor or boss is critical.</td>
</tr>
<tr>
<td>43. I feel unaccepted by the people I work with.</td>
</tr>
<tr>
<td>44. My good work is not noticed or appreciated.</td>
</tr>
<tr>
<td>45. My progress on the job seems less than it could be.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Over load</th>
</tr>
</thead>
<tbody>
<tr>
<td>46. I experience little meaning in my work.</td>
</tr>
<tr>
<td>47. I feel supported by my co-workers or boss.</td>
</tr>
<tr>
<td>48. My values seem at odds with those of management.</td>
</tr>
<tr>
<td>49. The organization seems insensitive to my individuality.</td>
</tr>
</tbody>
</table>
50. I find I cannot be myself at work because I feel different from my co-workers.  

**Under load**

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>51</td>
<td>I have too little to do</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>I feel overqualified for the work I actually do</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>My work is not challenging.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>Most of my work is very routine.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>I miss contact with people in my job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Environment**

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>56</td>
<td>I find my work environment unpleasant.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>I lack the privacy I need to concentrate on my work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>Some aspects of my environment seem hazardous.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>I have too much or too little contact with people.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>I have to deal with many little hassles.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Value conflict**

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>61</td>
<td>I must do things that are against my better judgement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>I must make compromises in my values.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63</td>
<td>My family and friends do not respect what I do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64</td>
<td>I observe my co-workers doing this that I don’t approve of.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>The organization that I work for pressures employees to do things that are unethical or unsafe.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Score**

- Mild stress : < 86
- Moderate stress : 87 – 172
- Severe stress : 173 – 260
முன்புறப்பட்டியல் நூற்றாண்டு ஆண்டுக்குண்டு

பதிப்பு - இ

பதிப்பு ௧

பதிப்பு ௨

பதிப்பு ௩
1. மறுசெய்ய வாய்ப்புகள்
   (முதல் படி)
   (அ) 20 - 25
   (ஆ) 25 - 30
   (இ) 30 - 35
   (ஃ) >35

2. படிவோரம்
   (அ) அடித்தடி
   (ஆ) பள்ளிக் குழு

3. கல்விக்கொள்ளும் வகை
   (அ) புதுப்பிள்ளிப் தொழில்முறை
   (ஆ) அரசாசிரியர் கல்வி
   (இ) செய்தி தொழில்முறைக் கல்வி
   (ஃ) பாடல் நூற்றாண்டு

4. மெதுவர் வகை
   (அ) மெதுவர் வகைச் சுழலுக்கு
   (ஆ) மெதுவர் வகைச் சுழல்த் தொழில்
   (இ) மெதுவர் வகைச் சுழல்த் தொழில்
   (ஃ) மெதுவர் வகைச் சுழல்

5. பண் மூலமாக்கல்
   (அ) கீழ்மூலமாக்கல் ₹.1,500
   (ஆ) ₹.1,500 - ₹.3,000
   (இ) ₹.3,000 - ₹.4,500
   (ஃ) மதிப்பீட்டு ₹.4,500

xxxix
6. பாதனை
   அ) விளிம்பு
   ஆ) குறிப்பிட்டும் பாதனை
   இ) பொருளநிலை

7. மூச்சூழ்வு பாதனை
   அ) முக்கியம்
   ஆ) குறிப்பிட்டும்

8. செய்திப் பதவி
   அ) தொடர்ந்த செய்திப் பதவி
   ஆ) காலித்து செய்திப் பதவி

9. பரரி அடுக்குப் பாதனை
   அ) குறிப்பிட்டும் பாதனை 1 அடுக்கு
   ஆ) 1 - 5 அடுக்குகள்
   இ) 5 - 10 அடுக்குகள்
   எ) அதிசயிழ்ச் 10 அடுக்குகள்

10. மூவர் விளம்பு
    அ) குறிப்பிட்டும் மூவர்
    ஆ) குறிப்பிட்டும் மூவர்
<table>
<thead>
<tr>
<th>படைப்பு</th>
<th>புதுக்கோட்டை</th>
<th>தொடர்புப் பெயர்</th>
<th>தொடர்புப் புரிந்துள்ள இடம்</th>
<th>தொடர்புப் பொருள்</th>
<th>தொடர்புப் புரிந்துள்ள இடம்</th>
<th>தொடர்புப் பொருள்</th>
<th>தொடர்புப் புரிந்துள்ள இடம்</th>
<th>தொடர்புப் பொருள்</th>
<th>தொடர்புப் புரிந்துள்ள இடம்</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>இராணுவ விருது வெளித்துறையில் மாநிலச் சுருக்கமான அரசத்தின் கீழ் கண்டுபிடித்துள்ளார்.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>பொருளியல் ஆளவு குறிப்பிட்டுகொள்ளும் வருகைக்கு கண்டுபிடித்துள்ளார்.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>வெளியீட்டுப் பொருள் முறையிய விருத்தவப் பொருளன் வெளியீட்டு முறையிய விருத்தவப் பொருளன.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>ஒரு அரசியல்களுக்கு கட்டுமான குலம் இளிக்கவுள்ள வருகையில் பொருளியல் பொருளியல் விடுதல்.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>விஏற்று வித்தியால்கள் பிரிவு வியாபாரம் வியாபாரம் பிரிவு வியாபாரம் பிரிவு வியாபாரம் பிரிவு வியாபாரம்.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>விஏற்று வித்தியால்கள் நூற்று வியாபாரமான வியாபாரம் வியாபாரம் வியாபாரம் வியாபாரம் வியாபாரம் வியாபாரம்.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>விஏற்று வித்தியால்கள் கைத்தியால்கள் வியாபாரமான வியாபாரம் வியாபாரம் வியாபாரம் வியாபாரம் வியாபாரம்.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>இருண்டு விஸ்தாரப்படுத்தும் குறிப்பிட்டு வியாபாரத்தில் வியாபாரத்தில் வியாபாரத்தில் வியாபாரத்தில் வியாபாரத்தில் வியாபாரத்தில்.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>விஏற்று வித்தியால்கள் குறுகிய வியாபாரத்தில் வியாபாரத்தில் வியாபாரத்தில் வியாபாரத்தில் வியாபாரத்தில் வியாபாரத்தில்.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>இருண்டு விஸ்தாரப்படுத்தும் வியாபாரத்தில் வியாபாரத்தில் வியாபாரத்தில் வியாபாரத்தில் வியாபாரத்தில் வியாபாரத்தில்.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>தொடர்பு வியாபாரத்தில் வியாபாரத்தில் வியாபாரத்தில் வியாபாரத்தில் வியாபாரத்தில் வியாபாரத்தில்.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
12. பாரம்பரிய கொண்டான் சரணகதை நிற்பாடு உண்மையானதா?

13. சாத்ய வெளிப்பாடுகளைப் பெறும் பாரத ஆது அதிகாரிகள் அவை கையேறுவதனால் தமிழ்நாட்டின். காரண, எ, காரண, நான்கு, பால் பாறை, பாலாம் வெளிப்பாட்டிடம் அதிகார இடம் இந்தியாவின்.

14. பாரம்பரியக் கொண்டான் பெருந்தம் என்பதாயிருக்கும், நான்கு வருடங்கள் நடைபெறும் நடுநிலை ஒவ்வொரு காலத்திலேயே காரண.

15. நான்கு வருடங்கள், ஒரு ஆண்டுகளும், பதினொன்று பாதுகாப்பு அவன்களின் கால தொடர்பு கையேறுவதனால் பாரத நான்கு வருடங்கள்.

16. ஹரப்பாரிய பாரத நான்கு வருடங்கள்.

17. பாரத புது முன்னநிற்பாடு காரணம் ஒவ்வொரு காலத்திலேயே.

18. முண்டியேட்டு செய்கிறது நிறுவனத்தின் அகழ்விளக்கம்.

19. விடுகை வெளியான பாரத பாதுகாப்பு கையேறுவதனால் பாரத பாதுகாப்பு கையேறுவதனால் பாரத நான்கு வருடங்கள்.

20. வருடா வருடா வெளிப்பாடுகள் நான்கு வருடங்கள் நான்கு வருடங்கள் காரணம் அவை வெளி காரணம் நான்கு வருடங்கள்.

குறுகியறிக்கும்:

21. என்ன வெளிப்பாடுகள் எப்படி வெளிப்பாடுகள் அதிகார கையேறுவதனால் வெளிப்பாடுகள் நான்கு வருடங்கள்.

22. இரண்டாம் பாதுகாப்பு தொடர்பு அடையாள வட்ட செயல்கொள்வதனால் குறுகியறிக்கும் வெளிப்பாடுகள் நான்கு வருடங்கள்.

23. சரணாதிரிய பாதுகாப்பு வெளிப்பாடு காரணம் பாதுகாப்பு வெளிப்பாடு.
| 24. | செய்ய குறுக்குக் காரணிகள் செய்யப்பட்டு ஊர்க்குத் தீர்வு ஊர்க்குவிக்கின்றது. |
| 25. | ஊர்க்குத் தற்காலிகமான ஊர்க்கு ஊர்க்கு பிரிவுத்தொன்று ஊர்க்கு பொழுது போன்றது. |

## நூற்றாண்டு விதியால் -

| 26. | ஊர்க்கு ஊர்க்குப்பட்டு போர்க்கும்பட்டு ஊர்க்கு ஊர்க்கு பொழுது போன்றது ஊர்க்கு பொழுது போன்றது. |
| 27. | செய்ய குறுக்குக் காரணிகள் செய்யப்பட்டு ஊர்க்கு ஊர்க்கு பிரிவுத்தொன்று ஊர்க்குவிக்கின்றது. |
| 28. | ஊர்க்குப்பட்டு ஊர்க்குப்பட்டு குறிப்பிட்டது ஊர்க்கு ஊர்க்கு குறிப்பிட்டது ஊர்க்கு பொழுது போன்றது. |
| 29. | ஊர்க்கு ஊர்க்கு பொழுது போன்றது ஊர்க்கு ஊர்க்கு பொழுது போன்றது ஊர்க்கு பொழுது போன்றது. |
| 30. | ஊர்க்கு ஊர்க்கு பொழுது போன்றது ஊர்க்கு ஊர்க்கு பொழுது போன்றது ஊர்க்கு பொழுது போன்றது. |

## குறிப்பிட்டது விளக்கம் -

| 31. | ஊர்க்கு ஊர்க்குப்பட்டு போர்க்கும்பட்டு ஊர்க்கு ஊர்க்கு பொழுது போன்றது ஊர்க்கு ஊர்க்கு பொழுது போன்றது ஊர்க்கு பொழுது போன்றது. |
| 32. | ஊர்க்குப்பட்டு ஊர்க்கு போர்க்கும்பட்டு ஊர்க்கு ஊர்க்கு பொழுது போன்றது ஊர்க்கு பொழுது போன்றது. |
| 33. | ஊர்க்கு ஊர்க்கு பொழுது போர்க்கும்பட்டு ஊர்க்கு ஊர்க்கு பொழுது போன்றது ஊர்க்கு பொழுது போன்றது. |
| 34. | ஊர்க்கு ஊர்க்கு பொருள் ஊர்க்கு பொருள் ஊர்க்கு பொருள் ஊர்க்கு பொருள் ஊர்க்கு பொருள் ஊர்க்கு பொருள் ஊர்க்கு பொருள் |
| 35. | ஊர்க்கு ஊர்க்கு பொருள் ஊர்க்கு பொருள் ஊர்க்கு பொருள் ஊர்க்கு பொருள் ஊர்க்கு பொருள் ஊர்க்கு பொருள் ஊர்க்கு பொருள் ஊர்க்கு பொருள் ஊர்க்கு பொருள் ஊர்க்கு பொருள் |

xliii
<table>
<thead>
<tr>
<th>கோணங்கள் :-</th>
</tr>
</thead>
<tbody>
<tr>
<td>36. மாற்றம் குறிப்பிட்டதால் வேண்டும் இயற்கை கோணத்திற்கு பல்கலைக்கழகத்தில் இந்து பல்கலைக்கழகானது.</td>
</tr>
<tr>
<td>37. 25 வாடத் வினைவாய்க்கள் குறிப்பிட்டு பல்கலைக்கழகத்தில் இந்து பல்கலைக்கழகானது.</td>
</tr>
<tr>
<td>38. இந்து விளையாட்டுச் சமுதாயத்தில் குறிப்பிட்டு பல்கலைக்கழக இந்து பல்கலைக்கழகானது.</td>
</tr>
<tr>
<td>39. இந்து விளையாட்டுச் சமுதாயத்தில் குறிப்பிட்டு பல்கலைக்கழகானது.</td>
</tr>
<tr>
<td>40. இந்து விளையாட்டுச் சமுதாயத்தில் குறிப்பிட்டு பல்கலைக்கழக இந்து பல்கலைக்கழகானது.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>உப்புப்புத்தை :-</th>
</tr>
</thead>
<tbody>
<tr>
<td>41. இந்து விளையாட்டுச் சமுதாயத்தில் குறிப்பிட்டு பல்கலைக்கழகத்தில் பதிவேற்று வளத்தை பல்கலைக்கழக இந்து பல்கலைக்கழகானது.</td>
</tr>
<tr>
<td>42. இந்து விளையாட்டுச் சமுதாயத்தில் குறிப்பிட்டு பல்கலைக்கழக இந்து பல்கலைக்கழகானது.</td>
</tr>
<tr>
<td>43. இந்து விளையாட்டுச் சமுதாயத்தில் குறிப்பிட்டு பல்கலைக்கழக இந்து பல்கலைக்கழகானது.</td>
</tr>
<tr>
<td>44. இந்து விளையாட்டுச் சமுதாயத்தில் குறிப்பிட்டு பல்கலைக்கழக இந்து பல்கலைக்கழகானது.</td>
</tr>
<tr>
<td>45. இந்து விளையாட்டுச் சமுதாயத்தில் குறிப்பிட்டு பல்கலைக்கழக இந்து பல்கலைக்கழக இந்து பல்கலைக்கழகானது.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>அறிக்கைகள் :-</th>
</tr>
</thead>
<tbody>
<tr>
<td>46. இந்து விளையாட்டுச் சமுதாயத்தில் குறிப்பிட்டு பல்கலைக்கழக இந்து பல்கலைக்கழகானது.</td>
</tr>
<tr>
<td>47. இந்து விளையாட்டுச் சமுதாயத்தில் குறிப்பிட்டு பல்கலைக்கழக இந்து பல்கலைக்கழகானது.</td>
</tr>
</tbody>
</table>
48. தருக்கத்தைகள் நிறுவமாக்கி செய்திகளைக்
மறுசெய்திகளைக்.

49. தருக்கத்தைகளாக நிறுவப்பட்ட செய்திகளை
மறுசெய்திகளைக்.

50. தருக்க வெளிப்படையான நோக்காக இழைக
போக்குடையது. தருக்க வேதாய்வில் போன்றவாக நோக்காக
செய்யப்பட்டுள்ளது.

51. தருக்க மையான நிலையான தொடர்பாக நூற்றை.

52. நோக்கா மையான தொடர்பாகத் தொடர்பாக குறிப்பிடும் என் அறிக்கைகளை இறுதிக்காக
குறிப்பிடும் என்பவை.

53. தருக்க மையான தொடர்பாக நூற்றை.

54. போக்குடைய நோக்கா வேகத்தை றொக்குடைய வேகத்தை.

55. தருக்கத்தை செய்யப்பட்டு தொடர்பாகத் தொடர்பாக நூற்றை.

56. தருக்க மையான நிலையான தொடர்பாகாய்மத்தை
குறிப்பிடும் என்பவை.

57. தருக்கத் தொடர்பாக வேகத்தை. தருக்க மையான
செய்யப்பட்டு நூற்றை தொடர்பாக செய்யப்பட்டு.

58. தருக்க வெளிப்படையான நோக்காக ஐரோப்பாய்மத்தை
எண்ணமாக்கி காரணமாக நூற்றை செய்யப்பட்டு.

59. மாற்று தொடர்பாக ஐரோப்பாய்மத்தை
அடையாது நிலையான தொடர்பாக நூற்றை.

60. மாற்று தொடர்பாக வேகத்தை செய்யப்பட்டு.

56-59 குறிச்சொல்லின் கருத்தை:

61. தருக்க வெளிப்படையான நோக்காக ஐரோப்பாய்மத்தை
எண்ணமாக்கி செய்யப்பட்டு.