

# A Society for All Ages Encompasses the Goal of Providing Older Person with the Opportunity to Continue Contributing to Society. To Work Towards this Goal, it is Necessary to Remove Whatever Excludes or Discriminates against Them

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**Abstract:** *Introduction and Background of the Study:* Madrid International plan of action on ageing Background of the Study 2002. Hutchinson-Gilford (2005), Aging and disease are related in subtle and complex ways. [1]Several conditions that were once thought to be part of aging have now been shown to be due to disease process that can be influenced by life style. Commonly the old age people are prone to get disturbed sleep pattern. [2] There is a change in physiological and psychological patterns as the person ages and this may result in changes in sleep cycle which can be a result of any acute or chronic disease or any underlying factors that are causing stress. In addition, age causes changes in our response to environmental stresses or exposure, such as ultra violet light, heat, not enough oxygen, poor nutrition.[3,4,] Age also interferes with an important process called apoptosis, which programs cells to self-destruct or die at appropriate times, and also all the systemic functions too are getting slowed down due to the physiological changes. *Background of the Study:* Studies conducted by National sleep Foundation 2008 [5, 6, 7]. Along with the physical changes that occur as we get older, changes to our sleep patterns are a part of the normal aging process. As people age they tend to have a harder time falling asleep and more trouble staying asleep than when they were younger. It is a common misconception that sleep needs decline with age. [8,9]In fact, research demonstrates that our sleep needs remain constant throughout adulthood. So, what's keeping seniors awake? Changes in the patterns of our sleep - what specialist's call "sleep architecture" - occur as we age and this may contribute to sleep problems.[10,11] Sleep occurs in multiple stages including dreamless periods of light and deep sleep, and occasional periods of active dreaming (REM sleep). [12, 13]The sleep cycle is repeated several times during the night and although total sleep time tends to remain constant, older people spend more time in the lighter stages of sleep than in deep sleep. Many older adults, though certainly not all, also report being less satisfied with sleep and more tired during the day.

**Keywords:** Geriatrics Old age Sleep disturbances Yoga Sleep Older Adult REM Sleep Quality

## 1. Need for the Study

Nearly half of older adults report difficulty initiating and maintaining sleep. With age, several changes occur that can place one at risk for sleep disturbance including increased prevalence of medical conditions, increased medication use, age-related changes in various circadian rhythms, and environmental and lifestyle changes.[14] Although sleep complaints are common among all age groups, older adults have increased prevalence of many primary sleep disorders including sleep-disordered breathing, periodic limb movements in sleep, restless legs syndrome, [15,16] rapid eye movement (REM) sleep behavior disorder, insomnia, and circadian rhythm disturbances. [17, 18]. The present review discusses age-related changes in sleep architecture, etiology, presentation, and treatment of sleep disorders prevalent among the elderly and other factors relevant to ageing that are likely to affect sleep quality and quantity.

## 2. Problem Statement

“A pre experimental Study to assess the effectiveness of structured teaching (STP) programme on relaxation therapy ( YOGA) in sleep disturbances among the old age people

residing at the old age home in the year 2015 at Damoh (M.P)”

## 3. Objectives of the Study

- To assess the pre-test knowledge on relaxation therapy (YOGA) in sleep disturbances among the old age people.
- To assess the post-test knowledge on relaxation therapy (YOGA) in sleep disturbances among the old age people.
- To compare between pre-test and post-test knowledge score on relaxation therapy in sleep disturbances among the old age people.
- To associate the pre-test knowledge score on relaxation therapy in sleep disturbances among the old age people with their selected demographic variables.

### Hypotheses

The entire hypothesis will be tested at 0.05 level of significance

**H1-** Mean post test score on sleep disturbance and relaxation therapy (YOGA) among old age people will significantly higher than the pre-test score.

**H2-** There will be significant association between pre-test score of old age people on sleep disturbance and relaxation therapy (YOGA) among people with their selected

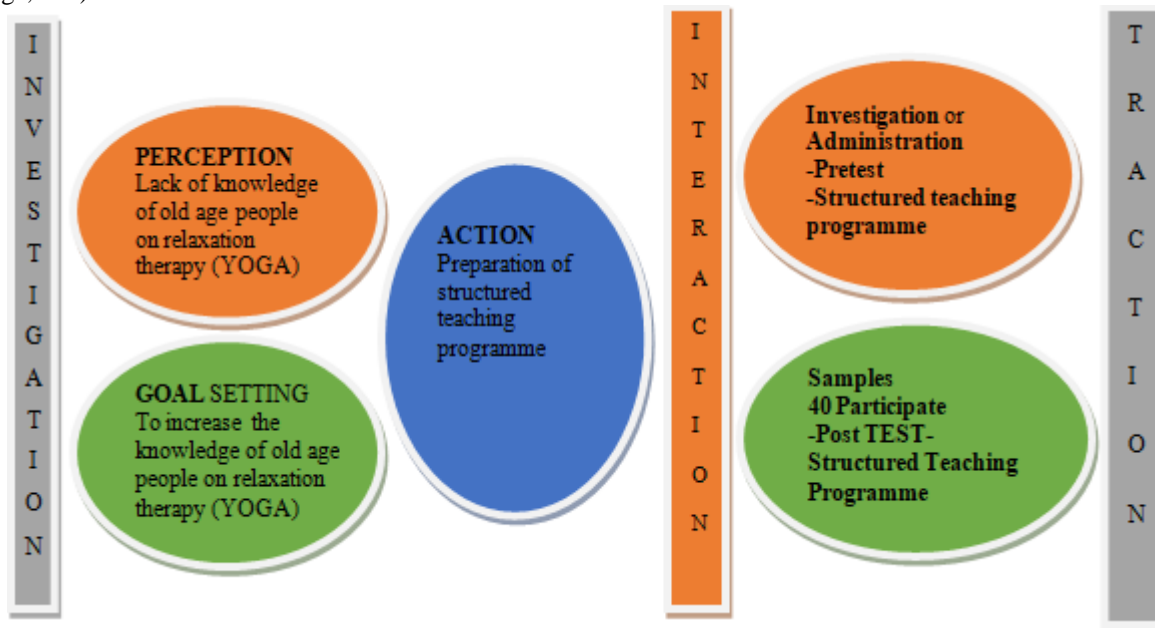
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demographic variables like (age , sex, education ,previous knowledge, diet).

**Conceptual Framework**



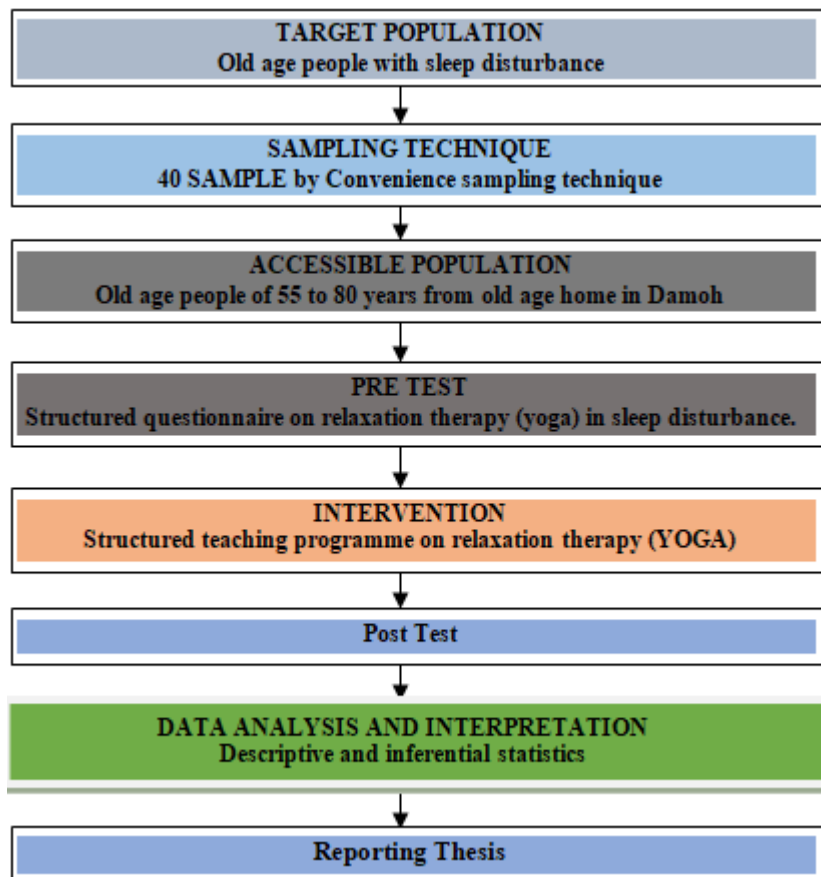
**Figure 1:** Conceptual framework based on modified Imogene M. King’s goal attainment model (1981)

**Research approach**

In this study the pre-experimental research approach was adopted in order to describe, record, compare, analyze and interpret the finding. The approach is similar to that of experimental but it is used when there is deliver an innovative treatment randomly to some samples but not to others. The study was conducted in natural setting i.e. old age homes.

**Research Design**

A one group pre-test post-test design was used to manipulate the independent variable and to distribute samples randomly in control and experimental group in order to the effect of structured teaching programme on relaxation therapy( YOGA) in sleep disturbances among old age people.



**Figure 2:** Schematic Representation of Research Design

**The Setting**

The present study was conducted in old age home Damoh, M.P.

**Population**

In the study target population refers to old age people living in the old age home Damoh.

**Sample**

In the present study, the samples are drawn from Old age people who fulfils the criteria for study.

**Sample Size**

In the present study, the sample compromised of 40 old age people old age home, Damoh, M.P

**Sampling Technique**

Convenient sampling technique was adopted for this study.

**Pilot Study**

A pilot study was conducted in old age home, Damoh from 02/09/15 to 12/09/15. The written permission was obtained from the authority of the health centre. The purpose of the study was explained to the respondents and confidentiality was assured. The pre-interventional of a questionnaire was administered to 10 old age people, who fulfilled the sampling criteria. An informed consent was taken from the respondent prior to the pre-interventional. The average time taken for filling the questionnaire was 25 to 30 minutes, after which structured programme was administered to the old age people on the same day. On the seventh day post-interventional was conducted with the same tool to assess the gain in knowledge scores. The tool and the structured teaching programme was found to be feasible comprehensible, and acceptable by the respondents. Data analysis was done by using descriptive and inferential statistics. The analysis of pilot study revealed that objective of the study fulfilled. Based on the investigator proceeded with the actual data collection for the main study.

- Mean, standard deviation, paired ‘t’ test was used to identify the relationship and compare between knowledge and attitude.
- Chi-square was used to find the association between demographic variables, knowledge and attitude.
- Correlation co-efficient was used in findings the relationship.

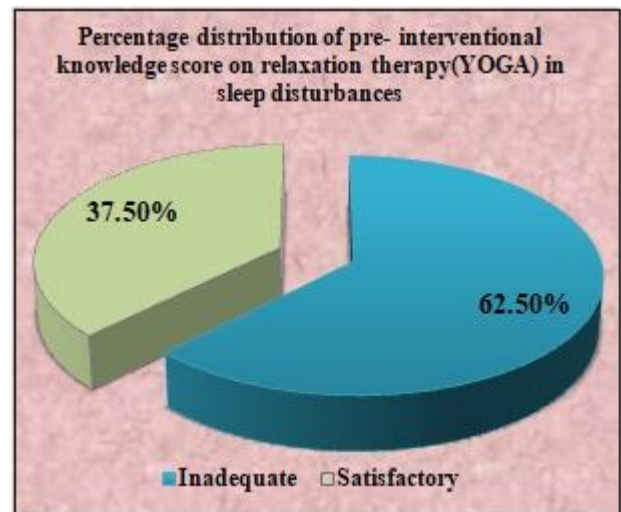
**4. Summary**

**Assessment of pre interventional knowledge score of old age people regarding relaxation therapy (yoga) in sleep disturbances**

**Table 4.2:** Frequency and percentage distribution of pre-interventional knowledge score of old age people regarding relaxation therapy (YOGA) in sleep disturbances, (N=40)

Level of Knowledge	Post-Interventional Knowledge Score			
	Frequency	Percentage (%)	Mean	S.D
Inadequate	25	62.5	11.52	4.37
Satisfactory	15	37.5		
Adequate	0	0		

**Table:** The above table denotes the post-interventional score on relaxation therapy (YOGA) on sleep disturbances among the old age 25(62.5)% had inadequate knowledge and rest of 15 (37.5)% comes in satisfactory level and no one comes in adequate level regarding relaxation therapy.



**Figure 3:** Pie chart showing the pre-interventional knowledge score on relaxation therapy (YOGA) on sleep disturbances

**Description:** The data in the figure reveals that in the pre-interventional knowledge scores of old age people on relaxation therapy yoga majority of the sample had inadequate knowledge (62.5%) , whereas (37.5%) had satisfactory knowledge level on relaxation therapy (YOGA).

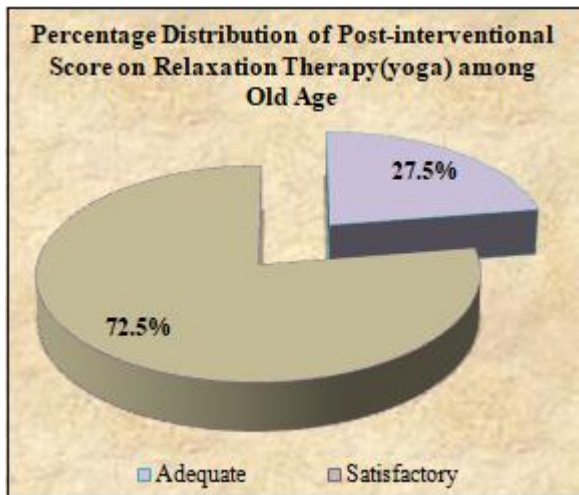
**Section III**

**Assessment of post interventional knowledge score on old age people regarding relaxation therapy (yoga) in sleep disturbances.**

**Table 4.3:** Frequency and percentage distribution of post-interventional knowledge score of old age people regarding relaxation therapy (YOGA) in sleep disturbances (N=40)

Level of Knowledge	Post-Interventional Knowledge Score			
	Frequency	Percentage (%)	Mean	S.D
Inadequate	Nil	Nil	19.4	1.82
Satisfactory	29	72.5		
Adequate	11	27.5		

**Table No.4.3:** The above table denotes the post-interventional score on relaxation therapy (YOGA) on sleep disturbances among the old age people 29 (72.5%) in satisfactory knowledge and rest of 11(27.5%) comes in adequate level and no one comes under inadequate level.



**Figure 4:** Pie chart showing the post-interventional knowledge scores on RELAXATION THERAPY (YOGA)

**Description :** The data in the figure depicts that in the post interventional knowledge scores of old age people on relaxation therapy majority of the sample (72.5%) had satisfactory knowledge, whereas (27.50%) had adequate knowledge. None of the samples had inadequate knowledge on cold chain.

**Section IV**

**Comparison between the pre and post interventional knowledge score of old age people regarding relaxation therapy (yoga) in sleep disturbances**

Table comparison of mean, mean percentage and standard deviation of pre and post-interventional knowledge score of old age people regarding relaxation therapy yoga, (N=40)

Group	Mean	Mean difference	Mean percentage (%)	Standard deviation	't' value
Pre interventional	11.52	7.88	28.8	4.37	10.52*
Post interventional	19.4		48.5	1.82	

P < 0.05, Significant

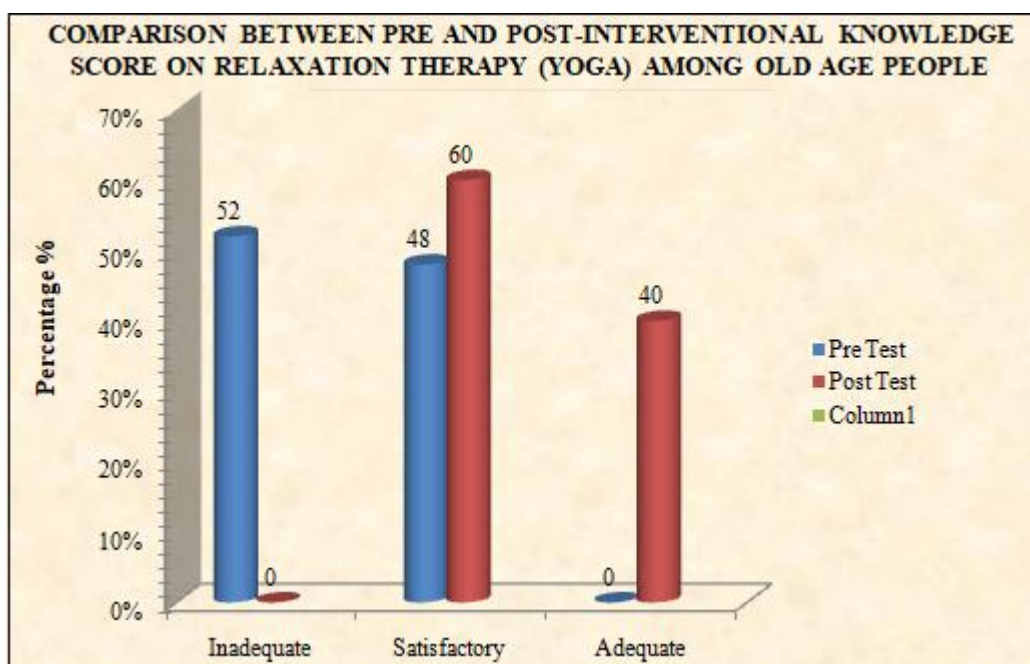
Df = 39, table value = 2.027, p < 0.05 level of significance

**Table No. 4.4:** The data in the table depicts that the pre-interventional mean score of knowledge assessed by structured teaching questionnaires was 11.52 with standard deviation of 4.37. And the post- interventional mean score was 19.4 with the standard deviation of 1.82, In the study the calculated 't' value of 10.52. is higher than the tabulated 't' value of 2.027. So the H1 hypothesis is accepted. The researcher concluded the teaching was effective.

\*p < 0.05,

Significant, Table value = 2.027, p < 0.05 level of significance

**Table No.4.4:** The data in the table depicts that the pre-interventional mean score of knowledge assessed by structured knowledge questionnaire was 11.52 with standard deviation of 4.37. And the post- interventional mean score was 19.4 with standard deviation of 1.82. In this study the calculated 't' value 20.52 is higher than the tabulated 't' value of 2.027. So the H1 hypothesis is accepted. The researcher concluded the teaching was effective.



**Figure 5:** Cylindrical diagram showing the comparison between pre-interventional and post-interventional knowledge scores on relaxation therapy among old age people



**Description:** The data in the figure depicts that in the pre-interventional knowledge scores of old age people on relaxation therapy majority of the samples (52%) had inadequate knowledge, where minimum (48%) had satisfactory knowledge. Whereas in post-interventional knowledge scores of old age people on relaxation therapy majority of the sample (60%) had satisfactory knowledge,

where (40%) had adequate knowledge relaxation therapy(YOGA).

**Section-V**

**Association of pre interventional knowledge score of old age people with their selected demographic variable**

**Table 4.5:** Association of pre-interventional knowledge score with their selected demographic variable

S. No	Demographic variable	Pre -interventional score		df	Chi-square
		Inadequate	Satisfactory		
1	<b>Age in years</b>			3	7.78
	a) 55-65	7	4		
	b) 65-70	6	2		
	c) 70- 75	5	5		
	d) 75-80	7	4		
2	<b>Sex</b>			2	3.53
	a) Male	12	10		
	b) Female	13	5		
3	<b>Diet</b>			2	3.83
	a) Non vegetarian	9	5		
	b) Vegetarian	7	6		
	c) Both	9	4		
4	<b>Marital status</b>			2	3.83
	a) Married	9	5		
	b) Unmarried	7	6		
	c) Divorcee	9	4		
5	<b>Previous source of knowledge</b>			03	7.78
	a) Family	7	4		
	b) Relatives	6	2		
	c) Friends	5	5		
	d) Mass media	7	4		

**Description:** The data in the table depicts that the association of pre interventional knowledge score on cold chain with their selected demographic variables. In relation to age, sex, diet, marital status and previous source of knowledge the chi square value obtained are 7.78, 3.53, 3.83, 3.83 and 7.78 respectively. The above demographic variable are not associate to any pre interventional knowledge score (Yoga). So the H2 hypothesis was rejected.

the analysis. It was found that mean post-test knowledge score on relaxation therapy (Yoga) in sleep disturbances was higher than pre-test score. The ‘t’ value computed (t39 =10.52) showed significant difference suggesting that the old age people gained knowledge on relaxation therapy(YOGA) through structured teaching programme(STP).

**Summary**

This chapter deals the data analysis and interpretation of data from 40 elderly people living in the old age home Damoh. Descriptive and inferential statistics were used for

**Section-VI**

**Association of Post Interventional Knowledge Score of Old Age People with their Selected Demographic Variable**

**Table 4.5:** Association of post-interventional knowledge score with their selected demographic variable

S. No	Demographic variable	Pre -interventional score			df	Chi-square
		Inadequate	Satisfactory	Adequate		
1	<b>Age in years</b>				6	1.34
	e) 55-65	2	2	7		
	f) 65-70	1	3	4		
	g) 70- 75	2	2	6		
	h) 75-80	2	2	7		
2	<b>Sex</b>				2	0.17
	c) Male	02	4	16		
	d) Female	02	4	18		
3	<b>Diet</b>			10	4	9.58(S)
	d) Non vegetarian	1	3			
	e) Vegetarian	2	3	8		
	f) Both	1	2	10		
4	<b>Marital status</b>				4	10.2(s)
	d) Married	1	2	11		
	e) Unmarried	2	5	6		

	f) Divorcee	3	2	8		
5	<b>Previous source of knowledge</b>				6	2.92
	e) Family	1	2	8		
	f) Relatives	2	1	5		
	g) Friends	2	2	7		
	h) Mass media	1	1	8		

**Description:** The data in the table depicts that the association of post interventional knowledge score relaxation therapy (YOGA) with their selected demographic variables. In relation to age, sex, diet, marital status and previous source of knowledge the chi square value obtained are 1.34, 0.17, 9.58, 10.2, and 2.92 respectively. The above demographic variable are not associate to any pre interventional knowledge score (Yoga) accept diet and marital status.

**Summary:** This chapter deals the data analysis and interpretation of data from 40 elderly people living in the old age home Damoh. Descriptive and inferential statistics were used for the analysis. It was found that mean post- test knowledge score on relaxation therapy (Yoga) in sleep disturbances was higher than pre-testscore. The ‘t’ value computed ( $t_{39} = 10.52$ ) showed significant difference suggesting that the old age people gained knowledge on relaxation therapy(YOGA) through structured teaching programme(STP).

### 5. Final Finding and conclusion

- Finding of the study show that percentage of old age people (62.5%) had inadequate knowledge and none of the sample had adequate knowledge.
- The mean pre- interventional knowledge score was 11.52 whereas the mean post- interventional knowledge score was 19.4. The post interventional scores proved that the structured teaching programme given by the investigator, helped old age people to improve their knowledge. The effect of structured teaching programme was interventional in term of gain knowledge and the findings showed that it was significant at 0.05 level.
- There is no association of pre-interventional knowledge score on relaxation therapy(YOGA) in sleep disturbances among old age people with chi square

It was an overall enriching, challenging and interesting experience for the investigator while conducting the study.

### 6. Conclusion

On the basis of the finding of the study, the following conclusions were drawn:

Peak percentage of the old age people (27.5%) were in the age group 55-65 years and 75-80 years and (25%) in 70-75 years rest of the (20%) were in the age group 60-65 years. Regarding sex 75% were male and 25% were female. As per the diet 35% are non-vegetarian, 32.5% are vegetarian and 32.5% comes in both categories.

Regarding the marital status 32.5% are married, 35% are unmarried and 32.5% are divorcee.

According to duration of stay in old age home 57.5% are from one year, 35% are from two years and 7.5% are from three years.

Regarding the education 27.5% had primary education, 25% had secondary education, 20% were graduate and 27.5 were professional.

As per the previous source of knowledge 7.5% of them were through relatives, 35% of them were through friends and 57.5% of them were through mass and media.

Prior to the administration of structured teaching programme the old age people (62.5%) had inadequate knowledge whereas highest percentage of old age people (37.5%) had satisfactory knowledge after the administration of structured teaching programme.

The mean pre- interventional knowledge score was 11.52 whereas the mean post- interventional knowledge score was 19.4. The post interventional scores proved that the structured teaching programme given by the investigator, helped old age people to improve their knowledge.

There is no significant association of pre- interventional score on relaxation therapy (YOGA) on sleep disturbances with their demographic variable of old age people. And by the obtained results it is found and yoga therapy is effective in promoting sleep among old age population.

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