

Quasi Experimental Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge regarding Complementary Therapy among Health Workers

Ajith .KK

Assistant Professor, BGSB University, Rajouri, Jammu and Kashmir, India

Corresponding Author: [ajithkrishnan15\[at\]gmail.com](mailto:ajithkrishnan15[at]gmail.com)

Abstract: Background: A quasi experimental study was conducted to assess the effectiveness of structured teaching programme on knowledge regarding complementary therapy among health workers in selected primary health centres, Mangalore, Karnataka. A total sample of 60 health workers were selected using non-probability purposive sampling technique. The objectives of the study were to assess the knowledge regarding complementary therapy among health workers before and after structured teaching programme and to find out the effectiveness of structured teaching programme on knowledge regarding complementary therapy among health workers. The final objective was to determine the association between pre-test level of knowledge and selected demographic variables. Materials and Methods: A two-group pre-test post-test design was used to conduct the study. A sample comprising of 30 health workers in experimental and 30 in control group were enrolled using non-probability purposive sampling technique. The conceptual framework of the study was based on Ludwig Von Bertalanffy's General System Model. Tools used for data collection were demographic performance and structured knowledge questionnaire. Results: Data analysis was done using descriptive and inferential statistics. Findings of the study revealed that the mean post-test knowledge score 20 ± 4.807 among experiment group was significantly higher than the mean pre-test knowledge score 10.33 ± 2.591 ($p < 0.05$). Change in knowledge score among the control group was not significant ($p > 0.05$ level). The t test value (9.811*), revealed that, there is significant increase in the mean post-test knowledge score among experimental group compared to the mean post-test knowledge score among control group at 0.05 level. Significant association at 0.05 level was observed between knowledge with regard to their previous knowledge and area of living. Conclusion: The findings of the study confirmed that the structured teaching programme was significantly effective in improving the knowledge regarding complementary therapy among health workers.

Keywords: Quasi experimental, Structured teaching programme, Knowledge, Complementary therapy, Health workers

1. Introduction

Complementary therapy is known by many different terms, including complementary medicine, alternative therapy, alternative medicine, holistic therapy and traditional medicine. A wide range of treatments exist under the umbrella term 'complementary therapy', which makes it difficult to offer a blanket definition. Complementary therapies are used alongside conventional medicines or treatments. Alternative therapies are sometimes grouped with complementary therapies, but they refer to different concepts. Alternative therapies are used in place of conventional medicines or treatments¹. The past decade has seen an increased awareness of complementary medicine in both public and governmental sectors. Complementary medicine covers a wide range of disciplines, most of which are guided by the "healing model" of holistic medicine, which emphasizes the complex interplay between multiple factors, biochemical, environmental, psychological, and spiritual, as opposed to the biomedical model which reduces disease to a disturbance in biochemical process and relies heavily on the "curative model" of care².

World Health Organization has defined complementary and alternative medicine (CAM) as the sum total of the knowledge, skills, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health

as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness.^[1] Pandey *et al.*, 2011, has done a systemic review on CAM use in the management of diabetes mellitus and showed that CAM very effective³.

A study was conducted to Effectiveness of Structured Teaching Programme on Knowledge Regarding Complementary Therapy on Management of Hypertension among Hypertensive Patients Attending to Shirur Primary Health Centre Bagalkot District. The pre-experimental one group pre-test post-test design was adopted for the present study. The sample for the study includes 40 people from selected primary health centre shirur at Bagalkot District using simple random sampling technique. The data collected using structure close ended questionnaire and data was analysed using descriptive and inferential statistics. The results reveal that, most of pre-test people (92.5%) had average knowledge (7.5%) they had poor knowledge. Whereas in post-test majority people (67.5%) of the people had good knowledge level (32.5%) of them had very good knowledge. Similarly significant association was found between knowledge of hypertensive patients and demographic variables like gender ($c^2=1.11$; $p < 0.05$) education ($c^2=5.19$; $p < 0.05$) occupation ($c^2=3.56$; $p < 0.05$) types of family ($c^2=0.80$; $p < 0.05$)⁴.

Objectives of the study

- 1) To assess the knowledge regarding complementary therapy among health workers before structured teaching programme.
- 2) To assess the post-test knowledge regarding complementary therapy among health workers.
- 3) To find out the effectiveness of structured teaching programme on knowledge regarding complementary therapy among health workers.
- 4) To determine the association between knowledge level and selected demographic variables.

Hypothesis

- H₁- There is significant difference in mean knowledge scores before and after structured teaching programme among experimental group.
- H₂- There is significant difference in mean post-test knowledge scores among experimental and control group.
- H₃- There is significant association between knowledge level of health workers with selected socio-demographic variables.

2. Material and Methods

Research Approach: Quasi experimental approach.

Research Design: Two group pre-test – post-test design.

Population: Health workers

Settings: Suratkal PHC and Ullala PHC, Mangalore Karnataka.

Sampling Technique: Non –probability purposive sampling technique.

Sample size: 60 health workers (30 in experimental and 30 in control group).

2.1 Tools and Technique

I) Demographic Performa was used to collect socio demographic data such as age, gender, religion, educational status, source of information and type of family.

II) Structured Knowledge Questionnaire was used to assess the knowledge regarding complementary therapy which consisted of 30 items divided in to six areas (Introduction & meaning, Importance, Benefits, Classification, Mind-body interventions and Teaching methodology)

III) Structured teaching programme (STP) was administered for a duration of 45 minutes for 30 samples in experimental group (Health workers, Suratkal PHC). Lecture cum discussion was used as a teaching methodology along with a variety of AV aids including LCD/PowerPoint presentation, Charts, Flash Cards, OHP sheets and video assisted modules.

2.2 Method of Data collection

Data was collected for a period of one month [25th March 2011 to 25th April 2011]. After explaining the purpose and obtaining an informed consent, the pre-test was administered for both PHC's followed by a structured teaching programme for experimental group. After a period of 07 days a post test was carried out for both experimental and control groups.

Inclusion criteria:

- Health workers who were willing to participate in the study
- Health workers who were available at the time of data collection

Exclusion criteria:

- Health workers who were not willing to participate in the study
- Health workers not available during the period of data collection

Statistical analysis:

Both Descriptive and Inferential statistics were used to analyse the data [using SPSS version 20 (SPSS Inc., Chicago, IL)]. Descriptive statistics such as Frequency distribution and percentage were used to describe the socio demographic data and Inferential statistics such as student t test was used to find out the effectiveness of STP by comparing the mean knowledge scores between experimental and control group, paired t-test was used to determine the difference between mean knowledge scores before and after the intervention. Chi-square was performed find out the association between knowledge and selected demographic variables. The level $P < 0.05$ was considered as the minimum accepted level of significance.

3. Results

Table 1: Frequency distribution and percentage of sample characteristics, (N=60)

Demographic Variables	Experimental		Control	
Age (In years)	f	%	f	%
≤30 yrs.	02	6.7%	01	3.33%
31-40 yrs.	07	23.3%	10	33.33%
>40 yrs.	21	70%	19	63.34%
Gender				
Male	15	50%	13	43.3%
Female	15	50%	17	56.7%
Religion				
Hindu	29	96.67%	29	96.67%
Christian	01	3.33%	01	3.33%
Muslim	0	0%	0	0%
Educational status				
Primary Education	08	26.67%	17	56.6%
Secondary Education	10	33.33%	11	36.7%
Graduates and above	12	40%	02	6.7%
Source of information				
Family & Friends	01	3.33%	01	3.33%
TV and Radio	00	0%	01	3.33%
Magazine and Newspaper	24	80.00%	14	46.67%
Other Mass media	5	16.67%	14	46.67%
Type of family				
Nuclear	29	96.67%	30	100%
Joint	01	3.33%	0	0%

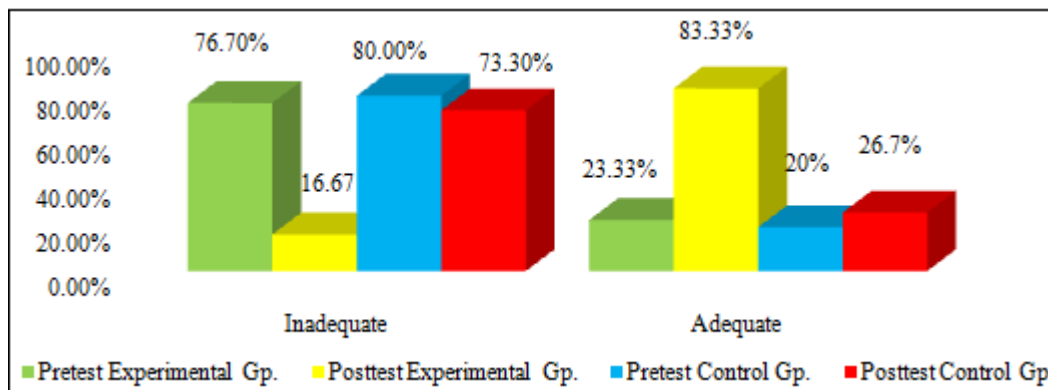


Figure 1: Bar Diagram showing frequency distribution and percentage of pre-test and post-test knowledge level regarding Complementary therapy among health workers

Table 2: Mean, Standard deviation and t-value of knowledge level among health workers before and after STP, (N=60)

Group	Stage	Mean	SD	Mean Difference	df	t-value	p
Experimental	Pre-test	10.33	2.591	9.667	29	9.811	0.001
	Post-test	20	4.807				
Control	Pre-test	10.07	2.815	0.70	29	1.019	31.6
	Post-test	09.37	2.906				

* Significant at 0.05 level

Table 02 shows that mean knowledge score among the experimental group before the structured teaching programme was 10.33±2.591 and that among the control group was 10.07±2.815. After the Intervention (Structured teaching programme), among the experimental group, the mean knowledge score increased to 20±4.807. Increase in knowledge score after structured teaching programme in the experimental group was statistically significant (p<0.001). Mean knowledge score among the control group on post-test was 09.37±2.906. Change in knowledge score among the

control group at post-test was statistically significant. Hence research hypothesis (H₁) was accepted.

Table 3: Mean, SD, t value of knowledge level among health workers in experimental and control group, (N=60)

Stage	Group	Mean	SD	df	p
Pre-test	Experimental	10.33	2.591	58	0.064
	Control	10.07	2.815		
Post test	Experimental	20	4.807	58	0
	Control	9.37	2.906		

* Significant at 0.05 level

Table 03 shows that there was significant increase in the mean knowledge score of health workers in experimental as compared to control group at 0.05 level. Hence research hypothesis (H₂) was accepted. Therefore, it is interpreted that there is significant increase in the knowledge scores among experimental group following structured teaching programme.

Table 4: Association between knowledge level among health workers and selected demographic variables, (N=60)

Demographic Variables	Knowledge level				χ ²	p
	Inadequate		Moderate			
	f	%	f	%		
Educational qualification						
Illiterate	0	0	0	0		
Primary	08	26.67%	17	56.6%	10.430*	0.005*
Secondary	10	33.33%	11	36.7%		
Graduate and above	12	40%	02	6.7%		
Source of Information						
Family & Friends	01	3.33%	01	3.33%	7.895*	0.048*
TV and Radio	00	0%	01	3.33%		
Magazine and Newspaper	24	80%	14	46.67%		
Other Mass media	05	16.67%	14	46.67%		

*Significant at 0.05 level.

The above table depicts that the calculated χ²value for educational qualification is significantly higher than the table value (p<0.05 level). So, there is association between educational qualification and knowledge level of complementary therapy; Also, there is association between source of information and knowledge level (P<0.05 level of significance). Hence the research hypothesis H₃ was accepted. The score changes also reflect the effectiveness of the intervention.

4. Discussion

The findings in the present study revealed that the mean pre-test knowledge score regarding Complementary therapy among experimental group was 10.33±2.591 and mean post test score was 20±4.807. The t value [9.811*, df=29] computed by comparison of pre and post knowledge score among experimental group was significant at P<0.05 level. Hence, there is significant difference in the mean knowledge scores of health workers before and after STP which is significant in enhancing the knowledge levels regarding

complementary therapy among health workers. The experimental group shows improvement in knowledge scores compared to the control group. The student t test value computed by comparing the mean post-test knowledge score among experimental group and mean post-test knowledge score among control group is statistically significant at 0.05 level. Therefore, it is interpreted that Structured teaching programme is significant in improving the knowledge [P< 0.05 level]. This result is supported by various studies. A quasi-experimental study was conducted among 50 elderly people who resided in nursing homes in Korea to assess the effectiveness of foot reflexion massage on sleep disturbances, depression disorder and physiological index of elderly in nursing homes. An experimental group and a control group were organized up to 25 subjects respectively, and the care was provided two 12 sessions, of 30 minutes. The result ascertained improvement in sleep quality, reduction in depression disorder among the experimental group as compared with the control group. The study also concluded that it was very necessary to give foot reflexion massage as a successful nursing intervention to elderly who undergo a change in sleep, and suffer from a depression disorder due to deterioration in sleep⁵.

5. Conclusion

The study was conducted to assess the effectiveness of structured teaching programme on knowledge regarding complementary therapy among health workers. The results of the study undoubtedly confirm that the post-test knowledge score in the experimental group is significantly higher than the pre-test knowledge score and there were no significant changes in the mean knowledge score in the control group. Therefore, it is concluded that STP is significantly effective in enhancing the knowledge level regarding complementary therapy among health workers

6. Limitations

- The study used a purposive sampling, the generalization of findings remains restricted.
- The influence of extraneous variables during the period between pre-test and post-test on the control group cannot be explored.
- No follow-up was made to measure the retention of knowledge.

7. Recommendations

- A similar study can be replicated among General nursing and Midwifery (GNM) students
- A comparative study can be conducted between health workers in rural and urban area.
- A similar Study can be conducted among staff nurses in various hospitals.

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