

**EFFECTIVENESS OF MUSIC THERAPY ON QUALITY OF
SLEEP AMONG ELDERLY RESIDING AT SELECTED
OLD AGE HOMES, SALEM.**

BY

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**A DISSERTATION SUBMITTED TO
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PSYCHIATRIC (MENTAL HEALTH) NURSING**

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CERTIFICATE

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ABSTRACT

A Study was conducted to determine the Effectiveness of Music Therapy on Quality of Sleep among elderly residing at selected old age homes, Salem. The design adopted was pre experimental (one group pre and post test) research design. 60 samples were drawn from Henry old age home and Saradha old age home through non probability convenience sampling technique. The level of quality of sleep was assessed by using a Modified Pittsburgh Quality of sleep index scale. Music therapy was implemented for the participants twice daily for 21 consecutive days. Post test was done on 7th, 14th, and 22th day of intervention. The data gathered were analyzed by descriptive and inferential statistical method.

The findings revealed that during pretest 3(5%) of them had good quality of sleep, 29(48.33%) of them had fair quality of sleep and 28(46.67%) of them had poor quality of sleep, whereas in posttest I 6(10%) of them had good quality of sleep, 39(65%) of them had fair quality of sleep and 15(25%) of them had poor quality of sleep. In posttest II 14(23.33%) of them had good quality of sleep, 36(60%) of them had fair quality of sleep and 10(16.67%) of them had poor quality of sleep. In posttest III 27(45%) of them had good quality of sleep, 25(41.67%) of them had fair quality of sleep and 8(13.33%) of them had poor quality of sleep. The pre test (O_1) mean score was 28.30 ± 4.89 and the average post test mean score was 22.92 ± 5.91 . The calculated t value 12.34 at $p \leq 0.05$ level was significantly higher than the table value 1.96 at $p \leq 0.05$ level which shows that music therapy was effective in improving the quality of sleep. Hence H_1 was retained. There was significant association between the quality of sleep among elderly with their selected demographic variables like marital status ($\chi^2=12.56$), educational status ($\chi^2=21.38$), and duration of stay ($\chi^2 = 14.39$). Hence H_2 was retained for the above mentioned demographic variables. Music therapy is a non pharmacological and less expensive method of relaxation therapy, which promotes the mind body interaction and ultimately improves the quality of sleep.

CHAPTER I

INTRODUCTION

“Sleep is the golden chain that ties health and our bodies together”

~Thomas Dekker

Sleep and rest are basic human needs essential to all individual's physical and psychological wellbeing. About one third of our lives are spent in sleeping. The purpose of sleep is a mystery; however it is necessary for good health and a sense of wellbeing.

Sleep is a state of rest that occurs for sustained periods. The reduced consciousness during sleep provides time for the repair and recovery of body systems. A person's need for rest and sleep changes throughout life. An elderly individual generally needs less sleep than middle aged or adult.

Sleep is a state of decreased awareness of environmental stimuli that is distinguished from states such as coma or hibernation by its relatively rapid reversibility.

Proper rest and sleep are as important to good health as good nutrition and adequate exercise. Sleep is believed to contribute to physiological and psychological restoration. NREM sleep contributes to body tissue restoration. A healthy adult's normal heart rate throughout the day averages 70 to 80 beats per minute or less if the individual is in excellent physical condition. However, during sleep the heart rate falls to 60 beats per minute or less. It means heart beats 10 to 20 fewer times in each minute during sleep or 60 to 120 fewer times in each hour. Clearly, restful sleep may be beneficial in preserving cardiac function. Other biological functions which decrease during sleep is respirations, blood pressure and muscle tone.

The purpose of sleep is that the body conserves energy during sleep. The skeletal muscles relax progressively, and the absence of muscular contraction preserves chemical energy for cellular processes. Lowering of the basal metabolic rate further conserves body energy supply.

According to national sleep foundation 2002, a loss of REM sleep can lead to feelings of confusion and suspicion, and various body functions can be altered when prolonged sleep loss occurs.

Alterations in natural and cellular immune function also occur with moderate to severe sleep deprivation

Pressman and Author Mark, (2009) states that the average daily amount of sleep varies considerably among adults. Most adults in the age group of 20 to 50 have average 6 to 8 ½ hours of sleep. However 5% to 10% of this age group sleeps more than 9 hours and 2% to 5% sleep less than 6 hours without difficulty. According to the 2005 to 2008 National Health and Nutrition Examination Survey more than one-third of individuals report sleeping less than seven hours per night on weekdays or workday nights. This was most common among individuals of 20 to 59 years of age.

Researchers in Britain have found that person who regularly sleeps five hours or less are twice as likely to have high blood pressure and subsequently heart disease as those who shut eye for seven hours a night.

Sleep disturbances are the most common mental disorders reported among the older people in various countries. Complaints of sleep disturbances, such as insomnia, sleep fragmentation and daytime sleepiness are common in the general population and estimated at 35%, with an even higher prevalence (50%) in older people.

More studies have reported that loss of sleep in older people is associated with a greater risk of adverse outcomes, including accidents, falls, and poor health status and all-cause mortality.

Music has many purposes. Its multidimensional nature touches the individual's physical and psychological levels of consciousness suggested that music exerts its effect through the entrainment of body rhythms.

Goldstein. (2006) that perception of music leads to stirring emotional experiences is an indicator that the limbic system is engaged in processing music stimuli and that this system is influenced by music pitch and rhythm. Music, particularly the classical genre, is a 'complex and dynamic stimulus with aesthetic and emotional meaning' and can be useful in reducing anxiety and pain. Based on a psycho-physiological theory synthesized from the literature, sedative music induces relaxation and distraction response which reduces activity in the neuroendocrine and sympathetic nervous systems, resulting in decreased pain, stress, anxiety and induce sleep.

Need for the Study

Sleep quality is a very important factor in quality of life. Sleep disorders may result in fatigue, tiredness, depression and problems in day time functioning, several studies have focused on the effects of music on sleep quality and researchers have found in a variety of study settings and population, that music positively affects the sleep.

Music can reduce sympathetic nervous system activity, decrease anxiety, blood pressure, heart and respiratory rate.

Zimmermann, et.al, (2005) studied the effects of relaxing music on sleep and pain in 96 patients who had under gone coronary artery bypass graft surgery.

The most prominent effect of total sleep deprivation in humans is cognitive impairment, with striking practical consequences. Each year, errors due to sleep deprivation and sleepiness cause 25,000 deaths and 2.5 million disabling injuries and cost more than \$56 billion in the United States alone. Moreover, the National Highway Traffic Safety Administration estimates conservatively that, each year, drowsy driving is responsible for at least 100,000 automobile crashes, 71,000 injuries, and 1,550 fatalities.

Ruth M. Benca M.D., Ph.D. (2006) stated that in addition to cognitive impairment, sleep deprivation in humans may also affect various physiological systems with impacts on overall health. It has been suggested that sleep loss can affect host defense systems.

Current management of sleep problems mainly focus on medication. But medications may create adverse consequences with physical and psychological effects, such as deterioration of emotional and mental condition, impaired psychomotor and cognitive functioning result. Their safety and efficacy for sleep problems in older people has not been established. Therefore, non pharmacological methods that promote a mind–body interaction without side effects should be tested. Additionally, listening to music, a less costly and possibly a more feasible intervention, is one of the alternative methods proposed to address this problem

Witzke, et.al., (2008) provided another review on the effect of music for patients with dementia; they concluded that ‘the evidence supports music as a therapeutic nursing intervention that may serve to enhance the quality of life for many clients with Alzheimer’s dementia’. Music, as a vehicle of feeling, can facilitate a non-verbal expression of emotion. It can reach people’s inner feelings without being threatening and it can be a tool for emotional catharsis.

Music therapy as a nursing intervention is simple to realize, follow and worth trying. Thus, investigator felt the need to examine the effectiveness of music therapy as a nursing intervention in promoting quality of sleep among the elderly.

Statement of the Problem

A Study to determine the Effectiveness of Music Therapy on Quality of Sleep among Elderly residing at selected old age homes, Salem.

Objectives of the study

1. To assess the quality of sleep among elderly at selected old age homes.
2. To determine the effectiveness of music therapy on the quality of sleep among the elderly at selected old age homes.
3. To associate the quality of sleep among the elderly at selected old age homes with their selected demographic variables.

Operational Definitions

Effectiveness:

It refers to the significant improvement in quality of sleep as determined by difference in pretest and post test scores after implementation of music therapy.

Music Therapy:

Music therapy refers to administration of selected recorded Indian classical instrumental music, rendered by experts in the field especially designed to induce sleep. In this study Neelambari and Mohana raga were chosen; Neelambari has sleep promoting qualities, induces sleep in people with sleep disorder and Mohana raga is used to reduce severe headaches and inducing sleep.

Quality of Sleep:

It is the subjective feeling of freshness in the morning as measured by Modified Pittsburgh sleep Quality index, which accounts to the outcome of music therapy.

Assumptions

1. Good sleep is essential for good health.
2. The subjects who receive music therapy will experience promotion of sleep.
3. Music therapy helps to improve the quality of sleep among elderly.
4. Information provided by the elderly will represent their true.

Hypotheses

- H₁:** There will be a significant difference in the pre and post test scores on quality of sleep among elderly at $p \leq 0.05$ level.
- H₂:** There will be a significant association in the quality of sleep among elderly and their selected demographic variables at $p \leq 0.05$ level.

Delimitations

1. The sample size is limited to 60.
2. The study period is limited to 4 weeks.

Projected Outcomes

1. The study will help to identify the quality of sleep among elderly residents at old age homes.
2. Music therapy will induce sleep among elderly residents.
3. The findings of the study will help the nurses to practice music therapy.
4. The findings of the study will help the health professional to gain knowledge for further research.

Conceptual Framework

Conceptual models are made up of concepts, which are words describing mental images of phenomena and propositions which are statements about concepts. It provides a schematic representation of some relationship among phenomena.

Ernestine Wiedenbach's proposed a prescriptive theory for nursing which is described as conceiving of a desired situation & the ways to attain it.

The investigator adopted the Wiedenbach's Theory of helping art of clinical nursing 1964, for Conceptual Framework, According to this theory, nursing practice consists of 3-steps which include.

- Step-I Identifying the need for help
- Step-II Ministering the needed help
- Step-III Validating that the need for help was met.

This theory shows nursing as an art based on a goal (or) central purpose. It consists of 3 factors central purpose, prescription & realities.

Step-I: Identifying the need for help

This involves determining the need for help. The investigator identified the need for promoting the quality of sleep among the elderly through Modified Pittsburgh sleep Quality index.

Step-II: Ministering the needed help

The provision of required help for the identified need. It has 2 components

- (i) Prescription
- (ii) Realities

i. Prescription

It involves the plan of care to achieve the purpose. In this study investigator administered music therapy for 30 minutes twice a day, at 9 am in morning and 7 pm in evening for 21 days.

ii. Realities

The five realities identified by Wiedenbach's are agent, recipient, goal, mean activities and framework.

Agent : The investigator is the agent.
Recipient : Elderly people in old age homes (60 samples)
Goal : To improve the quality of sleep.
Mean Activities : Administration of music therapy.
Framework : Henry old age home and Saradha old age home, Salem

Step-III: Validating that the need for help was met

It is accomplished by the post test assessment (every 7th day of intervention) of the quality of sleep with the help of modified Pittsburg quality index sleep scale

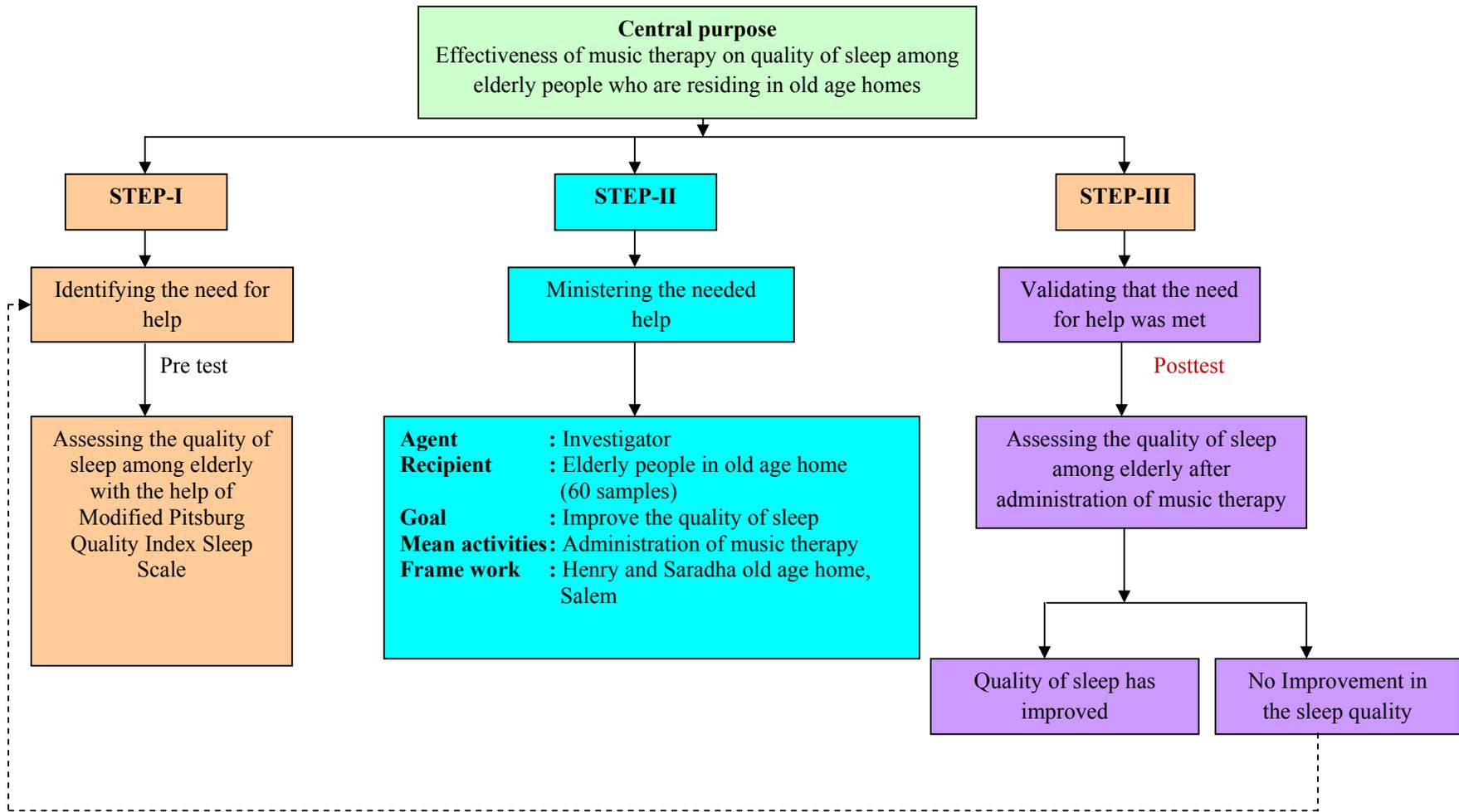


Figure – 1.1: Theoretical Framework Based On Wiedenbach’s Helping Art Model For Clinical Practices (1964)

Summary

This chapter dealt with introduction, need for study, statement of the problem, objectives, operational definition, assumptions, hypotheses, delimitations, projected outcome, and conceptual framework.

CHAPTER - II

REVIEW OF LITERATURE

A review of literature is an eventual aspect of scientific study. It involves the systematic identification, location, serving and summary of the written materials that contain information on a research problem. It broadens the views of the investigator regarding the problem under investigation, helps in focusing on the issues specially conserving the study.

It is essential step; it can be done before and after selecting the problem. It can help to determine what is already known about the topic **(A.P.Jai, 2005)**.

The review of literature was presented under the following headings.

- a. Literature related to music therapy on quality of sleep.
- b. Literature related to music therapy on quality of sleep among elderly.

a) Literature Related to Music Therapy on the Quality of Sleep.

Bloch B.,et.al.,(2010) conducted a study to examine the effects of music therapy on insomnia and emotional changes in people with schizophrenia Haemek Medical Center Afula, Israel. The sample size was 24. Music was played at bedtime for 7-days. During these days, participants' sleep was monitored with a wrist actigraph, and effectiveness was measured through completed questionnaires. Results showed that there was significant improvement in sleep after the music therapy. They concluded that the music relaxation therapy can be used as a treatment for both insomnia and emotional measures in people with schizophrenia.

De Niet G., et.al., (2010) conducted a study to determine whether mental healthcare nurses can apply evidence-based interventions on sleep problems among inpatient (18-60 years old) in selected psychiatric wards, Netherlands. Inpatients admitted to mental health wards were with problems like psychotic, mood or anxiety

disorders. Two evidence-based interventions were given on two of the wards: the first ward with stimulus control (SC); the second ward with music-assisted relaxation therapy (MAR). A third ward treated as control group, received usual care, Sleep quality was assessed using the Richards-Campbell Sleep Questionnaire (RCSQ). The finding showed music-assisted relaxation therapy was effective in reducing mood and anxiety disorders and concluded that mental health nurses can apply music-assisted relaxation therapy as evidenced based intervention for psychotic, mood or anxiety disorders.

Lendemeijer B., Hutschemaekers G.,(2009) conducted a study to evaluate the efficacy of music-assisted relaxation therapy on quality of sleep among adults and elders with sleep disturbance at Gelderse Roos mental health care, Netherland. The sample size was 170 adults among them 138 adult met inclusion criteria. The researchers assessed the quality of the trials using Delphi list. The result showed that Music-assisted relaxation therapy had a moderate effect on the quality of sleep of patients with sleep disturbance (standardized mean difference 0.74, 95% confidence interval: -.95 to -0.45.). Music-assisted relaxation therapy is cheap, easily available and can be used by nurses to promote sleep.

Harmat L, Takacs J, Bodizs R, (2008) conducted a study to investigate the effects of music on quality of sleep among students with poor quality of sleep at Semmelweis University Budapest, Hungary. A three-group repeated design was used. Sample size was 94 students. Student's heard classical music or an audio book at bedtime (45 minutes) for 3 weeks and for the control group the intervention was not given. Quality of sleep was measured using the Pittsburg Sleep Quality Index before and after one week intervention weekly during the intervention. They concluded that

classical music was an effective ($t= 4.828$ at $p<0.00$ level) intervention to improve the quality of sleep.

Lazie SE, Ogilvie RD, (2007) conducted a study to evaluate the effectiveness of music therapy versus auditory stimulation on the quality of sleep among young adults at Brock University, Ontario, Canada. The effectiveness was determined on the basis of polysomnographic measures and quantitative analysis of the electroencephalogram along with the subjective ratings of sleep quality. In addition, tone condition was used to compare the effect of music with the effect of general auditory stimulation. Using a counter balance within the subject design, they concluded that both music and auditory stimulation have the positive impact in improving the quality of sleep.

Hernandez-Ruiz. E, (2005) conducted a study to assess the effectiveness of music therapy with Progressive Muscle relaxation Technique (PMRT) on the level of sleep, anxiety and fatigue among abused women who residing in shelters, midwestern city. The sample size was 28. The intervention was provided for 5 consecutive days for half an hour session. The anxiety level was measured using STAI before and after each music sessions and level of sleep was measured using PSQI scale on the first and last session of music therapy and level of fatigue was measured using fatigue scale at waking time. The music with PMRT was given for 20 minutes. The result showed that the level of anxiety, fatigue was gradually reduced and the quality of sleep being improved.

Tap L.P (2003) conducted a study to examine the effect of background music on quality of sleep among school children in selected elementary school, Taiwan. Convenience sampling technique was used to recruit 86 children aged 10-12 years. Children were randomly assigned as experimental group ($n=45$) and control group

(n=41). Music therapy was given to children in experimental group for 45 minutes at bed and naptime for 3 consecutive weeks. Quality of sleep was assessed using PSQI scale before and after intervention. Result indicated that children who received background music had good quality of sleep at the end of the intervention.

b) Literature related to Music Therapy on Quality of Sleep among Elderly.

Chan.MF., Chan EA, Mok E, (2010) conducted a study to determine the effect of music therapy on quality of sleep among 42 elderly people(21 each in experimental and control group) in selected old age home, Hong Kong. Participants listened to music therapy for a period of 30 min per day for 4 weeks. Blood pressure, pulse rate, depression level and quality of sleep were assessed once a week for 4 week. The mean difference in experimental and control group were 7.55 ± 3.49 and 10.09 ± 2.05 respectively. The depression level was reduced and the quality of sleep being improved. Hence the author concluded that music therapy was effective in reducing depression and improving the quality of sleep among elderly.

Skingley A, Vella-Burrows. T, (2010) conducted a study to examine the effectiveness of music therapy as one of the nursing intervention among the elderly people admitted at selected elderly home, New York. The music therapy was provided for a period of 3 weeks and the findings revealed that the specific old age problems like osteo arthritis, dementia and delirium were reduced after the intervention ($t = 7.688$) at $P < 0.05$ level. The study finding offer support that music therapy can also be used as one of the nursing intervention among elderly to improve the physical and psychological well being of elderly.

Ziv,.N et.al., (2008) conducted a comparative study on music relaxation versus progressive muscle relaxation technique on level of sleep among elderly people at selected old age home at Emek, Yizreel and sample size was 15. Baseline

measurement of sleep was collected for 1 week. The samples were subjected to music therapy and PMRT for 2 consecutive weeks respectively before sleep for 30 minutes. Each participant was evaluated for the effectiveness of music therapy and PMRT and study findings revealed that music therapy was more effective in improving the quality of sleep than progressive muscle relaxation technique.

Lai-ling Lai, (2006) conducted a study to assess the effectiveness of music on quality of sleep among older adults at Buddhist Tzu-Chi General Hospital, Taiwan. A randomized controlled trial with two group repeated measures design was used. The sample size was 60 in the age group of 60-83 years. Quality of the sleep was assessed using PSQI scale and Epworth sleepiness scale. Those who used sleeping pills, yoga or caffeine at bedtime were excluded from the study. Sleep quality was measured with PSQI scale before and after the intervention for 3 consecutive weeks. Participants were subjected to hear music at bedtime for a period of 45 minutes for 3 weeks. The findings of the study revealed that music was significantly better in promoting sleep, as evidenced by the difference in mean percentage was 17%, 24% and 29% respectively, the mean difference 7.13 ± 3.1 , significant difference was found $t = -3.81$ ($p \leq 0.001$). The findings provided an evidence for the use of music as an empirically based intervention in promoting sleep among older adults.

Johnson JE, (2003) conducted a study to assess the effectiveness of music therapy in promoting sleep among old women (65-70 years) at Orvis School of Nursing, USA. The sample size was 52. The samples of the study were selected on the basis of International Classification of Sleep Disorders (ICSD) and the Diagnostic and Statistical Manual and Mental Disorders. The intervention was given for 1 hour at bed time for the period of 4 weeks. The results showed that sleep was improved among old women after intervention.

Mornhinweg GC, Voignier RR, (2002) conducted a study to determine the effectiveness of music therapy on sleep disturbance among elderly individuals. In this descriptive pilot study, community-based 25 elderly individuals with self-perceived sleep disturbance were participated. Elderly individuals listened to classical and new age music before bedtime for the period of 30 minutes. Each participant was daily evaluated for the effectiveness of intervention. Twenty –four (96%) of the elderly individuals reported improved sleep after 3 weeks of intervention. Hence it was proved that music therapy was effective in improving the sleep among elderly.

Summary

This chapter deals with literature related to music therapy on the quality of sleep and music therapy on quality of sleep among elderly.

CHAPTER III

RESEARCH METHODOLOGY

The present study is carried out to determine the effectiveness of music therapy on quality of sleep among elderly residing at selected old age home. This chapter deals with the research design, setting, population, and sampling criteria for selection of samples, and tool for data collection

Research Approach

Quantitative Evaluative Research Approach was adopted for this study.

Research Design

The research design chosen for this study was pre experimental (one group pre and post test) research design. The design can be represented as,

$$E = O_1 \quad X \quad O_2 \quad X \quad O_3 \quad X \quad O_4$$

E = Experimental group.

O₁ = Pre-test.

O₂, O₃, O₄ = Post-test.

X = Intervention

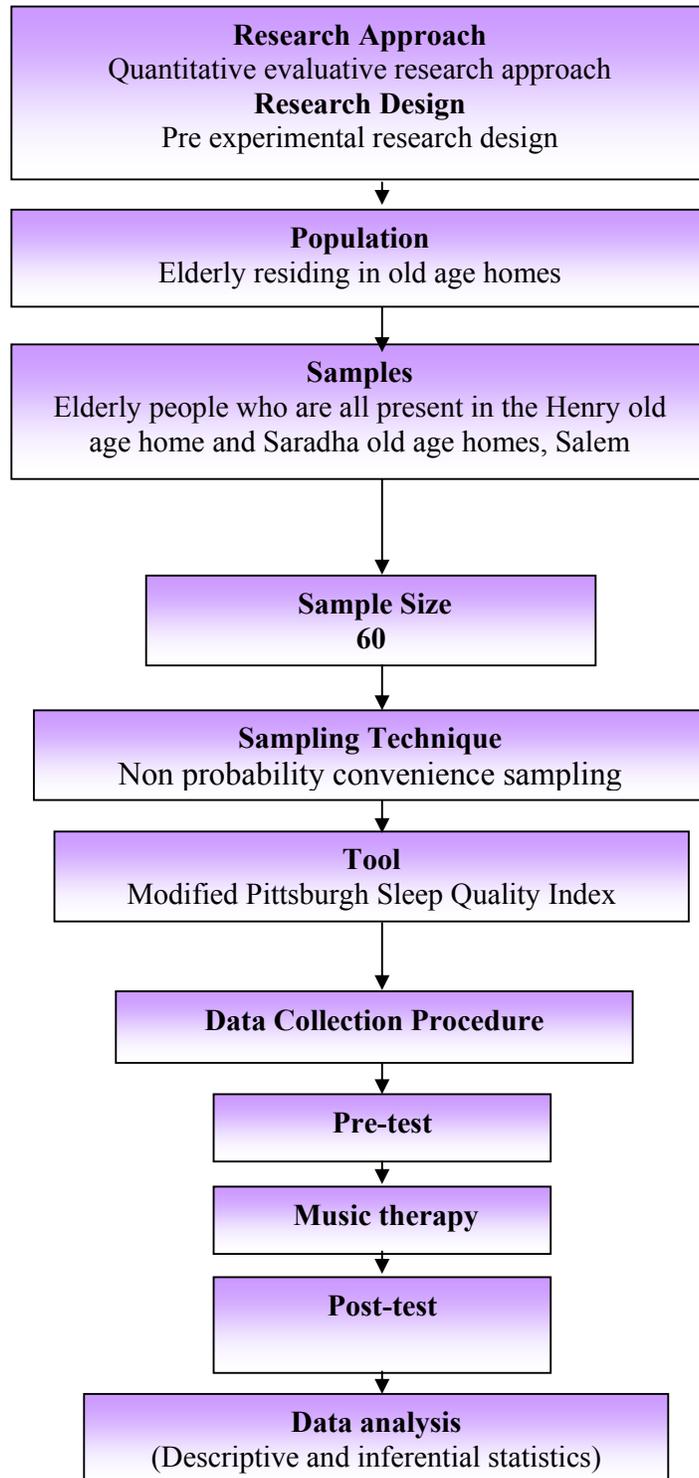


Figure-3.1: Schematic Representation of Research Methodology

Population

Population refers to those who are residing in old age homes.

Description of Setting

The study was conducted in selected old age homes such as,

1. Henry old age home, Salem
2. Saradha old age home, Salem.

Henry old age home is located in Alagapuram which is 3 Km away from Salem Bus stand and run by private organization. This old age home is just near to St.Johns matriculation school. The total number of inmates of this old age home is 56. Saradha old age home is located inside the premises of Saradha College, which is run by private organization. It is 5 Km away from Salem Bus stand. The total number of inmates of this old age home is 52.

Sampling

Sample:

Elderly people who were all present in the selected old age homes during the study period, Salem.

Sample size:

The sample size of this study was 60.

Sampling technique:

The technique adopted for this study was Non probability convenience sampling technique.

Criteria for sample selection

Inclusion Criteria:

- Those who are in the age group of 50-85 years.
- Both Male and female participants.

- Those who are willing to participate in the study

Exclusion Criteria:

- Those who have hearing impairment.
- Those who are seriously ill during the period of data collection.
- Those who are previously exposed to music therapy.
- Those who are already practicing any other relaxation therapies.

Variables

Independent variable: Music therapy

Dependent variable: Quality of sleep

Description of the Tool

Tool consists of two sections:

Section I: Demographic variables

This section deals with demographic data in relation to age, sex, religion, marital status, education, present medical illness, duration of stay in old age home, frequency of visit and mode of entry into the old age home.

Section II: Structured Interview Schedule to assess the quality of sleep among elderly individuals (Modified Pittsburgh Sleep Quality Index).

Modified Pittsburgh Sleep Quality Index , was used to assess the quality of sleep among elderly. It consists of 4 point rating scale and the score ranges between 0 - 3.

Table-3.1: Scoring Procedure for Quality of Sleep

Quality of sleep	Score	percentage
Good quality of sleep	0 – 15	0-33 %
Fair quality of sleep	16– 30	34 %-66 %
Poor quality of sleep	31 - 45	Above 67 %

Validity and Reliability of the tool

Validity

Validity of the tool was established with the consultation of the Guide and Experts. The tool was validated by 4 experts in the field of psychiatric mental health nursing and one Medical Expert and a Psychologist. The tool was found adequate and minor suggestions given by the experts were incorporated.

Reliability

Reliability of the tool was established by test retest method. The correlation coefficient was 0.7. Hence the tool was found reliable and considered for proceeding.

Pilot Study

Pilot study was done for a period of 1 week from 27.06.2011 to 02.07.2011 in Mother Theresa Old age Home, Salem. Permission was obtained from the Head of the institution and the investigator explained the procedure to the elderly individuals and verbal consent was obtained from the individuals. The investigator selected four elderly individuals by non probability convenience sampling method. The investigator conducted pre-test on 28.06.2011 and started the intervention on the same day. The intervention was given for 6 days. Music therapy session was given during morning 9 am and evening 7 pm for 30 minutes with the help of CD player. The researcher conducted post-test on the 7th day (03.07.2011).

Method of data collection

Ethical consideration:

Written permission was obtained from the authority of the selected old age homes. Informed oral consent was obtained from elderly individuals who are willing to participate in this study.

Data collection procedure:

The data was collected between 13.07.2011 to 7.08.2011. Two old age homes were selected for this study. They were,

1. Henry old age home, Salem and
2. Saradha old age home, Salem.

In Henry old age home, the investigator selected a list of 37 samples who fulfilled the sampling criteria from a total of 57 samples by using non probability convenience sampling technique. Similarly in Saradha old age home the investigator selected a list of 23 samples who are fulfilled the sampling criteria from a total of 52 samples by using non probability convenience sampling technique. Pre-test was conducted from 13.07.2011 to 14.07.2011 to assess the quality of sleep with the help of a structured interview schedule (Modified Pittsburgh sleep Quality index). Music therapy was started on 15.07.2011 and continued for 21 days. Music therapy session was given during morning 9 am and evening 7 pm for 30 minutes with the help of CD player. The post-test was conducted on 20.07.2011, 28.07.2011, and 05.08.2011.

Plan for Data Analysis

The data analysis will be done by using descriptive and inferential statistics,

Section-A: Distribution of the samples according to the demographic variables.

Section-B: a) Frequency and Percentage distribution of the samples according to the quality of sleep before intervention.

- b) Frequency and percentage distribution of the samples according to the quality of sleep after intervention.

Section-C: Testing hypotheses

- a) Effectiveness of music therapy on quality of sleep among elderly individuals at selected old age homes using inferential statistics (t-test analysis).
- b) Association between the quality of sleep and their selected demographic variables among elderly individuals at selected old age homes using inferential statistics (chi-square analysis).

Summary

This chapter consists of research approach, research design, population, description of the setting, sampling, variables and description of the tools, validity and reliability, pilot study, method of data collection, and plan for data analysis.

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

Analysis is a process of organizing and synthesizing data in such a way that research question can be answered and hypothesis tested. **(Polit and Hungler,2003)**

The term analysis refers to the computation of certain resources along with searching for patterns of relationship that exists among data groups. Analysis of data in a general way involves a number of closely related operations, which are performed with the purpose of summarizing the collected data, organizing these in such a manner that they answer the research questions. **(Kothari, C.R, 1990)**

This chapter presents about the study attempted to evaluate the effectiveness of Music Therapy on Quality of Sleep among elderly residing at selected old age homes, Salem.

This chapter is divided into three sections.

The data analysis was done by using descriptive and inferential statistics,

Section-A: Frequency and percentage distribution of the samples according to their demographic variables.

Section-B: a) Percentage distribution of the samples according to the quality of sleep before and after intervention.

b) Mean, Standard deviation and mean difference of the quality of sleep among elderly at selected old age homes.

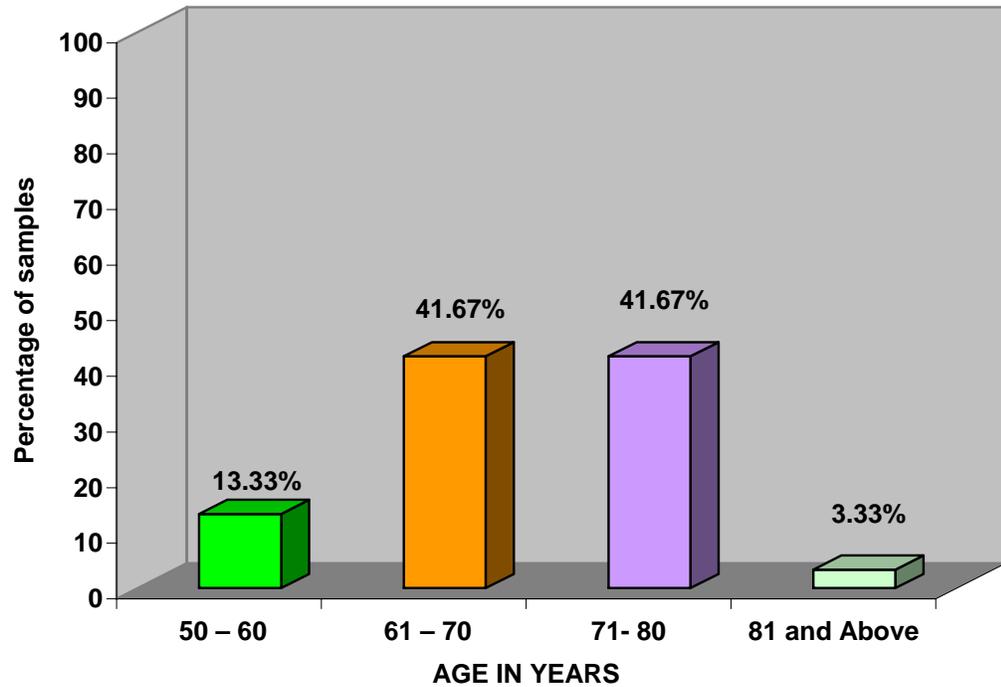
Section-C: Testing hypotheses

a) Effectiveness of music therapy on quality of sleep among elderly at selected old age homes.

b) Association between the quality of sleep among elderly and their selected demographic variables.

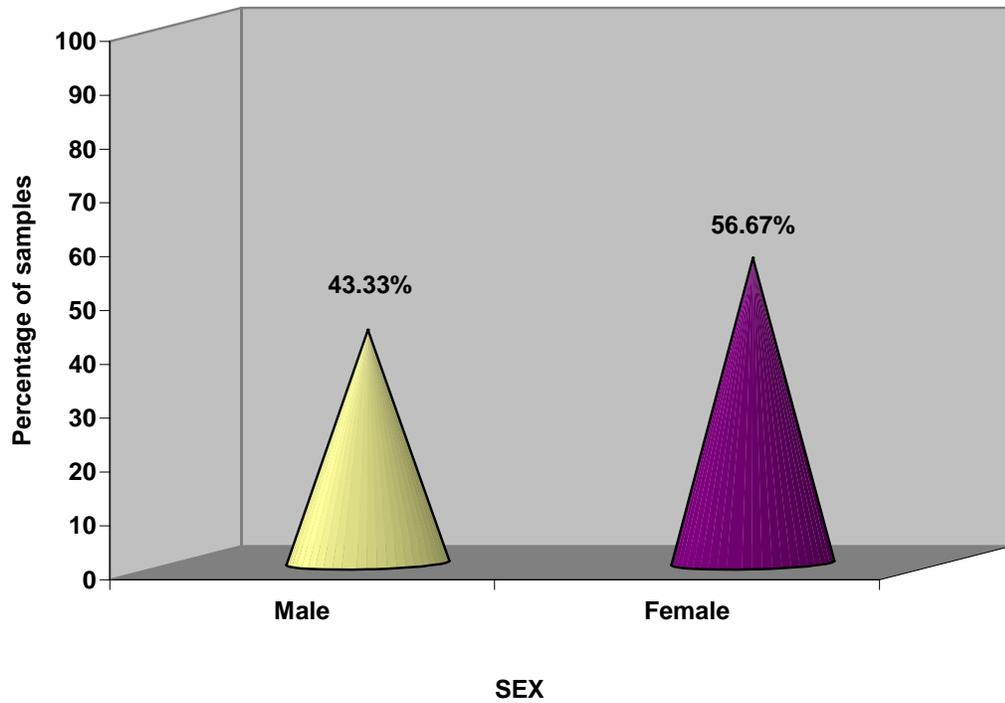
Section-A

Frequency and percentage distribution of the samples according to their demographic variables.



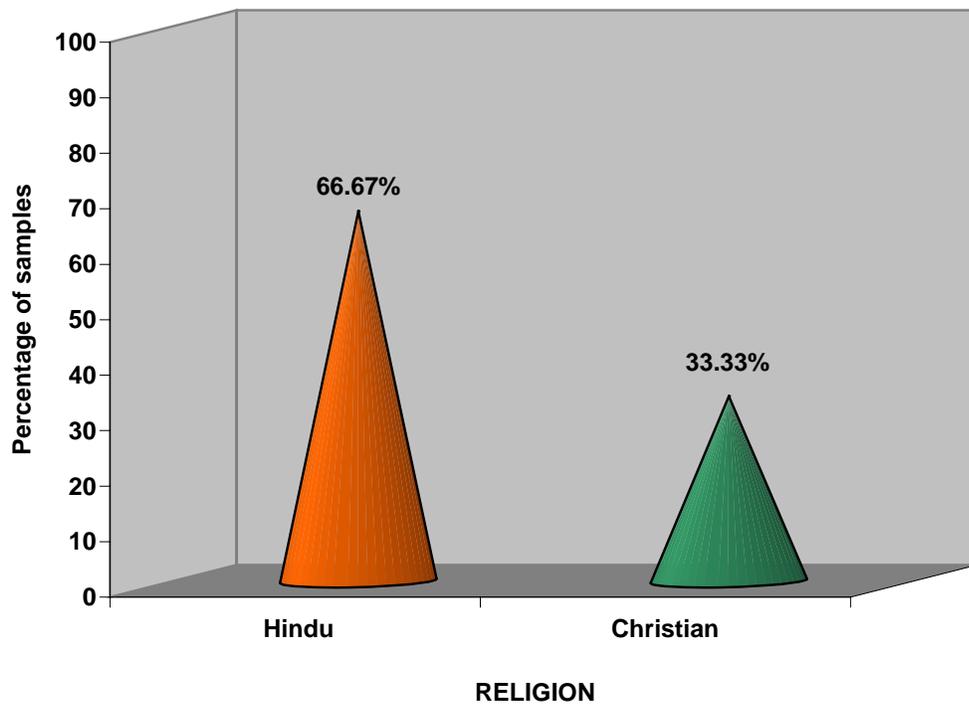
(Fig. 4.1). Distribution of samples according to their age in years

The above fig. 4.1 depicts that, similar percentage of samples 25 (41.67%) of them belong to 61-70 years and 71-81 years of age, whereas lower percentage of samples 2 (3.33%) of them belong to 81 and above. This reveals that the higher percentage of samples belong to 61-70 years and 71-81 years of age.



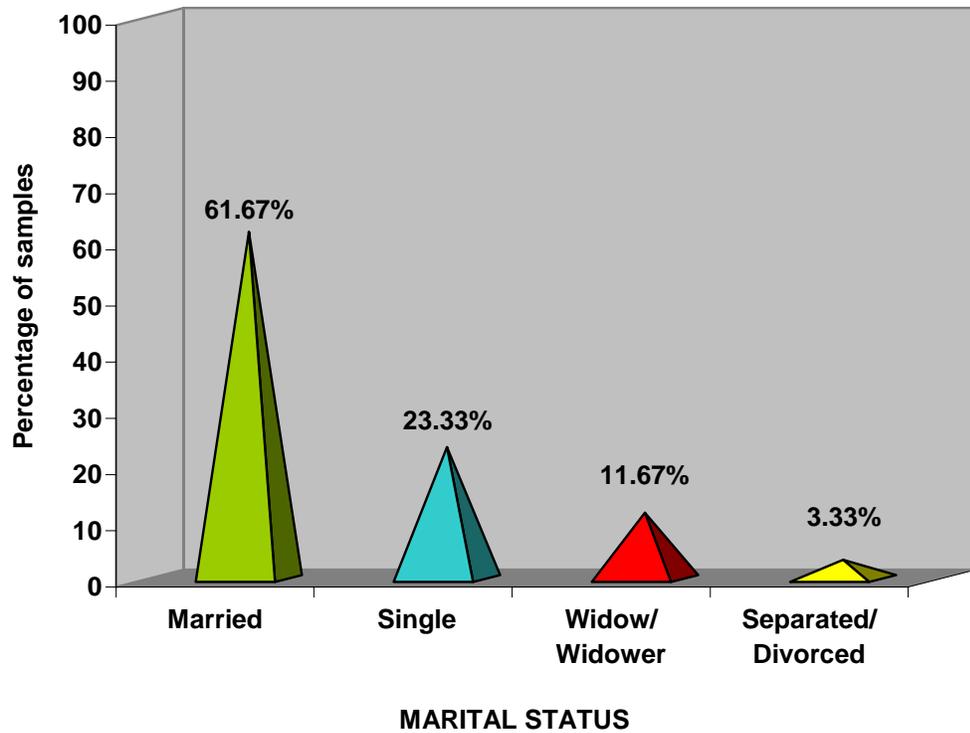
(Fig. 4.2). Distribution of samples according to their sex

The above fig. 4.2 shows that higher percentage of the samples 34 (56.67%) were female and whereas 26 (43.33%) samples were male.



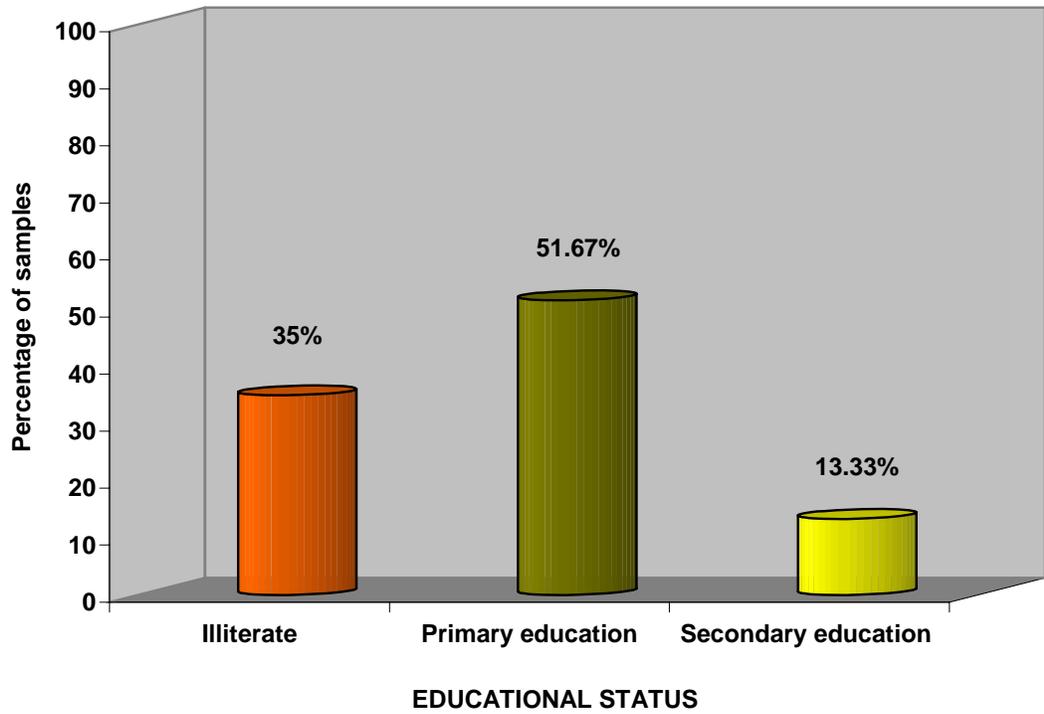
(Fig. 4.3). Distribution of samples according to their religion

The above fig. 4.3 depicts that, majority 40(66.67%) samples were Hindus and lower percentage 20(33.33%) samples were Christian.



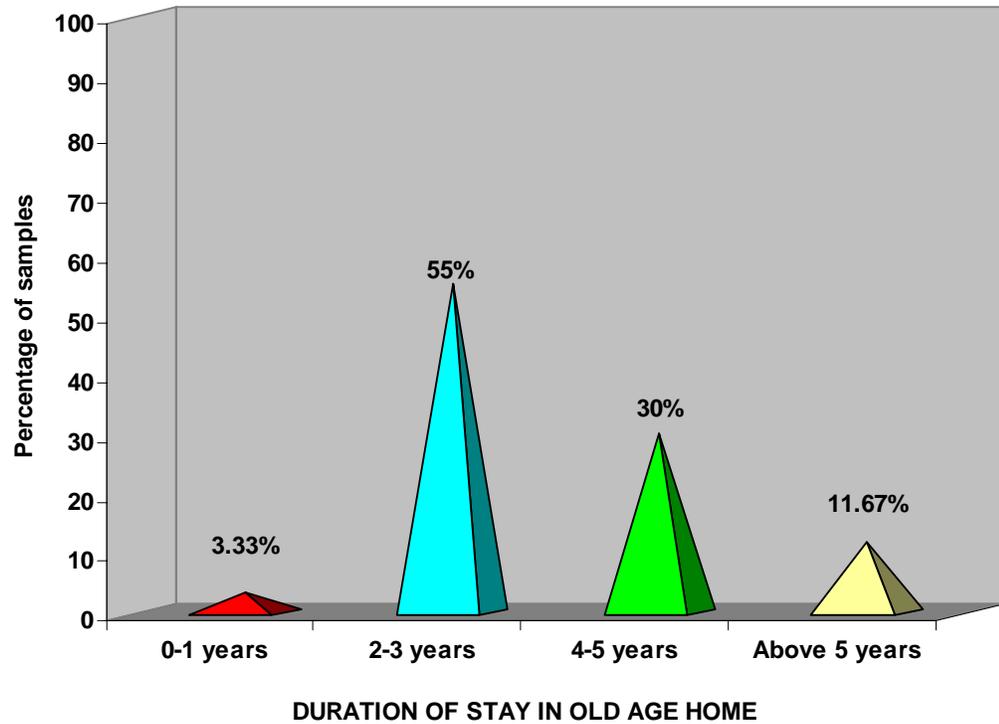
(Fig. 4.4). Distribution of samples according to their marital status

The above fig. 4.4 depicts 37(61.67%) of samples were married and 2(3.33%) of them were divorced / separated.



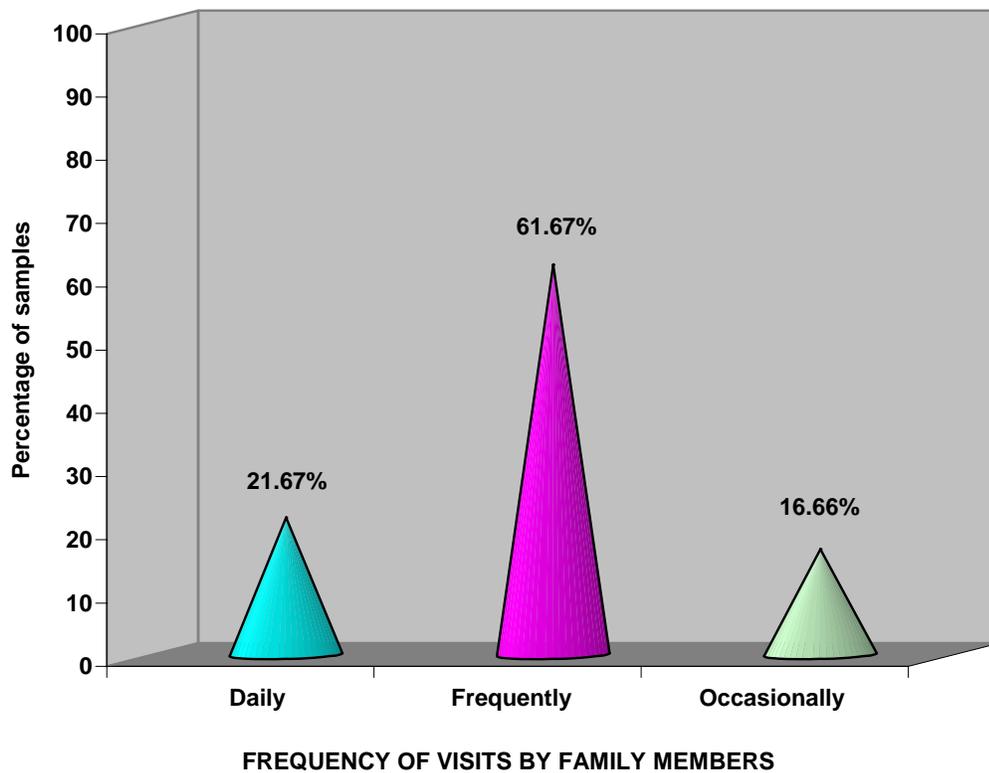
(Fig. 4.5). Distribution of samples according to their educational status

The above fig. 4.5 reveals that, higher percentage of samples 31(51.67%) of them had primary education whereas lower percentage 8(13.33) of them had secondary education.



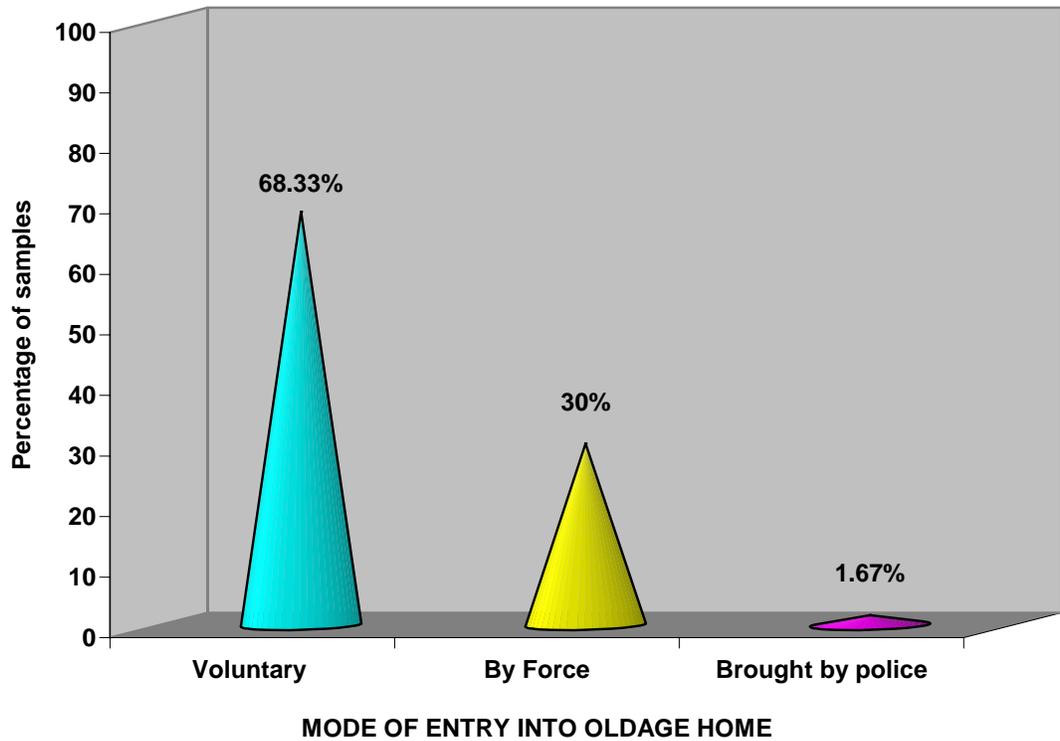
(Fig. 4.6). Distribution of samples according to their duration of stay in old age home

The above fig. 4.6 depicts that, higher percentage 33 (55%) samples stayed for 2-3 years where lower percentage 2 (3.33%) samples stayed in old age home since 1 year.



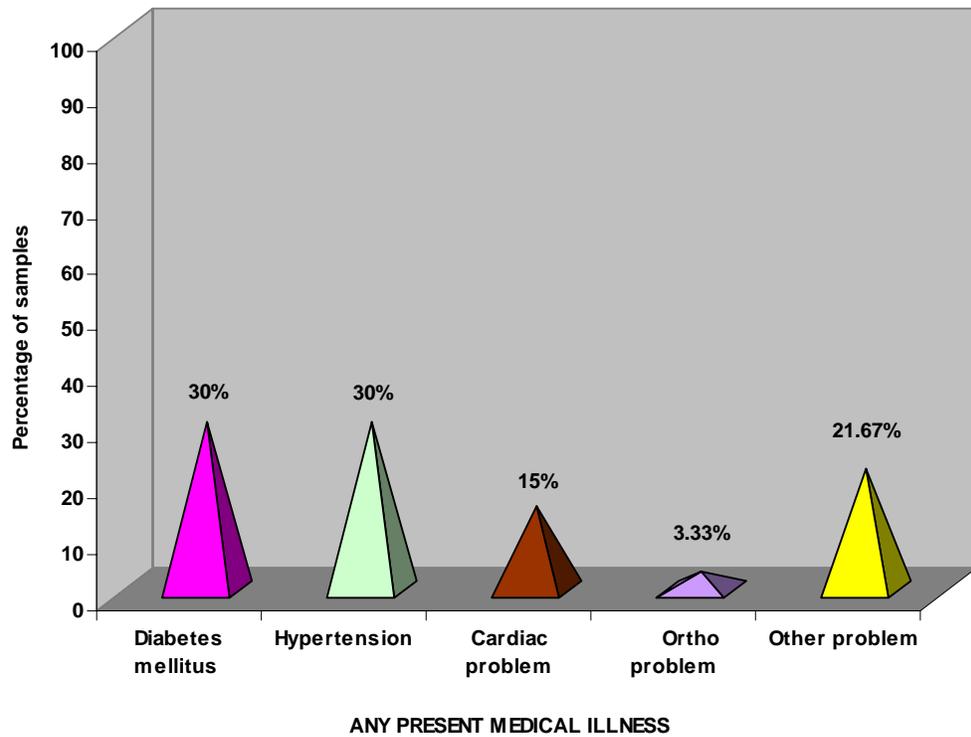
(Fig. 4.7). Distribution of samples according to their frequency of visit by the family members

The above fig. 4.7 depicts that, 37 (61.67%) samples had visitors frequently, 10 (16.66%) of samples were visited by family members occasionally, 13(21.67%) samples had visitors daily.



(Fig. 4.8). Distribution of samples according to their mode of entry into the old age home

The above fig. 4.8 depicts that, 41 (68.33%) samples joined voluntarily in old age home, 18(30%) of them are brought by force and least percentage 1(1.67%) sample was brought by police.

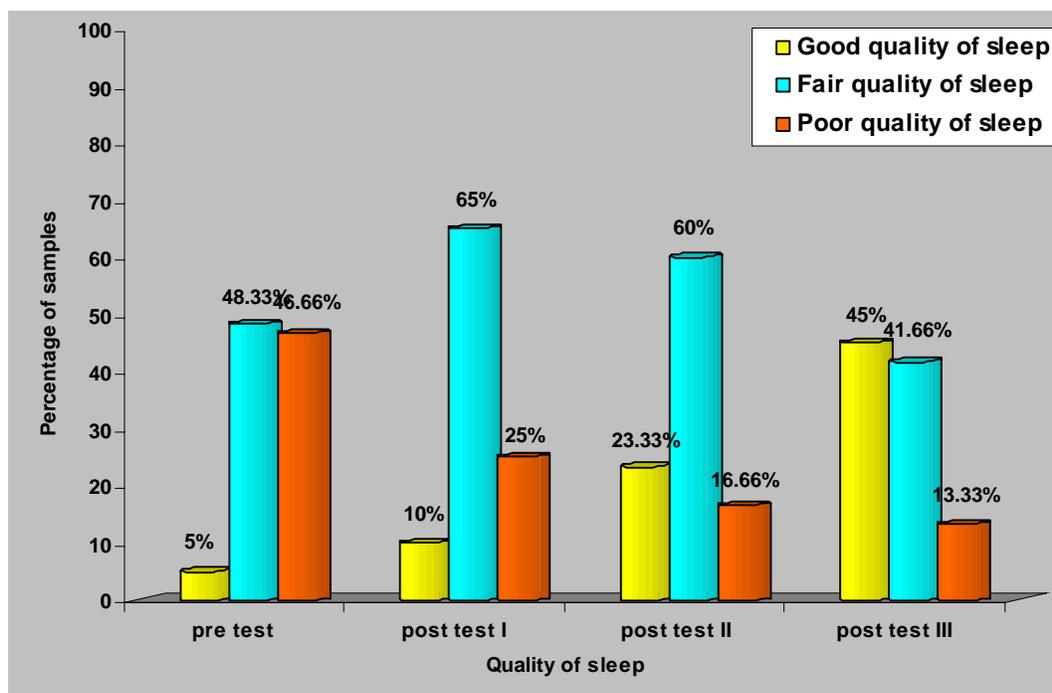


(Fig. 4.9). Distribution of samples according to their medical illness

The above fig. 4.9 depicts that, similar percentage 18 (30%) of the samples had diabetes and hypertension respectively, whereas least percentage 2(3.33%) of samples had ortho problem.

Section-B

a) Percentage distribution of the samples according to the quality of sleep before and after intervention.



(Fig. 4.10).Percentage distribution of samples according to the quality of sleep among elderly before and after intervention

The above fig. 4.10 shows that in pretest, 5% of them had good quality of sleep, 48.33% of them had fair quality of sleep and 46.67% of them had poor quality of sleep. In posttest I 10% of them had good quality of sleep, 65% of them had fair quality of sleep and 25% of them had poor quality of sleep. In posttest II 23.33% of them had good quality of sleep, 60% of them had fair quality of sleep and 16.67% of them had poor quality of sleep. In posttest III 45% of them had good quality of sleep, 41.67% of them had fair quality of sleep and 13.33% of them had poor quality of sleep.

Table -4.1:

b. Comparison of Mean, Standard deviation and Mean difference on quality of sleep among elderly.

n=60

Observation	Maximum possible score	Mean	SD	Mean difference
O ₁	45	28.30	4.89	3.15
O ₂		25.15	5.37	
O ₁		28.30	4.89	5
O ₃		23.3	6.29	
O ₁		28.30	4.89	7.64
O ₄		20.66	7.26	

The above table shows that the pre test (O₁) mean and standard deviation was 28.30 ± 4.89 and the post test (O₂, O₃, O₄) mean and standard deviation were 25.15 ± 5.37 , 23.3 ± 6.29 and 20.66 ± 7.26 respectively.

Section-C

Effectiveness of Music Therapy on quality of sleep among elderly.

Table -4.2:

a. Comparison of Mean, Standard deviation and ‘t’ value on quality of sleep among elderly in pretest and post test.

n=60

Observation	Mean	SD	‘t’ value
O ₁	28.30	4.89	10.45 *
O ₂	25.15	5.37	
O ₁	28.30	4.89	11.97 *
O ₃	23.3	6.29	
O ₁	28.30	4.89	12.34 *
O ₄	20.66	7.26	

*** Significant at $p \leq 0.05$ level, table value – 1.96;**

O₁ – pretest.

O₂, O₃, O₄ – post test.

The above table shows that the pre-test mean score was 28.30 ± 4.89 , whereas the average post-test mean score was 20.66 ± 7.26 and paired ‘t’ test value was 12.34 at $p \leq 0.05$ level. The ‘t’ obtained value is higher than the table value (1.96). So it is proved that music therapy is effective on the quality of sleep among elderly.

Table -4.3:**b. Association between the quality of sleep among elderly and their selected personal variables****n=60**

S. No	Personal Variables	Quality of sleep			df	Chi-square	Table value
		Good	Fair	Poor			
1	Age in years						
	a. 50 – 60	-	4	4	6	5.45	12.59
	b. 61-70	-	11	14			
	c. 71-80	3	13	9			
d. 81and above	-	1	1				
2.	Sex						
	a. Male	-	13	13	2	2.41	5.69
b. Female	3	16	15				
3.	Religion						
	a. Hindu	2	18	20	2	2.41	12.59
b. Christian	1	10	9				
4.	Marital status						
	a. Married	3	21	13	6	13.56 *	12.59
	b. Single	-	5	9			
	c. Widow/widower	-	2	5			
d. Separated or divorced	-	1	1				
5.	Education						
	a. Illiterate	1	10	10	4	21.38 *	12.59
	b. Primary education	2	14	15			
c. Secondary education	0	5	3				
6.	Any present medical illness						
	a. Diabetes mellitus	1	12	5	8	6.63	15.5
	b. Hypertension	1	7	10			
	c. Cardiac problem	-	4	5			
	d. Ortho problem	-	2	-			
e. Other problem	1	4	8				

*** Significant at $P \leq 0.05$ level**

The above table shows that there is significant association between the quality of sleep among elderly and their demographic variables like marital status, and educational status. Hence hypothesis H_2 is retained for the above mentioned demographic variables.

Table -4.4:

c. Association between the quality of sleep among elderly and their selected Habitat variables.

S. no	Habitat variables	Quality of sleep			df	Chi-square	Table value
		Good	Fair	Poor			
1.	Duration of stay in old age home						
	a. 0-1 years	-	2	-	6	14.39*	12.59
	b. 2-3 years	1	13	19			
	c. 4-5 years	2	9	7			
d. Above 5 years	-	7	-				
2.	Frequency of visit by family members.						
	a. Daily	1	4	13	4	9.07	12.59
	b. Frequently.	0	21	16			
	c. Occasionally	2	4	4			
3.	Mode of entry into old age home						
	a. Voluntary	3	18	20	4	2.486	12.59
	b. By force	-	10	8			
	c. Brought by police	-	1	-			

*** Significant at $P \leq 0.05$ level**

The above table shows that there is significant association between the quality of sleep among elderly and their duration of stay in old age home. Hence hypothesis H_2 is retained for the above mentioned demographic variables.

Summary

This chapter dealt with data analysis and interpretation in the form of statistical value based on objectives, Paired 't' test was used to evaluate the effectiveness of music therapy on quality of sleep among elderly. The chi-square test was used to find out the association between the quality of sleep among elderly with their demographic variables.

CHAPTER – V

DISCUSSION

This study was done to determine the effectiveness of music therapy on quality of sleep among elderly residing at selected old age homes, Salem.

Distribution of Samples according to their Demographic Variables

25 (41.67%) of them belong to 61-70 years and 71-81 years of age respectively, 34 (56.67%) of them were female, 40(66.67%) were Hindus, 37(61.67%) of them were married, 31(51.67%) of them had primary education, 33 (55%) of them stayed for 2-3 years, 37 (61.67%) of them had visitors frequently, 41 (68.33%) of them joined voluntarily in old age home, 18 (30%) of them had diabetes, and 18 (30%) had hypertension.

Finding of the study was supported by **Marion Good, (2006)** who conducted a study to evaluate the effectiveness of music therapy among elderly in older community-dwelling men and women in Taiwan. They found that 46.7 % of them belong to 70-79 years, 56.7% of them were female, 33.33% of them had primary education, and 90% of them were married.

The first objective of the Study was to assess the quality of sleep among elderly.

In pretest, 3(5%) of them had good quality of sleep, 29(48.33%) of them had fair quality of sleep and 28(46.67%) of them had poor quality of sleep. In posttest I 6(10%) of them had good quality of sleep, 39(65%) of them had fair quality of sleep and 15(25%) of them had poor quality of sleep. In posttest II 14(23.33%) of them had good quality of sleep, 36(60%) of them had fair quality of sleep and 10(16.67%) of them had poor quality of sleep. In posttest III 27(45%) of them had good quality of sleep, 25(41.67%) of them had fair quality of sleep and 8(13.33%) of them had poor quality of sleep.

Paul Raj, (2006) conducted a case control study on quality of sleep and factors disturbing sleep among elderly at selected hospital erode. He concluded that 56.5% have severe sleep disturbance, 12.5% had moderate sleep disturbance, 26.5 had mild sleep disturbance and 4.55% had no sleep disturbance.

The second objective of the study was to determine the effectiveness of music therapy on the quality of sleep among the elderly at selected old age homes.

The pre-test mean score was 28.30 ± 4.89 , whereas the average post-test mean score was 20.66 ± 7.26 and paired 't' test value was 12.34 at $p \leq 0.05$ level. So it shows that the music therapy was effective in improving the quality of sleep among elderly.

The present study was supported by **Showrilu, (2009)**, who conducted a study to evaluate the effectiveness of music therapy among older people on quality of sleep using modified Pittsburgh quality of sleep index scale. They concluded that the pre-test mean score was 10.6 ± 0.89 , whereas the post-test mean score was 2.46 ± 0.86 and paired 't' test value was 34.11 at $p \leq 0.05$. The difference in mean score was 8.14 which indicate that music therapy was effective in promoting the quality of sleep.

The third objective of the study was to associate the quality of sleep among the elderly of selected old age homes with their selected demographic variables.

There is significant association between the quality of sleep among elderly and their demographic variables like age, marital status, educational status, and duration of stay.

Summary

This chapter dealt with the discussion of the study with reference to the objective and supportive studies. All the **three objectives** have been obtained and the **two hypotheses** were retained in this study.

CHAPTER – VI

SUMMARY, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

This chapter comprises of the summary, conclusion, implications to nursing practice and recommendations for further study.

Summary of the study

Quasi experimental design was used in this study to determine the effectiveness of music therapy on quality of sleep among elderly. The study was conducted in Henry old age home and Saradha old age homes, Salem. The sample size was 60 and the samples were selected by non probability convenience sampling technique. Structured interview schedule was used to collect the data. The collected data were analyzed using descriptive and inferential statistics. To test the hypothesis, paired 't' test and chi-square were used.

Finding of the Study

The major findings of the study is summarized as follows,

- Among 60 samples, 25 (41.67%) of them belong to 61-70 years, 34 (56.67%) of them were female, 40(66.67%) were Hindus , 37(61.67%) of them were married, 31(51.67%) of them had primary education, 33 (55%) of them stayed for 2-3 years, 13 (21.66%) of them were visited daily, 41 (68.33%) of them joined voluntarily in old age home, 18 (30%) of them had diabetes.
- In pre-test, 3(5%) of them had good quality of sleep, 29(48.33%) of them had fair quality of sleep and 28(46.67%) of them had poor quality of sleep.
- The pre-test of pre test (O_1) mean and standard deviation was 28.30 ± 4.89 and the post test (O_2, O_3, O_4) mean and standard deviation were 25.15 ± 5.37 , 23.3 ± 6.29 and 20.66 ± 7.26 respectively. The mean difference was 3.15, 5 and

7.64 respectively. It shows that music therapy has effectiveness on the quality of sleep among elderly. Hence H_1 was retained.

- Significant association between the quality of sleep among elderly and their demographic variables like age, marital status, educational status, and duration of stay in old age home was obtained at $p \leq 0.05$ level. Hence hypothesis H_2 was retained for the above mentioned demographic variables.

Conclusion

The study was done to determine the effectiveness of Music Therapy on quality of sleep among elderly at selected old age homes in Salem. The result of this study showed that most of the elderly had good quality of sleep after implementation of Music Therapy. Music therapy is an effective in improving the quality of sleep.

Implications

The findings of the study have implications in different branches of nursing i.e. Nursing Practice, Nursing Education, Nursing Administration and Nursing Research.

Nursing Practice:

- ❖ Music Therapy can be introduced as a stimulating mode of intervention by the nurses for promoting sleep among elderly suffering from sleep problem.
- ❖ Nurse should teach patients about the benefits of music therapy in both physical and psychological aspects.
- ❖ Nurse should understand the importance of music therapy as an adjunct to non-pharmacological therapy.

Nursing Education:

As the elderly population increase in number in the world, nurses are in position to care of those elderly. Music therapy is simple and cost effective intervention to reduce their sleep related problem.

- ❖ Nursing curriculum should be updated by including topic like complementary and alternative therapies
- ❖ The curriculum could be responsible for preparing the future nurses with more emphasis on promotive care of elderly clients
- ❖ Nurse educator can encourage students to conduct health teaching sessions on various sleep promoting methods.
- ❖ Staff development programme need to be arranged, so that the nurse educators can encourage the students to provide Music Therapy to the patients.

Nursing Administration:

- ❖ Nursing administrator can organize in-service education programme regarding the effectiveness of music therapy on quality of sleep for staff nurses.
- ❖ Cassettes on sleep inducing music can be made available to staff nurses. This will help the staff nurses to promote the comfort of the inpatients.
- ❖ Nurse administrator can make arrangements for the audio aids to play music in hospital, so that the staff nurses can provide calm, pleasant and conducive environment to the patients to relax.

Nursing Research:

- ❖ Researchers should focus on non-pharmacological interventions to promote sleep.
- ❖ Nurse researcher should be aware of various innovative methods in promoting sleep for elderly clients

- ❖ The findings should be disseminated through conferences, seminars and publications in Professional, National and International journals.

Recommendations

Recommendations include;

1. A similar study could be conducted with hospitalized elderly patients to find out the effectiveness of the music therapy.
2. A comparative study can be conducted between elderly male client and female client in different settings.
3. A comparative study can be conducted among elderly residents in old age homes and elderly residing with their family.
4. A study can be conducted with large sample size to generalize the results of the study.
5. The study can be carried out for a longer period of time.
6. The study can be carried to assess the quality of life among the elderly residents.
7. A similar study can be conducted using experimental and control group.
8. Research can be conducted to find out the various innovative methods to improve the sleep of the elderly clients.
9. Research can be done on various populations at various settings.

Summary

This chapter dealt with summary, conclusion, implications for nursing practice and recommendations.

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ANNEXURE – A
LETTER SEEKING PERMISSION TO CONDUCT A
RESEARCH PROJECT

From

Mr. Nethaji.G,
II Year M.Sc., (N)
Sri Gokulam College of Nursing,
Salem, Tamil Nadu.

To

The Principal,
Sri Gokulam College of Nursing,
Salem, Tamil Nadu.

Respected Sir/Madam,

Sub: Permission to conduct research project - request- reg.

I, **Mr. Nethaji.G**, II Year M.Sc., (Nursing) student of Sri Gokulam College of Nursing, is to conduct a research project which is to be submitted to The Tamil Nadu Dr. M.G.R. Medical University, Chennai in partial fulfilment for the award of M.Sc.(Nursing) Degree.

Topic: “A Study to Determine the Effectiveness of Music Therapy on Quality of Sleep among Elderly Residing at Selected Old Age Homes, Salem”.

I request you to kindly do the needful.

Thanking you.

Date : 13.07.2011

Place : Salem

Yours sincerely,

(Mr.Nethaji)

`ANNEXURE- B
LETTER GRANTING PERMISSION TO CONDUCT A
RESEARCH PROJECT

To

The Manager,
Saradha Old Age Home,
Saradha college road,
Salem.

Respected Sir/Madam,

Sub: Permission to conduct Research Project – reg.

This is to introduce **Mr., G. Nethaji**, a final Year M.Sc., (Nursing) student of Sri Gokulam College of Nursing. He is to conduct a research project which is to be submitted to The Tamil Nadu Dr. M.G.R. Medical University, Chennai in partial fulfillment for the award of M.Sc., (Nursing) Degree.

Topic: “A Study to Determine the Effectiveness of Music Therapy on Quality of Sleep among Elderly Residing at Selected Old age Homes, Salem”.

I request you to kindly permit him to conduct research project in your esteemed Institution from 13.7.11 to 7.8.11. He will adhere to the Institutional policies and regulations.

Thanking you,

Date : 12.7.2011

Place: Salem.

Yours sincerely,



(DR. Prof. A. Jayasudha)
PRINCIPAL
Sri Gokulam College of Nursing,
SALEM-836 010

**LETTER GRANTING PERMISSION TO CONDUCT
RESEARCH PROJECT**

To

The Manager,
Henry old age home,
Alagapuram,
Salem

Respected Sir/Madam,

Sub: Permission to conduct a research project- reg.

This is to introduce **Mr. G. Nethaji**, a final year M.Sc., (Nursing) student of Sri Gokulam College of Nursing. He is to conduct a research project which is to be submitted to The Tamil Nadu Dr. M.G.R. Medical University, Chennai in partial fulfilment for the award of M.Sc., (Nursing) Degree.

“A Study to Determine the Effectiveness of Music Therapy on Quality of Sleep among Elderly Residing at Selected Old Age Homes, Salem”.

I request you to kindly permit him to conduct research project in your esteemed institution from 13.07.11.to 07.08.11 with adherence to the old age home policies and regulations.

Thanking you,

Date: 12.07.11

Place:

Yours sincerely,



(DR. Prof. A. Jayasudha)
PRINCIPAL
Sri Gokulam College of Nursing
SALEM-636 010

ANNEXURE - C

**LETTER REQUESTING OPINION AND SUGGESTIONS OF EXPERTS FOR
CONTENT VALIDITY OF THE RESEARCH TOOL**

From

Mr. Nethaji
Final year M.Sc. (N),
Sri Gokulam College of Nursing,
Salem, Tamil Nadu.

To

Respected Sir/ Madam,

**Sub: Requesting opinion and suggestions of expert for establishing
content validity of the tool.**

I, Mr.G.Nethaji, a final Year M.Sc. (Nursing) student of Sri Gokulam College of Nursing, Salem, in partial fulfilment of Master's Degree in Nursing, I have selected the topic mentioned below for the research project to be submitted to The Tamil Nadu Dr. M.G.R. Medical University, Chennai

**Topic: "A Study To Determine The Effectiveness Of Music Therapy On
Quality Of Sleep Among Elderly Residing At Selected Old Age Homes, Salem."**

I wish to request you kindly validate the tool and give your expert opinion for necessary modification. I will be grateful to you for this.

Thanking you.

Yours sincerely,

Place: Salem

Date

(G.NETHAJI)

ANNEXURE – D

TOOL FOR DATA COLLECTION

SECTION A: Demographic variables

SECTION B: Structured Interview Schedule to assess the quality of sleep among elderly (Modified Pittsburgh sleep Quality index).

SECTION A:

DEMOGRAPHIC VARIABLES

The interviewer will ask question listed below and place a tick mark (✓) against the response given by the respondent; the information provided will be kept confidential.

Personal variables

1. Age in years

- a) 50 -60
- b) 61-70
- c) 71-80
- d) 81 and above

2. Sex

- a) Male
- b) Female

3. Religion.

- a) Hindu
- b) Muslim
- c) Christian
- d) Others

4. Marital status

- a) Married
- b) Single
- c) Widower/widow
- d) Divorcee or separated

5. Education status

- a) Illiterate
- b) Primary education
- c) Secondary education
- d) Graduate
- e) Post graduate

6. Any present medical illness:

- a) Diabetes mellitus
- b) Hypertension
- c) Cardiac problem
- d) Ortho problem
- e) Other

Habitat variables

1. Duration of stay in old age home

- a) 0-1 years
- b) 2-3 years
- c) 4-5 years
- d) Above 5 years

2. Frequency of visit by family members.

- a) Daily.
- b) Frequently.
- c) Occasionally.
- d) Never.

3. Mode of entry into the old age home.

- a) Voluntary.
- b) By force.
- c) Brought by Police
- d) Other organization

SECTION B

STRUCTURED INTERVIEW SCHEDULE (MODIFIED PITTSBURGH SLEEP QUALITY INDEX).

The investigator will ask the questions listed below and place the tick mark (✓) against the response given by the respondents. The information provided will be kept confidential.

1. When will you go to bed usually at night?
 - a) 7-9 pm (0) ()
 - b) 9-10 pm (1) ()
 - c) 10-11 pm (2) ()
 - d) above 11 pm (3) ()

2. Do you pray before going to bed?
 - a) Always (0) ()
 - b) Frequently (1) ()
 - c) Sometimes (2) ()
 - d) Never (3) ()

3. Do you take warm milk before going to bed?
 - a) Always (0) ()
 - b) Frequently (1) ()
 - c) Occasionally (2) ()
 - d) Never (3) ()

4. How much time do you remain awake in bed before falling sleep?
 - a) Less than 15 minutes (0) ()
 - b) 15-30 minutes (1) ()
 - c) 30-60 minutes (2) ()
 - d) More than 60 minutes (3) ()

5. Do you recall the day time activities before going to bed?
- a) Always (0) ()
 - b) Frequently (1) ()
 - c) Sometimes (2) ()
 - d) Never (3) ()
6. Do you find difficulty in initiating the sleep?
- a) Never (0) ()
 - b) Sometimes (1) ()
 - c) Frequently (2) ()
 - d) Always (3) ()
7. How well do you sleep usually at night?
- a) Very good (0) ()
 - b) good (1) ()
 - c) Fairly bad (2) ()
 - d) Very bad (3) ()
8. Do you wake up in midnight for drinking water?
- a) Never (0) ()
 - b) Sometimes (1) ()
 - c) Frequently (2) ()
 - d) Always (3) ()
9. How often do you wake up to urinate at sleep?
- a) Never (0) ()
 - b) Sometimes (1) ()
 - c) Frequently (2) ()
 - d) Always (3) ()

10. How often you wake up in the night?

- a) Never (0) ()
- b) Sometimes (1) ()
- c) Frequently (2) ()
- d) Always (3) ()

11. What is the usual time of wake up in the morning?

- a) Before 5 am (0) ()
- b) 5-6 am (1) ()
- c) 6-7 am (2) ()
- d) After 7 am (3) ()

12. Are you satisfied with your sleep?

- a) Satisfied (0) ()
- b) Moderately Satisfied (1) ()
- c) Moderately unsatisfied (1) ()
- d) Unsatisfied (2) ()

13. Do you have the habit of nap?

- a) Never (0) ()
- b) Rarely (1) ()
- c) Sometimes (2) ()
- d) Always (3) ()

14. Do you have aches and pains during sleep?

- a) Never (0) ()
- b) Sometimes (1) ()
- c) Frequently (2) ()
- d) Always (3) ()

15. Do you have the habit of snoring during sleep?

- a) Never (0) ()
- b) Rarely (1) ()
- c) Sometimes (2) ()
- d) Always (3) ()

Table: Scoring Procedure for Quality of Sleep

Quality of sleep	Score	percentage
Good quality of sleep	0 – 15	0-33
Fair quality of sleep	16– 30	34-66
Poor quality of sleep	31 - 45	Above 67

பாகம் - அ

அடிப்படை விவரங்களை அறியும் நேர்காணல் படிவம்

குறிப்பு:

ஆராய்ச்சியாளர் கீழேக் கொடுக்கப்பட்ட கேள்விகளைக் கேட்பார் மற்றும் பிரதிவாதி அளிக்கும் பதில்களுக்கு எதிரே உள்ள கட்டத்தில் சரி (✓) குறியீடு இடுவார்.

தனிநபர் சார்ந்த விபரங்கள்

1. வயது (வருடங்களில்)

- அ) 50 - 60 ()
ஆ) 61 - 70 ()
இ) 71 - 80 ()
ஈ) 81 க்கு மேல் ()

2. பாலினம்

- அ) ஆண் ()
ஆ) பெண் ()

3. மதம்

- அ) இந்து ()
ஆ) இஸ்லாமியர் ()
இ) கிறிஸ்துவர் ()
ஆ) மற்றவை ()

4. விவாகநிலை

- அ) திருமணமானவர் ()
ஆ) தனிநபர் ()
இ) கணவனை இழந்தவர் / மனைவியை இழந்தவர் ()
உ) விவாகரத்து பெற்றவர் / தனியாக இருப்பவர் ()

5. கல்வித்தகுதி

- அ) முறையான கல்வி பயிலாதவர் ()
ஆ) ஆரம்ப கல்வி ()
இ) உயர்நிலைக்கல்வி ()
ஈ) இளநிலை பட்டதாரி ()
உ) முதுகலை பட்டதாரி ()

6. வேறு ஏதாவது உடல்நோய்

- அ) சர்க்கரை நோய் ()
ஆ) இரத்தகொதிப்பு ()
இ) இருதய பிரச்சனை ()
ஈ) எலும்பு முறிவு பிரச்சனை ()
ஊ) வேறு பிரச்சனை ()

இருப்பிடம் சார்ந்த விபரங்கள்

7. முதியோர் இல்லத்தில் தங்கியிருந்த கால அளவு

- அ) ஒரு வருடத்திற்குள் ()
ஆ) 2 வருடம் முதல் 3 வருடங்கள் ()
இ) 4 வருடங்கள் முதல் 5 வருடங்கள் ()
ஈ) 5 வருடங்களுக்கு மேல் ()

8. குடும்ப உறுப்பினர்கள் எத்தனை முறை வந்து பார்க்கிறார்கள்?

- அ) ஒருபோதும் இல்லை ()
ஆ) எப்பொழுதாவது ()
இ) அடிக்கடி ()

9. முதியோர் இல்லத்தில் சேர்ந்த முறை

- அ) தன் விருப்பத்துடன் சேர்தல் ()
ஆ) கட்டாயப்படுத்துதலால் சேர்தல் ()
இ) காவல்துறை ()
ஈ) பிற தொண்டு நிறுவனங்கள் ()

பிரிவு - ஆ

வரையறுக்கப்பட்ட நேர்காணல் படிவம்

(திருத்தி அமைக்கப்பட்ட பிட்ஸ்பெர்க் தூக்கத்தின் தன்மையை அளவிடும்

அளவுகோல்)

ஆராய்ச்சியாளர் கீழே கொடுக்கப்பட்ட கேள்விகளை கேட்பார், பங்கேற்பாளர்கள் அளிக்கும் பதில்களுக்கு எதிரே உள்ள கட்டத்தில் சரி (✓) குறியீடு இடுவர். உங்கள் பதில்கள் இரகசியமாகப் பாதுகாக்கப்படும்.

1. தினசரி இரவில் எப்பொழுது உறங்கச் செல்வீர்கள்?

அ) 7 - 9 ()

ஆ) 9 - 10 ()

இ) 10 - 11 ()

ஆ) 11 மணிக்கு மேல் ()

2. உறங்கச் செல்லும் முன் பிரார்த்தனை செய்வீர்களா?

அ) எப்பொழுதும் ()

ஆ) அடிக்கடி ()

இ) எப்பொழுதாவது ()

ஈ) எப்பொழுதும் இல்லை ()

3. உறங்கச் செல்லும் முன் மிதமான சூட்டில் உள்ள பால் அருந்துவீர்களா?

அ) எப்பொழுதும் ()

ஆ) அடிக்கடி ()

இ) எப்பொழுதாவது ()

ஈ) எப்பொழுதும் இல்லை ()

4. உறங்குவதற்கு முன் எவ்வளவு நேரம் படுக்கையில் விழித்திருப்பீர்கள்?
- அ) 15 நிமிடங்களுக்குக் குறைவாக ()
- ஆ) 15 முதல் 30 நிமிடங்கள் வரை ()
- இ) 30 முதல் 60 நிமிடங்கள் வரை ()
- ஈ) 60 நிமிடங்களுக்கு மேல் ()
5. உறங்க செல்லும் முன் அன்றைய தின நிகழ்வுகளை நினைப்பீர்களா?
- அ) எப்பொழுதும் ()
- ஆ) அடிக்கடி ()
- இ) எப்பொழுதாவது ()
- ஈ) எப்பொழுதும் இல்லை ()
6. உறங்கத் தொடங்குவதற்கு ஏதேனும் சிரமப்படுகிறீர்களா?
- அ) எப்பொழுதும் இல்லை ()
- ஆ) எப்பொழுதாவது ()
- இ) அடிக்கடி ()
- ஈ) எப்பொழுதும் ()
7. தினசரி உங்களுடைய உறக்கம் எப்படி இருக்கும்?
- அ) மிகவும் நன்று ()
- ஆ) நன்று ()
- இ) சமார் ()
- ஈ) மோசம் ()
8. தூக்கத்திலிருக்கும் போது நள்ளிரவில் எழுந்து தண்ணீர் அருந்துவீர்களா?
- அ) எப்பொழுதும் இல்லை ()
- ஆ) எப்பொழுதும் ()
- இ) எப்பொழுதாவது ()
- ஈ) அடிக்கடி ()

9. உறக்கத்திலிருக்கும் போது சிறுநீர் கழிக்க எத்தனை முறை எழுந்திருப்பீர்கள்?

அ) எப்பொழுதும் இல்லை ()

ஆ) எப்பொழுதும் ()

இ) எப்பொழுதாவது ()

ஈ) அடிக்கடி ()

10. இரவில் உறக்கத்திலிருந்து எத்தனை முறை எழுந்திருப்பீர்கள்?

அ) எப்பொழுதும் இல்லை ()

ஆ) எப்பொழுதாவது ()

இ) அடிக்கடி ()

ஈ) எப்பொழுதும் ()

11. தினமும் எத்தனை மணிக்கு உறக்கத்திலிருந்து விழிப்பீர்கள்?

அ) 5 மணிக்கு முன்னால் ()

ஆ) 5-லிருந்து 6 மணி வரை ()

இ) 6-லிருந்து 7 மணி வரை ()

ஈ) 7 மணிக்கு மேல் ()

12. உங்களுடைய தூக்கம் உங்களுக்கு திருப்தி அளிக்கிறதா?

அ) திருப்தி அளிக்கிறது ()

ஆ) மிதமான திருப்தி அளிக்கிறது ()

இ) மிதமான திருப்தி அளிக்கவில்லை ()

ஈ) திருப்தி அளிக்கவில்லை ()

13. உங்களுக்கு பகலில் சிறுதுயில் பழக்கம் உள்ளதா?

அ) எப்பொழுதும் இல்லை ()

ஆ) எப்பொழுதாவது ()

இ) அடிக்கடி ()

ஈ) எப்பொழுதும் ()

14. உங்களுக்கு தூங்கும்பொழுது வலி ஏதாவது உள்ளதா?

அ) எப்பொழுதும் இல்லை ()

ஆ) எப்பொழுதாவது ()

இ) அடிக்கடி ()

ஈ) எப்பொழுதும் ()

15. உங்களுக்கு தூங்கும்பொழுது குறட்டை விடும் பழக்கம் உள்ளதா?

அ) எப்பொழுதும் இல்லை ()

ஆ) எப்பொழுதாவது ()

இ) அடிக்கடி ()

ஈ) எப்பொழுதும் ()

மதிப்பீடும் முறை

தூக்கத்தின் தன்மை	அளவீடு	சதவிகிதம்
சரியான தூக்கம்	0 — 15	0-33
சுமாரான தூக்கம்	16 — 30	34-66
மோசமான தூக்கம்	31 — 45	67 மேல்

Music Therapy

Type of music	: Classical music (Neelambari And Mohana raga)
Frequency	: Twice a day
Duration	: 30 minutes
Duration of therapy	: 3 weeks

Purposes:

- Reduce the psycho-physiological stress.
- Improve sleep.
- Reduce pain and anxiety.

Steps in procedure:

- ✓ Explaining about the music therapy to the client.
- ✓ Ensure the client is comfortable.
- ✓ Relaxing classical music, the neelambari and mohana raga are included in the music therapy.
- ✓ The music collection will be played using an audio (CD) player.
- ✓ The participants are made to listen to the music for 30 minutes every morning 9 am and night at bed time 7 pm for 15 consecutive days.
- ✓ All participants listen to same music.
- ✓ The participants are instructed to avoid physical activities during and after music therapy.

ANNEXURE – E

CONTENT VALIDITY CERTIFICATE

This is to certify that the tool developed by Mr.G.Nethaji., final year M.Sc. Nursing student of Sri Gokulam College of Nursing, Salem (affiliated to The Tamil Nadu Dr. M.G.R. Medical University) is validated and can proceed with this tool and content for the main study entitled “**A Study To Determine The Effectiveness Of Music Therapy On Quality Of Sleep Among Elderly Residing At Selected Old Age Homes, Salem..**”

Signature:

Date:

Place:

Name :

Designation :

Seal :

ANNEXURE – F

LIST OF EXPERTS FOR VALIDITY

1. **S.Michael Jayaraj, Msc(N)**
Clinical Psychologist
Shanmuga College of Nursing,
Salem.
2. **Mrs.Esther Daisy Joel, Msc(N)**
Associate Professor,
HOD of Mental Health Nursing,
PSG College of Nursing,
Coimbatore.
3. **Mrs. J.Jayareka,Msc(N)**
Associate Professor,
Department of Mental Health Nursing,
Omayal achi College of Nursing,
Avadi.
4. **Mrs. Sheeba, M.Sc(N),**
Associate Professor,
Adhiparasakthi College of Nursing,
Melmaruvathur
5. **Mr. Selvaraj, M.Sc(N),,**
Associate Professor,
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ANNEXURE - G
CERTIFICATE OF EDITING

TO WHOMSOEVER IT MAY CONCERN

Certified that the dissertation paper titled “**A Study To Determine The Effectiveness Of Music Therapy On Quality Of Sleep Among Elderly Residing At Selected Old Age Homes, Salem..**” by **Mr.Nethaji.G.** It has been checked for accuracy and correctness of English language used in presenting the paper is lucid, unambiguous free of grammatical or spelling errors and apt for the purpose

Signature : *Sr. G. Nethaji*
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ANNEXURE – H
PHOTOS
(MUSIC THERAPY)



THE INVESTIGATOR PROVIDING MUSIC THERAPY