Nursing



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

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ABSTRACT BACKGROUND: 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 homes.

**OBJECTIVES:** (1) To evaluate the sleep quality among elderly people. (2) To examine the effectiveness of warm water foot bath remedy on sleep quality among elderly. (3) To find out the association between quality of sleep with selected socio-demographic variable of old age people. **METHODOLOGY:** A total 100 elderly people were selected by simple random sampling method that one group pre test post test design. The process of data collection was divided in two sections in which Section I contains socio-demographic variables. Section II contains modified 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.

**RESULTS:** 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 2.56and 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 favor of elderly people. The paired-t test reveals that there is effect of warm water foot bath therapy on improving sleep quality among old age people at the level of < 0.001.

Conclusion: warm water foot bath therapy can be effective non pharmaceutical, noninvasive therapy to improving the sleep quality among old age people.

KEYWORDS : Warm Water Foot Bath Therapy, Sleep Quality, Old Age People.

# 1. INTRODUCTION

To every human being sleep is the basic need ; it is a universal biological process for all people. A sleep is s considered as a state of unconsciousness. A sleep has come to be considered as an altered state of consciousness in which the individuals reaction and perception to the environment are suppressed.<sup>1</sup>

A sleeping disorder is depicted as an abstract complaint of deficient nighttime rest. It is the most well-known rest disorder articulated with the guide of matured individuals. Although alterations in sleep patterns are endemic amongst this population, sleep problems are hardly ever assessed in a traditional patient evaluation. Furthermore, sufferers frequently fail to mention signs to their caregiver, and when sleep is assessed, it is normally in the form of a single question. As a result, insomnia is often unrecognized and untreated. (Graci.G 2005)<sup>2</sup>

Warm water foot bath provides a better sleep, because foot bath therapy relaxes the body and mind. This therapy works by increasing the body temperature after 15 minutes, it starts to drop slowly. This therapy can promote to the sleep indirectly and Gradual drop of body temperature makes drowsy to everyone and therefore everyone feel more sleep. This warm footbath therapy is also providing blood from the head to lower parts of body, it leads to decrease brain activity and mimics the pre-sleep state.<sup>3</sup>

Sleep disturbance is reported to be a significant problem for patients across older age people.

A warm-water footbath therapy is a regional and wet warmth application. It is a non invasive and handy method to use it at home. That ensuring that helping provisional support that a warm-water footbath therapy relieves fatigue and insomnia issues of historical age people. It is a non pharmaceutical method to help humans end up fatigue and sleep problems.

# 2. NEED FOR THE STUDY

Sleep may not come easily to many older people. Older People with health problems face not only the physical consequences of the disease and its treatment, but often tremendous emotional upheaval. Since physical illness and psychological distress both predict insomnia, patients may be prone to sleep difficulties. When older people are surveyed about their concerns, sleep difficulty typically ranks among the top three concerns, along with fatigue and pain.<sup>4</sup>

Ageing is a customary phenomena and it is considered the ordinary

inevitable biological process. It has been described as a 'progressive decline in the physiological capacity main to a decreased ability to adapt to stressors' – the loss of adaptability of an individual organism over time. The world population of the aged human beings is growing all over the world which was once estimated at 600 million in the yr 2000. It is expected to attain 1.4 billion in 2030. Of this rise, extra than half of will be in Asia.<sup>4</sup>

In India, the range of men and women aged 60 years and over used to be 12 million at the turn of century. This has multiplied six fold to about 71 million in 2001 and is expected to be currently in the vicinity of 80 million. The proportion of populace aged 60 years and above is also rising. It was once 5.63% in 1961, 7.1% in 2001, and is required to be 9.8% in 2021. This makes India a "turning gray" country, with the expansion expense of matured area being more prominent than the development cost of the people overall. It is expected that by using 2021 the increase fee of aged will be 1.5 times greater than the growth rate of popular population.<sup>5</sup>

Lack of sleep effectually affects a person's working capacities. Regardless of whether he is healthy or not, adequate unwinding and rest is vital for ideal, substantial and mental working of the person. Without adequate amount of rest and rest, the capacity to focus, make decisions and partake in consistently exercise diminishes. During sickness there may moreover be real or useful rest aggravations, and this absence of rest stretches out the time expected to recuperate from disease. Subsequently, for the evil and the old, unwinding and rest ought to be seen as one of the essential segments of their treatment.<sup>6</sup>

It is found that various non-pharmacological techniques like back massage, relaxation, imagery and music audiotape are effective in promoting sleep in elderly people. One can relax without sleeping, but sleep rarely occurs until one is relaxed. A commonly used relaxation technique is Progressive Muscle Relaxation Therapy, which teaches to rest effectively and to reduce tension in the body. <sup>6</sup>

A quasi experimental study was conducted on 32 elderly in an old age home in Kerala about the effect of relaxation therapy on quality of sleep. The pre-intervention data was collected on the first day using a structured interview schedule and sleep pattern was observed using an observation checklist. For the next two days, relaxation therapy was given and data was collected. The findings have shown that the mean subjective assessment of quality of sleep score in post-test was higher than pre-test score and found that the relaxation therapy was an effective method to improve the quality of sleep.<sup>7</sup> The effort of today is "not to heal, but to protect and prolong ageing."According to this, the aged persons should be as healthy as possible and reasonably meaningful conforming to the WHO slogan "it is not sufficient to add years to life, but it is more important to add life to years". The investigator's personal experience with the elderly made her realize the importance of promoting sleep by nursing interventions and other measures and designed a study with life style modifications to promote sleep among elderly.

#### **3. STATEMENT OF THE PROBLEM**

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

## **OBJECTIVES**

- To evaluate the sleep quality among old age people.
- To examine the effect of warm water footbath remedy on sleep quality among old age people.
- To find out association between sleep quality with selected sociodemographic variable of old age people.

## HYPOTHESIS

1H<sub>a</sub>: There will be no significant difference in between mean quality of sleep outcome of old age people before and after warm water foot bath therapy at p<0.05 level of significance.

2H<sub>a</sub>: There will be no significant association in between quality of sleep & selected socio-demographic variables of elderly people at p<0.05 level of significance.

#### 4. METHODS AND MATERIALS USED

The lookup strategy adopted for this study used to be quantitative approach by using the use of Pre-Experimental study .The study were managed at selected old age home at central part of Gujarat with 100 samples which are selected by simple random sampling method. Sample size was calculated by power analysis. The process of data collection was divided in two sections in which Section I contains socio-demographic variables and Section II contains modified PSQI scale. Administration of warm water foot bath therapy sessions for 15 to 20 min at bed time. The warm water foot bath therapy was continued for 10 days. Pilot learn about used to be carried out to investigate the feasibility of the tool. Data analyses were completed the usage of inferential and descriptive statistics.

## 5. RESULTS

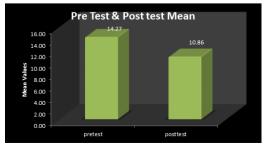
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## Table: 1 Distribution of Elderly people according to the Quality of sleep

| Quality of sleep       | Pre-Test  |       | Post-Test |       |
|------------------------|-----------|-------|-----------|-------|
|                        | frequency | %     | frequency | %     |
| Mild sleep quality     | 0         | 0.00% | 15        | 15.0% |
| Moderate sleep quality | 52        | 52.0% | 77        | 77.0% |
| Severe sleep quality   | 48        | 48.0% | 8         | 8.0%  |

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 2.56and the post test mean was 10.86 with SD 2.74. Difference in between mean of pretest & post-test is 3.41 which is in favor of elderly people.

## Graph: 1 Compare the effect of warm water foot bath therapy on quality of sleep among elderly people



The paired-t test reveals that there is effect of warm water footbath remedy on improving sleep quality among old age people at the level of<0.001

Researcher felt warm water foot bath therapy can be effective non pharmaceutical, non invasive therapy to improving sleep quality among old age people.

## 7. RECOMMENDATION

- A similar study can be conducted to enhance external validity of the study.
- A similar study can also use for qualitative approach or mix method on feeling of elderly people in the old age homes.

#### **ETHICAL CLEARENCE**

The study was approved by the research committee, IEC - 10/05/2019-ARIP/IEC/19/14 and a formal written permission was gathered from the authority of old age home.

## STATEMENT OF INFORMED CONSENT

Informed consent was obtained from the participants

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