IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

A STUDY TO ASSESS THE EFFECTIVENESS OF STP ON KNOWLEDGE REGARDING BACK MASSAGE IN REDUCING BACK PAIN AMONG CAREGIVER OF ELDERLY PEOPLE IN SELECTED AREAS SASARAM, ROHTAS.

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ABSTRACT

Background:

The back pain condition is a complex problem for a certain elderly people and it has been a major complaint in elderly age group generally after 60 years.

Methodology:

It is a quasi-experimentalone group pre-test and posttest research design. The study was conducted among 60 samples selected by non-probability convenient sampling. Permission was taken from Institute Ethical Committee, NMCHThe researcher met the subjects, explained about the purpose of the research, and assured confidentially and anonymity and consent were obtained from the subjects. The researcher adopted quasi-experimentalresearch design. The demographic variables were collected by using structured questionnaire during pre-test of the care giver of the elderly people. Pre-test was measured by open-endedquestionnaire, which had 20 questions for 15 minutes. Then the subjects received the Structured Teaching Programme regarding back massage in reducing back pain among care giver of elderly peoplefor 45 min. Post-test was done after 4 days by researcher to assess the effectiveness of Structured Teaching Programme on knowledge regarding reducing of back pain among care giver of elderly people.

Results:

Major findings of the study

- Nearly 26.66% of the caregiver are of the age group Below 25 years, 48.33% of the age group 26-30 years,20% of the age group 31-35 years, 5% of age group above 35 years.
- About 26.6% of the caregiver are not having any formal education, 35% of the caregiver are having Matriculation, 25% of them are Intermediate, 13.3% are graduated.
- About 51.6% of the caregiver are Hindu and about 48.4% are of Muslim religion.
- About 48.3% of the caregiver have previous information from friends, 56.66% have previous information from family members.
- About 48.33% caregiver male and 51.66% female

Conclusion:

The obtained findings of the study led to the following conclusions:

- Majority of the Elderly People suffered from the Back pain.
- Deficit of knowledge back massage in reducing back pain among caregiver of elderly people.
- The Structured Teaching programme utilized in this study was effective in imparting the knowledge of back massage in reducing back pain among caregiver of elderly people.

Keywords: Elderly people, knowledge, Back pain, Massage, Structure teaching programme.

Abbreviation List

>:- Greater than

<:- Lesser than

***:-** Significant

%:- Percentage

r: - co-relational coefficient

R: - Reliability

df: - degree of freedom

X_2: - Chi- square

p value: - probability value

INTRODUCTION

"SAFETY ISN'T EXPENSIVE, IT'S PRICELESS"

ANON

The back pain condition is a complex problem for a certain elderly people and it has been a major complaint in elderly age group generally after 60 years.

Back pain can affect people of any age, for different reasons. As people get older, the chances of developing lower back pain increases, due to factors such as previous occupation and degenerative disk disease (when your spinal disks wear down). Lower back pain may be linked to the bony lumbar spine, discs between the vertebrae, ligaments around the spine and discs, spinal cord and nerves, lower back muscles, abdominal and pelvic internal organs, and the skin around the lumbar area. Back pain are injuries that affect the human body's movement and if not have medical advice it may goes up to a critical level that's really not good for the peoples.

The back pain may occur from any of the following reason it may be related to the improper lifting & handling, uncomfortable posture, heavy physical work etc1 .

Other studies also include that it may due to factor such as muscular weakness, smoking, physical activity, obesity & psychological factors.

Massage, this word we can defined as manipulation of soft tissue to enhance health and well-being, whereas massage therapy is the systematic application of massage and it is provided to patient for selfcare and wellness purpose.

Now after some study we found that some scientists of medical science were perform test and found that it is effective to treat back pain by Massage Therapy.

- While treating back pain using massage and acupuncture, Frey (1994) found that massage use the least medication and that Therapeutic massage was effective for persistent Back Pain, apparently providing long lasting benefits.

So, the massage might be the effective alternative to the conventional medical care for persistent Back Pain.

- Another review of (furlan Et Al 2000, By Leon Chaitow, A Massage Therapist's Guide) of research compared massage with de-tuned laser therapy as the placebo, and with other physical treatment such as acupuncture or spinal manipulation. The result shows that massage is superior to Placebo, Relaxation, or selfcare in treating back pain.

So, the authors concluded that massage might be beneficial for subacute and Chronic and non-specific back pain .

Most healthcare providers are recognizing massage therapy as a legitimate aid for lower back pain and an effective adjunct to lower back treatments. Fifty-four percent of healthcare providers say they will encourage their patients to pursue massage therapy in addition to medical treatment.

A study on massage and back pain conducted at the Touch Research Institute at the University of Miami in 2001 found that: "Massage lessened lower back pain, depression and anxiety, and improved sleep. The massage therapy group also showed improved range of motion and their serotonin and dopamine levels were higher." (International Journal of Neuroscience) .

Low back pain is a common type of musculoskeletal disorder that can cause deterioration of physiological function and disability if not treated. Worldwide, low back pain affects roughly 75-90% of the population at least once in their lifetime. According to the National Health Interview Survey, 25.7% of the surveyed respondents experienced low back pain in 2010 in the USA. Longitudinal study involving 701 teachers in the state of Selangor

in Malaysia revealed that 44% of respondents suffered from low back pain. The economic burden for back care services has jumped from United States dollar (USD) 50 billion to USD 90 billion annually in the United States. Likewise, in United Kingdom, the total healthcare cost for patients with back pain has doubled, from approximately USD 500 in 2005 to USD 1100 in 2010 .

Despite the advancement in medical sciences, low back disability is getting steadily worse. Until now, low back pain has posed a significant problem to medical doctors because large number of patients seek treatment and there is no definite „cure" that can be offered. In many cases, back pain patients are often dissatisfied with conventional medical. It is not surprising that back pain is the leading primary reason for seeking massage therapy .

Massage therapy involves the manipulation of the body's soft tissues by touch. It uses gentle movements, such as effleurage and petrissage. The physiological responses that arise from the parasympathetic 4 nervous system's activation through massage therapy help relax muscles, relieve pain, reduce insomnia, heal wounds, improve blood and lymph circulation, decrease stress, and increase physical comfort .

The sense of touch is used to promote relaxation and pain relief. Massage works as a form of pain relief by increasing the production of endorphins in the body. Endorphins reduce the transmission of signals between nerve cells and, thus, lower the perception of pain. In addition, massage acts as a distraction from the discomfort. Another nonpharmacological technique is change in position, frequently from sitting to lying, kneeling, or walking, all of which help relieve pain.

Nonpharmacological approaches to pain management are intended not only to decrease the physical sensations of pain, but also to prevent suffering by enhancing the psychological, emotional, and spiritual dimensions of care.

Material and Methods

This study is to assess the effectiveness of STP on knowledge regarding back massage in reducing back pain.

RESEARCH DESIGN: - A pre-experimental research design.

RESEARCH APPROACH: - Quantitative Approach.

SETTING OF THE STUDY: - In selected rural health training Center, NMCH

POPULATION: - Care giver of elderly people

SAMPLE: -60

Inclusive criteria

- Care giver of elderly people who are willing to participate in research study.
- Care giver of elderly people who are present at the time of data collections.
- Care giver of elderly people who are able to speak Hindi or Bhojpuri.

Exclusive criteria

- Care giver of elderly people who are not willing to participate in the research study.
- Care giver of elderly people who are not present at the time of data collection.

SAMPLE SIZE: - The sample size is 60.

SAMPLING TECHNIQUE: - Purposive sampling technique will used to draw the sample which is type of nonprobability sampling technique.

ETHICAL CONSIDRETIONS: - To conduct research study in selected RHTC, NMCH, a written permission is obtained from the concerned authority.

INDEPENDENT VARIABLES

In this study independent variables are structured teaching programme regarding back massage in reducing back pain among care giver of elderly people.

DEMOGRAPHIC VARIABLES

In this study demographic variables are age, gender, religion, family income per month, education, place of residence.

Instruments

DESCRIPTION OF TOOL

The tool consists of two parts, one part is based on demographic variable and second part is a self-structured questionnaire. Demographic Performa consists of various demographic variables of caregiver of elderly people such as- Age, Gender, Religion, Family income per month, Education, Place of residence.

SELF-STRUCTURRED QUESTIONNAIRE

Structured questionnaire was used to assess the knowledge regarding back massage in reducing back pain among care giver of elderly people. It consists of 20open-ended questions. The scoring is designed as follows with structure questionnaire.

There are total 20items, each correct answer will be given one marks, and wrong answer will be given zero marks.

- Each question carry = 1
- Maximum marks = 20
- Minimum marks = 0

Scoring; - there will be 20 items. Each item has 3 options.

Overall marks; - The maximum marks are 20 to interpret the knowledge the score is classified as;

- Good knowledge
- Average knowledge
- Poor knowledge

Good Knowledge	**14-20**
Average Knowledge	**7-13**
Poor Knowledge	**0-6**

VALIDITY OF TOOL

The validity of the tool is the degree to which the tool measure what it claims to measure. It is the degree to which the results are truthful. So that it requires research instrument to correctly measure the concept under study. The tool is validated by 3 experts from specified field such as Medical surgical department. The researcher modified the tool based on experts' suggestions. The tool is translated from English to Hindi and to confirm the appropriateness of the language used in framing the items.

RELIABILITY OF TOOL

Reliability is the degree to which an assessment tool produces stable and consistent results. "It is the ability of the instrument to consistently measure what it intends to measure, the extent to which the random variation influences consistency, stability and dependability of the results". The reliability of the tool is elicited by test - retest method. A sample of 60 caregiver of elderly people are chosen and was asked question twice with a gap of 4 days. the obtained data is subjected for the calculation of correlation coefficient and the 'r' is found to be 0.75. It indicates that the tool is reliable.

ETHICAL CONSIDERATION

To conduct research study at selected villages of Sasaram, a written permission was obtained from the Mukhiya before starting the study. A written consent was taken from the caregicer. Anonymity and confidentiality of the information was maintained.

PILOT STUDY

"Pilot study is a small scale, preliminary study which aims to investigate whether crucial components of the main study will be feasible". A pilot study can be used to evaluate the feasibility of the recruitment, randomization, retention, assessment procedures, new methods, and implementation of the novel intervention. The pilot study is conducted in selected rural health training Center NMCH, to test the reliability, feasibility and practicability. Six caregivers of elderly people are selected and subjected for pretest. The retest is conducted after four days. It took 15 minutes to conduct questionnaire for each caregiver of elderly people, the interview schedule was found to be feasible and all the respondents understood the question. The caregiver of elderly people who were participated in pilot study were excluded from the main study.

Data Analysis

Data analysis was planned on the basis of objectives and hypothesis of the study. The data obtained was analyzed by descriptive and inferential statistics. The plan of data analysis was as follow:

- **Section I-** Sample characteristics

- **Section II-** Knowledge Levels of the sample and item wise analysis of knowledge of caregiver of elderly people with regard to back massage.

• **Section III-** Level of knowledge of caregiver of elderly people in pretest and posttest about back massage. The effectiveness of the structured teaching programme.

•**Section IV-** Relationship of knowledge score of caregivers of elderly people with their selected variables.

Result/ Discussion

This chapter discusses the findings of the study derived from the statistical analysis and its pertinence to the objective set for the study and related review of literature of the study.

Objective of the study

- To assess the pre-test knowledge score on back massage in reducing back pain among caregiver of elderly people.
- To assess the post-test knowledge score on back massage in reducing back pain among caregiver of elderly people.
- To find out the association between pre knowledge score on back massage in reducing back pain among caregiver of elderly people with their selected demographic variables.

Description of the study population

Caregiver in relation to their age group indicated 1(1.66%) of them belong to 25 years of age, 11(18.33%) of them belong to 26-30 years, 41(68.33%) of them belong to 30-35 years of age, 6(10%) of them belong to above 35 years of age.

Conclusion

This chapter presents the summary, conclusions, implications and recommendations for further research.

Summary of the Study

The purpose of this study was to assess the effectiveness of STP on knowledge regarding reducing back pain among care giver of elderly people. A quasi experimental design was used for the present study.

The conceptual framework used for the study was developed by applying Dorothy Johnsons open system theory. The data regarding socio demographic and background Performa are collected and written records. Knowledge was assessed by self structured questionnaire.

The setting of the study included selected areas of sasaram. Non-probability convenient sampling technique was used to select the study participant. The sample consisted of 60caregiver of elderly people. The data analysis was performed by using both descriptive (frequency and percentage), and inferential statistics (chi-square test)

Study findings are summarized below:

- The mean score of concepts of back massage is raised from 8.01 (SD=1.7) in pretest to 15.7 (SD=1.4) in post-test.

- The t test computed between the pre-test and post-test knowledge of caregiver of elderly people (t=25.5717) was highly significant at 1% level.

The chi -square of the number of age of caregiver: 5.447

The chi -square of the number of qualifications of caregiver: 2.512

The chi -square of the number of types of family :13.04

The chi -square of the number of residences: 35.266

The chi -square of the number of religions :7.413

The chi -square of the number of sources of information: 3.5711

This data shows that it was found that there was statistically significant association between knowledge scores of Caregivers and age of caregiver, type of family, residence. It was found that there was no significant association between knowledge scores of Caregivers with qualification, occupation, religion and source of information.

Conclusion

The obtained findings of the study led to the following conclusions:

- Majority of the Elderly People suffered from the Back pain.

- Deficit of knowledge back massage in reducing back pain among caregiver of elderly people.

- The Structured Teaching programme utilized in this study was effective in imparting the knowledge of back massage in reducing back pain among caregiver of elderly people.

Implications for Nursing

Nursing Education

- Nursing curriculum equip the students with the essential and update knowledge, skills & professional attitude/etiquettes so that they are able to assume their duties and responsibility once they become fully fledged professional nurses.
- Nursing curriculum is mainly theory based and little focused in the practices there is always a gap existing in between theory practice.

Nursing practice

- Nursing personnel have to plan and provide knowledge regarding back massage in reducing back pain.
- Nursing personnel can provide information regarding benefits of back massage. This will serve an excellent from in increase knowledge.

Nursing administration

- Arranging knowledge material according to the caregiver of elderly people at selected area Sasaram.
- It is important for the nurse administration to facilitate assessment program to improve the knowledge of caregiver of elderly people Back massage in reducing back pain.

Nursing research

- More researches can be done on longitudinal research study basis and taking more samples so that generalize ability of finding is possible. Large-scale studies can be conducted.
- Research should be continued on need of the practices and provide a lesson plan to provide adequate knowledge.

Recommendations for further research

- The study can be replicated on a larger sample to validate the findings and generalize.

- A comparative study can be conducted among the rural and urban Elderly People.

- A similar study can be conducted to assess the attitude of knowledge back massage in reducing back pain among caregiver of elderly people.

- A follow up study can be conducted to evaluate the effectiveness of structured teaching programme.

- A similar study can be done by using other teaching strategies i.e., self-instruction module.

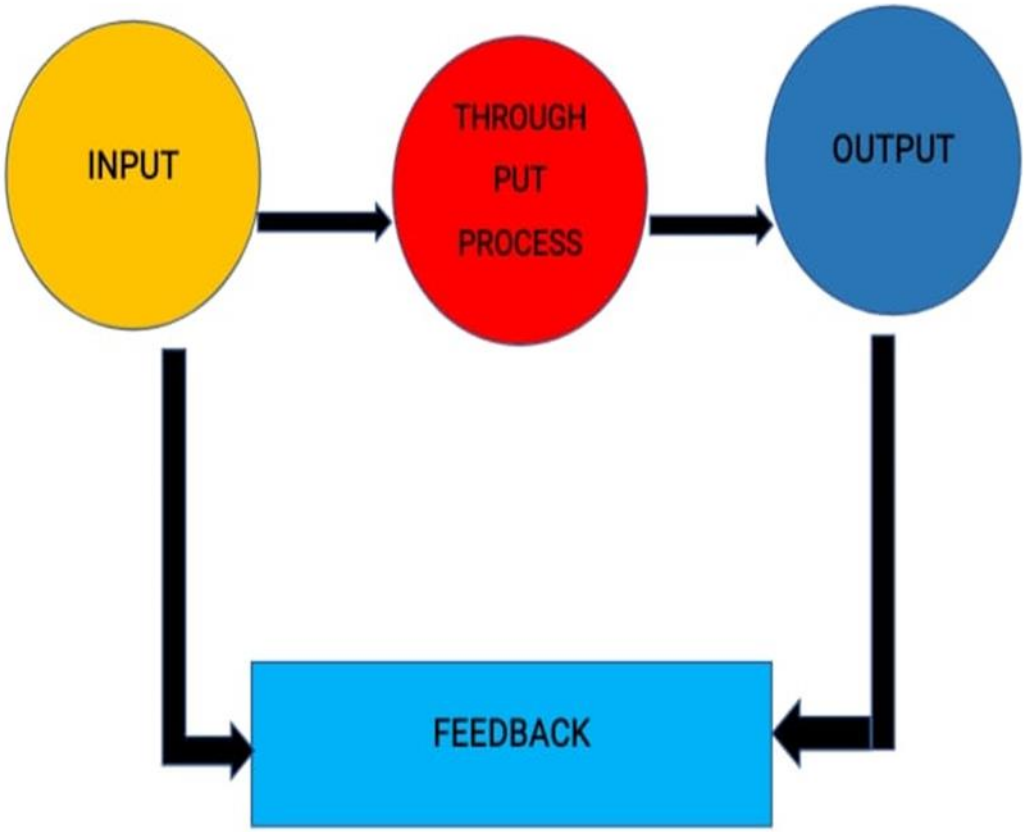

Fig. 1.1: An open system with a feedback mechanism system.

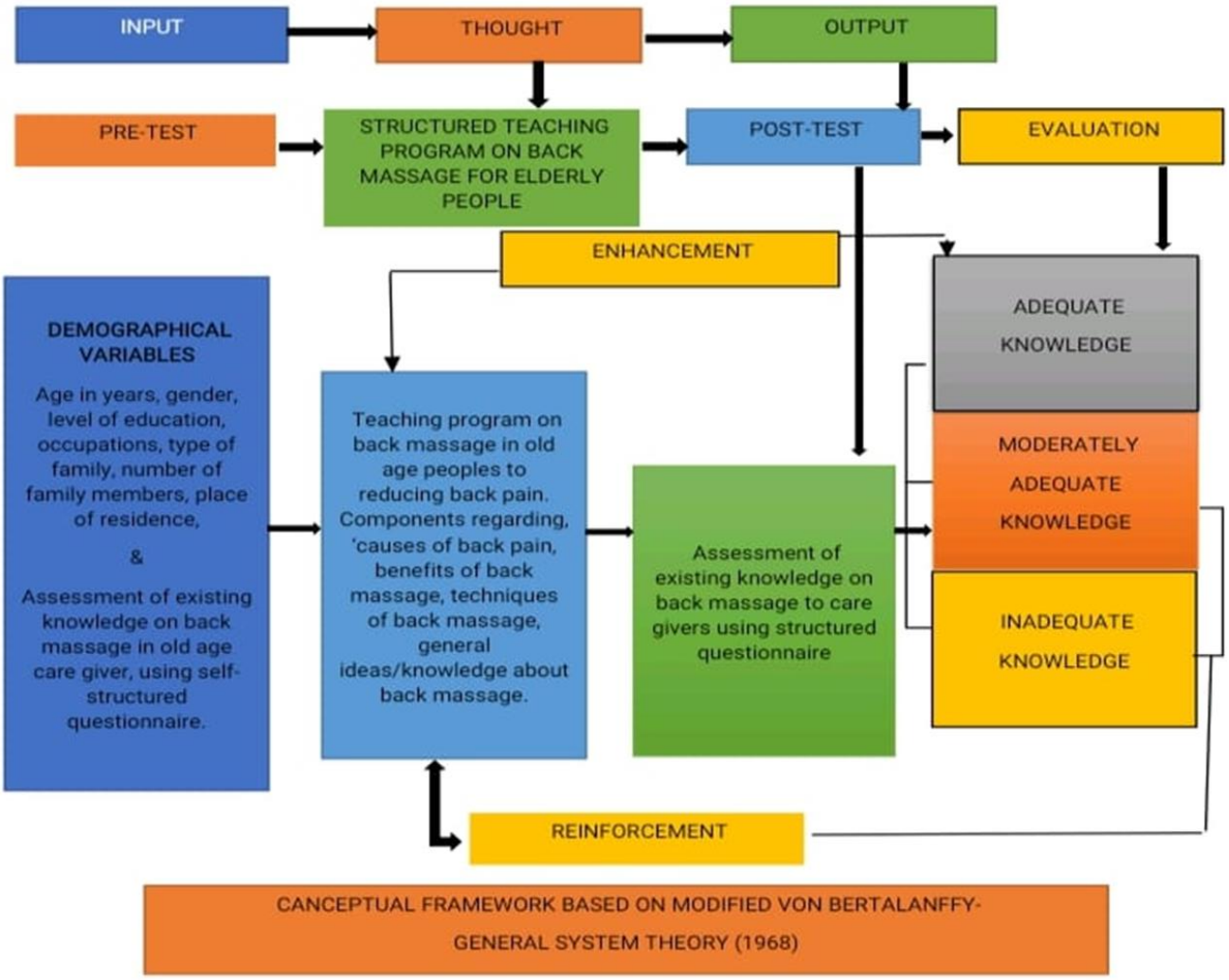

Fig. 1.2: The CANCEPTUAL FRAMEWORK BASED ON MODIFIED VON BERTALANFFY-

GENERAL SYSTEM THEORY (1968)

Section A: Demographic variables of caregiver of elderly people

Frequency and percentage distribution of caregiver of elderly people with selected demographic variables.

Table 4.1-Frequency and percentage distribution of samples according to demographical variables.

DEMOGRAPHICAL DATA	Total sample	Sample in percentage

Table 4.1.1- Frequency and percentage distribution of samples according to age.

1. **AGE OF THE CARE GIVER**
   N=60

Demographica data	Frequenty	Percentage
Below 25 years	16	26.66%
26-30 year	29	48.33%
31-35years	12	20%
6 Above 35 years	3	5%

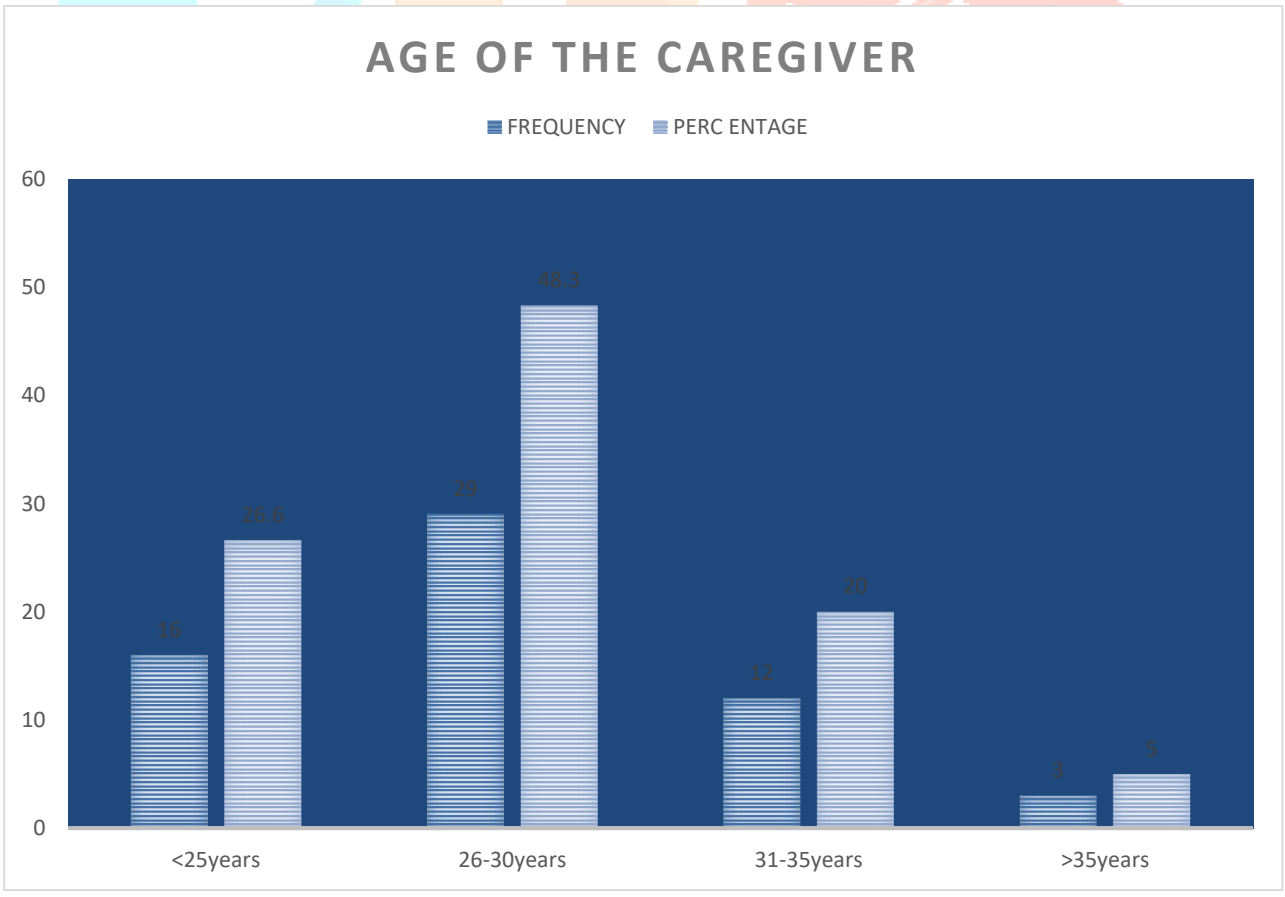

Fig.4.1.1 Percentage distribution of caregiver of elderly people according to their age.

In the percentage distribution of caregiver of elderly people about 26.66% were Below 25 years age and about 48.33% of the caregiver of elderly people were under age group 26-30 years of age, about 20% of the caregiver of elderly people were under age group 31-35 and about 5% of the caregiver of elderly people were above age group 35 years.

Table 4.1.2- Frequency and percentage distribution of samples according to render.

2. GENDER

Demographica data	Frequenty	Percentage
Male	**29**	**48.33%**
Female	**31**	**51.66%**
Other	**0**	**0%**

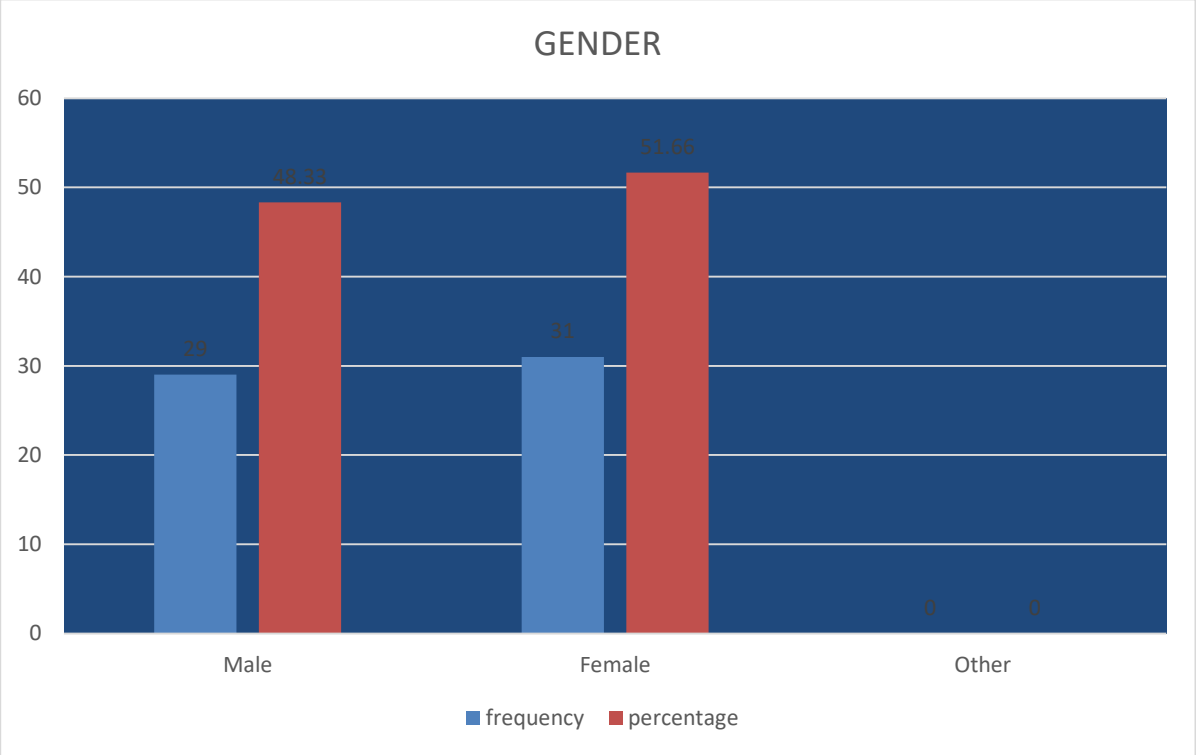

Fig.4.1.2 Percentage distribution of caregiver of elderly people according to their gender.

In the percentage distribution of caregiver according to their gender, about 51.66% of the caregivers were female. About 48.33% of the caregivers were male.

Table 4.1.3- Frequency and percentage distribution of samples according to educational status.

3. EDUCATIONAL STATUS OF THE CAREGIVER

N=60

Demographica data	Frequenty	Percentage
No formal education	16	26.6%
Matriculation	21	35%
Intermediate	15	25%
Graduate	8	13.3%

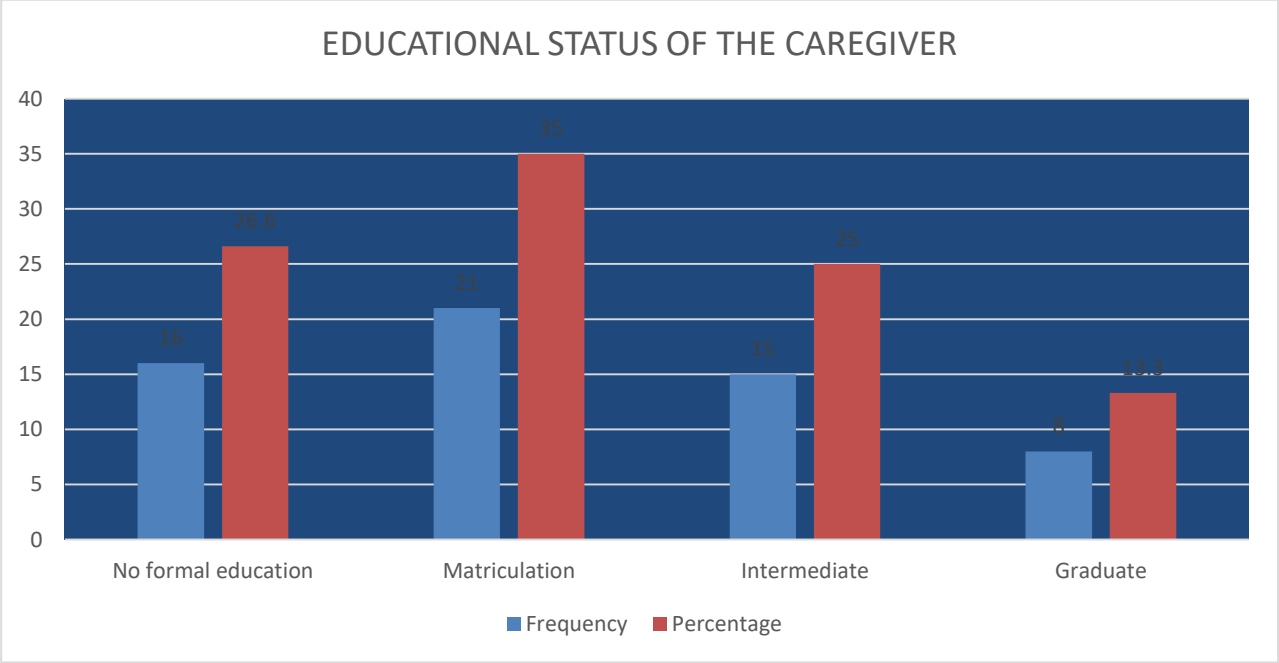

Fig4.1.3 Percentage distribution of caregiver of elderly people according to their educational status.

In the percentage distribution of caregiver according to their qualification, about 26.6% of the caregiver were not having any formal education. About 35 % of the caregiver were having Matriculation and 25% were graduated.

Table 4.1.4- Frequency and percentage distribution of samples according to place of residence.

4. PLACE OF RESIDENCE
N=60

Demographica data	Frequenty	Percentage
Urban	**0**	**0%**
Rural	**60**	**100%**
Sub rural	**0**	**0%**

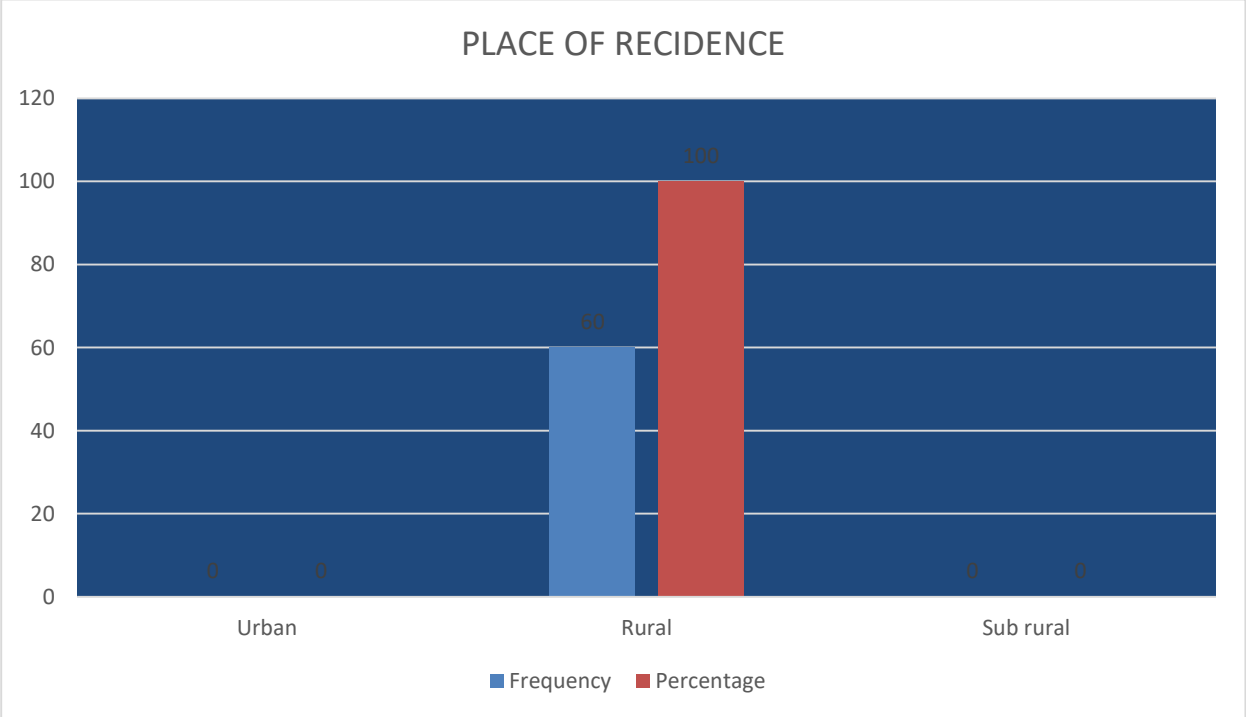

Fig.4.1.4 Percentage distribution of caregiver of elderly people according to their residence.

In the percentage distribution of caregiver according to residence, it is shown that about no any of caregiver were from urban area whereas 100% of the caregiver were from rural area.

Table 4.1.5- Frequency and percentage distribution of samples according to religion.

5. **RELIGION**
   N=60

Demographica data	Frequenty	Percentage
Hindu	31	51.6%
Muslim	29	48.4%
Christian	0	0%
Other	0	0%

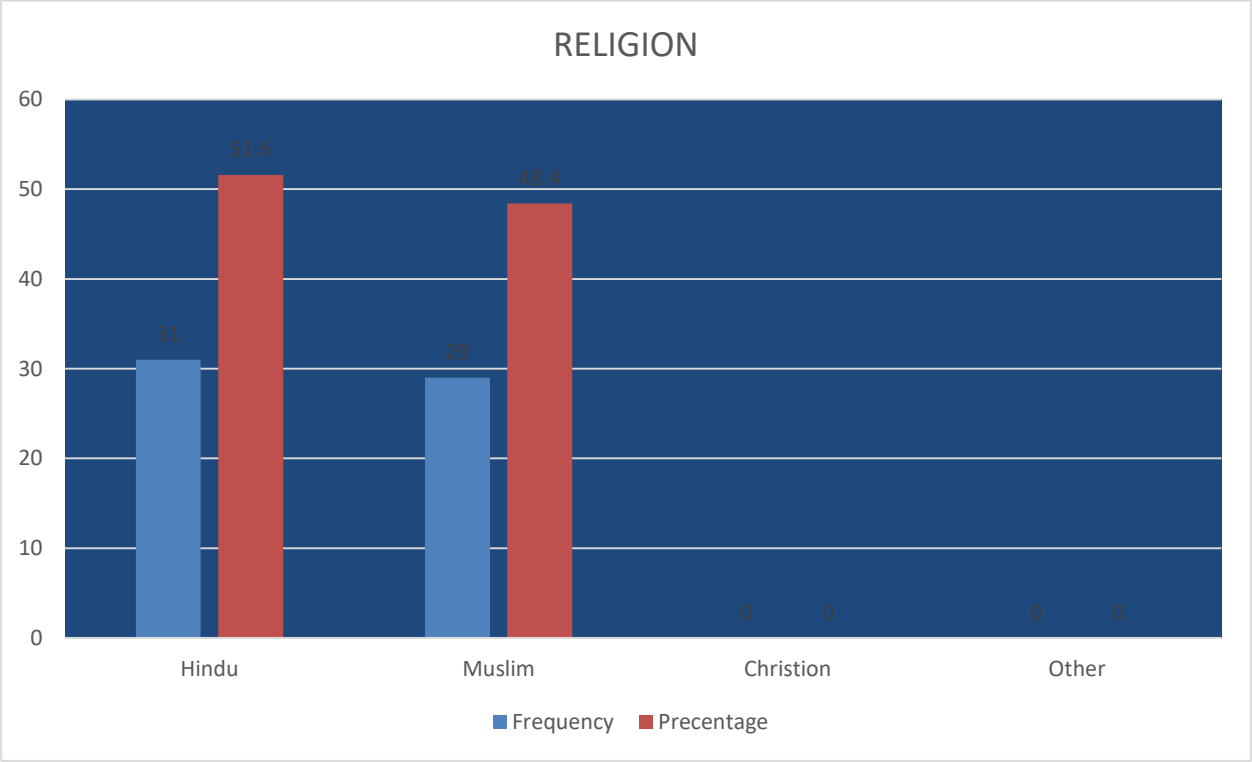

Fig.4.1.5 Percentage distribution of caregiver of elderly people according to their religion.

In the percentage distribution of the caregiver according to the religion, it is shown that about 51.6% of the mother were Hindu whereas 48.4% of the caregiver of elderly people were of Muslim religion.

Table 4.1.6- Frequency and percentage distribution of samples according to source of information.

6. SOURCE OF INFORMATION
N=60

Demographica data	Frequenty	Percentage
Mass media	0	0%
Therapist/physician	6	10%
Friends	20	33.33%
Family members	34	56.66%

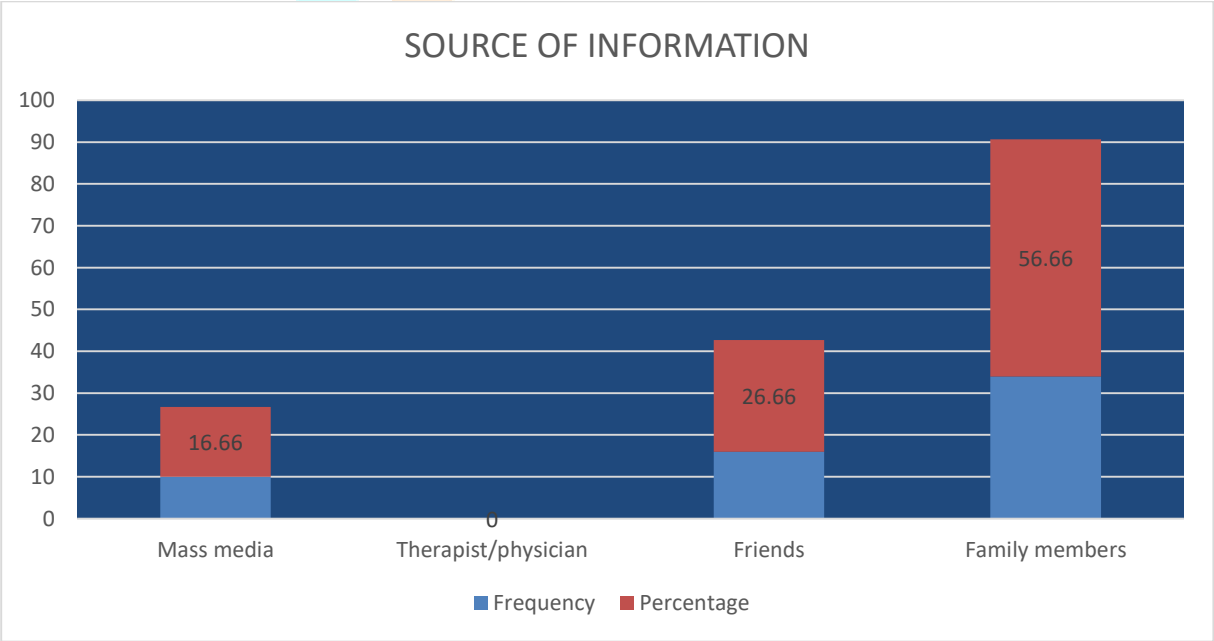

Fig.4.1.6 Percentage distribution of caregiver of elderly people according to their source of information.

In the percentage distribution of caregiver according to the source of information, it is shown that about 48.3% of the caregiver were having previous information regarding back massage from health friends, about 56.66% were have information from family members whereas 2% were have information from physician/therapist.

SECTION B

Total score and item wise analysis of knowledge with regard to prevention and management of Back pain in pre-test and post-test among caregiver of old people.

Percentage distribution of knowledge of caregiver on back massage.

Table.4.1.7- Percentage distribution of pervious knowledge of caregiver on back massage.

Pre-test, N=60

SI. NO.	VARIABLES	LEVEL OF KNOWLEDGE					
		POOR		AVERAGE		GOOD	
		F	%	F	%	f	%
1	Overall	15	25	43	71.66	2	3.33

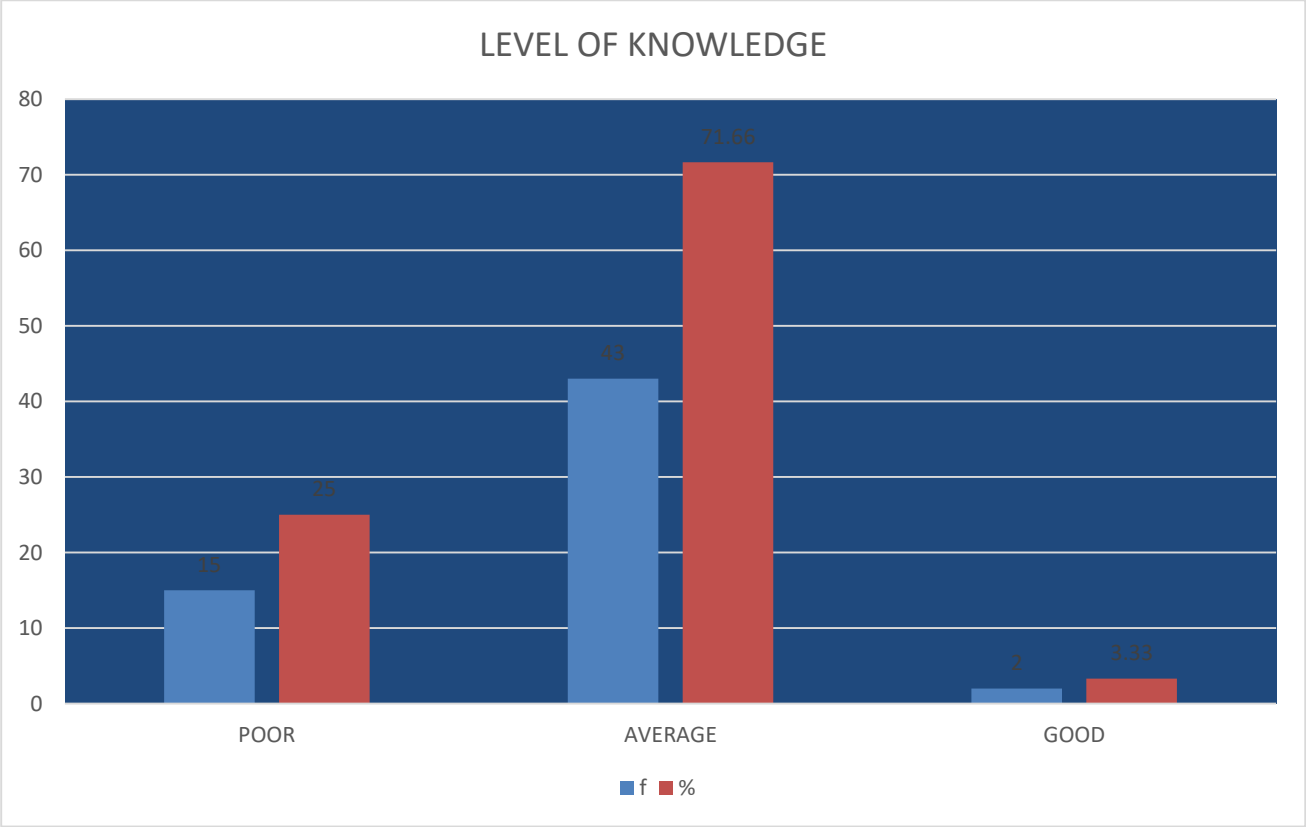

Fig.4.1.7 Level of knowledge of caregiver of elderly people before STP.

This diagrammatic representation shows the level of knowledge of caregiver of elderly people before the structured teaching programme.

This chart shows that 25% of the caregiver of elderly people were having poor knowledge, 71.66% were having average knowledge and only 3.33% were having good level of knowledge regarding back massage.

Table.4.1.8- Percentage distribution of knowledge of caregiver on back massage after student teaching programme.

Post-test, N=60

SI. NO.	VARIABLES	LEVEL OF KNOWLEDGE					
		POOR		AVERAGE		GOOD	
		F	%	F	%	f	%
1.	Overall	0	0	7	11.66	53	88.33

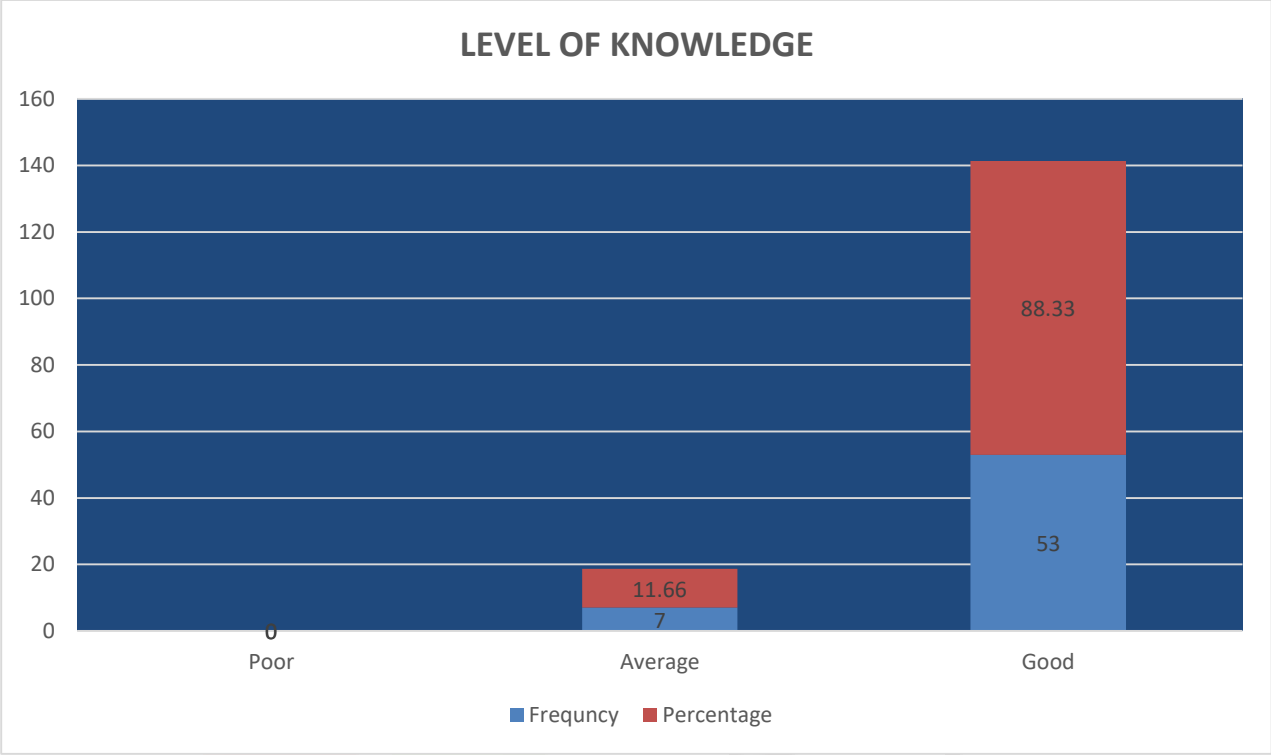

Fig.4.1.8 Level of knowledge of caregiver of elderly peopleafter STP.

This is diagrammatic representation of level of knowledge of caregiver of elderly people after structured teaching programme.

This chart shows the 11.66%of the caregiver of elderly people were having average knowledge after STP whereas 888.33% of the caregiver of elderly people were having good knowledge after the implementation of structured teaching programme and none of them were having poor knowledge.

SECTION C

Level of knowledge of caregiver of elderly people in pre-test and post-test with regard to back massage.

Table.4.1.9 a). Mean and standard deviation of knowledge score. b). Mean difference and t-test.

a. N=60

SI.NO.	KNOWLEDGE VARIABLES	MAX SCORES	MEAN		STANDARD DEVIATION		MEAN PERCENTAGE	
			Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
1	Overall	20	8.01	15.7	1.774	1.475	40.08	78.5

b. N=60

SI.NO	KNOWLEDGE VARIABLES	MAX SCORES	MEAN		STANDARD DEVIATION		MD	PAIRED T TEST
			Pre-test	Post-test	Pre-test	Post-test		
1	Overall	20	8.01	15.7	1.774	1.475	7.69	25.5717

Learning in mean and S.D of pre-test score was 8.01 + -1.774 and mean and S.D of post-test score was 15.7 + - 1.475 in information with respect to word related knowledge regarding back massage in reducing back pain among care giver of elderly people in selected area Sasaram.

SECTION D

Relationship of knowledge of caregiver of elderly people with selected demographic variables and the effectiveness of structured teaching programme.

This section presents the findings on the relationship between knowledge of caregiver of elderly people with selected demographic variables such as age, qualification, residence, religion and source of information.

Table.4.2.1 Association between the selected demographic variables.

N=60

DEMOGRAPHIC DATA	LEVEL OF KNOWLEDGE AFTER STP								
	<30%		30-65%		>65%		X^2	Df	P
	F	%	f	%	F	%			
1. Age of the mother **a. Below 25 years** **b. 26-30 years** **c. 30-35years** **d. Above 35 years**	0 0 0 0	0 0 0 0	1 0 6 0	1.66 0 10 0	1 11 35 06	1.66 18.33 58.33 10	**5.447**	**3**	**0.1418**
2. Gender **a. Male** **b. Female** **c. Other**	0 0 0		4 3 0	6.66 5 0	28 25 0	46.66 41.66 0	0.046	1	0.8297
3. Qualification of the caregiver **a. Not having any formal education** **b. Matriculation** **c. Intermediate** **a. Graduated**		0 0 0 0	3 2 2 0	5 3.33 3.33 0	10 28 14 1	16.66 46.66 23.33 1.66	2.512	3	0.4729
4. Residence **a. Urban** **b. Rural** **c. Sub rural**	0 0	0 0	0 7	0 11.66	0 53	0 88.33	35.266	1	2.875e-9

	0	0	0	0	0	0			
5. Religion **a. Hindu** **b. Muslim** **c. Christian** **d. Others**	0 0 0 0	0 0 0 0	7 0 0 0	11.66 0 0 0	24 29 0 0	40 48.33 0 0	7.413	1	0.00647
6. Source of information **a. Mass media** **b. Therapist/physician** **c. Friends** **d. Family members**	0 0 0 0	0 0 0 0	0 0 2 5	0 0 3.33 8.33	0 7 20 26	0 11.66 33.33 43.33	3.5711	2	0.1677

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