

**ASSESS THE EFFECTIVENESS OF HOT WATER FOOT BATH
THERAPY ON QUALITY OF SLEEP AMONG ELDERLY PEOPLES
STAYING IN OLD AGE HOME AT GORAKHPUR.**



DIVYA MISHRA

RADHA SINGH

GURU SHRI GORAKSHNATH COLLEGE OF NURSING

**DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENT FOR THE DEGREE OF BASIC B.Sc. NURSING**

DEEN DAYAL UPADHYAY GORAKHPUR UNIVERSITY

GORAKHPUR

2024

**ASSESS THE EFFECTIVENESS OF FOOT BATH THERAPY ON
QUALITY OF SLEEP
AMONG ELDERLY PEOPLES STAYING IN OLD AGE HOME
AT GORAKHPUR**

BY

**DIVYA MISHRA
RADHA SINGH**

**IN THE PARTIAL FULFILLMENT OF REQUIREMENT
FOR THE DEGREE OF BASIC B.Sc. NURSING**

**UNDER THE GUIDANCE OF
DR. D.S. AJETHA
PRINCIPAL**

FACULTY OF NURSING AND PARAMEDICAL

**GURU SHRI GORAKSHNATH COLLEGE OF NURSING
DEEN DAYAL UPADHYAYA UNIVERSITY,
GORAKHPUR, UTTAR PRADESH**

2024

DECLARATION BY THE CANDIDATES

We hereby declare that this dissertation entitled “**a study to assess the effectiveness of hot water Foot bath therapy on quality of sleep among old age people who are staying in old age at Gorakhpur**” is a Bonafide and genuine research work carried out by Divya Mishra and Radha Singh under the guide Dr. D.S. Ajetha, principal, Guru Shri Gorakshnath College of Nursing, Arogya Dham, Balapar Road, Sonbarsa, Gorakhpur, Uttar Pradesh.

Signature of candidates -

Divya Mishra

Radha Singh

Date –

Place – Gorakhpur

CERTIFICATE BY THE GUIDE

This is to certify that this dissertation entitled to “A study to assess the effectiveness of hot Water foot bath therapy on quality of sleep among old age people who are staying in old age Home at Gorakhpur “is a bonafide and genuine research work carried out by Divya Mishra And Radha Singh in a partial fulfillment of the requirement for the Basic B.Sc. Nursing in Guru Shri Gorakshnath College of Nursing.

Signature of Guide

Dr. D. S Ajetha

Principal

Guru Shri Gorakshnath

College of Nursing

Signature of Co- Guide

Miss. Abhya Prajapati

Clinical Instructor

Guru Shri Gorakshnath

College of Nursing

Date –

Place –Gorakhpur

**ENDORSEMENT BY THE PRINCIPAL/ HEAD OF THE
INSTITUTE**

This is to certify that the dissertation entitled as “A study to assess the effectiveness of foot bath Therapy on quality of sleep among elderly staying in old age home at Gorakhpur, “is a bonafide Research work done by Divya Mishra and Radha Singh in partial fulfillment of the requirement for the B.Sc. Nursing at Guru Shri Gorakshnath College of Nursing, Arogyadham, Balapar Road, Gorakhpur, Uttar Pradesh.

Signature of principal

Dr. D.S. Ajetha

Principal

Guru Shri Gorakshnath

College of Nursing

Date -

Place –Gorakhpur

ACKNOWLEDGEMENT

“Knowledge is the end based on acknowledge.”

We are very grateful to Almighty God for his wonderful passion of love, grace and blessing throughout our study.

It is said that nobody can imprison wind, nobody can measure sky and similarly nobody can have a vocabulary to express all his emotions. We hereby tried with all our heart to have a vocabulary to express all his emotions. We hereby tried with all our heart to have a word of thanks or those innovative minds that have put their knowledge compendium open to us to bring the current work in its present form.

We are highly indebted and thoroughly grateful to **Mahanth Yogi Adityanath ji Honourable Chief Minister of Government of Uttar Pradesh and Chancellor of MGUG** for his compassion and abundant of blessings towards us and giving us an opportunity to undertake the Basic B.Sc.(Nursing) course in Guru Shri Gorakshnath College of Nursing Gorakhpur .

We are highly indebted to **Dr. Surendra Singh Honourable vice chancellor, Mahayogi Gorakshnath University Gorakhpur, Arogya Dham, Balapar Road, Sonbarsa, Gorakhpur**, for giving us an opportunity to pursue the course in this esteemed institution.

We are highly indebted and thoroughly grateful to **Dr. Pradeep Rao Honourable Registrar Mahayogi Gorakshnath University Gorakhpur** for giving us an opportunity to pursue the course in this esteemed institution

We hardly convey our gratitude to **Dr. D.S. Ajetha, Principal**, and Guru Shri Gorakshnath College of Nursing for providing us permission to conduct this study under her skill guidance, innovative criticism and inspirational support throughout the course of study.

We would like to express our gratitude to our respected **guide Dr. D.S. Ajetha, principal and co-guide Miss Abhya Prajapati, Clinical instructor** for their appropriate guidance, support, encouragement, priceless suggestion and cooperation continually motivated us for the successful achievement of this dissertation.

We would like to express our gratitude to our class coordinator **Dr. Indu Chaudhary** **Department of Psychology** who had been inspiring us and supporting person during the rooting stages of the study.

We are thankful to **Mr. Bhartendra Singh (Librarian) and Mrs Vandana (Attendant)** of Guru Shri Gorakshnath college of Nursing for giving books, journals and previous research for completing of our research study .We are thankful to **Mr Anil Kumar Pal (Digital librarian)** for giving us access to the computers for completing our research study .We are grateful to all **teaching and non- teaching faculty** of Guru Shri Gorakshnath college of Nursing for their timely help and cooperation in conducting the study .

We express our heartfelt praise and indebted gratitude to our beloved **Parents** for their unconditional love, immense moral support, constant encouragement and sacrifices.

We express our immense pleasure and privilege to thanks our **Friends**, for their opinion and useful feedback, besides providing an emotional support throughout this period last but not least, our gratitude is extended to all those who have directly and indirectly helped for the completion of the study.

ABSTRACT

The aim of the study is to assess the effectiveness of hot water foot bath therapy on the quality of sleep among elderly peoples staying in Mother Teresa old age home at Gorakhpur. The objectives are to assess the frequency and percentage distribution of sample based on selected demographic variables. To assess the quality of sleep among the sample before hot water foot bath therapy among experimental and control group .To assess the quality of sleep among the sample after hot water foot bath therapy among experimental group. To assess the effectiveness of hot water foot bath therapy among sample. To find out the association between posts –test score of experimental group with their selected demographic variables. The quasi experimental pre and post –test control group design was adopted and the sample selected from Mother Teresa old age home chosen for the study .The sample size was 60 and was drawn through non probability convenient sampling technique. The level of sleep quality score assessed by using sleep quality score checklist .Hot water therapy was applied for experimental group post-test done after intervention period, and the data gathered were analysed by descriptive and inferential statistical method and interpretations were made on the basis of the objectives of the study during post -test in experimental group ..In experimental group pre –test the mean is 54.36 and post- test mean is 32.66 the mean difference between pre –test and post-test is 21.7 the standard deviation of experimental group is 124.47 and the degree of freedom is 29, the calculated t value is 2.295 and table t value is 2.045 .hence it signifies that the calculated t value is greater than the table t value. In control group the pre-test mean is 59.23 and the post-test mean is 59.23 so the mean difference is 0.

KEYWORDS- Hot water therapy, Sleep quality scale, Effectiveness

TABLE OF CONTENT

CHAPTER	TITLE	PAGE NO
1	INTRODUCTION	
	1.1 Background of the study	17-19
	1.2 Need of the study	19-20
	1.3 Statement of problem	20
	1.4 Objectives	21
	1.5 Operational definition	21-22
	1.6 Hypothesis	23
	1.7 Conceptual framework	23-25
2	REVIEW OF LITERATURE	26-33
3	RESEARCH METHODOLOGY	
	3.1 Research approach	34-35
	3.2 Research design	35
	3.3 Setting of the study	36
	3.4 Sample and sample size	36
	3.5 Sampling technique	37
	3.6 Sampling criteria	37-38
	3.7 Content validity of tool	40
	3.8 Reliability of the tool	40
	3.9 Pilot study	40
	3.10 plan for data collection	41
	3.11 Data analysis	41
	3.12 Ethical consideration	42
4	ANALYSIS AND INTERPRETATION	43-52
5	RESULT, DISCUSSION, SUMMARY AND CONCLUSION	58-65
6	REFERENCES	67-71
7	APPENDIX	i-xvii

LIST OF FIGURES

S.N O	TITLE	PAGE NO
1	Conceptual framework	25
2	Frequency and percentage distribution of sample according to age	45
3	Frequency and percentage distribution of sample according to gender.	46
4	Frequency and percentage distribution of sample according to religion.	47
		48
5	Frequency and percentage distribution of sample according to occupation.	49
6	Frequency and percentage distribution of sample based on marital status.	50
7	Frequency and percentage distribution of sample based on any bad habits.	51
8	Frequency and percentage distribution of sample based on hours of sleep.	52
9	Frequency and percentage distribution of sample based on years of stay in old age home.	53
10	Frequency and percentage distribution of sample based on Pre-test sleep quality score.	54
11	Frequency and percentage distribution of sample based on Post-test sleep quality score	

LIST OF TABLES

S.NO	TITLE	PAGE NO.
1	Assess the effectiveness of foot bath therapy on quality of sleep	55
2	Association between sleep quality score with their selected demographic variables	56

CHAPTER -1

INTRODUCTION



CHAPTER-1

INTRODUCTION

The meaning of health has evolved over time. In keeping with the biomedical perspective, health was seen as a state of normal function that could be disrupted from time to time by disease. An example of such a definition of health is: "ability to deal with physical, biological, psychological, and social stress". Sleep is a cyclical process and it is repeated several times during the night. With aging sleep patterns tend to change finds harder time for falling asleep awakens more often during the night and earlier in the morning. Sleep difficulty is annoying problem long term insomnia, accidents, depression, confusion and mental changes.

Old age refers to ages nearing or surpassing the life expectancy of human beings, and is thus the end of the human life cycle. Old people often have limited regenerative abilities and are more susceptible to disease, syndromes, and sickness than younger adults. The organic process of ageing is called senescence; the medical study of the aging process is called gerontology. Hot foot baths increase blood flow through the feet and entire skin surface, relieving congestion in internal organs and brain. This type of bath also elevates the body temperature, relaxing tense muscles and increasing white blood cell activity.

Sleep plays an important role in physical health. For example, sleep is involved in healing and repair of heart and blood vessels. On-going sleep deficiency is linked to an increased risk of heart disease, kidney disease, high blood pressure, diabetes, and stroke. In elderly people, the physical strength deteriorates, mental stability diminishes money power becomes break coupled with negligence from younger generation.

The importance of sleep for the overall health and well-being of the elderly has been increasingly recognized. . Additionally, the sleep problems faced by the elderly, and the consequences of inadequate and inappropriate sleep in determining the quality of their life, have gained recognition recently. It is widely believed that social participation is the key to healthy aging. However, data from the United States National Social Life, Health, and Aging Project has shown that older adults with greater social participation slept better, but increasing social participation did not improve sleep. Hot water foot bath therapy one of the hydrotherapeutic measures, which improves warmth, promotes muscle relaxation, relieves pain, dilates blood vessels and promotes circulation, relaxes the connective tissue and provides a soothing and healing effect. Hot water foot bath therapy is said to treat the underlying

infection by activating the WBCs and immune system. Hot application to the skin increases the oxidation of the toxins and increases the blood flow through the peripheral vessels. It also increases the ability of the phagocytes to destroy the germs and detoxify the blood. The beneficial effect of increased blood flow to the tissue includes the facilitation of drainage and the "wash-out" effect, purging the tissue of debris and by-products of tissue injury. Warm application to the foot causes the congested blood to flow towards distant parts of the body and is brought to the dilated vessels of the foot and leg. When Hot water foot bath therapy applied for 10-15 minutes the vessels in the feet start expanding and get improved circulation, neutralizing acid and killing bacteria and relieving aches tiredness and fever. The improved blood circulation resets the hypothalamic set points by heat transfer from higher heat area to lower heat area

Normal human sleep is divided into non-rapid eye movement and rapid eye movement rapid eye movement sleep. The sleep cycle starts with a period of non-rapid eye movement sleep. Rapid eye movement sleep occurs after a short period of non-rapid eye movement sleep. This alteration between non rapid eye movement and rapid eye movement takes place about 4-5 times during a normal night's sleep. The first rapid eye movement period may be less than 10 minutes in duration, while the last one may exceed 60 minutes. Awakening after a full night's sleep is usually from rapid eye movement sleep. The sleep pattern changes as the child grows. Changes to sleep patterns which affect quality of sleep or disrupt a normal sleep cycle are known as sleep disturbances. It is sleep disturbances that have an adverse effect on health and quality of life. Sleep is a complex physiologic and cyclic phenomenon influenced by an individual's biologic clock that regulates not only sleep but also levels of alertness throughout the day. During illness there may be either actual a potential sleep disturbance and this lack of sleep extends the time to recover from illness. Therefore sick patient rest and sleep may be considered as one of the important components of their therapy.

Insomnia is a subjective complaint of inadequate night-time sleep. It is the most prevalent sleep disorder identified by older people. Depression, anxiety, and reduced cognitive function have been linked with severe lack of sleep. Poor sleep quality in the elderly reduces the quality of life, but sadly the most elder people do not report sleep problems unless expressly requested. Warm water foot bath provides a better sleep at night, as it calm downs and relaxes the body and mind. This works by increasing the body temperature slightly and after 15 minutes this starts to drop gradually. This may indirectly encourage sleep. Gradual decrease in body temperature makes us feel drowsy and so we feel better prepared for sleep. A warm water foot

bath also diverts some blood from the head to lower parts of the body, decreases brain activity and mimics the state of pre-sleep.

Sleep is a state of reduced mental and physical activity in which consciousness is altered and certain sensory activity is inhibited. During sleep, there is a marked decrease in muscle activity and interactions with the surrounding environment. While sleep differs from wakefulness in terms of the ability to react to stimuli, it still involves active brain patterns, making it more reactive than a coma or disorder of consciousness.

On a typical night of sleep, there is not much time that is spent in the waking state. In various sleep studies that have been conducted using the electroencephalography, it has been found that females are awake for 0-1% during their nightly sleep while males are awake for 0-2% during that time. In adults, wakefulness increases, especially in later cycles. One study found 3% awake time in the first ninety-minute sleep cycle, 8% in the second, 10% in the third, 12% in the fourth, and 13–14% in the fifth. Most of this awake time occurred shortly after Rapid eye movement sleep.

Today, many humans wake up with an alarm clock however; people can also reliably wake themselves up at a specific time with no need for an alarm. Many sleep quite differently on workdays versus days off, a pattern which can lead to chronic circadian desynchronization. Many people regularly look at television and other screens before going to bed, a factor which may exacerbate disruption of the circadian cycle. Scientific studies on sleep have shown that sleep stage at awakening is an important factor in amplifying sleep inertia.

Determinants of alertness after waking up include quantity/quality of the sleep, physical activity the day prior, a carbohydrate-rich breakfast, and a low blood glucose response to it.

The quality of sleep may be evaluated from an objective and a subjective point of view. Objective sleep quality refers to how difficult it is for a person to fall asleep and remain in a sleeping state, and how many times they wake up during a single night. Poor sleep quality disrupts the cycle of transition between the different stages of sleep. Subjective sleep quality in turn refers to a sense of being rested and regenerated after awaking from sleep. A study by A. Harvey et al. (2002) found that insomniacs were more demanding in their evaluations of sleep quality than individuals who had no sleep problems.

Homeostatic sleep propensity (the need for sleep as a function of the amount of time elapsed since the last adequate sleep episode) must be balanced against the circadian element for satisfactory sleep. Along with corresponding messages from the circadian clock, this tells the body it needs to sleep.¹ The timing is correct when the following two circadian markers occur after the middle of the sleep episode and before awakening: maximum concentration of the hormone melatonin, and minimum core body temperature.

Sleep may facilitate the synthesis of molecules that help repair and protect the brain from metabolic end products generated during waking. Anabolic hormones, such as growth hormone are secreted preferentially during sleep. The brain concentration of glycogen increases during sleep, and is depleted through metabolism during wakefulness.

The human organism physically restores itself during sleep, occurring mostly during slow wave sleep during which body temperature, heart rate, and brain oxygen consumption decrease. In both the brain and body, the reduced rate of metabolism enables countervailing restorative processes. The brain requires sleep for restoration, whereas these processes can take place during quiescent waking in the rest of the body. The essential function of sleep may be its restorative effect, including some of the least cognitively advanced animals which have no need for other functions of sleep, such a slow quality sleep has been linked with health conditions like cardiovascular disease, obesity, and mental illness. While poor sleep is common among those with cardiovascular disease, some research indicates that poor sleep can be a contributing cause. Short sleep duration of less than seven hours is correlated with coronary heart disease and increased risk of death from coronary heart disease. Sleep duration greater than nine hours is also correlated with coronary heart disease, as well as stroke and cardiovascular events.

In both children and adults, short sleep duration is associated with an increased risk of obesity, with various studies reporting an increased risk of 45–55%. Other aspects of sleep health have been associated with obesity, including daytime napping, sleep timing, the variability of sleep timing, and low sleep efficiency. However, sleep duration is the most-studied for its impact on obesity.

Sleep problems have been frequently viewed as a symptom of mental illness rather than a causative factor. However, a growing body of evidence suggests that they are both a cause and a symptom of mental illness. Insomnia is a significant predictor of major depressive disorder;

a meta-analysis of 170,000 people showed that insomnia at the beginning of a study period indicated a more than the twofold increased risk for major depressive disorder. Some studies have also indicated correlation between insomnia and anxiety; post-traumatic stress disorder and suicide. Sleep disorders can increase the risk of psychosis and worsen the severity of psychotic episodes.

Sleep research also displays differences in race and class. Short sleep and poor sleep are observed more frequently in ethnic minorities than in whites in the United States of America. African-Americans report experiencing short durations of sleep five times more often than whites, possibly as a result of social and environmental factors. A study done in the United States of America suggested that higher rates of sleep apnea (and poorer responses to treatment) are suffered by children in disadvantaged neighborhoods (which, in context, include a disproportionate effect on children of African-American descent).

Sleep health can be improved through implementing good sleep hygiene habits. Having good sleep hygiene can help to improve your physical and mental health by providing your body with the necessary rejuvenation only restful sleep can provide. Some ways to improve sleep health include going to sleep at consistent times every night, avoiding any electronic devices such as televisions in the bedroom, getting adequate exercise throughout your day, and avoiding caffeine in the hours before going to sleep. Another way to greatly improve sleep hygiene is by creating a peaceful and relaxing sleep environment. Sleeping in a dark and clean room with things like a white noise maker can help facilitate restful sleep. However, noise except of while noise may not good for sleep.

Researchers have found that sleeping 6–7 hours each night correlates with longevity and cardiac health in humans, though many underlying factors may be involved in the causality behind this relationship.

BACKGROUND OF THE STUDY

Sleep is the basic need of the every human beings and it is a universal biological process for all human beings. Sleep trouble is one of the most common current manifestations among elders, particularly those who are living in old age home.

Sleep disturbance are prevalent among older adults, affecting up to 70% of those living in old age home. Poor sleep quality can exacerbate age-related health issues, such as cognitive decline, depression, and cardiovascular disease. Current treatment often involves pharmacological interventions, which may have side effects and interact with other medications.

Foot bath therapy, a non-invasive and low cost intervention, has been used in various settings to promote relaxation and improve sleep.

In world statistics, a recent preliminary study conducted at Michigan state university more than 40 elderly persons ranging from 55-75 years of age who were having sleep disturbances were given a warm water bath for 30 min and it results a significance changes in quality of sleep.

In India the Annual meeting of the Associated Professional sleep societies on 20th may convey the message that, bathing in moderate temperature water may improve sleep quality for elderly individuals with insomnia.

Sleep quality is important to know the sleeping pattern of elderly people, know quality of sleep, and to identify the effectiveness of sleep after providing hot water foot bath therapy.

According to the Centres for Disease Control and Prevention worldwide 2022, 70% of the older population is suffering from chronic sleep disorders, among which half of them go untreated, and 30% have been diagnosed with a sleep disorder. Chronic insomnia disorder, sleep disordered breathing, periodic limb movements in sleep, Random eye movement sleep behaviour disorder, and advanced sleep-wake phase disorder are the major sleep disorders that are generally seen in older persons. Additionally, sleep efficiency below 80% doubles the risk of mortality among older people.

According to World Health Organization's 2015 report states that in India the aged population is expected 20-25% of population by 2050, relatively aged population will also increase, this will bring with a huge burden of sleep related health problems .

Foot baths are a method of heat therapy and are performed as an independent nursing care in different departments. The present study was conducted with the aim of investigating the effects of foot baths with spa on improving the sleep quality of the elderly.

For the elderly, age is an important aspect, negative judgments about age and aging become more prominent (Weiss & Lang, 2012). Aging is associated with complex and individual things that include biological, psychological, and social (Dziechciaż & Fillip, 2014). The elderly experience various problems due to physiological, psychological and psychosocial decline (Demir,2018). Physiological decline affects sleep in the elderly because it is related to the condition of memory, cognitive, motor function and neuro endocrine function. This affects individual health, quality of life and well-

A survey conducted on September 13, 2020 with local cadres and sub-district staff, in Kemiri Village, especially in RW 8, has an elderly population of 50 people. In Kemiri Village, there is an agenda for the elderly meeting every month called Paysandú lansia, which is the 10th. The survey was conducted with Paysandú caders of Kemiri Village stated that there were some elderly who complained of not sleeping well, sleeping too late, sleeping too early, and some even felt I didn't sleep all night because I often woke up at night. As a result, they often complain of morning fatigue, headaches, and daytime sleepiness. However, when the elderly were asked questions about their ways of dealing with sleep disorders, it turned out that they had not made any efforts to overcome them. This is what makes researchers interested in applying relaxation therapy with the hot water foot bath therapy technique in the hope of improving the sleep quality of the elderly. This technique is also expected to reduce the risk of elderly barriers that occur due to poor sleep quality.

NEED OF THE STUDY

With increasing age, the older population begins to struggle with various health problems and in the absence of appropriate care the older population suffer more from health problems that could have been previous. National sleep foundation suggest that along with fatigue because of the physical changes old aged people tend to have a harder time falling asleep and more trouble staying asleep than when they were younger. The foundation confirmed the prevalence of insomnia 46% of community dwelling adults aged between 65-74 reported insomnia symptoms. It is estimated that 40-70% of older adults have chronic sleep problems out of which 50% are in diagnosed.

Foot bath therapy investigate the blood vessels to dilate which improves the blood circulation ,the heat encourage sweating leading to release of toxin, thus warm foot bath relives stress as

it provides relaxation to the whole to the whole body leading to relieve stress ,anxiety, and fatigue.

The percentage of the elderly population is growing due to increased life expectancy and improved Socio-economic development. Surprisingly, in the World Health Organization's 2015 World Report on Ageing and Health, there is no mention of sleep disorders. By then, the elderly population would be more than 25% of the population in developed nations. It already exceeded 30% in Japan in 2017. The increase in the aged population will bring with it a huge burden of sleep-related health problems. Although aging is a global phenomenon, little data are available on regional trends in sleep-related problems. The importance of sleep for the overall health and well-being of the elderly has been increasingly recognized. In world statistics, a recent preliminary study conducted at Michigan State University. More than 40 elderly persons ranging from 55-75 years of age who were having sleep disturbances were given a warm, 30-minute bath (102 to 106 degrees Fahrenheit, or 39 to 41 degrees Celsius) and it results a significance changes in quality of life

In India the Annual Meeting of the Associated Professional Sleep Societies on 20th may convey the message that, bathing in moderate temperature water may improve sleep quality for elderly individuals with insomnia.

In Karnataka a Research done by Seyyedrasooli in their study showed that footbath is effective in sleep quality of the elderly, decreases sleep latency, and increases efficient sleep duration. The need of the study on the effectiveness of hot water foot bath therapy on the quality of sleep among elderly are to exhibit the effectiveness of hot water foot bath therapy in enhancing or improving elderly people's sleep quality, To prevent them from various sleep disorders.

PROBLEM STATEMENT

A study to assess the effectiveness of hot water foot bath therapy on the quality of sleep among elderly people staying in old age home at Gorakhpur, Uttar Pradesh.

OBJECTIVES: -

- To assess the frequency and percentage distribution of sample based on selected demographic variables.

- To assess the quality of sleep among the sample before hot water foot bath therapy among experimental and control group.
- To assess the quality of sleep among the sample after hot water foot bath therapy among experimental group.
- To compare pre-test and post-test of experimental and control group.
- To assess the effectiveness of hot water foot bath therapy among sample.
- To find out the association between posts –test score of experimental group with their selected demographic variables.

OPERATIONAL DEFINITION

ASSESS-

It means the process of collecting, organizing, validating and recording data.

(Oxford dictionary)

In this study, it refers to measure the effectiveness of hot water foot bath therapy on quality of sleep

EFFECTIVENESS:

It is the capability of producing a desired result or the ability to produce desired outcome

(Oxford dictionary)

In this study, it refers to the significant improvement of the quality of sleep among the experimental group and control group after administering the hot water foot bath therapy

FOOT BATH THERAPY:

It is the process of immersion of feet and ankles at temperature ranging from 39 to 43 degree Celsius for 20-30 minutes one time in a day.

(Oxford dictionary)

In this study, it refers to the immersion of feet into the warm water temperature between 39 to 43 degree Celsius for 20 to 30 minutes this helps to relax the muscles, increase blood flow and promote the restful sleep.

QUALITY OF SLEEP:

It is a periodic state of muscular relaxation, reduced metabolic rate, and suspended consciousness in which a person is largely unresponsive to events in the environment.

(Oxford dictionary)

In this study, it refers to the significant improvement of the quality of sleep after providing the hot water footbath therapy measured by Sleep Quality Index .It evaluates six domains of sleep quality: daytime symptoms, restoration after sleep, problems initiating and maintaining sleep, difficulty waking, and sleep satisfaction. Developers hoped to create a scale that could be used as an all-inclusive assessment of tool a general, efficient measure suitable for evaluating sleep quality in a variety of patient and research populations. It also refers to a condition of body and mind which typically reoccur for several hours every night, in which the eyes closed, the postural muscles relaxed, and consciousness practically suspended.

ELDERLY - It is defined as a chronological age of 60 years old or older than this age.

In this study it refers to the people age group of 60 and above staying in Mother Teresa old age home Padari bazar, satabdipuram colony Gorakhpur.

OLD AGE HOME

A residence where old people live and are cared for when old age prevents them from looking after themselves in their own homes.

In this study old age home are Mother Teresa old age home at, Gorakhpur. It is run through the charity and it provide all the services to the people who all are staying in this old age home the services include shelter, food, medicines, clothes

HYPOTHESIS

H1: There will be a significant difference in pre-test and post -test score of experimental and control group.

H2: There will be a significant association between pre –test and post-test score of experimental and control group among elderly staying in old age home with selected demographic variables.

CONCEPTUAL FRAMEWORK

Based on General System Theory, 1968

Conceptual framework is a whole of interrelated concept or abstract that is assembled together in some rational scheme by virtue of their relevance to common theme.

A conceptual model provides for logical thinking for systemic observation and interpretation of observed data.

Shirley in 1975 states, ‘conceptual framework formalizes the thinking process .so that other may read and knows the frame of reference basis to research problem.’

According to Von Ludwig frame, a system is composed of set of interactive element and gets each system distinct from environment in which it exists .in all system activities can be resolved into an aggregation of feedback circuits such as Input, Throughput, and Output. The feedback circuits help in maintenance of an intact system.

Written or visual presentation that explained the main things to be studied in either graphically as narrative form the key factors, concept or variables and the presumed relationship.

The study intended to assess the effectiveness of hot water foot bath therapy on the quality of sleep among elderly people. General theory may be considered as a specialization of system science.

This theory is considered with elements and interaction among all the factors variables in a situation.

According to this theory nursing practice consists of three steps as mentioned below –

INPUT- It is the information needed by the system based on demographic variables underage, gender , religion, education, previous occupation, marital status, economic status, Bad habits, Types of family, Hours of sleep or sleeping pattern, previous place of residence.

THROUGHTPUT- It is the security phase where an information, education and communication module will administer regarding main aspect of hot water foot bath therapy.

OUTPUT- The information is continuous process through the system and released as output in an altered state.

In this study the output is the expected gain in knowledge by the insomnia suffering people about hot water foot bath therapy.

FEEDBACK- The feedback is the environment response of the system .it may be the neutral, positive or negative. If the feedback is negative the processes are again reassessed.

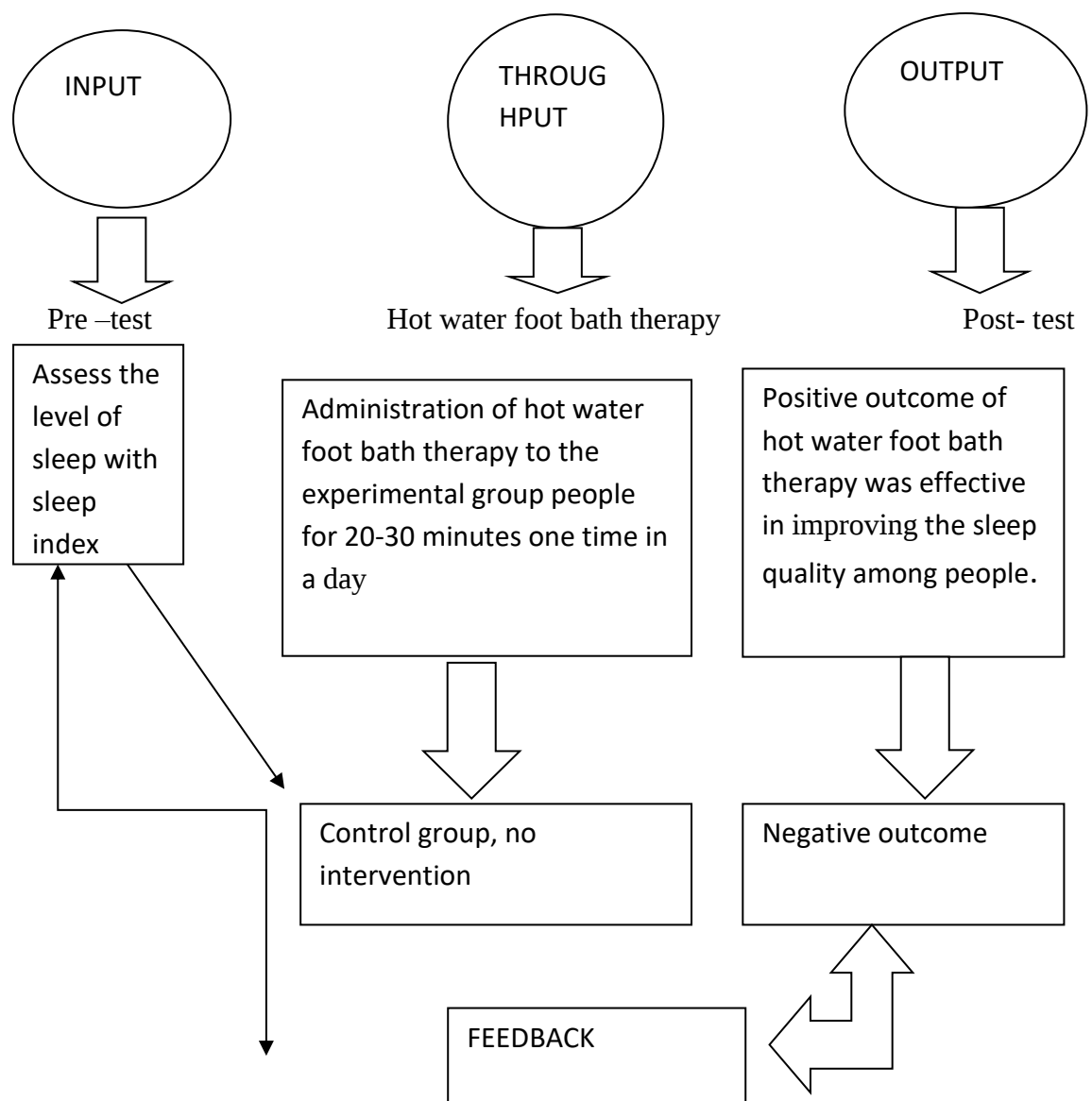
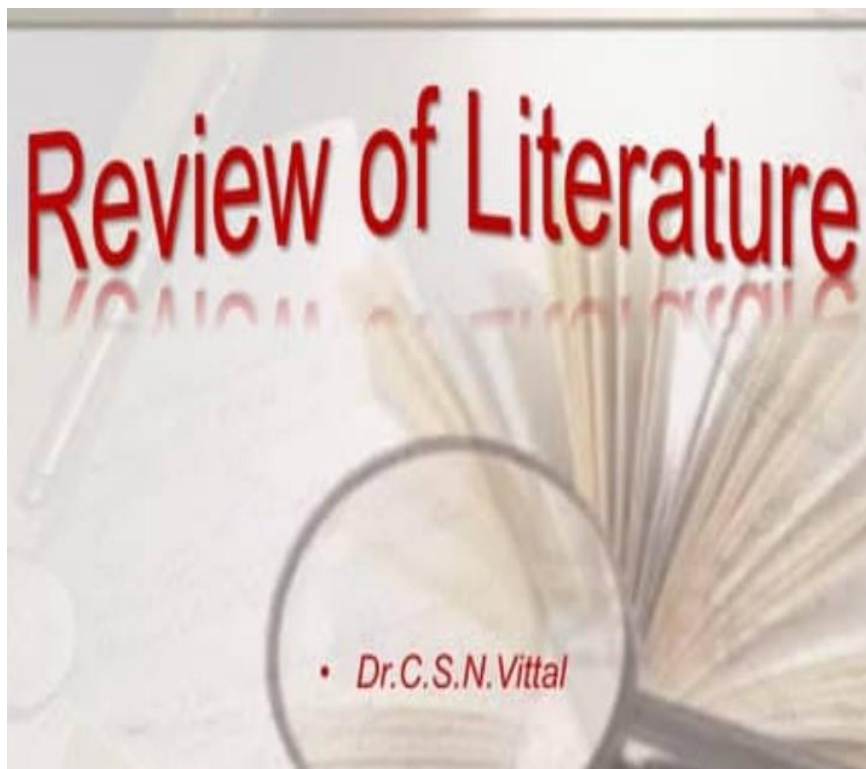


Fig .1 Based on General System Theory of “Ludwig Von Bertalanffy” (1968) .

CHAPTER -2

REVIEW OF LITERATURE



CHAPTER -2

REVIEW OF LITERATURE

A review of literature is defined as broad, comprehensive, depth, systemic, critique and synthesis of scholarly publication, published, print, and online material, audio video material personal communication.

(Suresh k Sharma)

A review of literature provides a background to current knowledge on a topic and highlights the necessary for new study.

Alehe seyyedrasooli et al. (2013) - conducted a experimental study to assess the effectiveness of foot bath therapy on sleep quality of the elderly in Tabriz Iran. The aim of the study is to evaluate the effectiveness of warm foot water therapy on sleep quality .They selected 46 old age people that had health documents in health centre. Participants in the research were divided into two groups .one for experimental group and another group are control group .The experimental group participants were asked to put their feet in warm water with 40-42degree Celsius for 20 minutes before sleeping for 6weeks after intervention data was analysed by Statistical package for social science software. The result shows that the Mean standard deviation of participants was 67.26 and the PSQI score after intervention compared to before it in the reflexology and foot bath groups were statistically significant $P=0.01$. The study concluded that the Comparison of changes in sleep quality score the old men showed the sleep duration and total sleep quality has significantly improved in the experimental group.

S .Jose et al (2013) – conducted a study to assess the effectiveness of hot water foot bath on level of fatigue among elderly patient. The aim of the study is to assess the level of fatigue among elderly patients. A total of 30 elderly patients with fatigue were selected by simple random sampling and were assigned to two groups, namely, control and experimental groups. The experimental group received hot water foot bath twice a day for three days and the control group received routine care. Their fatigue was measured by a numerical fatigue scale before as well as after the intervention in both groups. Data were analysed by using descriptive and inferential statistics. Result shows that Out of 15 samples in experimental group, 10(67%) are suffering from severe fatigue and 05(33%) are suffering from moderate fatigue. In control group, 07(46%) are suffering from severe fatigue and 08(54%) are suffering from moderate fatigue. The pre-test mean value of experimental group was 7.3 with 1.1 SD and the post-test

mean value was 4.1 with 1.4 S.D. The paired-t test reveals that there is effectiveness of hot water footbath on reducing the level of fatigue among elderly patients at the level of $P < 0.05$. The study concluded that the hot water foot bath is used for relieving the fatigue for elderly patients was effective .

Leila valizadeh (2015-) conducted a controlled clinical trial on comparing the effect of reflexology and footbath therapy on sleep quality in the elderly in Iran. The aim of study is to measures the quality of sleep and sleep pattern of the elderly. In this study 69 participants were selected in that 23 for control group ,23 for footbath and 23 for reflexology group .the data collection tool was a two part questionnaire that the 1st part included demographic and social information of the elderly and 2nd included the standard Pittsburgh sleep quality index. The result showed that Pittsburgh sleep quality index score after intervention compared to before it in the reflexology and foot bath group were statistically significant ($P = 0.01$, $P = 0.001$).the study concluded that warm water is effective to promote the sleep among elderly.

Kim HJ Lee Y (2016) – conducted the quasi experimental study on the measure of footbath therapy on quality of sleep in the order humans in nursing domestic in republic Korea .The aim of the study is evaluate the effectiveness of hot water foot bath therapy in improving quality of sleep. In this found out about 30 samples have been required .data gathered through sleep pattern and sleep disturbance behaviour have been in contrast based on crew, the usage of actography and a sleep sickness inventory the result shows that 30 min warm water foot bathing remedy intervention had been wonderful and too improve sleep pleasant in elder people.

Mr. Suneesh etel. (2017)- conducted an experimental study to assess the effectiveness of warm foot bath on sleep onset time among cancer patient with insomnia in Nath Lal Prakash Cancer Hospital at Rajkot .The aim of the study is to assess the insomnia among cancer patients with general sleep disturbance scale, to find the association between duration of sleep onset times of cancer patients with selected demographic variables. In this study 30 samples are selected and data was collected through general sleep disturbance scale. Data were analysed by using descriptive and inferential statistical methods .ANOVA (Analysis of variance) test was used among cancer patient with insomnia. The result show that the obtained value was 81.5 that was very highly significant at P level. > 0.001 . The study concluded that warm water foot bath helps in improving sleep onset time.

Weerakonatel. (2018)-conducted a cross sectional study on sleep quality among the elderly in rural Chiang Rai, in northern Thailand. The aim of the study is to characterize the prevalence of poor sleep quality and to identify associated factors among community dwelling elderly individuals. In this study 266 randomly selected elderly people the participants were interviewed using the Thai version of the Pittsburgh Sleep Quality index. Data were analyzed using statistical package for the social sciences 18.0. Result of this study roughly 44% of the participants had poor sleep quality (PSQI score >5). The study concludes that the majority of the participants have poor sleep quality and the hot water foot bath was found to be effective in improving the sleep quality of the elders.

Disha Sukesh bhai et al (2020) – conducted a study to assess the effectiveness of warm water foot bath therapy on quality of sleep among elderly people staying in old age home at selected central part of Gujarat. The aim of the study is to evaluate the sleep quality among old age people. A total 100 elderly people were selected by simple random sampling method that one group pre-test and post-test design. The all process of data collection was divided in two sections in which Section I contains socio-demographic variables. Section II contains PSQI scale. Administration of warm water foot bath therapy sessions for 15 to 20 min at bed time for 10 consecutive days. Data analysis was done by using inferential & descriptive statistics. The result shows that Out of 100 samples in pre-test, 0(0.0%) have mild sleep quality, 52(52.0%) have moderate sleep quality and 48(48.0%) have severe sleep quality. In post-test 15(15.0%) have mild sleep quality, 77(77.0%) have moderate sleep quality and 8(8.0%) have severe sleep quality. The pre-test mean value was 14.27 with SD 2.56 and the post-test mean was 10.86 with SD 2.74. Difference in between mean value of pre-test and post-test is 3.41 which are in favour of elderly people. The study concluded that there is effect of warm water foot bath therapy on improving sleep quality among old age people.

Mrs. Sonal Patel et al (2021) – conducted a study to assess the effectiveness of warm water foot bath therapy on quality of sleep among elderly. The aim of the study is to determine effectiveness of warm water footbath therapy in experimental and control group. Using non-probability purposive sampling technique were 120 elderly people was selected from the old age home in Vadodara. The Groningen Sleep Quality Scale was used. Obtained data was analyzed & interpreted by using mean, standard deviation & 't' test. The result shows that the effectiveness of warm water foot bath therapy in experimental group revealed that the pre-test mean was 9.97 ± 2.442 and post-test mean was 6.58 ± 2.540 with mean difference of 3.83. In

experimental group both pre & post quality of sleep compared using paired t-test revealed that ($t=7.439$, $DF=59$, $p=0.001$). The study concluded that warm water foot bath was effective in improving the quality of sleep in experimental group.

Arati et al, (2021) - conducted a study on effect of warm water foot bath therapy on quality of sleep among elderly. The aim of study is to improve the quality of sleep ,To evaluate the effectiveness of hot water foot bath therapy on level of quality of sleep among elderly .In this study 40 sample are selected the mean value of pre-existing sleeping quality (8.93) and standard deviation value (0.828) whereas mean value of post score of sleep quality (4.23).The result show the calculated t-value (14.75) and p-value (0.000) which is statistically interpreted the study concluded that the effectiveness of foot bath therapy among elderly was effective .

Ni Kadek Ari Santi et al (2021) -conducted a study to assess the effect of foot massage with lavender essentials oil on the sleep quality of the elderly in Banjar Gazumping, Indonesia The aim of this study to determine the effect of foot massage with lavender essential oil on the sleep quality of the elderly. The number of samples used was 20 respondents selected by purposive sampling and data collection using the Pittsburgh sleep quality index questionnaire with the test result analysed with Wilcoxon Sign Rank Test. The result showed that in pre-test all respondents experienced poor sleep quality, and post-test data obtained that 13respondents (65%) experienced good sleep quality. The results of data analysis using the Wilcox on Sign rank test showed that the p- value = 0,000 < α (0,05) .The study concluded that that there is an effect of foot massage with lavender essential oil on the sleep quality of the elderly in Banjar Gelumpang Sukawati village.

Arati Raut et al. (2021) – conducted a study to assess the effectiveness of warm water foot bath therapy on quality of sleep among elderly. The aim of the study is to determine the effectiveness of warm water foot bath therapy on quality of sleep among elderly. In this study the 60 older adults are selected based on inclusion criteria and were assigned to experimental and control group alternatively. The experimental group composed of 30 elder people and control group contained 30 elder people. The result shows that 30 sample had undisturbed sleep at night, whereas other 30 had disturbed sleep at night. The minimum score was 2 and the maximum score was 7 and the mean score was 4.23 ± 1.30 with a mean percentage of 30.2 %. There significant association between qualities of sleeps and age group. The Mean value of pre-existing sleeping quality is 8.93 and effectiveness of footbath therapy is 4.23 and standard

deviation value of pre-existing sleeping quality is 0.828 and effectiveness of footbath is 1.305. The calculated t-value is 14.75 and p-value is 0.000. The study concluded that it is statistically interpreted that the effectiveness of footbath therapy among elderly was effective

Mrs.Shweta Sendur etal (2021) – conducted a study to assess the effectiveness of warm water foot bath therapy on the quality of sleep among elderly in old age home Rajnandgaon Chhattisgarh .The aim of the study is to assess the pre-test and post-test level of quality of sleep among elderly.60 samples are selected ,one for pre-test and other for post-test the result shows that quality of sleep score in pre-test was 230 total mean 7.6 and total mean percent 25.33%and standard deviation was 2.35in post-test ,the total quality of sleep score was 190 ,total mean percent 21.1% and standard deviation was 2.03.the study concluded that the effectiveness of warm water foot bath therapy was effective .

Malarvizhi etal, (2022) -conducted a study to assess the hot water foot bath therapy on quality of sleep among elderly .The aim of study is to assess the pre-test and post –test quality of sleep among elderly in control and experimental group .In this his study 60 sample selected experimental group pre –test among 30 sample ;16 (53.3%) had poor sleep ,10(33.3%)had disturbed sleep and 4(13.3%) had good sleep .In post –test among 30 sample 6(20%)had poor sleep ,7(23.3%)had disturbed sleep and 17(56.7%)had good sleep .The finding of the study shows that the experimental group pre-test mean is 9.6 with the standard deviation of 3.3. In control group pre-test mean is 9.57 with the standard deviation of 3.37. The post-test mean is 8.8 with the standard deviation of 3.69. In the experimental group pre-test mean and standard deviation values are 9.6 and 3.3 respectively. The post-test mean value is 6.13, standard deviation is 3.45; mean difference between pre and post-test is 3.47; standard error is 0.397 and paired ‘t’ test value of experimental group is 8.71 which is highly significant. The study concluded that hot water footbath therapy is effective in improving the quality of sleep among the elderly.

Asha Bagalkote etal (2022) – conducted a study to assess the effect of hot water foot bath therapy on the quality of sleep among elderly patients admitted in Hanagal Shree Kumareshwar Hospital, Bagalkot. The aim of the study is to assess the quality of sleep among elderly patient in both control and experimental group .The total 50 subjects were selected through convenient sampling technique divided into 2 groups; 25each as experimental and control groups assigned through simple randomized sampling. Data was collected by means of structured questionnaire by interview schedule and the tool used was PSQI tool. Data was analysed by using descriptive

and inferential statistical in terms of mean, frequency distribution, percentage, t test and Fisher's exact test. The result shows that the 1 pre-test mean scores was 2.12 ± 0.23 (21.22%) in the experimental group and in the control group, overall pre- test mean score was 1.18 ± 0.337 (11.88%). The pre-test Knowledge score was not Statistically Significant between the Experimental and control group. T value ($r=1.076$) was higher than p value (0.647). The study concluded that hot water foot bath therapy among experimental group was effective.

Mr.Sudip Dasetal,. (2022) – conducted a quasi-experimental study to assess the effectiveness of hot water foot bath therapy on quality of sleep among the elderly in a selected old age home, Agartala , Tripura West. The objectives of the study are to assess the quality of sleep among the elderly and to determine the effectiveness of hot water foot bath therapy on quality of sleep among the elderly.40 samples were selected for the study, 20 for both experimental group and control group by convenient sampling technique .Sleep quality of the elderly in both experimental group and control group

Assessed using modified Groningen sleep quality scale .The result of the study revealed that paired 't' test between pre-test and post test score in experimental group showed significant increase in quality of score in experimental sleep ($t_{cal} = 15.86$, $p < 0.05$) as compared to control group ($t_{cal} = 0.53$, $p < 0.05$).

Unpaired 't' test between post-test group and control group revealed that there was significant increase in quality of sleep in experimental group as compared to control group ($t=5.09$, $p < 0.05$).The study concluded that hot water foot bath therapy is effective in improve the quality of sleep among the elderly

Dr.Sudhir Kumar khuntia (2023) – conducted a study to assess the effectiveness of hot water footbath therapy on the quality of sleep among elderly, staying in old age home at Chhattisgarh .The aim of the study is to assess the quality of sleep among elderly people. In this study 60 samples selected 30 for experimental group and 30 for control group .The result shows that pre-test mean score is (7.8) and post test score is (13.5) and standard deviations for pre-test is 1.6 and for post-test 1.8 the t value is 7.5, which is significant at $P=0.05$.The study concluded that the sleep is affected by certain factors and after receiving hot water therapy quality of sleep among elderly was improved.

MS .V.Sindhuja etal (2023) – conducted a study to assess the effectiveness of hot water foot bath therapy in reducing body temperature among patients with fever in medical ward at selected hospital ,Namakkal .The aim of the study is to assess the level of body temperature before and after hot water foot bath therapy in experimental and control group .in this study 60 samples were selected among that 30 in experimental group 30in control group by using

purposive sampling technique .The tool used for data collection was semi structured questionnaire.

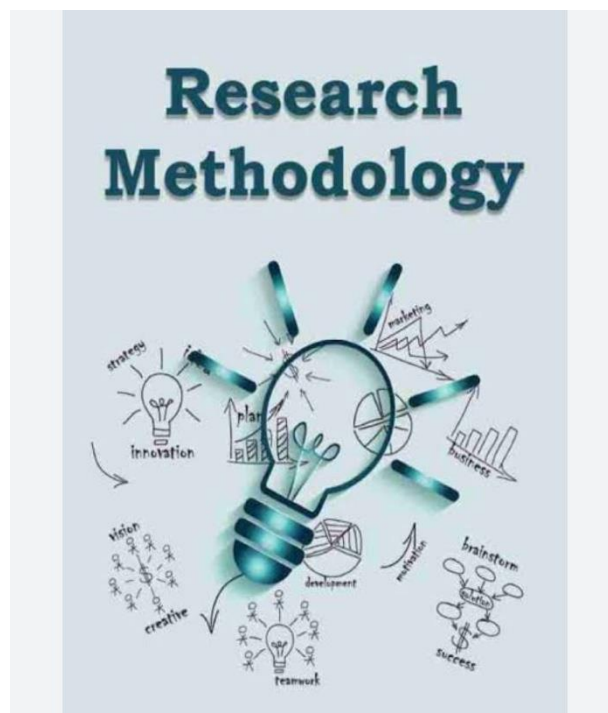
The result shows that in experimental group pre-test mean is 1.5 and post-test mean is 0.5.and in control group pre-test mean is 1.6 . The t value is 4.61 and p value 2.0. The study that after receiving hot water foot bath therapy, level of body temperature was reduced significantly.

Mrs .Vandana (2024)- Conducted a quasi-experimental study to assess the effectiveness of Hot water foot bath on the level of fatigue among elderly in selected old age homes of Amritsar, Punjab. The aim of the study is to assess the pre –interventional level of fatigue among elderly in experimental and control group. 60 samples selected who had fatigue. 30 elderly in experimental group and 30 control group were selected using probability sampling technique. The collected data was analysed by descriptive and inferential statistics. Study findings revealed that the mean difference between pre-interventional and post interventional level of fatigue in experimental group was found statistical significant at $p < 0.01$ with t value 15.375 and in control group it was found statistical non-significant at $p < 0.05$ with t value - 6.227.The study concluded that hot water foot bath is effective in reducing fatigue.

Lufina etal (2024) - conducted a study to assess the effectiveness of hot water foot bath therapy on the quality of sleep among elderly people at selected old age home, Dehradun. The aim of the study is to assess the pre-test and post-test quality of sleep among elderly in control and experimental group. A total of 40 participants, 20 each in the experimental and control group were enrolled by convenient sampling technique aged above 60 and fulfilled the selection criteria. Data was collected with the help of the PSQI Scale via Pen and Paper Personal Interview to evaluate the quality of sleep followed by a hot water bath in the evening for 10 days with a duration of 15–20 minutes once a day. A total score of 5 or less indicates good sleep quality, whereas a score of 5 or more indicates poor sleep quality. Analysis of data was done through descriptive and inferential statistics. The result shows that the mean pre-test sleep quality score (8.95 ± 2.277) was higher than the mean post-test sleep quality score (4.00 ± 0.973). The calculated' value ($t = 10.8, p < 0.05$) was higher than the tabulated value ($t_{19} = 2, p < 0.05$) hence the study concluded that hot water foot bath was effective in improving the quality of sleep among elderly people.

CHAPTER- 3

RESEARCH METHODOLOGY



CHAPTER -3

RESEARCH METHODOLOGY

Research methodology can be defined as ‘Research designed to develop or refine methods of obtaining, organizing or analysing data.’

Denise P. Polite (2008)

This chapter includes research approach ,research design ,variables ,settings ,population ,sample ,sample size ,sampling technique ,developing the tool ,content validity ,pilot study ,data collection procedure ,plan for data analysis and ethical consideration .The present study will be done to assess the effectiveness of warm water foot bath therapy on quality of sleep among elderly people.

RESEARCH APPROACH –Research approach is the plans and procedures that consist of broad assumption to detailed method of data collection, analysis and interpretation.

(Creswell 2015)

In this study, quantitative research approach will be used.

RESEARCH DESIGN –

It is a blue print for conducting a study that maximizes the control over factors that could interfere with validity of the findings.

The research design selected for this study is quasi –experimental research design to assess the effectiveness of warm water foot bath therapy on quality of sleep among elderly staying in old age home at Gorakhpur.

	Pre-test	Intervention	Post-test
Experimental group	O1	X	O2
Control group	O3	-	O4

O1 -It indicates experimental group pre-test.

X -It indicates intervention.

O2 –It indicates experimental group post-test.

O3 – It indicates control group pre test

O4 – It indicates control group post test

RESEARCH VARIABLES-

Variables are qualities, properties or characteristics of a person, themes or situation that must change and vary.

(Suresh k Sharma)

RESEARCH VARIABLES-

Variables included in this study were:-

Dependent variables:

It depends on the value that results from the independent variables.

In this study dependent variables are quality of sleep.

Independent variables:-

It is the variables that change in experiment. In this study independent variables are Hot water foot bath therapy.

Extraneous variables –

It is a variable that can influence the relationship between the independent variables and the dependent variables.

In this study extraneous variables include Age, Gender, Religion, Previous occupation, marital status, Economic status, any bad habits, Types of family, Hours of sleep

SETTING OF THE STUDY: -

Setting is a place where a particular research study will be conducted.

The study will conduct in Mother Teresa old age home Padari bazar, satabdipuram colony, Gorakhpur, distance from Guru Shri Gorakshnath College of Nursing Balapar to old age home Gorakhpur is 11 km. Total population is 65.

It was established in 1997, it provides various facilities including shelter, food, medical care, emotional support, recreational activities.

STUDY POPULATION: -

Population refers to the entire set of individual or objects having some common characteristics.

TARGET POPULATION-

People who had suffering from insomnia in selected old age home at Gorakhpur.

Sample-Sample is a group of people, object, item that are taken from a large population for measurement.

In this study sample is old age peoples between the age group of 60 and above staying at Mother Teresa old age home Padri bazar, Satabdipuram colony, Gorakhpur.

Sample size-

In this study sample size is 60 elderly people suffering from insomnia.

Experimental group 30 and control group 30 sample.

Sampling techniques –

It is concerned with choosing a subject of individual from statistical population to estimate characteristics of the whole population.

In this study non –probability convenient sampling technique will be used.

CRITERIA FOR SAMPLE SELECTION-

Inclusion criteria –

- People aged above 60 years.
- People who all are willing to participate in this study.

- People who are available at the time of data collection.
- People who are able to understand either English or Hindi.

Exclusion Criteria:

- People who are not willing to participate in the study.
- People who are taking medication for sleep.
- People who are having lack of sensation in foot.
- People who are having more frequency of urination at night.
- People who are below 60 years.
- People who are critically ill.

RESEARCH METHODOLOGY

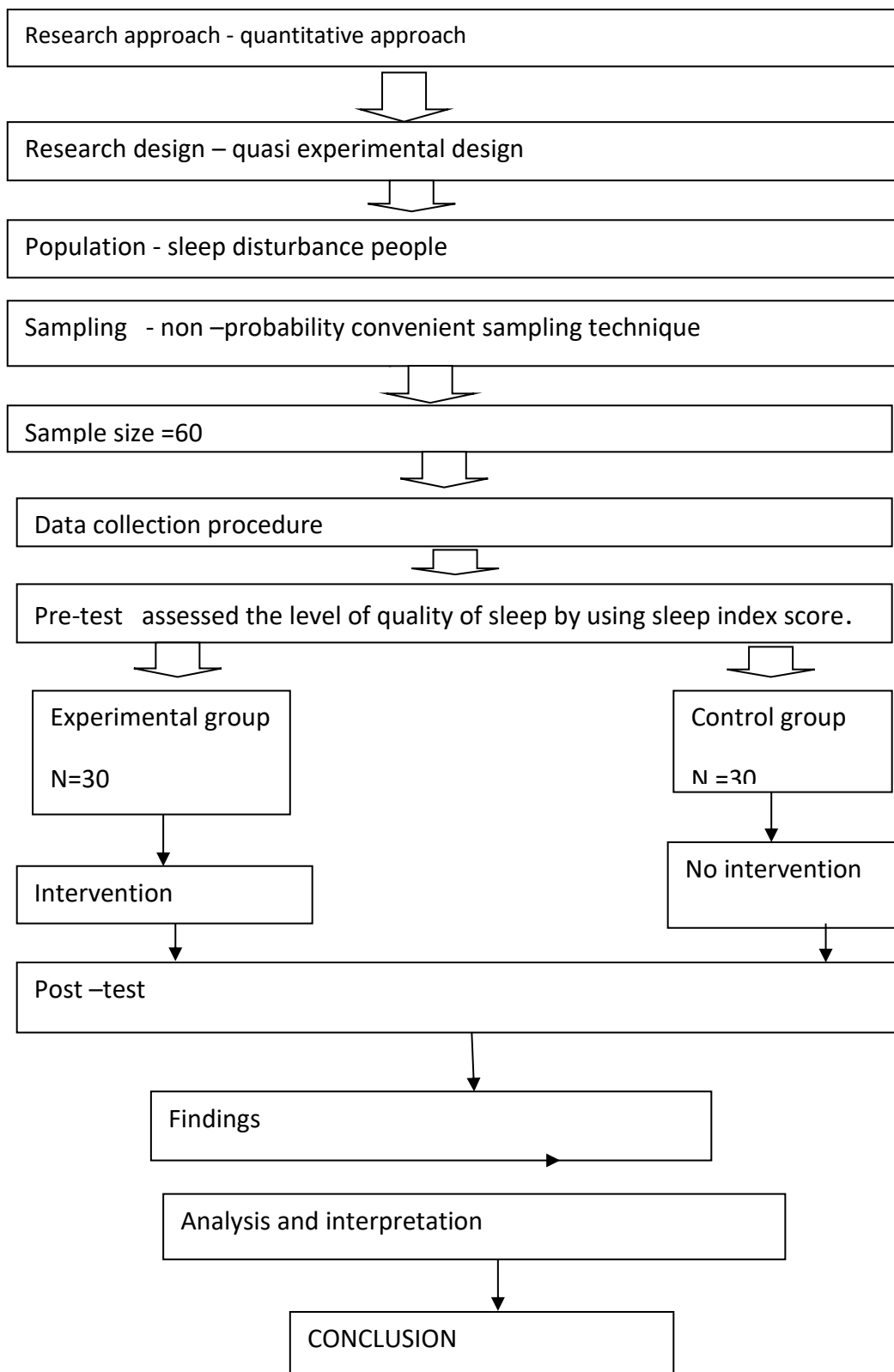


Fig show Systematic presentation of research methodology

TOOLS AND INSTRUMENTS

Selection and development of the tool-

A tool is device that researcher used to collect the data.

It was prepared on the basis of objective of the present study. The main purpose of developing of tool is to assess the effectiveness of hot water foot bath therapy for promoting quality of sleep among elderly people of old age home.

Description of tools-

The tool consists of two sections.

SECTION A- Demographic variable consists of Age, Gender, Religion, previous education, Marital status, economic status, any bad habits, Types of family, Hours of sleep, previous place of residence.

SECTION B-Instrument to assess sleep is sleep quality scale

Validity: - It refers to an instrument or test actually testing what it is supposed to be testing.

(Suresh k Sharma)

The content of the tool was validated by one medical expert 3 nursing expert ,1 statistician .The expert's suggestion were incorporated and the tool was finalized and used by the investigator for the main study .

Reliability: - The reliability of research instrument is defined as the extent to which the instrument yields the same result on repeated measures. The reliability of sleep quality scale is 0.849.

PILOT STUDY – pilot study was done among six samples those who are available in Guru Shri Gorakshnath old age home at Gorakhpur to find the feasibility of the study and sample size was selected. The study was conducted on 01/03/2025 to 3/03/2025. After obtaining written permission from the higher authority, the sample was selected by using inclusive criteria. The effectiveness of foot bath therapy on quality of sleep among elderly staying in old age home. The collected data was analysed and tabulated by descriptive and inferential statics. The finding of study indicates that in pre -test mean was 54.3 and post – test mean was 37.6

and the standard deviation was 40.54 and the calculated t value was 8.812 and the table t value was 4.30. For control group the pre- test mean was 34.33 and the post- test mean was 34.33.

DATA COLLECTION PROCEDURE: -

Data collection process is the systematic gathering of information relevant to the research purpose or specific objective of the study.

After obtaining formal ethical clearance from the Director of Mother Teresa old age home, Gorakhpur. The data collection procedure was conducted for 7days.60 samples was collected according to the inclusion criteria, inform consent was taken from the samples .sleep quality score was assessed using sleep quality score scale.

METHOD OF DATA COLLECTION

PRE-TEST: Pre-test was done for 30samples with the help of structured questionnaire to assess the effectiveness of the foot bath therapy among elderly peoples staying at old age home.

INTERVENTION: Researcher implemented hot water foot bath therapy; the group were gained good sleep.

POST – TEST: After the foot bath therapy, the data was collected by using structured questionnaire.

PLAN FOR DATA ANALYSIS

Analysis is the process of organizing and synthesizing the data so as to answer research question. Data was analysed using both descriptive and inferential statistics.

Descriptive statistics –It summarizes and describes data from a population.

Frequency and percentage distribution was used to analyse the demographic variables.

Mean and standard deviation was used to analyse the demographic variables.

Inferential statistics -It use samples to make predictions about the population.

Paired t-test was used to evaluate the effectiveness of pre –test and post-test sleep quality score.

Chi square test was used to find out the association of pre-test sleep quality score in group with selected demographic variables.

ETHICAL CONSIDERATION:-

Written permission was obtained from committee of Guru Shri Gorakshnath College of Nursing. Permission was taken from director of old age home, Gorakhpur. Informed consent was taken from each participant who is willing. Confidentiality and anonymity of the subject was obtained.

CHAPTER- 4

ANALYSIS AND INTERPRETATION



CHAPTER -4

ANALYSIS AND INTERPRETATION

Analysis is the process of organizing and synthesizing the data in such a way that the research question can be answered. The purpose of the analysis is to reduce the data to an intelligently and interpret from so that the co-relation of research can be studied .The present study was aimed to assess the effectiveness of hot water foot bath therapy on quality of sleep among elderly .Collected data was tabulated ,analysed and interpreted using descriptive and inferential statistics .

Objectives –

1. To assess the frequency and percentage distribution of sample.
2. To assess the quality of sleep among the sample before foot bath therapy among experimental and control group.
3. To assess the quality of sleep among the sample after foot bath therapy among experimental group.
4. To compare pre- test and post- test of experimental and control group.
5. To assess the effectiveness of hot water foot bath therapy among sample.
6. To find out the association between posts –test score of experimental group with their selected demographic variables.

ORGANIZATION OF FINDINGS –

SECTION-A: Frequency and percentage distribution of sample based on selected demographic variables.

SECTION-B: Frequency and percentage distribution of the sample based on Pre-test sleep quality scale score

SECTION C: Frequency and percentage distribution of sample based on Post-test sleep quality scale score.

SECTION D: Evaluate the effectiveness of hot water foot bath therapy on quality of sleep among the sample.

SECTION E: Association between the post-testt sleep quality scale score with selected demographic variables.

1. FREQUENCY AND PERCENTAGE DISTRIBUTION OF SAMPLE BASED ON DEMOGRAPHIC VARIABLES –

(A) Distribution of sample according to age group-

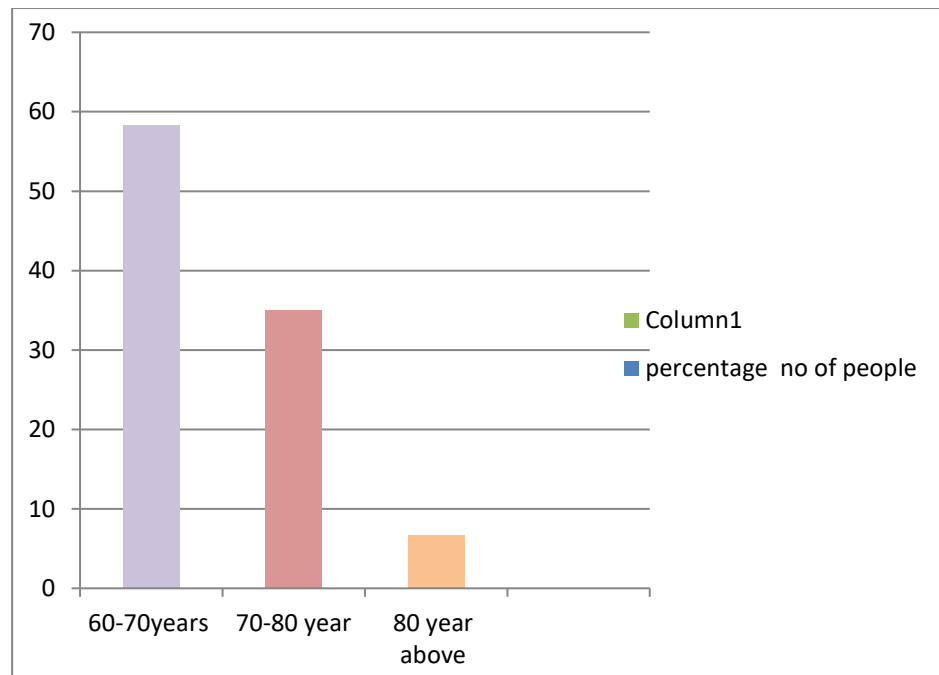


FIG -1 The above bar diagram indicates that 58.33%(35) of the sample were in the age group of 60-70years ,35% (21)of the sample were in the age group of 70-80years ,6.66% (4)of the sample were in the age group of 80 years and above .

(B)Distribution of sample according to gender –

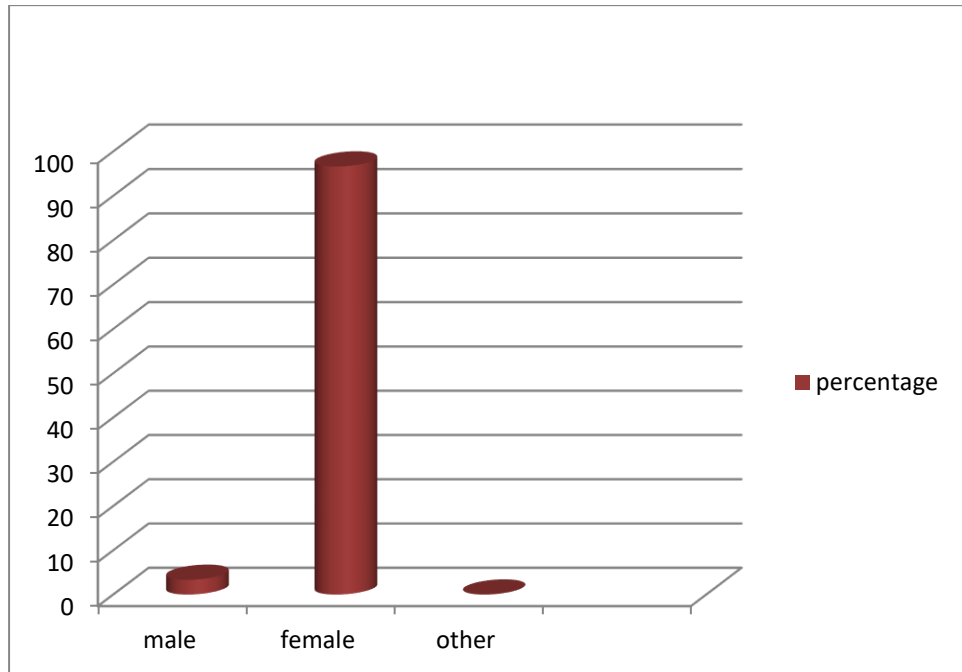


FIG -2 The above bar diagram indicates that 3.33 % (2) of the sample were male and 96.6% (58) of the sample were female and 0 % (0) of the sample were transgender.

(c) Distribution of sample according to religion –

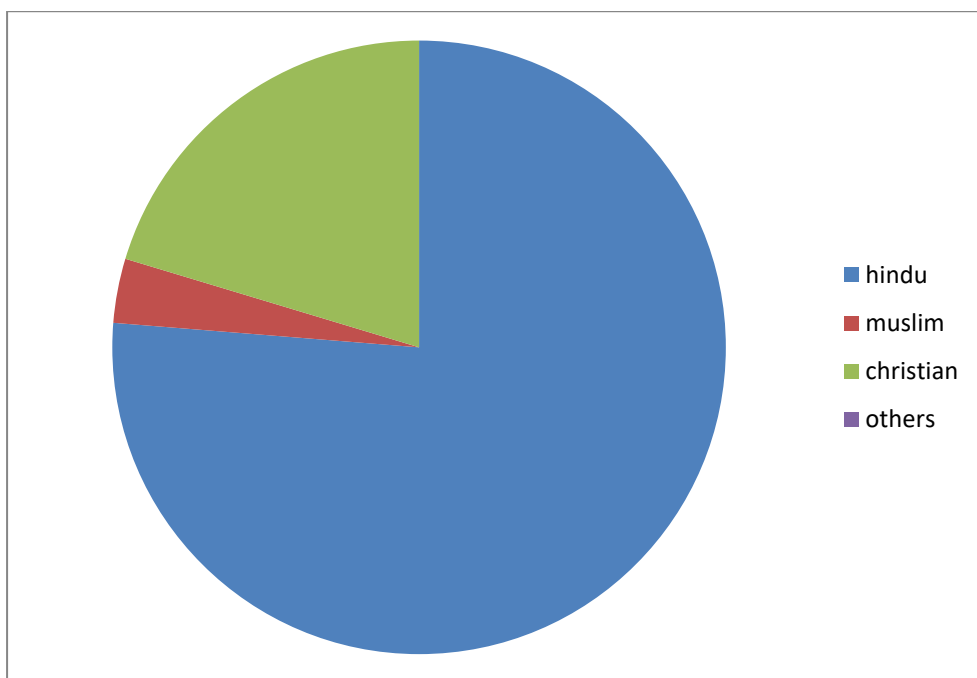


FIG -3 The above pie chart indicates that 75% (45)of the samples were Hindu, 3.33% (2)of the samples were Muslim, 20%(12) of the samples were Christian and 0%(0)of the samples were others.

(D)Distribution of sample according to occupation –

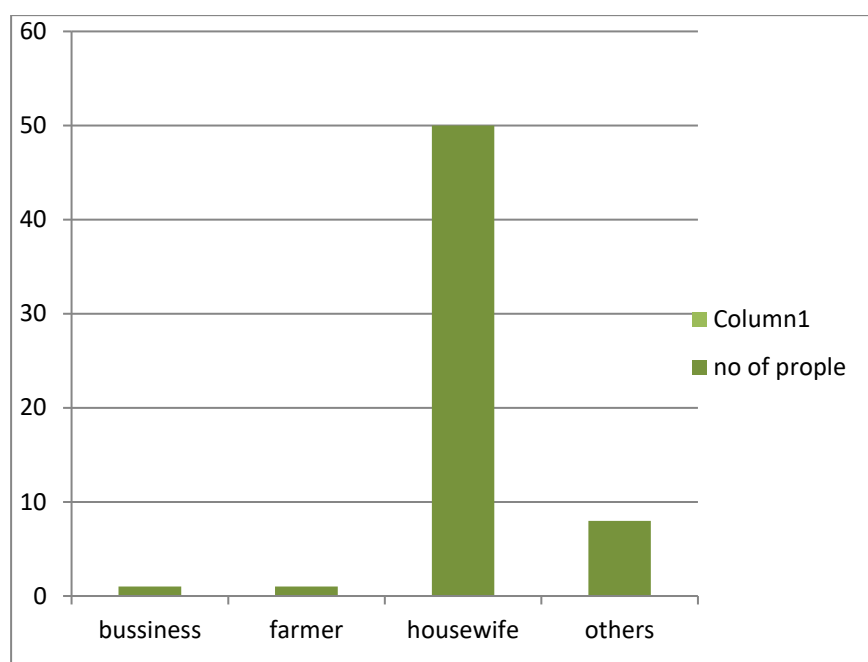


FIG-4 The above bar diagram indicates that 1.66% (1)of the sample was worked as business, 1.66% (1) of the samples were farmer, 83.3% (50) of the samples were housewife and 13.3%) of the samples were others.

(E) Distribution of sample according to marital status –

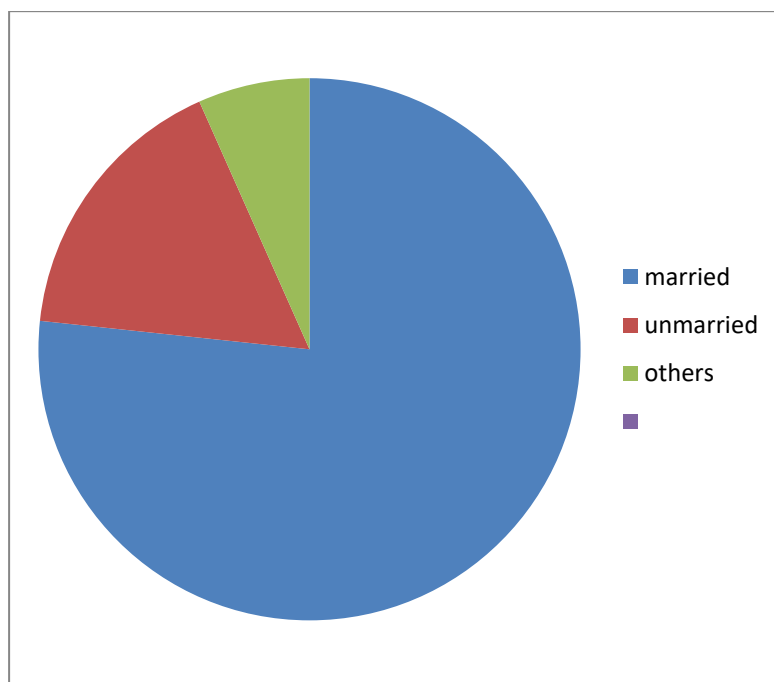


FIG-5The above pie diagram indicates that93.3 % (56) of the sample were married, 5% (3) of the sample were unmarried and 1.6% (1) of the sample were others.

(F) Distribution of sample according to any bad habits –

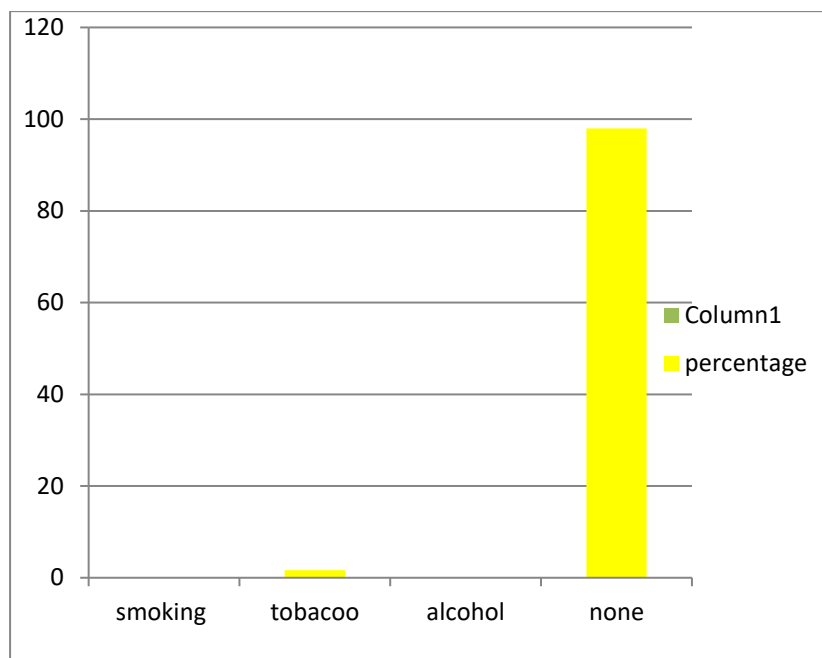


FIG -6 The above bar diagram indicates that 0%(0) of the sample were non-smoker ,1.66 % (1)of the sample were taking tobacco ,0% (0)of the sample were not taking alcohol ,and 98.3% (59)of the samples were not having any bad habits .

(G) Distribution of sample according to hours of sleep –

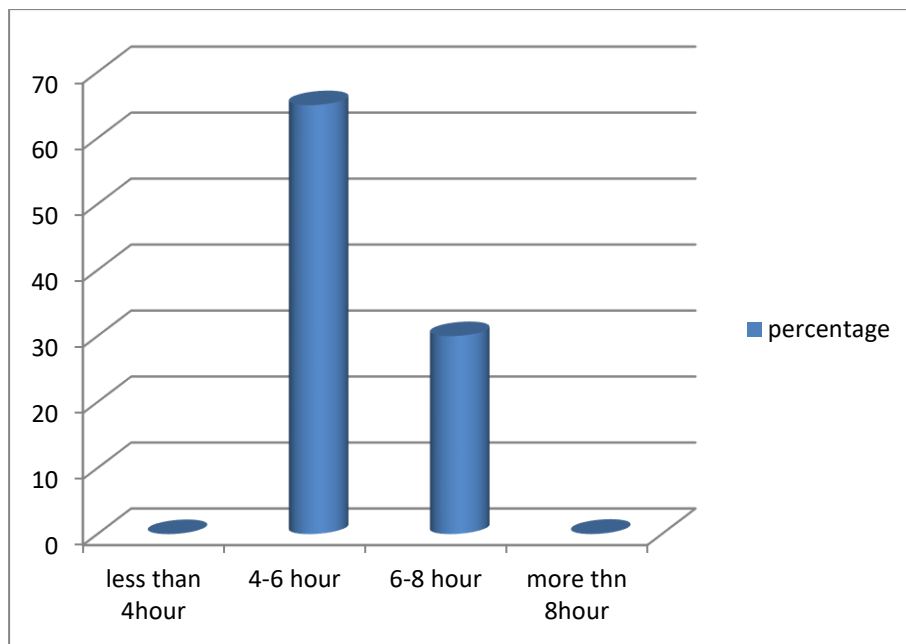


FIG-7 The above bar diagram indicates that 0%(0) of the sample were having less than 4 hour of sleep, 65% (39)of the sample were having 4-6 hour of sleep ,30 % (18)of the sample were having 6-8 hour of sleep and 5%(3) of the sample were having more than 8 hour sleep .

(H) Distribution of sample according to years of stay in old age home

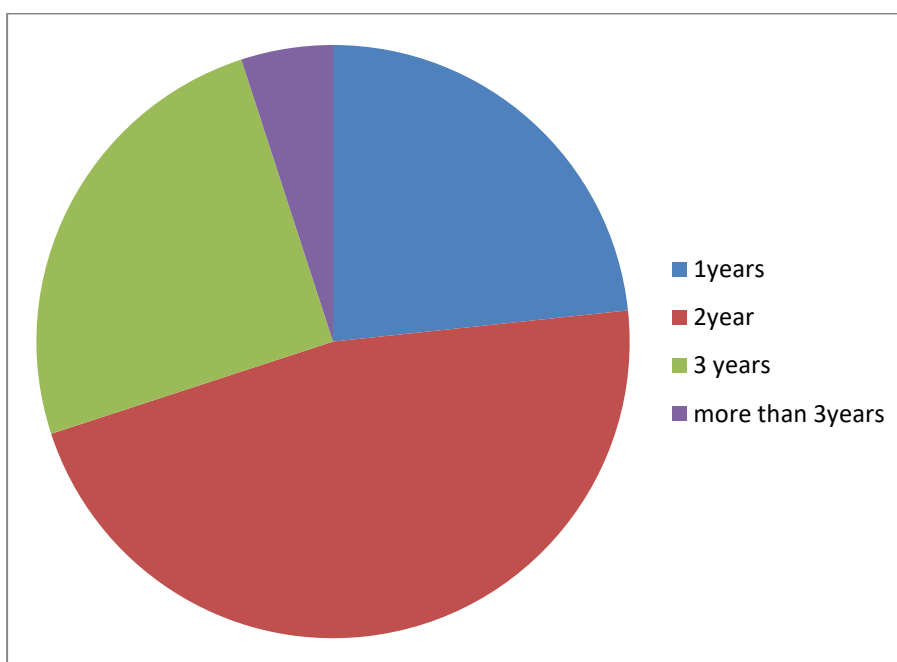


FIG -8 The above pie diagram indicates that 23.3% (14) of the sample were staying in old age home from 1 years, 46.6%(28) of the sample were staying in old age home from 2 years, 25%(15) of the sample were staying in old age home from 3 years and 5% (3) were stay in old age home more than 3 years.

SECTION-B

Frequency and percentage distribution of sample before intervention.

N=60

Quality of sleep	Control group		Experimental group	
	Frequency	Percentage	Frequency	Percentage
Poor sleep	18	60%	17	56.66%
Disturbed sleep	10	33.33%	12	40%
Good sleep	2	6.66%	1	3.33%

Among 30 samples of experimental group pre-test 56.66 %(17) of the sample were having poor sleep and 40 %(12) of the sample were having disturbed sleep and 3.33% (1) of the were having good sleep. Among 30 samples of control group pre-test 60% (18) of the samples were having poor sleep, 33.33% (10) samples were having disturbed sleep and 6.66% (02) samples were having good sleep.

SECTION -C

Frequency and percentage distribution of post –test sleep quality score among the elderly in the experimental and control group.

Sleep quality score	Control group		Experimental group	
	N	N%	N	N%
Poor	18	60%	3	10%
Disturbed	10	33.33%	12	40%
Good	2	6.66%	15	50%

Among 30 samples of control group post-test 60% (18) of the samples were having poor sleep 33.33% (10) of the samples were having disturbed sleep and 6.66% (2) of the samples were having good sleep.

SECTION –D

Evaluate the effectiveness of hot water foot bath therapy on quality of sleep among experimental and control group

n=60

Group		Mean	Mean difference and SD	Df	Calculated t value	P value
Experimental group	Pre-test	54.36	21.7	29	2.295	2.045
	Post-test	32.66	SD=124.47			
Control group	Pretest	59.23	0			
	posttest	59.23				

In experimental group pre –test the mean is 54.36 and posttest mean is 32.66 the mean difference between pre –test and post-test is 21.7 the standard deviation of experimental group is 124.47 and the degree of freedom is 29, the calculated t value is 2.295 and table t value is 2.045 .hence it signifies that the calculated t value is greater than the table t value. In control group the pre-test mean is 59.23 and the post-test mean is 59.23 so the mean difference is 0.

SECTION -E

Association between the posttest score with their selected demographic variables in experimental group

n=60

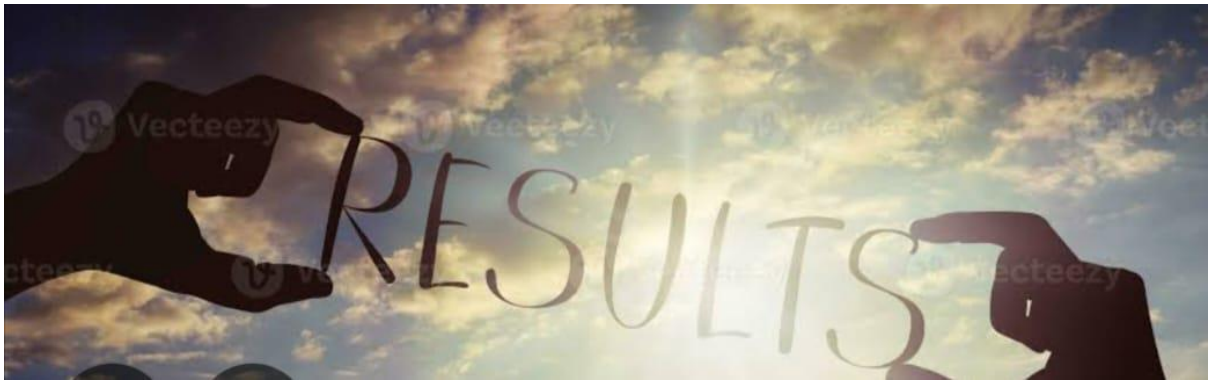
S.no	Demographic variables	Chi square	df	P value	Inference (P<0.05)
1	Age (in year)	14.06	3	7.87	significance
2	Gender	1.081	2	4.30	Non significance
3	Religion	3.10	4	9.488	Non significance
4	Previous occupation	11.96 9	3	7.87	significance
5	Marital status	1.76	3	7.87	Non significance
6	Any bad habits	0.96	3	7.87	Non significance
7	Hours of sleep	0.2487	3	7.87	Non significance
8	Years of stay in old age home	19.2	4	5.99	Non significance

(p<0.05)

Chi square was calculated to find out the association between the pre-test values with their selected demographic variables. Significant association was found between the demographic variables among sample such as age, occupation(P<0.05).Non significant association was found between gender, religion, marital status, any bad habits, hours of sleep, tears of stay in old age home

CHAPTER-5

RESULTS



CHAPTER -5

RESULT

SECTION –A

This chapter deals with the result of the study in relation with the objectives.

- The primary aim of the study was to assess the effectiveness of hot water foot bath therapy on the quality of sleep among elderly peoples staying in old age home at Gorakhpur, Uttar Pradesh

OBJECTIVES:-

- To assess the frequency and percentage distribution of sample based on selected demographic variables.
- To assess the quality of sleep among the sample before hot water foot bath therapy among experimental and control group.
- To assess the quality of sleep among the sample after hot water foot bath therapy among experimental group.
- To compare pre- test and post- test of experimental and control group.
- To assess the effectiveness of hot water foot bath therapy among sample.
- To find out the association between posts –test score of experimental group with their selected demographic variables.

Result:

FREQUENCY AND PERCENTAGE DISTRIBUTION OF SAMPLE BASED ON DEMOGRAPHIC VARIABLES

- ❖ Among 60 samples 58.33%(35) of sample were in the age group of 60-70years ,35%(21) of the sample were in the age group of 70-80years ,6.66%(4) of the sample were in the age group of 80 years and above
- ❖ Among 60 samples 3.33 %(2) of the sample were male and 96.6 %(58) of the sample were female and 0 %(0) of the sample were transgender.
- ❖ Among 60 samples 75 %(45) of the samples were Hindu, 3.33 %(2) of the samples were Muslim, 20% (12)of the samples were Christian and 0 %(0) of the samples were others.
- ❖ Among 60 samples 1.66 %(1) of the sample was worked as farmer, 1.66 %(1) of the samples were business,83.3 %(50) of the samples were housewife and 13.3 %(8) of the samples were others.
- ❖ Among 60 samples 93.3% (56) of the sample were married, 5 %(3) of the sample were unmarried and 1.6 %(1) of the sample were others.
- ❖ Among 60 samples 0%(0) of the sample were nonsmoker ,1.66 %(1) of the sample were taking tobaccos ,0%(0) of the sample were not taking alcohol ,and 98.3% (59)of the samples were not having any bad habits .
- ❖ Among 60 samples 0% (0)of the sample were having less than 4 hour of sleep 65%(39) of the sample were having 4-6 hour of sleep ,30 %(18) of the sample were having 6-8 hour of sleep and 5%(3) of the sample were having more than 8 hour sleep .
- ❖ Among 60 samples 23.3%(14) of the sample were stay in old age home from 1 years ,46.6%(28) of the sample were stay in old age home from 2 years ,25%(15) of the sample were stay in old age home from 3 years and 5%(3) were stay in old age home more than 3 years .

SECTION -B

Distribution of sample in Pre-test according to sleep quality score among the elderly in the experimental and control group.

Among 30 samples of experimental group pre-test 56.66 %(17) of the sample were having poor sleep and 40%(12) of the sample were having disturbed sleep and 3.33%(1) of the samples

were having good sleep. Among 30 samples of control group pre-test 60%(18) of the samples were having poor sleep ,33.33%(10) samples were having disturbed sleep and 6.66%(2) samples were having good sleep .

SECTION -C

Distribution of sample in post –test according to sleep quality score among the elderly in the experimental and control group.

Among 30 samples of experimental group post-test 10%(3) of the sample were having poor sleep 40%(12) of the samples were having disturbed sleep and 50%(15) samples were having good sleep . Among 30 samples of control group post-test 60%(18) of the samples were having poor sleep , 33.33%(10) of the samples were having disturbed sleep and 6.66% (2) of the samples were having good sleep

SECTION -D

ASSOCIATION BETWEEN THE PRE-TEST WITH SELECTED DEMOGRAPHIC VARIABLES

Chi square was calculated to find out the association between the pre-test values with their selected demographic variables.

Significant association was found between the demographic variables among sample such as age, occupation.

CHAPTER-6

CONCLUSION



DISCUSSION, SUMMARY AND CONCLUSION

DISCUSSION

- The present study was aimed to assess the effectiveness of hot water foot bath therapy on the quality of sleep among elderly peoples staying in old age home at Gorakhpur.

HYPOTHESIS

H1: There will be a significant difference in pre-test and post -test score of experimental and control group.

H2: There will be a significant association between pre –test and post-test score of experimental and control group among elderly staying in old age home with selected demographic variables.

OBJECTIVES :

The first objective was to assess the pre-test sleep quality score among sample staying in old age home.

Among 30 samples of experimental group pre-test 56.66 %(17) of the sample were having poor sleep and 40 %(12) of the sample were having disturbed sleep and 3.33 %(1) of the samples were having good sleep. Among 30 samples of control group pre-test 60 %(18) of the samples were having poor sleep, 33.33% (10) samples were having disturbed sleep and 6.66 %(2) samples were having good sleep.

The second objective was to assess the post-test sleep quality score among sample staying in old age home.

Among 30 samples of experimental group post-test 10% (3) of the sample were having poor sleep 40% (12) of the samples were having disturbed sleep and 50%(15) samples were having good sleep . Among 30 samples of control group post-test 60%(18) of the samples were having poor sleep , 33.33%(10) of the samples were having disturbed sleep and 6.66%(2) of the samples were having good sleep.

The third objective was to assess the effectiveness of footbath therapy on quality of sleep among selected samples staying in old age homes.

In experimental group pre –test the mean is 54.36 and post-test mean is 32.66 the mean difference between pre –test and post-test is 21.7 the standard deviation of experimental group is 124.47 and the degree of freedom is 29, the calculated t value is 2.295 and table t value is 2.045 .hence it signifies that the calculated t value is greater than the table t value. In control group the pre-test mean is 59.23 and the post-test mean is 59.23 so the mean difference is 0.

The fourth objective was to find out the association between pre-test sleep quality score with selected demographic variables.

Chi square was calculated to find out the association between the pre-test values with their selected demographic variables. Significant association was found between the demographic variables among sample such as age, occupation.

SUMMARY

The investigation of present study focused to assess the effectiveness of hot water foot bath therapy on the quality of sleep among elderly peoples staying in old age home at Gorakhpur, Uttar Pradesh.

The conceptual framework adopted for the study was based on General System Theory of “Ludwig Von Bertalanffy” (1968)

The research design used in the study was quasi –experimental research design, and non – probability convenient sampling technique was adopted to select the sample according to the inclusion criteria .Data collection was done by using sleep quality score scale.

A pilot study was conducted to assess the feasibility for conducting the main study and it was done with 6 samples .The setting for main study was Mother Teresa Old Age Home ,Padari bazar ,satabdipuram colony ,Gorakhpur ,Uttar Pradesh .The data collection for main study was done on 18 /04/25 & 2/05/25. The researcher used non probability convenient sampling technique and selected 60 peoples who met with inclusion criteria .Prior to data collection permission was obtained from concerned authority for conducting main study; confidentiality was assured to all subjects.

CONCLUSION

The study was aimed to assess the effectiveness of hot water foot bath therapy on the quality of sleep among elderly peoples staying in old age home at Gorakhpur, Uttar Pradesh.

Peoples improved their sleep quality after implementing foot bath therapy

Among 30 samples of experimental group pre-test 56.66 % (17) of the sample were having poor sleep and 40 % (12) of the sample were having disturbed sleep and 3.33% (1) of the were having good sleep. Among 30 samples of control group pre-test 60% (18) of the samples were having poor sleep, 33.33% (10) samples were having disturbed sleep and 6.66% (02) samples were having good sleep. Among 30 samples of experimental group post-test 10% (3) of the sample were having poor sleep 40% (12) of the samples were having disturbed sleep and 50% (15) samples were having good sleep. Among 30 samples of control group post-test 60% (18) of the samples were having poor sleep, 33.33% (10) of the samples were having disturbed sleep and 6.66% (2) of the samples were having good sleep. In experimental group pre –test the mean is 54.36 and post-test mean is 32.66 the mean difference between pre –test and post-test is 21.7 the standard deviation of experimental group is 124.47 and the degree of freedom is 29, the calculated t value is 2.295 and table t value is 2.045. hence it signifies that the calculated t value is greater than the table t value. In control group the pre-test mean is 59.23 and the post-test mean is 59.23 so the mean difference is 0.

NURSING IMPLICATION

- ❖ After analysing the gathered information, the researcher got to know the facts regarding hot water foot bath therapy.
- ❖ The findings of the present study have implicated in fields of nursing practices, nursing knowledge, nursing administration and nursing research.

NURSING PRACTICE

- ❖ Nurses are key personnel of a health team, who play a major role in the health promotion and maintenance. Nursing is a practicing profession so ,the investigator, generally integrates findings into practice.
- ❖ Nurse practitioner need to encourage the peoples for following the hot water footbath therapy to increase sleep quality.

NURSING ADMINISTRATION

- ❖ Nurse administration should take responsibility of assessing the level of sleep quality score among the people.
- ❖ Nurse administration should assume leadership roles in providing foot bath therapy in improving sleep quality score.

NURSING EDUCATION

- ❖ Nursing education should prepare nurses with the potential for imparting health information effectively and assisting the health care professionals.
- ❖ Nurse educator should instruct the health care professionals regarding foot bath therapy.

NURSING RESEARCH

- ❖ Nurse researcher would help to expand the scientific body of professional knowledge upon which further researcher can be conducted.
- ❖ The same study can be repeated among more samples to bring evidenced base practice.
- ❖ The nurse researcher should publish her study result in conference, workshop or through other medias, more studies can be conducted in this are in order to strengthen the role of nurse.

LIMITATION

The present study has the following limitations-

- ❖ Sample, selected for the study had been limited to setting only
- ❖ Prescribe data collection period was only one week.
- ❖ The study will be limited only to the people age group between 60 to above 80 years.

RECOMMENDATION

Based on findings of the study –

- ❖ The study can be replicated in large sample size.
- ❖ The study can be replicated for other age group population.
- ❖ Similar study can be done in different setting and in different population
- ❖ A comparative study can be done between two groups.

REFERENCE



REFERENCE

Book reference

- ❖ Sharma Suresh K.(2017) “textbook of Nursing research and statistics. 2nd edition. New Delhi. Jaypee brother’s medical publishers, Page no- 46-48.
- ❖ Basvanthappa B.T (2014) “textbook of nursing research “3rd edition, New Delhi, jaypee brother medical publisher (pvt) ltd.
- ❖ Lewis SL. Medical-surgical nursing: assessment and management of clinical problems. 7th ed. St. Louis: Elsevier
- ❖ Suddharth Brunner. “Textbook of medical surgical nursing. 12th edition. New Delhi. Wolter Kluver publications; 2010, page no230, 285.
- ❖ M.joyee Hokinson HAWKS black. “Textbook of medical surgical nursing, “Philadelphia Mosby Elsevier publication 2011.
- ❖ Burns N, grove SK., (2007), understanding Nursing Research.4th edition, Missouri; Elsevier’s publication, New Delhi 167.
- ❖ C.R. Kothari (2004), research methodology, 2nd edition, volume 1, jaypee brother’s publisher (pvt) ltd., New Delhi 184-186.
- ❖ D. Elakkuvana Bhaskar raj. (2012), nursing research and biostatistics, 2nd edition, medical publisher (pvt) ltd, New Delhi, Bangalore 113,288.
- ❖ Polit land Beck, (2004), nursing research principles and methods, 6th edition, Philadelphia; Lippincott company, 278-279,309-328.

- ❖ Neerja KP,”Textbook of mental health nursing volume 1st, edition1st, published by jaypee brother’s publication.
- ❖ Seenidurai P, Introduction to nursing research ;sampling 1st edition ,jaypee brothers medical publisher (pvt) ltd New Delhi ;2014
- ❖ G.B, bare & Smeltzer, C.S;(2009); textbook of medical surgical nursing; volume 1st, edition 11th, Philadelphia; Lippincott company.
- ❖ Barbara, H.M,(1997); Statistical methods for health care research;3rd edition, Philadelphia, Lippincott page no 62-78.
- ❖ Bernadette, P.H,& Denise, P.E,(1999),textbook of nursing research ,principles and method,5th edition ,Philadelphia; Lippincott ,page no 184-198.

Journals

- ❖ Wen Chun Lia etal (2005) A Effect of foot bath on distal –proximal skin temperature; International journal Nursing Studies. 2005; 42(7); 71-73.
- ❖ Buysse DJ, etal. Recommendations for a standard research assessment of insomnia. Sleep. 2006; 2 9:1155-1173.
- ❖ Kuo, H etal (2009). Quality of sleep and related factors in the old age. Journal of Formosa Medical Association, 105:64-69.
- ❖ Koike. etal (2010). A study on effect of steam water foot bath on geriatric in-patients with cognitive impairment. Japanese journal of pediatrics, 8: 543-548.

- ❖ Amagai Y, etal (2010). Sleep duration and incidence of cardiovascular events in a Japanese population: the Jichi Medical School cohort study. *J Epidemiology*, 2010;20 (2):106-10.

- ❖ S. Jose Amala Anilda etal (2013) Effectiveness of Hot Water Foot Bath on Level of Fatigue among Elderly Patient, *International Journal of Science and Research (IJSR)* ISSN (Online): 2319-7064.

- ❖ Priya, M. etal (2014). A Study To Assess The Effectiveness Of Hot Water Foot Bath Therapy In Reducing Body Temperature Among Patients With Fever In Medical Wards In Rajiv Gandhi Government General Hospital, Chennai-03.(pp 8) (dissertation).

- ❖ Tian, etal (2015). Sleep status of elderly and predictors of poor sleep quality during adjuvant therapy. *Supportive Care in Cancer*. (23) 5: 1401-1408.

- ❖ Kim, etal.(2016) “The effects of footbath on sleep among the older adults in nursing home: A quasi-experimental study.” *Complementary therapies in medicine* vol. 26 (2016): 40 6. 10
 ○ .

- ❖ Keisuke Suzuki, etal (2016) Sleep disorders in the elderly: Diagnosis and management, *journal of general and family medicine*, 2017; 18:61–71.

- ❖ Arshpreet Kaur C. etal (2017) Effectiveness of Warm Water Foot Bath on Quality of Sleep among Hospitalized Patients, *International Journal of Health Sciences & Research*, Vol.7; Issue: 10; October 2017.

- ❖ Gulia K.K, etal (2017) Approach to sleep disorders in the traditional school of Indian medicine. *Complementary and alternative medicine*. In Chokroverty S, ed. *Sleep Disorders Medicine*, 4th edition: Springer Science Business Media, New York, 2017; 1221– 1231.

- ❖ Praharaj, S. K. etal (2018). Clinical Practice Guideline on Management of Sleep Disorders in the Elderly. *Indian journal of psychiatry*, 60(Supple 3), S383–S396.

- ❖ Bha George et.al (2018), a community based cross sectional Study on sleep quality and associated psychosocial factors among elderly in a rural population of Kerala, India, International Journal of Community Medicine and Public Health, Feb;5(2):526- 531

- ❖ Crystal Jayllene A. etal (2018) Effects of Footbath in Improving Sleep Quality among Filipino Elderly from a home-forthe-aged institution in NCR Philippines, Journal of Social Health Volume 1 Issue 1, February 2018, Article page no 31-55.

- ❖ Malarvizhi, Karthi R etal (2019). A study to assess the effectiveness of hot water foot bath therapy on quality of sleep among elderly staying in selected old age home at Villupuram district, Tamilnadu. International Journal of Science & Healthcare Research.2019; 4(4): 83-88.
- ❖ Reynolds, A. C etal (2019). Treatment of sleep disturbance in older adults. Journal of Pharmacy Practice and Research, 49(3), 296–304. <https://doi.org/10.1002/jppr.1565>

- ❖ Anjana D.etal (2020). Effect of warm water foot bath therapy on quality of sleep among elderly people literature review. Indian journal of applied research, 10 (2249), 45.

- ❖ Arati, R., etal (2021). Effectiveness of Warm Water Foot Bath Therapy on Page 101 Quality of Sleep among Elderly. Indian Journal of Forensic Medicine & Toxicology.

- ❖ Das, S., etal. (2021). A Quasi Experimental Study to Assess the Effectiveness of Hot Water Foot Bath Therapy on Quality of Sleep among the Elderly in Selected Old Age Home, Agartala, Tripura West. American Journal of Nursing Research, 9(4), 125-132.

NET REFERENCE: -

- ❖ <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>.
- ❖ <https://doi.org/10.52403/ijshr.2022012>.
- ❖ <https://www.singlecare.com/blog/news/sleep-statistics/>.
- ❖ http://www.inrein.com/ijshr/IJSHR_Vol._
- ❖ <http://www.en.m.wikipedia.org>.
- ❖ <http://www.researchgate.com>.
- ❖ <https://www.slideshare.net>.
- ❖ <http://nursingtheory.org>.
- ❖ <http://www.sciencedirect.com>.
- ❖ <http://www.pubmed.com>.
- ❖ <http://www.who.int/mediacentre/factsheets/fs318/en>.
- ❖ <http://www.who.int>.
- ❖ <http://ajner.com>.
- ❖ <https://doi.org/10.4103/0019-5545.224477>.
- ❖ <https://doi.org/10.1002/jppr.1565>.

APPENDIX



APPENDIX -A

LETTER SEEKING PERMISSION TO CONDUCT PILOT STUDY

To,

The principal,

Guru Shri Gorakshnath College of Nursing

Arogya Dham Balapar Road, Sonbarsa Gorakhpur

Through the guide

Subject: - Letter seeking permission for doing pilot study in Guru shri Gorakshnath old age home, Gorakhpur.

Respected Ma'am,

We are the Basic BSc. Nursing 4th year (group -13) student of Guru Shri Gorakshnath College of Nursing, working on a research project titled, "A study to assess the effectiveness of hot water foot bath therapy on quality of sleep among old age people staying in old age home Gorakhpur.

Therefore, we request you to kindly provide permission from 31-3-25 to 2-4-25. We will be highly obliged.

Thanking you!

Your sincerely,

Divya Mishra

Radha Singh

Ashu
31/3/25 for principal ma'am

D. S. G. Singh
31/3/25

APPENDIX –B

LETTER GRANTING PERMISSION TO CONDUCT PILOT STUDY

Phone : 0551-2250045
www.gsgsn.in
E-mail : gsgcon99@gmail.com

 **GURU SHRI GORAKSHNATH COLLEGE OF NURSING**
Arogya Dham, Balapar Road, Sonbarsa, Gorakhpur-273007 (U.P.)
Recognised by : INDIAN NURSING COUNCIL, NEW DELHI
Affiliated to : UP STATE MEDICAL FACULTY, LUCKNOW

Ref: GSGCON/1024/2025 Date: 31/03/2025

To,
The Director,
Guru Shri Gorakshnath old Age home
Chhapiya, Naushad, Gorakhpur

Subject: -Letter seeking permission for doing pilot study.

Respected Sir,

We are the Basic B.Sc. Nursing 4th year student of Guru Shri Gorakshnath College of Nursing, working on a research project titled, "A study to assess the effectiveness of foot bath therapy on quality of sleep among old age people staying in old age home Gorakhpur.

we request you to kindly provide permission to conduct pilot study, we will be highly obliged.

Thanking you!

Your sincerely,

Divya Mishra *Divya Mishra*
Radha Singh *Radha Singh*

Forwarded
D.S. Upadhyay
Principal
Guru Shri Gorakshnath
College of Nursing
Balapar Road, Sonbarsa, Gorakhpur
31/3/2025

APPENDIX -C

LETTER GRANTING PERMISSION TO CONDUCT MAIN SYUDY

गुरु श्री गोरक्षनाथ कालेज ऑफ नर्सिंग
महायोगी गोरखनाथ वि विद्यालय गोरखपुर परिसर
आरोग्यधाम, बालापार रोड, सोनबरसा, गोरखपुर 273007

दिनांक 18.4.2025

Ref. No. G85C/HP/18/2025

To,
The Director,
Mother Teresa old Age home
Padari Bazar, Satabdipuram Gorakhpur

Subject: -Letter seeking permission for doing main study.

Respected Sir,

We are the Basic B.Sc. Nursing 4th year student of Guru Shri Gorakshnath College of Nursing, working on a research project titled," A study to assess the effectiveness of foot bath therapy on quality of sleep among old age people staying in old age home Gorakhpur.

we request you to kindly provide permission to conduct main study, we will be highly obliged.

Thanking you!

Your sincerely,

Divya Mishra *Divya Mishra*
Radha Singh *Radha Singh*

Coordinator
for- Indu Chaudhary
18.4.25

Dr. Souren K.C.

APPENDIX –D

TOOL VALIDATION CERTIFICATE

We hereby certify that we have validated tool of (group-13) Basic B.Sc. Nursing who is undertaking “A study to assess the effectiveness of hot water foot bath therapy on the quality of sleep among elderly peoples staying in old age home at Gorakhpur, Uttar Pradesh.”

Signature

Place

Name and designation

Date

CONTENT VALIDATION CERTIFICATE

We hereby certify that we have validated tool of (group-13) Bsc .nursing student who is undertaking " A study to assess the effectiveness of hot water foot bath therapy on the quality of sleep among elderly peoples staying in old age home at Gorakhpur."

Signature - Anil Kumar Jaiswal

Place - Gkp

Name and designation Dr. Anil Kumar Jaiswal, (CMDQS)
EMO

Date - 29/03/25

CONTENT VALIDATION CERTIFICATE

We hereby certify that we have validated tool of (group-13) Bsc .nursing student who is undertaking " A study to assess the effectiveness of hot water foot bath therapy on the quality of sleep among elderly peoples staying in old age home at Gorakhpur."

Signature - Anurag

Place - MGU G, Gorakhpur

Name and designation - Dr. ANURAG KUMAR, EMO

Date - 29/03/2025

CONTENT VALIDATION CERTIFICATE

We hereby certify that we have validated tool of (group-13) Bsc .nursing student who is undertaking " A study to assess the effectiveness of hot water foot bath therapy on the quality of sleep among elderly peoples staying in old age home at Gorakhpur."

Signature - Dishruti
29/03/2025

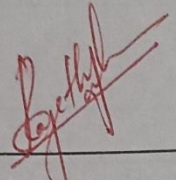
Place - Gorakhpur.

Name and designation - Dr. Visheshla Chauhan. (Corse. Dept.)

Date - 29/03/2025.

CONTENT VALIDATION CERTIFICATE

~~We~~ hereby certify that ~~we~~ have validated tool of (group-13) Bsc .nursing student who is undertaking " A study to assess the effectiveness of hot water foot bath therapy on the quality of sleep among elderly peoples staying in old age home at Gorakhpur."

Signature - 

Place - Gkp

Name and designation - Rajisha . R . M , Assoc . Professor

Date - 28/8/25

CONTENT VALIDATION CERTIFICATE

We hereby certify that we have validated tool of (group-13) Bsc .nursing student who is undertaking " A study to assess the effectiveness of hot water foot bath therapy on the quality of sleep among elderly peoples staying in old age home at Gorakhpur."

Signature - Indu Chaudhary
25.3.25

Place - Gorakhpur

Name and designation - Dr. Indu Chaudhary (Tutor)

Date - 25.3.25

APPENDICS- E

TOOL

SECTION – A

DEMOGRAPHIC VARIABLES

INSTRUCTION :Place a tick in given box against the following items,which are suitable in the place provided.

1 - Age in years

a – 61 -70 year ()

b- 71- 80 years ()

c –Above 81years ()

2- Gender

a –Male ()

b -Female ()

c- Others ()

3- Religion

a –Hindu ()

b -Muslim ()

c -Christian ()

d –Others ()

4- Previous Occupation

a –Farmer ()

b –Business ()

c –Housewife ()

d – Others ()

5-Marital status

a –Married ()

b –Unmarried .()

c – Others ()

6 -Any bad Habits

a -Smoking ()

b -Tobacco chewing ()

c –Alcohol ()

d –Others ()

7- Hours of sleep

a- 3-4Hours ()

b- 4- 5hours ()

c- 5-6 hour ()

d -More than 6 hours ()

8 – Since how many year staying at old age home ?

a – 1 year ()

b - 2 year ()

c - 3 year ()

d – More than 3 years ()

SECTION- B

S.NO		Rarely 1	Sometimes 2	Often 3	Almost always 4
1	I have difficulty falling a sleep				
2	I wake up while sleeping				
3	I have difficulty getting back to sleep				
4	I wake up easily because of stress				
5	I never go back to sleep after awakening during sleep				
6	I feel fresh after sleep				
7	I feel unlikely to sleep after sleep				
8	Poor sleep gives me headache				
9	I would like to sleep more after waking up				
10	My sleep hours are not sufficient				
11	Poor sleep make me frustated				
12	Poor sleep disturb my daily routine				
13	Poor sleep make me to think more				
14	Poor sleep affect my interest in work				
15	My sleep and fatigue are relieved after sleep				
16	Painful life due to sleep				
17	Regaining vigor after sleep				
18	Increase of mistake due to poor sleep.				
19	Difficulty in concentration due to poor sleep				

APPENDIX -F

खंड – क:

1. आयु (वर्षों में):

क. 61–70 वर्ष ()

ख. 71–80 वर्ष ()

ग. 81 वर्ष से ऊपर ()

2. लिंग:

क. पुरुष ()

ख. महिला ()

ग. अन्य ()

3. धर्म:

क. हिन्दू ()

ख. मुस्लिम ()

ग. ईसाई ()

घ. अन्य ()

4. पूर्व व्यवसाय:

क. किसान ()

ख. व्यवसाय ()

ग. गृहिणी ()

घ. अन्य ()

5. वैवाहिक स्थिति:

क. विवाहित ()

ख. अविवाहित ()

ग. अन्य ()

6. कोई बुरी आदतें:

क. धूम्रपान ()

ख. तम्बाकू चबाना ()

ग. शराब ()

घ. अन्य ()

7. नींद के घंटे:

क. 3-4घंटा ()

ख. 4-5 घंटे ()

ग. 5-6 घंटे ()

घ. 6 घंटे से अधिक ()

8. वृद्धाश्रम में रहने की अवधि (वर्षों में):

क. 1 वर्ष ()

ख. 2 वर्ष ()

ग. 3 वर्ष ()

घ. 3 वर्ष से अधिक ()

APPENDIX-G (खंड – खः)

यह उपकरण चोल शिन तथा सहयोगियों द्वारा विकसित किया गया था और उसे संशोधित किया गया नींद गुणवत्ता संबंधी कथन (प्रत्येक के लिए 1-4 स्कोर):

S.no		शायद ही कभी-1	कभी- कभी-2	अक्सर- 3	लगभग हमेशा-4
1	मुझे सोने में कठिनाई होती है				
2	मैं नींद के दौरान जाग जाता हूँ				
3	मुझे दोबारा सोने में कठिनाई होती है				
4	तनाव के कारण मैं आसानी से उठ जाता हूँ				
5	जागने के बाद मैं फिर नहीं सो पाता				
6	मैं नींद के बाद ताजगी महसूस करता हूँ				
7	नींद के बाद मुझे दोबारा सोने की इच्छा नहीं होती				
8	खराब नींद से मुझे सिरदर्द होता है				
9	जागने के बाद मुझे और सोने की इच्छा होती है				
10	मेरी नींद के घंटे पर्याप्त नहीं होते				
11	खराब नींद से मैं चिड़चिड़ा हो जाता हूँ				
12	खराब नींद मेरे दैनिक कार्यों में बाधा डालती है				
13	खराब नींद मुझे ज्यादा सोचने पर मजबूर करती है				
14	खराब नींद मेरे कार्य में रुचि को प्रभावित करती है				

15	नींद के बाद मेरा तनाव एवं थकान कम हो जाते हैं				
16	नींद के कारण जीवन कष्टमय हो जाता है				
17	नींद के बाद मैं पुनः ऊर्जा से भर जाता हूँ				
18	खराब नींद के कारण मेरी गलतियाँ बढ़ जाती हैं				
19	खराब नींद के कारण ध्यान केंद्रित करने में कठिनाई होती है				

APPENDIX –H
CONSENT FORM(ENGLISH)

STUDY TITLE:-“A study to assess the effectiveness of hot water foot bath therapy on quality of sleep among elderly staying in old age home at gorakhpur,uttar pradesh .”

RESEARCHER

We Divya Mishra and Radha Singh student of B.Sc.Nursing 4th year of Guru Shri Gorakshnath College Of Nursing ,Gorakhpur hereby consent to take part in the research project entitled-

“”

- 1.information of the study has been given to me and I have understood it so far it affect me.
2. I understood that if I participate in this study ,I will have to give tests .
3. I understood that information gained during research study may be published in front of report or journal articles,my personal result will not identify in anyway in this publication.
4. I understood that I may withdraw from the research project at any stage
5. I understood that for this research study I do not have to pay money to research project .

Signature.....

Date

Researcher to complete

We B.Sc.Nursing 4th year students certify that I have explained the nature and procedure of the research project toand consider that she /he understood what is involved.

Signature

Date

सम्मति पत्र

अध्ययन का शीर्षक- "गोरखपुर, यूपी के ग्रामीण क्षेत्र में वृद्धजनों में होने वाले नींद रोगों के स्तर को रोकथाम के लिए प्राचीनतम साधनों विशेष रूप से गर्म पानी के पैरों के स्नान की प्रभावशीलता का आकलन करने के लिए एक अध्ययन"।

गोपनीयता-

हम दिव्या मिश्रा, राधा सिंह, गुरु श्री गोरखनाथ कॉलेज ऑफ नर्सिंग गोरखपुर की बी.एससी. नर्सिंग चतुर्थ वर्ष की छात्रा हैं और इस शोध परियोजना में भाग लेने के लिए सहमत हैं।

1. अध्ययन की जानकारी मुझे दी गई है और मैं इसे समझता हूँ, और यह इसका मुझे पर क्या प्रभाव पड़ेगा इसे भी समझता हूँ।
2. मैं समझता हूँ कि मैं इस अध्ययन में भाग लेता हूँ तथा मुझे परीक्षा देनी होगी।
3. मैं समझता हूँ कि इस अध्ययन के दौरान प्राप्त जानकारी की रिपोर्ट को प्रकाशित या प्रस्तुत करते समय मेरी पहचान गुप्त रखी जाएगी। तथा व्यक्तिगत परिणामों को इस प्रकार से प्रस्तुत किया जाएगा कि मुझसे पहचान नहीं की जाएगी।
4. मैं समझता हूँ कि किसी भी स्तर पर शोध परियोजना से हट सकता हूँ।
5. मैं समझता हूँ कि इस अध्ययन के लिए मुझे शोध परियोजना के लिए पैसे नहीं देने हैं।

हस्ताक्षर -.....

तारीख -.....

शोधकर्ता को यह करना है -

हम बीएससी नर्सिंग चतुर्थ वर्ष के नर्सिंग छात्रा प्रमाणित करते हैं कि मैंने उन्हें शोध परियोजना की प्रकृति और प्रक्रिया के बारे में समझा दिया है... और मानते हैं कि वह समझ गए हैं कि इसमें क्या शामिल है।

हस्ताक्षर

तारीख.....