

**EFFECTIVENESS OF SLEEP MANAGEMENT STRATEGIES IN
REDUCING INSOMNIA AMONG ELDERLY**

BY

Ms. MAYURI K



**A Dissertation submitted to
THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY,
CHENNAI.**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE
DEGREE OF MASTER OF SCIENCE IN NURSING.**

APRIL- 2011.



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CERTIFICATE

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CHAPTER-I

INTRODUCTION

Sleeping is no mean art; for its sake one must stay awake all day. The best bridge between despair and hope is a good night's sleep. Sleep is the golden chain that ties health and our bodies together. The average adult needs slightly more than eight hours of sleep a day but only 38% of Indian adults consistently get this amount of rest.

Seep is a part of the rhythm life. Without a "good sleep", the body loses the ability to revitalize, the mind is less adapted and ones mood is altered. Normal aging changes conspire to interfere with the quality of sleep, while health and medication use can affect the sleep patterns in a negative manner. A nursing assessment of sleep begins with a comprehensive assessment sleep quality and sleep patterns. The nurse may be able to improve the sleep problem immediately with intervention or work with health care team to assess the sleep problem in greater depth.

Insomnia is defined as difficulty initiating or maintaining sleep at least three nights/week, in addition to complaints of sleep related daytime impairment. People with insomnia tend to experience one or more of the following sleep disturbances such as difficulty falling asleep at night, waking too early in the morning, waking frequently throughout the night, sleep that is chronically non-restorative or poor.

Insomnia may stem from a disruption of the body's circadian rhythm, an internal clock that governs the timing of hormone production, sleep, body temperature and other functions. Insomnia can interfere with daytime function of concentration and memory. Insomnia is the common complaints in older adults chronic sleep difficulties affect older people more often than younger adult. The homeostatic regulation of sleep changes as we age. Older adults typically have shallower sleep and fragmentation is more common.

Factors that contribute to insomnia in seniors may include medical illness and medication use or both of which are more common in older adults. Older people also have too little physical activity and reduced exposure to bright light. There is also a

fundamental age related alteration in the neurobiology of circadian rhythm.

Older people, even healthy ones, often complaints about decreased sleep quality and polysomnographic measurement of physiological indicators have confirmed the reality of these claims. During late life, rapid eye movement sleep in a typical night declines about 10minutes per decade. Wake time during the nocturnal period, measures of sleep fragmentation increases about 30 minutes per decades.

DSM IV DIAGNOSIS classify insomnia which includes the five criteria such as the pre dominant complaints is difficulty initiating or maintaining sleep or non restorative sleep for at least one month. Sleep disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

The sleep disturbance does not occur exclusively during the course of narcolepsy, breathing related sleep disorder, circadian rhythm sleep disorder, or a parasomnia. The disturbance does not occur exclusively during the course of another mental disorder, and

the disturbance is not due to the direct physiological effect of a substance.

According to Gooneratn NS., (2010) shown that older adults have high prevalence rates of insomnia symptoms that associated with physical impairment. Older adults with insomnia complaints have significant differences in several findings relative to controls, suggesting that insomnia complaints in older adults are associated with physical impairment in sleep.

According to the Geriatric Gerontology., (2009) aging is associated with substantial changes in the sleep pattern. Typical findings in the elderly include a reduction in the deeper stages of sleep and a profound increase in the fragmentation of night time sleep by period of wakefulness. The prevalence of specific sleep disorder increases with age, such as a phase advance in the normal circadian sleep cycle, restless legs syndrome and obstructive sleep apnea.

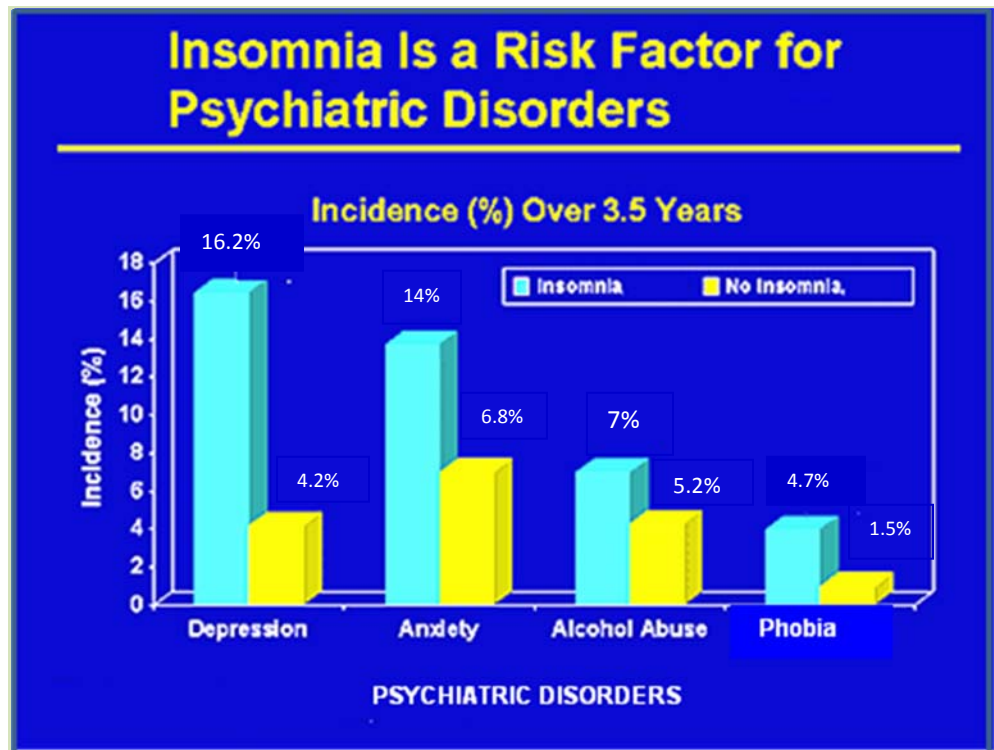
According to the WHO census., (2008) prevalence rate of insomnia approximately 1 in 8 or 11.76% per 32 million people in India.

According to National Sleep Foundation., (2008) 20% to 40% of all adults encounter insomnia problems during a year time. More than 2 million children suffer from various sleep disorders. Almost 35% of people suffering from insomnia have a family history of insomnia. 55% percent of all adults have problems with insomnia in their lifetime.

More than 70 million Americans suffer from various sleeping disorders insomnia being one of them. Out of those 70 million, almost 60% of them have a severe sleeping disorder. 30 to 40% of children can get the required 9-10 hours of sleep every night.

Approx 90% of those who suffer from depression also experience insomnia. More than 93% of the people that have problems with insomnia admit that their performances are greatly affected by this and almost 90% say that they are more exposed to accidents and injuries due to this.

Insomnia is a risk factor for psychiatric disorder as incidence is shown below,



SOURCE: National Sleep Foundation (2008).

According to American Academy of Sleep Medicine., (2007) shown that people who are 15 to 55 years old are more affected by this sleeping disorder. A person suffering from insomnia sleeps about 6 hours or less daily. 50% of people over 65 years have various sleeping disorders.

In the top 3 countries affected by insomnia, America is situated on the first place; Germany comes in second being followed by United Kingdom. 85% of insomnia suffering people state that they had various other health problems that occurred due their lack of sleep caused by insomnia.

There are more than 80 classification of sleeping disorders affecting people in the whole world. Hospital statistics show that more than 90% of people that seek medical treatment for their insomnia are hospitalized. The hospitalization period for insomnia is about 7 days.

Those who have trouble sleeping and suffering from sleep deprivation they have 27% to be overweight. Women are more exposed to have insomnia problems then the opposite gender. The exact numbers are 40% of women and 30% of men.90% is the percentage of people that agree with the fact that they have trouble socializing.

Insomnia is defined as the poor quality and quantity of sleep which is the major problem in elderly that causes co morbid condition which was evidenced by the above incidence rates.

NEED FOR THE STUDY

Insomnia is one of the most common problems in elderly. Insomnia increases the risk of substance abuse, motor vehicle accidents, tension induced headache and depression.

Chronic insomnia is highly prevalent in elderly and affects approximately 30% of the general population. Insomnia impairs cognitive and physical functioning and is associated with a wide range of impaired daytime functions across a number of emotional, social, and physical domains.

According to NATIONAL INSTITUTE OF HEALTH STATE OF SCIENCE., (2008) recent survey indicates that 50% of elderly suffer from sleep difficulty for at least one year. Sleep disturbance lead to physical and mental health problems as well as social, occupational and economic repercussion, medication is frequently used in the management of insomnia, Until recently there has been little guidance on the use of pharmacotherapy and prescribing practice have been varied.

Insomnia causes certain problems in elderly. The signs and symptoms like physical signs and symptoms such as daytime drowsiness, fatigue, gastrointestinal system problems, arthritis, heart disease, fibromyalgia, tension headache.

Psychiatric disturbances like anxiety as bedtime approaches, irritability, difficulty concentration, impaired ability to perform and activities, not feelings refreshed after sleep, depression, Post traumatic stress disorder.

Social problems like social withdrawal, drug abuse motor vehicle accident, irritability towards environment.

According to Johns Hopkins bay view medical care., (2009) proper medical management of patient experiencing insomnia requires an accompanying co-morbid condition understanding that insomnia can have a direct cause and effect relationship with other psychiatric and physical health care condition is critical in assessing and treating patient experiencing insomnia.

According to University of Michigan study., (2009) there is a strong correlation between insomnia and suicide. Insomnia is an

irritating cause that contribute to the person suicidal tendencies or mental illness that lies behind the suicide has insomnia as a symptoms or there could be no cause and effect, but a more complex relationship.

According to National Institute of Clinical Excellence., (2008) the short term management of insomnia by using non pharmacological intervention are:

I) Sleep restriction: Limit time in bed for sleep only, causing mild sleep deprivation

II) Relaxation therapy: To reduce somatic tension or intrusive thoughts that interferes with sleep

III) Sleep hygiene recommendation: General guidelines about health practices and environmental factors affecting sleep

IV) Multifaceted cognitive behavioral therapy: Psychotherapy that identifies dysfunctional beliefs.

Those studies above highlighted the increased prevalence of insomnia in elderly that needs immediate non pharmacological

intervention. Nursing care shows better prognosis for insomnia. So the researcher was interested to address the problem of insomnia experienced by the elderly population and to provide sleep management strategies to elderly with insomnia

STATEMENT OF THE PROBLEM

EFFECTIVENESS OF SLEEP MANAGEMENT STRATEGIES
IN REDUCING INSOMNIA AMONG ELDERLY

OBJECTIVES

- to assess the level of insomnia among elderly.
- to evaluate the effectiveness of sleep management strategies in reducing insomnia among elderly
- to find out the correlation between the effectiveness of sleep management strategies in reducing insomnia among elderly with the selected demographic variables.

OPERATIONAL DEFINITION

Effectiveness

It refers to the extent to which sleep management strategies has brought out significant reduction in the level of insomnia as measured by the post test score by using modified Pittsburgh insomnia rating scale.

Sleep management strategies

Management of insomnia by using non pharmacological intervention that includes

- **RELAXATION THERAPY:**

It refers to the relaxation of mind and soul to maintain harmonious intense physical and emotional feelings. Its main component is yoga.

Yoga: It denotes the control of thought waves in the mind. The techniques in yoga used to reduce insomnia are pranayama and asanas. Pranayama includes nadishodana which is done in a calm environment according to the following steps such as sit in any meditative posture with closed eyes, keep the spine erect. Close the right nostrils with the ring finger of the right hand and open the right nostril and exhale slowly. After complete exhalation, again inhale

through the right nostril and fill the lungs. Close the right nostril by pressing it with the right thumb. After opening the left nostril, breathe out slowly and completely which can be done for ten to fifteen minutes.

The pranayama includes bhamari pranayama which can do for ten to fifteen minutes in a calm environment. Sit in any meditative posture with closed eyes, keep the spine erect and close the both ears with both indicating finger gently so that on the pinna of the ear is pressed inside. After a deep breath gently fold the tongue inside the mouth that should touch the soft palate and make humming bee sound which creates a slight vibration that's spreads all over the head.

Asana include shavasana which ranges for ten minutes which is done according to the following steps in a calm environment. Lie on the back with the hands and legs comfortable away from the body then toes pointing outside. Finger in a semi flexed position. Keep the head in a most convenient position and close the eyes gently. Start with a moderately deep abdominal breathing .Attend to the flow of the breath without moving the body and try to relax each and every part of the body consciously and try to diffuse all the tension of the body.

- **SLEEP HYGIENE EDUCATION:** Education on sleep hygiene was given for elderly includes sleep habits such as attempt to maintain a regular sleep wake cycle, avoid keeping a clock close to bed to prevent clock watching, taking warm bath. Structuring the environment such as use of the bed room only for sleep and intimacy, create a comfortable, quiet, dark and temperature controlled environment and other sleep education about behavioral modification, positive perception of sleep.

Insomnia:

Insomnia is referred as insufficient quality and quantity of sleep which may be divided into three types based on modified Pittsburgh insomnia rating scale

- <60 - mild insomnia
- 61-90 - moderate insomnia
- >91 - severe insomnia

Elderly:

Both male and female above the age of 60 years with insomnia.

HYPOTHESIS:

H1- there is a significant improvement between pre test and post test by sleep management strategies in reducing insomnia among elderly.

LIMITATIONS:

- the period of study was limited to 6 weeks.
- the sample size was limited to 30.
- the study is limited to elderly above 60 years.
- the study was limited to all the elderly with insomnia attending the psychiatry outpatient department of Melmaruvathur Adhiparasakthi Institute of Medical Sciences and research.

- the findings of the study cannot be generalized.

CONCEPTUAL FRAME WORK

Conceptual frame is a theoretical approach of a study of the problems that are scientifically based and emphasis in the selection, arrangement and classification of its concepts.

The conceptual framework of the present study is based on the Katharine kolcaba's theory of comfort in which the desirable holistic outcome of care which was based on health needs are mostly the needs of comfort, arising from stressful situations that cannot be met by recipient traditional support system.

According to the theory the needs include physical, psycho spiritual, social, and environmental needs. Comforts measures include those nursing intervention designed to address the specific comfort needs. The concepts analyses are relief, ease, and transcendence and the evaluation is done on the comfort of the client.

Relief is defined as the experience of a patient who has had a specific comfort need. Ease is defined as a state of calm or contentment and doesn't necessarily specify a prior need that was relieved. Transcendence is defined as the state in which one rises above problems or pains; it is an important concept of comfort.

RELIEF AND EASE

Consists of insomnia assessment using modified Pitts burgh insomnia rating scale and also the intervening demographic variables is divided into two section that contains general information's such as age, sex, religion, occupation, marital status, history of Illness, habits, history of medication, and availability of support system and another section consists of sleep information's such as duration of sleep per day and sleep habits.

TRANSCENDENCE

SLEEP MANAGEMENT STRATEGIES:

DEMONSTRATION OF RELAXATION THERAPY:

Yoga, example: pranayama, asana.

- **SLEEP HYGIENE EDUCATION:**

Education on sleep hygiene includes sleep habits such as attempt to maintain a regular sleep wake cycle, avoid keeping a clock close to bed to prevent clock watching, taking warm bath. Structuring the environment such as use of the bed room only for sleep and intimacy, create a comfortable, quiet, dark and temperature controlled environment and other sleep education about behavioral modification, positive perception of sleep.

EVALUATION

It is the concept matter or information disposed by the client comfort as a result of its process. In the present study it refers to the

reduction in the insomnia level which includes mild, moderate, and severe. This is achieved through the comparison of level of insomnia before and after the sleep management strategies and post test scores evaluated by modified Pitts burgh insomnia rating scale.

The reduction in insomnia level through post test scores indicate that sleep management strategies was effective in promoting comfort and managing elders with insomnia.

FEEDBACK

It is the process that enables a system to regulate itself and provides information about the relief, ease phase and its transcendence phase.

Moderately insomnia and severe insomnia elderly was again reassessed with the modified Pitts burgh insomnia rating scale and sleep management strategies was re-demonstrated for the elders.

CHAPTER-II

REVIEW OF LITERATURE

Review of literature is a critical summary of research on a topic of interest often prepared to put a research problem in a context.

Polit-hungler (2002)

Review of literature is an extensive systematic scrutinisation of potential sources of previous study and work. This process helps in identification and selection of problems formation of tool, choosing methodology and formulating hypothesis.

This chapter deals with review of literature which helps in integrating diverse opinion on the study and is an essential

component of research problem. The investigator carried out extensive review of literature relevant to the research topic to gain insight and to collect information for the study.

Phase I- Review of literature related to prevalence of insomnia among elderly.

Phase II-Review of literature related to effects of insomnia on health of elderly.

Phase III- Review of literature related to management of insomnia among elderly

PHASE I- REVIEW OF LITERATURE RELATED TO PREVALENCE OF INSOMNIA AMONG ELDERLY

Davidson F et al.,(2010) focused on the prevalence of insomnia in elderly, describing that aging is associated with substantial changes in the sleep pattern in 340 samples using standardized sleep assessment scale and identified that most of the elderly have sleep disorders with increased age and yet they are among the group with the greatest need of treatment.

Laurie Barclay, N.D., (2010), specific evidence based recommendation for diagnosis and assessment of insomnia and other sleep disorders in elderly. The diagnosis of insomnia is primarily based on complaints provided in the clinical interview by the patient, family and or caregivers, ideally corroborate by a patient diary.

Johnson C et al., (2008) highlighted on prevalence, burden, and management of insomnia among primary care patients were evaluated consecutive patients aged 25 to 75 years in primary care clinics of a staff model health maintenance organization (N=1962) were screened with the 12 items general health questionnaires approximately 10% of the primary care patients reported major current insomnia.

Klerman EB., (2008) suggested that age related reduction in the maximal capacity for sleep-implication for insomnia in which they compared 45 total daily sleep duration which was initially longer than habitual sleep duration, declined during the experiment to asymptomatic values that were 1.5hour shorter than in older than in younger subjects.

Norwegian R et al., (2008) studied on insomnia in elderly symptoms evidenced a higher rate of musculo –skeletal diseases, increased gastro-intestinal symptoms, had fewer friends and reported “good health” less frequently than survivors without such symptoms, 5 steps logistic regression analysis showed 16.6% explained anxiety contributed significantly to insomnia symptoms that affects people physically, mentally and in their ability to perform ADL (activities of daily living).

Ohayon David C., (2008) highlighted on clinical correlation of insomnia in elderly inpatient with chronic illness, 16 % of study patient had severe and 34% had mild insomnia at base line. At 2years follow up, 59% of patients with mild insomnia and 83%of patient with severed insomnia at baseline still had sleep problems.

Vgontazas AN et al., (2008) stated a study on short sleep duration and obesity in elderly; the role of emotional stress and sleep disturbances by self reported sleep duration between elderly obese and non obese individuals without subjective sleep disturbances. Self reported short sleep duration in obese individuals may be a surrogate marker of emotional stress and subjective sleep disturbances, whose

detection and management should be the focus of our preventive and therapeutic strategies of study.

Yokoyama E., (2008) the purpose of this study was to examine the association between sleep and subjective quality of life in an elderly population. Elderly people aged 70 years/more were selected randomly from all areas. In order to improve the subjective well-being of the elderly, better subjective sleep sufficiency and alleviation of sleep disorder are necessary , different mechanism may reduce subjective well-being in individual who sleep less than 6 hour or who sleep 9hour or more.

Hubain P et al., (2007) conducted study on major depression in older males, effects of age, severity and adaptation on sleep variables. In a retro spective study full polysomnograms of 67 males' depressive patients and 67 carefully age matched male healthy control subjects were analysed. Concluded that residual adaptation effects was observed one of the main markers of depression was in fact the absence of sleep, whether observed as long delay prior to entering sleep/excessive intermittent awakening.

PHASE II: REVIEW OF LITERATURE RELATED TO EFFECTS OF INSOMNIA ON HEALTH OF ELDERLY

Cheung LM et al., (2010) focused on the effects of insomnia and internet addiction on depression in Hong Kong on adolescents in which 719 Chinese adolescent participated in this exploratory cross sectional analysis using general health questionnaires resulted that insomnia as significant explanatory factors and exerted differential effects on depression.

Gammack Jk., (2010) conducted study on significant problems on adult due to undiagnosed and untreated insomnia which is extracted from questionnaires and polysomnography studies on 115 patients with insomnia resulted that untreated insomnia is often associated with undiagnosed medical or psychiatric disorders that increases morbidity and mortality.

Louisville KY et al., (2010) stated on sleep disorders and its impact on daytime functioning and quality of life in older client. Assessing was done using sf-36 questionnaires over 250 convenient samples resulted that insomnia is the most common sleep disorder

with negative daytime symptoms and it is clearly causes impaired wellbeing and QoL. Insomnia is also causes a number of somatic and psychiatric disorders and it has been demonstrated to augment the burden of the under lying or co morbid condition.

Ronald ozminkowski et al., (2010) suggested that untreated insomnia has exhausting effects on health and health resources in which investigator examined health and employment data from 214,378 elderly patient with insomnia and looked at their health costs in the 6 month before diagnosis suggested that untreated insomnia affects individuals health, quality of life and job performance and increases their uses of health care services substantially.

Rose kind MR., (2010) conducted study on insomnia risks and costs on health, safety, quality of life among elderly. The studies showed that the patients who have insomnia have more emergency department, and physician visits, laboratory tests and prescription of drug. Results showed that insomnia is the co morbid condition of psychiatric condition of anxiety and depression and medical condition such as heart disease and diabetes.

Skaer TL et al., (2010) conducted study on sleep disorders in elderly which the 165patient from outpatient department of medicine was selected and applied general health questionnaires and demographic variables related to health and given a result that sleep insufficiency may have a deleterious effect on work-life balance, overall health and safety. More over insomnia are commonly causing the major medical problems such as chronic pain, cardiovascular disease, mental illness, dementias, gastrointestinal disorders and diabetes mellitus.

Troxel WM et al., (2010) conducted a study on effects of insomnia that effects social interaction in adult. Insomnia is a significant public health problem, particularly among adults; they examined social interaction as a potential protective factor for sleep among older adults (60 years older) with insomnia (n=79), perceived through social support, sleep quality, day time sleepiness and napping behavior were assessed. They suggested that insomnia may similarly influences social support, social interaction in an adult.

PHASE III: REVIEW OF LITERATURE RELATED TO MANAGEMENT OF INSOMNIA AMONG ELDERLY

Hullar J et al., (2010) conducted study on impact of group therapeutic education in the management of adults sleep disorders in which implementation of a non pharmacological, therapeutic approach is a daily problem for primary insomnia conducted one month and three month after they concluded that group therapeutic education in the form of cognitive behavioral therapy performed during a conference results in a change in behaviors and a midterm improvement in sleep quality in participants.

Lee SY et al., (2010) studied by double blind randomized in controlled trial on the effect of intradermal acupuncture on insomnia in elderly after stroke. They were randomly assigned to either a real intradermal acupuncture group or a sham acupuncture group. The insomnia related scales showed greater improvement of insomnia in the treatment modality.

Taylor D., (2010) studied insomnia which is a common problem that affects 9%-15% of the elderly population chronically. The primary objectives of this study was to demonstrate that 8 weekly session of

sleep restriction therapy of insomnia combined with sleep management strategies. Reduction instruction following a single session of sleep hygiene. These results provide evidence that more intensive treatment of insomnia results in better outcomes

Vespignani H., (2009) this studied aim at assessing the impact of a group therapeutic education approach in the non medical management of adult insomnia by general practitioner, through local press, poster displayed in leaflets distribution and local radio announcement. The result of the study concluded that there is any effective impact by the group therapy of educating the adult with particularly who have insomnia.

Klerman EB., (2008) conducted study on age related reduction in the maximal capacity for sleep implication for insomnia in elderly; they assessed habitual sleep duration at home and then quantified daytime sleep propensity, sleep duration and sleep structure in an inpatient protocol that included extended sleep opportunities. Thus in the absence of social and circadian constraints, both daytime sleep propensity and the maximal capacity for sleep are reduced in older

people. These data have important implication for understanding age-related insomnia.

Mc Craec., (2008) conducted study on clinical effectiveness of cognitive behavior therapy delivered by health visitors trained therapist 139 insomnia in older were randomized to CBT/ self monitoring control in a controlled trial. Results suggest that CBT administered by health visitors offers a clinically effective treatment for insomnia in older client.

Yeh GH et al., (2008) assessed the effects of 12 weeks tai chi exercise program and sleep management strategies on sleep using the sleep spectrogram in older client with insomnia, a method based on a single channel electrocardiogram derived estimation of cardiopulmonary coupling , previously shown to identify stable and unstable sleep states and enhancement of sleep stability using tai chi exercise.

Chasen., ER (2007) conducted study to assess 40 adults effects of anger management with complaints of insomnia were selected anger management were given to client with insomnia.

Results suggest that anger management is the effective treatment for insomnia.

Constantino MJ et al., (2007) conducted study on patient expectation and therapeutic alliance as predictors of outcomes in elderly group cognitive behavioral therapy for insomnia. Perceiving the therapist as critically was generally associated with less treatment satisfaction and particularly so for those individual who came to with high expectation for improvement .

De Coster J.,(2007) in the study of effect of age ,severity and adaptation on sleep variables .The retrospective study conducted over 67 samples in elderly male depressive patient and 67 carefully age matched male healthy control subject were analyzed and observed that as long delays prior to entering sleep /excessive intermittent awakening. This supports the hypothesis of a hyper arousal possibly linked to stress.

Derek king et al., (2007) assessed chronic sleep pattern problem in elderly caused due to untreated sleep problem, the treatment of chronic insomnia includes maintaining sleep hygiene,

stimulus control, behavioral interventions, sleep restriction therapy, paradoxical intention, patient education and relaxation therapy.

Kamel N S et al.,(2007), suggested that treating elderly patient with insomnia requires an understanding of the specific of the insomnia experience. Question should be directed a the patient to determine duration of symptoms presence, whether difficulty in falling asleep, maintaining sleep or waking in the early morning; presence of daytime symptoms such as mood changes , excessive sleepiness, or anxiety

Ouellette MCet al., (2007) tested the efficacy of a cognitive behavioral therapy for insomnia in elderly persons. In outpatient rehabilitation centre with eleven subjects having sustained mild to severe insomnia. The results of the study show that psychological interventions for insomnia are a promising therapeutic avenue.

Taylor DJ et al., (2007) a pilot study on cognitive behavioral therapy of insomnia in older people with mild depression on ten samples with both disorder, a repeated six session of cognitive behavioral therapy of insomnia a decreasing trend occurred in

depression scores from pre to post treatment, which reached significant at 3 month follow up. Intent to treat analyses showed similar results with good prognosis.

Yang CM et al.,(2007) studied on sleep management processes of auditory stimuli during sleep in elderly patient with primary insomnia, in fifteen patients with primary insomnia showed an enhancement in attention and a reduction in the inhibitory process that normally facilitates sleep onset in the beginning part of sleep. The result partially support the hyper arousal theory i.e., enhanced information of sleep is a contribution factor for insomnia.

CHAPTER- III

METHODOLOGY

This chapter describes the methodology that explains about the study to assess the effectiveness of sleep management strategies in reducing insomnia among elderly at the psychiatry outpatient department of Melmaruvathur Adhiparasakthi Institute of Medical Sciences and Research. This chapter deals with the research design, setting, population, sample size, sampling technique, inclusion criteria for selection of sample, exclusion criteria for selection of sample, description of tool and data collection

RESEARCH DESIGN

One group pre test - post test research design was adopted to evaluate the effectiveness of sleep management strategies in reducing insomnia among elderly.

SETTING

The study was conducted at psychiatry outpatient department of Melmaruvathur Adhiparasakthi Institute of Medical Sciences and Research.

POPULATION

The population of the study comprised of both male and female above 60 years of age with insomnia attending psychiatry outpatient department of Melmaruvathur Adhiparasakthi Institute of Medical Sciences and Research.

SAMPLE SIZE

Sample consists of 30 elderly with insomnia attending psychiatry outpatient department in Melmaruvathur Adhiparasakthi Institute of Medical Sciences and Research.

SAMPLING TECHNIQUE

The sampling technique used for this study was convenient sampling technique.

CRITERIA FOR SAMPLE SELECTION

Inclusion criteria

- Combine both elder men and women with insomnia attending psychiatry Outpatient of Melmaruvathur Adhiparasakthi Institute of Medical Sciences and Research.
- The elders above 60 years are included in the study.
- The elders who understand Tamil and English

Exclusion criteria

- Elderly with cognitive impairment.

INSTRUMENTS

Details of the tool used in the study are given below

Section-A: Proforma for Demographic variables

Section-B: Modified Pittsburgh insomnia rating scale.

DATA COLLECTION PROCEDURE

The study was conducted at psychiatry outpatient department in Melmaruvathur Adhiparasakthi Institute of Medical Sciences and Research. The data was collected for a period of six weeks by using modified Pittsburg insomnia rating scale and sample size was 30. The duration of the interview ranged from 20-30 minutes for each client. The data collection was started by collecting the demographic data of the elderly. Assessment of insomnia was done with the help of modified Pitts burgh insomnia rating scale.

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with description of tool, validity, pilot study report, score interpretation, plan for data analysis and results.

DESCRIPTION OF THE TOOL AND SCORING

Details of the tool used in the study are given below

Section-A: Proforma of demographic variables.

Section-B: Modified Pitts burgh insomnia rating scale.

SECTION-A: PROFORMA OF DEMOGRAPHIC VARIABLES

In this section information on the demographic variables consists of general information such as age of elderly, sex, religion, occupational status, marital status, availability of support system, history of illness, history of medication, habits and sleep information such as duration of sleep per day and sleep habits.

SECTION-B: MODIFIED PITTS BURGH INSOMNIA RATING SCALE

Modified Pitts burgh insomnia rating scale is a standardized tool used for assessing insomnia. This tool consists of 40 components regarding the insomnia level and coping strategies of

client. Each components carries maximum of three, minimum of zero and the total score of one hundred and twenty.

Based on the information data are classified as follows

SCORE	LEVELS OF INSOMNIA
0-60	Mild insomnia
61-90	Moderate insomnia
91-120	Severe insomnia

After the data collection, the data were analyzed to find out the mean, standard deviation and percentage of scores for elderly with insomnia.

VALIDITY

Validity refers to the determination of whether or not a device or methods measures what it purpose to measure. Content validity was obtained from psychiatric nursing experts.

REPORT OF THE PILOT STUDY

Pilot study was conducted in psychiatry outpatient department of Melmaruvathur Adhiparasakthi Institute of Medical Sciences and Research for a period of two weeks. The modified Pitts burgh insomnia rating scale was adopted by the investigator to assess the level of insomnia by convenient sampling technique to select five samples and level of insomnia was assessed with the help of insomnia rating scale and sleep management strategies was demonstrated to the elderly.

The result of the pilot study shows that there was reduction on the level of insomnia after practicing sleep management strategies. Based on the results, a modification has been made in the demographic variables elderly with insomnia.

RELIABILITY

Reliability of an instrument is the degree of consistency that the instruments or procedures demonstrates, whatever it is measuring. Modified Pitts burg insomnia rating scale is a standardized tool which

was adopted for the study. The reliability was checked by inter-rater method. The reliability was 0.83.

INFORMED CONSENT

Consent was obtained from the study participants to conduct the study. Assurance was given to the elderly regarding confidentiality.

DATA COLLECTION PROCEDURE

The investigator had obtained permission to conduct the study from the dissertation committee and from the institution. The main study was conducted in psychiatry outpatient department of Melmaruvathur Adhiparasakthi Institute of Medical Sciences and Research.

Elderly who met the inclusion criteria were selected by using convenient sampling methods. The duration of the interview ranged from 20-30 minutes for each client.

The data collection was started by collecting the demographic data of the elderly. Assessment of insomnia was done with the help of modified Pitts burgh insomnia rating scale.

Based on the assessment, the levels of insomnia was identified and then sleep management strategies was planned in which the relaxation therapy was demonstrated by the investigator for elderly group and sleep hygiene was given by distributing the pamphlets to the elderly that range for about 1-1.15 hours in psychiatry outpatient department of Melmaruvathur Adhiparasakthi Institute of Medical Sciences and Research and were supervised by investigator. After two weeks the elderly sleep status and effectiveness of sleep management strategies was assessed with the modified Pitts burgh insomnia rating scale.

SCORE INTERPRETATION

The obtained data were interpreted by the following procedure

Obtained score

$$\text{Score interpretation} = \frac{\text{Obtained score}}{\text{Total score}} \times 100$$

Maximum score =120

Minimum score =0

The score were interpreted as follows

DESCRIPTION	PERCENTAGE (%)
Mild insomnia	<50
Moderate insomnia	51-75
Severe insomnia	>75

PLAN FOR DATA ANALYSIS

The descriptive statistical analysis method was used to find out the mean, standard deviation, and percentage of the score. The sign test and correlation were adopted and interpreted with each and every score.

STATISTICAL METHOD

S.NO	DATA ANALYSIS	METHODS	REMARKS
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1	Descriptive analysis	Mean, percentage of score and standard deviation	To describe the demographic variables of the elderly with insomnia
2	Inferential analysis	Sign test	To analyse the effectiveness between pre and post test of sleep status of elderly with insomnia.
		Correlation test	To analysis the correlation between demographic variables and sleep management strategies among elderly with insomnia

The analysis of the data was organized and presented based on objectives in the following section.

Section-A:- Frequency and percentage distribution of demographic variables of elderly with insomnia.

Section-B: - Frequency and percentage of pre test and post test scores of elderly with insomnia.

Section-C: - Mean and standard deviation of pre test and post test scores of elderly with insomnia.

Section - D:- Effectiveness of sleep management strategies among elderly with insomnia by using sign test.

Section-E:- Correlation between effectiveness of sleep management strategies among elderly with insomnia with selected variables.

SECTION-A

TABLE-4.1: FREQUENCY AND PERCENTAGE DISTRIBUTION OF DEMOGRAPHIC VARIABLES OF ELDERLY WITH INSOMNIA.

N=30

SI NO	DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE (%)
1.	GENERAL INFORMATION		
	Age		
	a)60-70 years	13	43.33
	b)70-80years	11	36.66
	c)Above 80	6	20.00
2.	Sex		
	a)Male	17	56.66
	b)Female	13	43.34
3.	Religion		
	a)Hindu	19	63.33
	b)Christian	8	26.67
	c)Muslim	3	10.00
	d)Others	-	-
4.	Occupational status		
	a)Employed	5	16.66
	b)Business	12	40.00
	c)Retired/Dependent	13	43.34
5.	Marital status		
	a)Married	16	53.34
	b)Unmarried	4	13.33
	c)Widower	6	20.00
	d)Divorced	4	13.33
6.	Availability of support system		
	a)Family members	13	43.33
	b)Relatives	8	26.67
	c)Friends or Neighbors	5	16.67
	d)Social Agencies	4	13.33

7.	History of illness a)Physical illness b)Mental illness c)None	14 9 7	46.67 30.00 23.33
8.	History of medication a)Present b)Absent	20 10	66.66 33.34
9.	Habits a)Smoking b)Alcohol/Drug Abuse c)Tobacco Chewing d)None	8 6 7 9	26.67 20.00 23.33 30.00
10.	SLEEP INFORMATION Duration of sleep per day a)Less than 2 hours b)3-2 hours c)4-5 hours	13 7 10	43.33 23.33 33.34
11.	Sleep habits a)Listening to music b)Watching television c)Drinking warm fluids d)None	5 9 9 7	16.67 30.00 30.00 23.33

Table-4.1 reveals that out of 30 elderly, regarding to the age, thirteen (43.34%) had 60-70 years, eleven (36.66%) had 70-80 years, six (20%) had above 80 years.

Regarding sex, seventeen (56.66%) had male, thirteen (43.34%) had female.

Regarding religion, nineteen (63.33%) had Hindu, eight (26.67%) had Christian, three (10%) had Muslim.

Regarding occupational status, five (16.66%) had employed, twelve (40%) had doing business, thirteen (43.34%) had retired or dependent.

Regarding marital status, sixteen (53.34%) had married, four (13.33%) were unmarried, six (20%) are widower, four (13.33%) had divorced.

The availability of support system reveals that thirteen (43.33%) had supported by the family members, eight (26.67%) had by there relatives, five (16.67%) had by their friends and neighbors, four (13.33%) had supported by social agencies.

Regarding history of illness, fourteen (46.67%) had sufferin from physical illness, nine (30%) had suffering from mental illness, seven (23.33%) had in none.

Regarding history of medication, twenty (66.66%) had under medication and ten (33.34%) had not having the history of medication.

Regarding duration of sleep, thirteen (43.33%) had 2 hours of sleep, seven (23.33%) had 3-2 hours of sleep and ten (33.34%) had 4-5 hours sleep.

Regarding sleep habits five (16.67%) listen to music, nine (30%) seeing television, other nine (30%) have the habit of drinking warm fluids and seven (23.33%) have no sleep habits.

SECTION-B

TABLE -4.2 FREQUENCY AND PERCENTAGE DISTRIBUTION OF PRE TEST AND POST TEST SCORE FOR ELDERLY WITH INSOMNIA

N=30

SI.NO	SLEEP STATUS	PRE TEST	POST TEST
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		Number	Percentage (%)	Number	Percentage (%)
1	Mild	5	16.67	13	43.33
2	Moderate	20	66.66	17	56.57
3	Severe	5	16.67	-	-

Table-4.2: reveals that frequency and percentage distribution in sleep condition of elderly with insomnia. Among the 30 clients, five (16.67%) had mild insomnia, twenty (66.66%) had moderate insomnia, five (16.67%) had severe insomnia on pre test. Among the 30 clients, thirteen (43.33%) had in mild insomnia, seventeen (56.67%) had in moderate insomnia on post test.

SECTION-C

TABLE-4.3 MEAN AND STANDARD DEVIATION OF PRE TEST AND POST TEST SCORES OF ELDERLY WITH INSOMNIA.

N=30

SI. NO	TOPIC	MEAN	STANDARD DEVIATION	CONFIDENCE INTERVAL

1.	Pre Test	74.77	19.32	82.25-67.28
2.	Post Test	19.33	7.92	22.29-16.38

Table-4.3 reveals that the overall mean and standard deviation of effectiveness of sleep management strategies in reducing insomnia in elderly.

The overall mean was 74.77 with standard deviation of 19.32 in pre test and the overall mean was 19.33 with the standard deviation of 7.92 in post test.

SECTION-D

TABLE-4.4 EFFECTIVENESS OF SLEEP MANAGEMENT STRATEGIES AMONG ELDERLY WITH INSOMNIA BY USING SIGN TEST.

N=30

S. NO	HEALTH STATUS	MEAN	STANDARD DEVIATION	'S' VALUE	'K' VALUE
1	Post test Score	19.33	7.92	2	5.1

*P<0.05 level significant

Table -4.4 reveals that improvement between pre test and post test scores. The mean was 19.33 with standard deviation of 7.92.

The calculated value is greater than table value. This shows that there was a significant improvement in the sleep status of elderly with insomnia on the evaluation day, hence the sleep management strategies was effective.

SECTION -E

TABLE-4.5 CORRELATION BETWEEN EFFECTIVENESS OF SLEEP MANAGEMENT STRATEGIES IN REDUCING INSOMNIA AMONG ELDERLY WITH SELECTED VARIABLES.

N=30

S. NO	DEMOGRAPHIC VARIABLES	PRE TEST						POST TEST						R
		Mild		Moderate		Severe		Mild		moderate		severe		
		No	%	No	%	No	%	No	%	No	%	No	%	
1.	Age													
	a)60-70 years	4	13.34	6	20	3	10	6	20	7	23.33	0	0	
	b)70-80years	1	3.33	9	30	1	3.33	5	16.67	6	20	0	0	0.08
	c)Above 80	0	0	5	16.67	1	3.33	3	10	3	10	0	0	
2.	Sex													
	a)Male	1	3.33	15	50	1	3.33	7	23.33	10	33.34	0	0	
	b)Female	4	13.34	5	16.67	4	13.33	7	23.33	6	20	0	0	-0.1
3.	Religion													
	a)Hindu	2	6.67	14	46.66	3	10	10	33.33	9	30	0	0	
	b)Christian	2	6.67	4	13.33	2	6.67	3	10	5	16.67	0	0	0.2
	c)Muslim	1	3.33	2	6.67	0	0	1	3.33	2	6.67	0	0	
	d)Others	0	0	0	0	0	0	0	0	0	0	0	0	
4.	Occupational status													
	a)Employed	1	3.33	2	6.67	2	6.67	3	10	2	6.67	0	0	
	b)Business	2	6.67	1	3.33	1	3.33	4	13.33	8	26.67	0	0	0.04
	c)Retired/Dependent	2	6.67	2	6.66	2	6.67	7	23.33	6	20	0	0	
5.	Marital status													
	a)Married	3	10	10	33.33	3	10	7	23.33	9	30	0	0	
	b)Unmarried	2	6.67	3	10	0	0	2	6.67	2	6.67	0	0	
	c)Widower	1	3.33	4	13.34	1	3.33	4	13.34	2	6.67	0	0	-
	d)Divorced	0	0	3	10	1	3.33	1	3.33	3	10	0	0	0.05
6.	Availability of support system													
	a)Family members	2	6.67	9	30	2	6.67	5	16.67	8	26.66	0	0	
	b)Relatives	1	3.33	6	20	1	3.33	4	13.33	4	13.33	0	0	-
	c)Friends	2	6.67	2	6.67	1	3.33	3	10	2	6.67	0	0	0.08
	d)Social Agencies	0	0	3	10	1	3.33	2	6.67	2	6.67	0	0	
7.	History of illness													
	a)Physical illness	1	3.33	11	36.66	2	6.67	5	16.67	9	30	0	0	
	b)Mental illness	2	6.67	5	16.67	2	6.67	5	16.67	4	13.33	0	0	0.2

	c)None	2	6.67	4	13.33	1	3.33	4	13.33	3	10	0	0	
8.	History of medication													
	a)Present	2	6.67	14	46.67	4	13.33	8	26.67	12	40	0	0	
	b)Absent	3	10	6	20	1	3.33	6	20	4	13.33	0	0	-0.2
9.	Habits													
	a)Smoking	1	3.33	5	16.66	2	6.67	4	13.33	4	13.33	0	0	
	b)Alcohol/Drug Abuse	1	3.33	4	13.33	1	3.33	4	13.33	2	6.67	0	0	
	c)Tobacco Chewing	2	6.67	4	13.33	1	3.33	3	10	4	13.34	0	0	-0.2
	d)None	1	3.33	7	23.32	1	3.33	3	10	6	20	0	0	
10.	Duration of sleep per day													
	a)Less than 2 hours	1	3.33	10	33.34	2	6.67	6	20	7	23.33	0	0	
	b)3-2 hours	1	3.33	4	13.33	2	6.67	3	10	4	13.33	0	0	-0.2
	c)4-5 hours	3	10	6	20	1	3.33	5	16.67	5	16.67	0	0	
11	Sleep Habits													
	a)Listening to music	1	3.33	3	10	1	3.33	1	3.33	4	13.33	0	0	
	b)Watching television	2	6.67	6	20	1	3.33	4	13.34	5	16.67	0	0	-0.1
	c)Drinking warm fluid	2	6.67	5	16.67	2	6.67	5	16.67	4	13.33	0	0	
	d)None	1	3.33	4	13.33	2	6.67	3	10	4	13.33	0	0	

*P<0.05 level significant

Table -4.5 shows that correlation between effectiveness of sleep management strategies in reducing insomnia among elderly with selected demographic variables.

There was no significant relation between demographic variables such as age of elderly, sex, religion, occupational status, marital status, availability of support system, history of illness, history

of medication, habits and sleep information such as duration of sleep per day and sleep habits with effectiveness of sleep management.

CHAPTER –V

RESULTS AND DISCUSSION

The study was conducted to determine the effectiveness of sleep management strategies in reducing insomnia among elderly. One group pre test - post test research design was adopted.

The tool used in the study are given below

Section-A: Proforma for Demographic variables

Section-B: Modified Pittsburgh insomnia rating scale

The sample includes both male and female diagnosed with insomnia. A total number of 30 samples were selected for the study. The levels of insomnia for each elderly were assessed using modified Pittsburgh insomnia rating scale.

Based on the pre test, the sleep management strategies was planned and implemented for the elderly with insomnia and effectiveness of sleep management strategies was assessed after two weeks. The study findings have been discussed in terms of the objectives of theoretical basis and hypothesis.

**THE FIRST OBJECTIVE WAS TO ASSESS THE LEVEL OF
INSOMNIA AMONG ELDERLY**

Table -4.2 reveals that frequency and percentage distribution in sleep condition of elderly with insomnia.

Among the 30 clients, five (16.67%) had mild insomnia, twenty (66.66%) had moderate insomnia, five (16.67%) had severe insomnia level in pre test. Among the 30 clients, thirteen (43.33%) had mild insomnia, seventeen (56.67%) had moderate insomnia in post test.

THE SECOND OBJECTIVE WAS TO EVALUATE THE EFFECTIVENESS OF SLEEP MANAGEMENT STRATEGIES IN REDUCING INSOMNIA AMONG ELDERLY

Table-4.3 reveals that the overall mean and standard deviation of effectiveness of sleep management strategies in reducing insomnia in elderly.

The overall mean was 74.77 with standard deviation of 19.32 in pre test and the overall mean was 19.3 with the standard deviation of 7.92 in post test.

Table -4.4 reveals that improvement between pre test and post test score. The mean was 19.3 with standard deviation of 7.92. The calculated value is greater than table value.

This shows that there was a significant improvement in the sleep status of elderly with insomnia in post test, hence the sleep management strategies was effective.

THE THIRD OBJECTIVE IS TO CORRELATE THE EFFECTIVENESS OF SLEEP MANAGEMENT STRATEGIES IN REDUCING INSOMNIA AMONG ELDERLY WITH THE SELECTED DEMOGRAPHIC VARIABLES

Table -4.5 shows that correlation between effectiveness of sleep management strategies in reducing insomnia among elderly with selected demographic variables.

There was no significant relation between demographic variables consists of general status such as age of elderly, sex, religion, occupational status, marital status, availability of support system, history of illness, history of medication, habits and another

session sleep status such as duration of sleep per day and sleep habits with effectiveness of sleep management.

Hullar J et al., (2010) conducted study on impact of group therapeutic education in the management of adults sleep disorders in which implementation of a non pharmacological, therapeutic approach is a daily problem for primary insomnia conducted one month and three month after they concluded that group therapeutic education in the form of cognitive behavioral therapy performed during a conference results in a change in behaviors and a midterm improvement in sleep quality in participants.

Taylor D., (2010) studied insomnia which is a common problem that affects 9%-15% of the elderly population chronically. The primary objectives of this study was to demonstrate that 8 weekly session of sleep restriction therapy of insomnia combined with sleep management strategies.Reduction instruction following a single session of sleep hygiene. These results provide evidence that more intensive treatment of insomnia results in better outcomes.

These studies support the results of effectiveness of sleep management strategies in reducing insomnia among elderly. Hence it is incorporated in results and discussion .

CHAPTER –VI

SUMMARY AND CONCLUSION

Effectiveness of sleep management strategies in reducing insomnia among elderly conducted in psychiatry outpatient department of Melmaruvathur Adhiparasakthi Institute of Medical Sciences and Research were one group pre test - post test research design was adopted for evaluation. Sleep management strategies was provided to elderly those who met the inclusion criteria.

The study was conducted at psychiatry outpatient department of Melmaruvathur Adhiparasakthi Institute of Medical Sciences and

research. The convenient sampling technique was administered and sample size was determined as 30.

Modified pitts burgh insomnia rating scale was used to analyze the insomnia level of elderly with insomnia. Sleep management strategies was provided to reduce the elderly level of insomnia.

FINDINGS OF THE STUDY

The overall mean was 74.77 with standard deviation of 19.32 in pre test and the overall mean was 19.33 with the standard deviation of 7.92 in post test.

The calculated value was greater than calculated value so the alternative hypothesis was accepted. This shows that sleep management strategies was effective.

NURSING IMPLICATION

Sleep management strategies and psycho therapies play a major role in treating elderly with sleep disorders. Sleep management

strategies will assist in relieving symptoms associated with insomnia, reduce the level of insomnia and improve sleep pattern.

- Help nurses to identify the underlying causes and risk factors of elderly with insomnia by assessing the level of insomnia.
- Understanding the needs of elderly with insomnia may help nurse to plan and provide appropriate sleep management strategies.
- The present study can help nurses to enrich their knowledge on sleep management strategies of elderly with insomnia.

NURSING EDUCATION

- Nursing curriculum can be modified with increased emphasis of psychotherapies.
- Recommendation for short term courses in relation to psychiatric nursing care.
- Students can also be trained to work in psychiatric ward under proper guidance.

NURSING SERVICE

- Nurses working in psychiatric department should have special training about various psychotherapies.
- Nurses working in psychiatric ward should have enough knowledge about care of elderly with insomnia they should be a keen observer since the elderly cannot realize their needs.
- Nurses should need to assess the elderly before starting care so that they can plan the sleep management strategies accordingly.
- Rewards can be given to the outstanding nurses in each year in all institution which will boost the temperament of the nurses.
- Facilitation and all required equipments to be made available for managing elderly with insomnia in all hospitals.

NURSING ADMINISTRATION

- People at the administration position can make necessary policies to implement the concept of mental health nursing in elderly care.
- Separate geriatric ward can be set up with the necessary facilities so as to adapt to the needs of the elderly
- In-service education programme on care of elderly and relaxation technique can be organized.
- Adequate staffing in psychiatric ward to be given as per norms.

NURSING RESEARCH

- The study reveals the sound knowledge of the nurse in using various techniques of psychotherapies.

- he study is preliminary step for exploring the concept of nursing and involved nursing care with respect to the involvement of the elderly.
- Further investigation can use this study as a reference material.
- The study provides awareness for further studies among the students in this area.

RECOMMENDATION

- The study can be done in comparing with other insomnia problems and any associated problems with insomnia.
- Descriptive analysis can be done with insomnia and complication on insomnia.
- Comparative study between the various types of insomnia.
- The study can be done in large samples.
- The study can be conducted in clients in a particular region or area to find out the influence of environment factors for sleep disorder.

- A comparative study can be done between the rural and urban clients.

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APPENDIX-III

HEALTH EDUCATION ON

SLEEP MANAGEMENT

STRATEGIES

TOPIC	:	Sleep Management Strategies
GROUP	:	Elderly Client with insomnia
PLACE	:	Melmaruvathur Adhiparasakhti
Institute of Medical		Sciences and Research Center.
TIME DURATION	:	30 minuets
METHOD OF TEACHING	:	Lecture cum discussion
STUDENT TEACHER	:	Mayuri K

CENTRAL OBJECTIVES:

At the end of the session the individuals can able to understand the sleep management strategies and practice in day to day life.

SPECIFIC OBJECTIVE:

The individuals can be able to

- define about insomnia and sleep management
- explain the problem due to insomnia in elderly
- discuss about the sleep management strategies
- demonstrated on yoga practice
- list down the sleep hygiene guidelines

S.N O	TIM E	OBJECTIV ES	CONTENT	TEACHE R ACTIVIT Y	LEARNER S ACTIVITY
1	5 min	The client will be able to define insomnia and sleep management strategies	<p>INSOMNIA:</p> <p>Insomnia is defined as difficulty in initiating or maintaining sleep at least three nights or week</p> <p>SLEEP MANAGEMENT STRATEGIES:</p> <p>Management of insomnia by using non-pharmacological</p>	Defining	Listening

2	5min	The client will be able to explain the problems due to insomnia in elderly client	<p>intervention that includes sleep restriction , relaxation therapy, sleep hygiene recommendation etc.,</p> <p>PROBLEMS DUE TO INSOMNIA</p> <p>Physical Problems</p> <ul style="list-style-type: none"> • Fatigue • Gastro intestinal system problem 	Explaining	Listening
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			<ul style="list-style-type: none">• Arthritis• Heart disease• Fibromyalgia• Tension headache <p>Psychiatric Problems</p> <ul style="list-style-type: none">• Anxiety as bedtime approaches• Irritability• Difficulty concentration• Impaired ability to		
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			<p>perform activity</p> <ul style="list-style-type: none"> • Not feeling refreshed after sleep • Depression • Post-traumatic stress disorder <p>Social Problems</p> <ul style="list-style-type: none"> • Social withdrawal • Drug abuse • motor 	<p>Explaining</p>	<p>Listening</p>
3.	5min	Client will be able to discuss about the sleep management strategies	<ul style="list-style-type: none"> • Social withdrawal • Drug abuse • motor 	<p>explaining</p>	<p>Listening</p>

			<p>vehicle accident</p> <ul style="list-style-type: none">• irritability towards environme nt <p>SLEEP MANAGEMENT STRATEGIES</p> <p>Sleep management strategies includes as follows</p> <ul style="list-style-type: none">• Curtail time in bed• Never try	
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4.	10min	The client can able to demonstrate yoga	<p>to sleep if you not feeling sleep</p> <ul style="list-style-type: none"> • Eliminate the bed room clock • Exercises in late after noon or early evening • Avoid coffee alcohol and nicotine • Regulariz 	explaining	Listening and demonstrating
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			<p>ed bed</p> <p>time</p> <ul style="list-style-type: none">• Eat a light bedtime snack.• Explore napping• Relaxation Therapy <p>YOGA</p> <p>Yoga is a process of gaining control over the mind</p> <p>Uses Of Yoga</p> <p>Personality development</p> <ul style="list-style-type: none">• Physical		
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			<p>level</p> <ul style="list-style-type: none">• Emotional level• Intellectual level <p>PRANAYAMA USED IN REDUCING INSOMNIA IN ELDERLY CLIENT :</p> <ul style="list-style-type: none">• Bhramari pranayama• Sitali pranayama• Bhastrika pranayama		
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			<ul style="list-style-type: none">• Full yogic breath• Nadishodana pranayama <p>ASANA USED IN REDUCING INSOMNIA IN ELDERLY CLIENT</p> <p>Shavasana (corpse pose)</p> <ul style="list-style-type: none">• Lie on the back with the hands and legs comfortable away from	Explaining	listening
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5.	5min	Client will be able to list down the sleep hygiene guidelines	<p>the body</p> <ul style="list-style-type: none"> • Toes pointing outside. <p>Finger in a semi flexed position.</p> <p>Keep the head in a most convenient position</p> <ul style="list-style-type: none"> • Close the eyes gently. <p>Start with a moderately deep abdominal breathing</p> <ul style="list-style-type: none"> • Attend to the flow of the 	Listing down and explaining	listening
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			<p>breath without moving the body.</p> <ul style="list-style-type: none">• Try to relax each and every part of the body consciously and try to diffuse all the tension of the body. <p>Benefits:</p> <ul style="list-style-type: none">• It helps to relax the muscles of the body• It helps in	explaining	listening
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			<p>relieving the stress and tension.</p> <p>Ideally to be practiced before sleep, before and after asana practice, particularly after dynamic exercised like suryamaskar a.</p> <ul style="list-style-type: none">• Develops total body awareness.• It helps reducing	explainin	listening
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			<p>insomnia</p> <p>Sleep hygiene</p> <p>Guidelines</p> <ul style="list-style-type: none">• Go to bed only when sleepy• Use the bed only for sleeping. Do not read, watch television, or eat in bed.• If unable to sleep get up and move to another room. Stay up until you	g	
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			<p>are definitely sleep and then return to bed.</p> <ul style="list-style-type: none">• Set the alarm and get up at the same time every morning, regardless of how much you have slept through the night.• Do not nap• Do not exercise just before going to bed.	
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			<ul style="list-style-type: none">• Do not engage in stimulating activity just before bed.• Avoid caffeine in the afternoon• Do not drink alcohol close to bedtime• Eliminate clocks in the bedroom• Before bedtime schedule a period to review		
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			<p>stressful events of the day</p> <p>Promote relaxation and sleep by focusing on quiescent tasks that occupy the mind such as reading, watching television or listening to music</p>		
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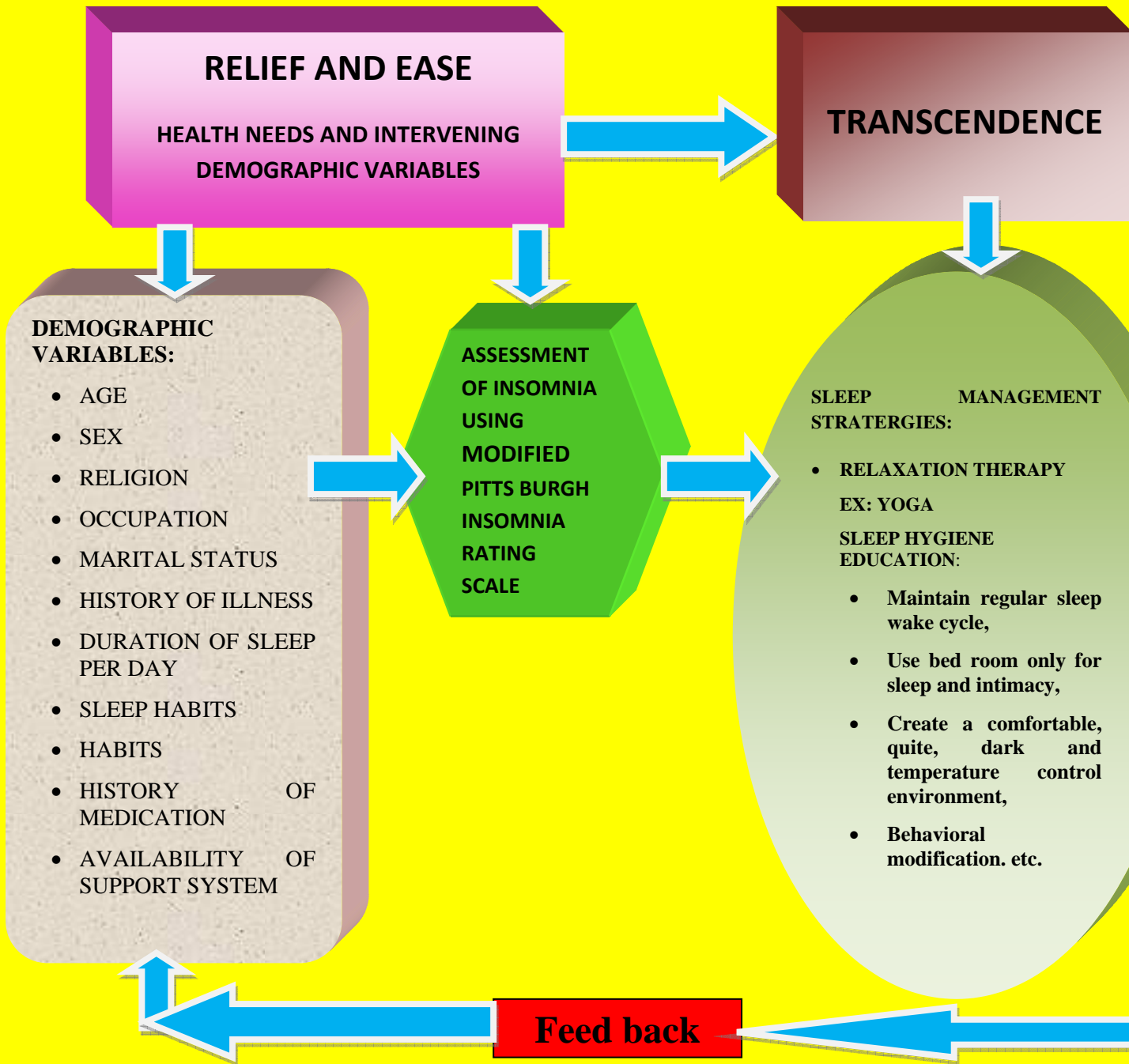


FIG 1.2., CONCEPTUAL FRAME WORK BASED ON MODIFIED KOLCABA

APPENDIX-II
MODIFIED PITTSBURGH INSOMNIA RATING SCALE

The following question ask about your sleep in the past 7 days and night. Please tick the one best for each question.

S.NO	A.IN THE PAST WEEK,HOW MUCH WERE YOU BOTHERED BY	not at all bothered (0)	slightly bothered(1)	moderately bothered(2)	severely bothered(3)
1.	Difficulty getting to sleep at bedtime				
2.	One or more awakening after getting to sleep				
3.	Waking up too early in the morning				
4.	Not getting enough sleep				
5.	Different sleep patterns from one night to the next				
6.	Sleep occurring at odd times or not at all				
7.	Intense or disturbing dreams				
8.	Sensation(like noises, hot or cold, pain) during the night				
9.	Physical tension at night				
10.	Moving too much in bed				
11.	Anxiety or worries about getting to sleep				
12.	Anxiety or worries about lack of sleep				
13.	Anxiety or worries about what might happen during sleep				

	General nervousness and stress				
14.	Poor sleeping causing you to feel stress				
15.	Stress causing poor sleeping				
16.	Your mind not slowing down at bedtime				
17.	Loss of desire for physical intimacy or sex				
18.	Sleep that doesn't fully refresh				
19.	Difficulty keeping your thoughts focused				
20.	Poor alertness during the day time				
21.	Difficulty remembering things				
22.	Your mind never slowing down during the daytime				
23.	Difficulty remembering things				
24.	Difficulty thinking clearly and making decisions				
25.	Tiredness or fatigue				
26.	Dozing off or napping when you really didn't want to				
27.	Others noticing you appeared tied or fatigued				
28.	Too many difficulties to overcome				
29.	Being unsure about handling your personal problem				
30.					

31.	Being unsure about dealing with day-to-day problems				
32.	Irritation with sounds, sights, or sensation during the day				
33.	Bad mood(s) because you had poor sleep				
34.	Irritation with people even when they were polite				
35.	Difficulty controlling your emotions				
36.	Needing to keep quiet around other people				
37.	Lack of energy because of poor sleep				
38.	Poor sleep that interferes with your relationships				
39.	Feeling sleepy				
40.	Being unable to sleep				

