Effectiveness of Information booklet on knowledge regarding Complementary therapies: A Pre-experimental study

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ABSTRACT:

Background: A pre-experimental study was conducted to assess the effectiveness of Information booklet on level of knowledge regarding complementary therapies among health workers in selected Rural areas, Mangalore, Karnataka. A total sample of 60, health workers were selected using convenience sampling technique. The objectives of the study were to assess the level of knowledge among health workers regarding complimentary therapies before and after intervention (Information booklet) and to determine the effectiveness of Information booklet on level of knowledge regarding complimentary therapies among health workers. The final objective was to find out the association between pre-test level of knowledge and selected demographic variables.

Materials and Methods: A one-group pre-test post-test design was used to conduct the study. A sample comprising of 60 health workers from PHC (Primary health centre) were enrolled using non-probability convenience 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 Performa 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 23.40±2.50 was significantly higher than the mean pre-test knowledge score 10.00±3.00 (p<0.01). Paired t value computed at 31.60** was statistically significant at p<0.01. Significant association at 0.05 level was observed between level of knowledge with regard to the previous knowledge regarding complementary therapies.

Conclusion: The findings of the study confirmed that the Information booklet was significantly effective in improving the level of knowledge regarding Complimentary therapies among health workers.

Keywords: Pre-experimental study, Information booklet, Level of Knowledge, Health workers, Complimentary therapies, Rural areas.

INTRODUCTION

‘The World Health Organization’ at its Alma-Ata Health Declaration [1978], reaffirmed that, “health, which is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, is a fundamental human right and that the attainment of the highest possible level of health is a most important world-wide social goal whose realization requires the action of many other social and economic sectors in addition to the health sector.” In its widest form of medical practice, the promotion
and care of health, is concerned with this ideal.\[1\] Health care providers today are faced with challenging issues of health-promotion, disease prevention and management of chronic illnesses for which conventional medicine has offered only limited success. An increasingly knowledgeable patient population is now fuelling the complementary therapies by seeking alternatives to traditional treatments. \[2\] Complementary therapies are generally considered to be based within a philosophical model of holistic or whole-person healthcare. This proposes that each person is viewed as an organic intact whole, composed of inseparable dimensions identified as those related to the physical, intellectual, psychological, emotional (feeling), social and spiritual dimensions. In this regard, Complementary therapies aim to treat the whole person, not just the symptoms of disease. Complementary medicine includes a large number of practices and systems of health care that, for a variety of cultural, social, economic, or scientific backgrounds. The common complementary therapies include sensory, cognitive, expressive, physical and medical therapies. \[3, 4\] 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 care. \[5\] The World Health Organization has estimated that 80% of the population in the developing countries uses traditional plants as drugs for their primary healthcare needs. In India a strong tradition of complementary therapies exists which aims in balancing the energy of our body. Our traditional forms of treatment such as Ayurveda, Naturopathy using herbs and massages, Yoga, aromatherapy etc. are having high popularity in modern era because of their healing properties and cost-effective remedies for a variety of ailments thus improving the good health and longevity. \[6, 7\]. 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 sleep. \[8\] Thus, it can be interpreted that Complementary therapies are the much efficient and cost-effective remedies for numerous ailments which is an absolute need of our time. Keeping this in mind the Investigator(s) through this study aims to impart the importance of Complementary therapies and to enhance the level of knowledge among health workers using an Information booklet, since it would help them to render comprehensive and holistic care in both hospital and community settings.

**OBJECTIVES OF THE STUDY**

To assess the pre-test level of knowledge regarding complementary therapies among health workers.

To assess the post-test level of knowledge regarding complementary therapies among health workers.

To determine the effectiveness of information booklet on level of knowledge regarding complementary therapies.
To find out the association between the pre-test level of knowledge and selected demographical variables.

**HYPOTHESES**

H₁-There is significant difference in the mean knowledge scores before and after intervention (Information booklet).
H₂- There is significant association between pre-test knowledge level regarding complementary therapies with selected socio-demographic variables.

**METHODOLOGY**

Research Approach: Quantitative research approach.
Research Design: Pre-experimental, One group pre-test – post-test design.
Population: Health workers from Rural areas of Mangalore.
Settings: Selected rural areas of Mangalore.
Sampling Technique: Non-probability Convenience sampling technique.
Sample size: 60 health workers of selected rural PHC, Mangalore.

<table>
<thead>
<tr>
<th>Pre-test</th>
<th>Treatment</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>O₁</td>
<td>X</td>
<td>O₂</td>
</tr>
</tbody>
</table>

**Figure 01: Schematic Representation of Research Design**

O₁: Assessment of pre-test level of knowledge regarding Complementary therapies by using Structured Knowledge questionnaire.
X: Administration of Information booklet regarding Complementary therapies (Intervention) on the same day following the pre-test.
O₂: Assessment of post-test level of knowledge regarding Complementary therapies by using Structured Knowledge questionnaire after a week following the Intervention.

**TOOLS AND TECHNIQUE**

**Tool-A:** Demographic Proforma was used to assess the socio demographic characteristics such as age, gender, religion, educational status, type of family and previous information regarding complementary therapies.

**Tool-B:** Structured Knowledge Questionnaire was used to assess the level of knowledge regarding complementary therapies among health workers, of selected rural PHC’s Mangalore.

An Instructional Booklet was administered for 60 samples (Health workers in Rural PHC, Mangalore). information booklet was based on the level of understanding of health workers with relevant illustration and pictures. The areas covered were the meaning and benefits, sensory complementary therapies cognitive complementary therapies, expressive complementary therapies, physical complementary therapies and medical system of complementary therapies.

**Method of Data collection:** Data was collected for a period of 25th November 2011 to 19th December 2011. After explaining the purpose and obtaining an informed consent, the structured knowledge questionnaire was administered to find out the pre-test level of knowledge among health workers regarding complementary therapies. On the same day information booklet on complementary therapies was
administered as administered. A [post-test was carried out on the 8th day following administration of the Information booklet.

**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 who were not available during the period of data collection

**Statistical analysis:** Both Descriptive and Inferential statistics were used to analyse the data [using SPSS version 16 (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 ‘paired t test’ was used to find out the effectiveness of the Information booklet by comparing the mean knowledge scores before and after the intervention. Fisher exact test (p#) was performed to find out the association between knowledge and selected demographic variables. The level \( P < 0.05 \) was considered as the minimum accepted level of significance.

**RESULTS**

Section-I: Frequency distribution and Percentage of Sample characteristics

**Table 01:** Frequency distribution and percentage of health workers according to age. (N=60)

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age in years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-30 Yrs.</td>
<td>21</td>
<td>35.00%</td>
</tr>
<tr>
<td>31-40 Yrs.</td>
<td>29</td>
<td>48.30%</td>
</tr>
<tr>
<td>41-50 Yrs.</td>
<td>09</td>
<td>15.00%</td>
</tr>
<tr>
<td>50 Yrs. and above</td>
<td>01</td>
<td>01.70%</td>
</tr>
</tbody>
</table>

**Figure 02:** Pie Diagram showing frequency distribution and percentage of health workers according to gender.
Figure 03: Bar Diagram showing frequency distribution and percentage of health workers according to religion.

Figure 04: Cone Diagram showing frequency distribution and percentage of health workers according to education status.

Figure 05: Pyramidal Diagram showing frequency distribution and percentage of health workers according to type of family.

Figure 06: Donut Diagram showing percentage distribution of health workers according to previous knowledge.
**Figure 07:** Cone Diagram showing percentage distribution of health workers according to previous knowledge.

**Section-II: Pre-test and post-test level of knowledge among health workers.**

**Table-02:** Frequency distribution and percentage of samples according to their pre-test and post-test level of knowledge regarding complementary therapies (N=60)

<table>
<thead>
<tr>
<th>SL. No</th>
<th>Level of Knowledge</th>
<th>Pre-Test</th>
<th></th>
<th>Post-Test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>01.</td>
<td>Inadequate</td>
<td>49</td>
<td>81.67%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>02.</td>
<td>Moderately adequate</td>
<td>11</td>
<td>18.33%</td>
<td>13</td>
<td>21.67%</td>
</tr>
<tr>
<td>03.</td>
<td>Adequate</td>
<td>0</td>
<td>0%</td>
<td>47</td>
<td>78.33%</td>
</tr>
</tbody>
</table>

**Figure-08:** Cone Diagram showing the percentage distribution of samples according to their pre-test level of knowledge regarding complementary therapies.

**Section-III: Effectiveness of information booklet on level of knowledge among health workers.**
Table 03: Mean, Standard deviation and Paired t value of level of knowledge among health workers before and after the intervention. (N=60)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Mean ±SD</th>
<th>Mean Difference</th>
<th>df</th>
<th>Paired t value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>10.00 ± 3.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-test</td>
<td>23.40 ± 2.50</td>
<td></td>
<td></td>
<td>31.60**</td>
<td>P&lt;0.01</td>
</tr>
</tbody>
</table>

**Significant at 0.01 level.**

Table 02 shows that mean pre-test knowledge score was 10.00±3.00. After the Intervention (Information Booklet), the mean knowledge score increased to 23.40±2.50. Increase in knowledge score after the intervention was statistically significant (paired t value 31.60**, df 59, p<0.01). Hence research hypothesis (H1) was accepted.

**Section-IV: Association between the pre-test level of knowledge and selected demographic variables.**

Table 04: Association between level of knowledge among Health workers and selected demographic variables. (N=60)

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Knowledge level</th>
<th>Adequate</th>
<th>%</th>
<th>Moderately</th>
<th>%</th>
<th>p#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Inadequate</td>
<td>07</td>
<td>11.67%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adequate</td>
<td>05</td>
<td>83.33%</td>
<td></td>
<td></td>
<td>0.033*</td>
</tr>
<tr>
<td>No</td>
<td>Inadequate</td>
<td>42</td>
<td>40.00%</td>
<td></td>
<td></td>
<td>[p&lt;0.05]</td>
</tr>
<tr>
<td></td>
<td>Adequate</td>
<td>06</td>
<td>10.00%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.05 level.

The above table depicts that the Fisher exact test value (p# 0.033) computed for previous knowledge is significant at 0.05 level (p<0.05 level). So, there is association between previous knowledge and pre-test level of knowledge regarding complementary therapies among health workers. Hence the research hypothesis H2 was accepted. Also, there was no significant association between level of knowledge and other demographic variables. (p>0.05).

**DISCUSSION**

The findings in the present study revealed that the mean pre-test knowledge score regarding complementary therapies was 10.00±3.00 SD and mean post test score was 23.40±2.50 SD. The paired t value [31.60**, df=59] computed by comparison of the mean pre-test and post-test knowledge scores was statistically significant at P<0.01 level. Therefore, it is interpreted that Information booklet is significant in improving the knowledge regarding complementary therapies among health workers.

**NURSING IMPLICATIONS**

The findings of this study have several implications for nursing practice, nursing education, nursing research and nursing administration.
Nursing Practice
Complementary therapies are gaining popularity and finding more substantial place in health care. Holistic nursing interventions affect the whole person and are effective, economical, non-invasive, non-pharmacological complements to medical care. Nurses must take initiative in continuing education programmes at hospitals which may help them to enrich their knowledge regarding alternative therapies and also help to provide health education to the community people regarding complementary therapies.

Nursing Education
Alternative and Complementary therapy must be included as a part of the curriculum and active participation of nursing students can be ensured by the institution by conducting various educational programmes on the context. The teacher can impart the knowledge through a variety of methods like lecturer cum discussion, booklets, handouts, pamphlets, charts, models and other teaching materials. Nursing students should be oriented to various complementary therapies, so that they can educate the members of the community about complementary therapies and its cost-effective advantages.

Nursing Research
There is a need for extended and intensive nursing research in the area of complementary therapies. By conducting research and formulating new theories, researchers can improve the scientific body of knowledge and ultimately improve the status and standard of the nursing profession.

Nursing Administration
Nursing administration take an initiative in creating policies and plans in providing Inservice education to the health workers. Nursing administration also implement outreach programmes to make the public aware of complementary therapies and its benefits and uses.

CONCLUSION
The study was conducted to assess the effectiveness of Information booklet on level of knowledge regarding complementary therapies among health workers in rural area. The results of the study confirm that the mean post-test knowledge score is significantly higher than the mean pre-test knowledge score. Therefore, it is concluded that information booklet is significantly effective in improving the level of knowledge regarding complementary therapies among health workers.

LIMITATIONS
The study used a non-probability, convenience sampling.
Lacked a control group to limit the influence of confounding variables.
No follow-up was made to measure the retention of knowledge.

RECOMMENDATIONS
A similar study can be replicated among urban settings.
A comparative study can be conducted between government and private sector health workers.
A similar study can be replicated among hospital-based settings.
Can be conducted among stake holders of health care.
ACKNOWLEDGEMENTS
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REFERENCES
2. Ruth Sewell Complementary therapies; progressing from knowledge to wisdom ,2005; 18 ;222-4
5. Bolletino Cohn R, Responses to ‘Attachment and Cancer, a conceptual integrate, A Reality Check Integrate Cancer Therapy, 2002; 1;382-6