A study to assess the effectiveness of Computer Assisted Teaching programme regarding knowledge on available health services at Primary Health Centre(PHC) among ASHA workers in selected PHCs of Holenarasipura

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ABSTRACT

Background and Objectives
The rural people contribute to 68.84% of the population in India. PHC is considered as a basic structural and functional unit of health care system in India. ASHA plays a key role in the NRHM by serving as a crucial link between the village community and health centre. Upgrading the knowledge of ASHA workers regarding available health services at primary Health Centre enhances the health of the family/community as well as the nation. The ultimate aim is to ensure the healthy family and healthy community. This study aimed to assess the effectiveness of Computer Assisted Teaching programme regarding knowledge on available health services at Primary Health Centre (PHC) among ASHA workers in selected PHCs of Holenarasipura.

Methods
The research approach for the present study used was quasi experimental design, data was collected by using self administered structured knowledge questionnaire from 50 ASHA workers who were selected by using simple random sampling technique. Validity and reliability was established. Pre-test was followed by implementation of Computer Assisted Teaching Programme and post test was conducted after 7 days to find out the effectiveness in the present study. Data was analyzed by using descriptive and inferential statistics.

Results
Result revealed that, the overall mean knowledge score in the pre-test was 52.5% and 83.9% in the post test with enhancement of 31.4% and it is significant at 5% level. Among demographic variables analysed in the study it was inferred that there is a significant association between knowledge score and the selected demographic variables regarding available health services at PHCs among ASHA workers knowledge scores at 5% level.

Interpretation and Conclusion
The study concluded that CAT was effective in improving the knowledge of ASHA workers regarding available health services at Primary Health Centre.

Key words: Primary Health Centre, Accredited Social Health Activist, Computer Assisted Teaching, Standard Deviation

I. INTRODUCTION

Health is a dynamic process involving constant adjustments and adaptations to the changing environment (internal & external). As the preamble to the constitution of WHO defines it “Health is a state of complete physical, mental and social wellbeing and not merely an absence of disease or infirmity”. The Alma Ata declaration (1978) reaffirms that attainment of positive health is a fundamental human right and re stresses that the governments of all countries should work towards the development of health of their people. At present there are 23,109 PHCs in India. PHCs were established to provide accessible, affordable and available primary health care to people in accordance with the Alma Ata declaration of 1978 by the member nations of world health organizations. To even out the urban rural health devide and to realize its obligation to the Alma Ata, to make health care services universally available the UPA( United Progressive Alliance) government introduced the
concept of the National Rural Health Mission (NRHM) in September 2004. NRHM was launched throughout the country for a period of seven years (2005-2012) on 12th April 2005. The NRHM flagship scheme of the UPA government was started with the aim to provide quality health care to people living in the remotest and inaccessible areas of the country. The main objective of the NRHM was universal availability of “Primary Health Care” or the essential health care. The NRHM proposed developing of a new cadre of community health worker - ASHA, an acronym for Accredited Social Health Activist. ASHA plays a key role in the NRHM by serving as a crucial link between the village community and health centre. ASHAs do provide constellation of services and play a potential role in providing primary health care but still they need to put into practice their knowledge about while providing services and/or advice to negotiate health care for poor women and children. One of the role of ASHA is to mobilize the community and facilitate them in accessing health and health related services available at anganwadi/ sub Centre/ Primary Health Centres.

Today’s need is to meet the health needs of the people from grass root levels. Thus it’s highly essential to improve the knowledge of ASHA workers regarding available services at Primary Health Centre. They are the bridge between the health care delivery system and the community. She should convince the people of her community to utilize the services which is available as per their need. As ASHA worker is the catalyst between the health centres and rural community the knowledge provided to them will help to improve the health status of the community people.

II. METHODS
A quasi experimental design with one group pre-test & post-test was adopted. 50 ASHA workers working under the PHC’s of Holenarasipura Taluk were selected by using Simple Random Sampling technique. The data was collected by using self administered structured knowledge questionnaire regarding available health services at PHCs following the administration of computer assisted teaching programme and post test was conducted after 7 days of teaching. Data was analysed by using descriptive and inferential statistics.

III. RESULTS AND DISCUSSION
Study concluded that there is an increase in the knowledge scores of ASHA workers after the Computer Assisted Teaching Programme
The demographic characteristics shown that Majority (40%) of the ASHA workers were in the age group of 30-34 years, 80% of the respondents found to be married, 48.0% of the respondents educational qualification was 10th std., 50.0% of the respondents had 3-4 years of total experience, 100% of the respondents belongs to Hindu religion, Majority 80% of the respondents were nuclear family background, Majority 48% of ASHA workers monthly income is below Rs.5,000/-, 100% of the respondents’ source of information is NRHM training programme.
Figure 1: percentage distribution of the Overall Pre test and Post test Mean Knowledge on Available Health Services at PHC

Data presented in the figure shows that in pre test 36(54%) of the ASHA workers had inadequate knowledge (≤ 50 % Score). 23(46%) of them had moderate knowledge (51-75 % Score) in pre test but in post test it was found to be 15(30%). 35 (70%) of them found to be with adequate knowledge (> 75 % Score) in post test.
However, the difference in the knowledge level of ASHA workers between pre test and post test was statistically significant ($\chi^2 = 63.68^*$. And research hypothesis was accepted.

**Figure 2: Percentage distribution showing the Aspect wise Mean Pre test and Post test Knowledge on Available Health Services at PHC**

Data in figure indicates the aspect wise mean pre and post test and knowledge enhancement score on available health services at PHCs among ASHA workers. The pre test knowledge score regarding the primary health centre in general was found to be mean Percentage 30.6% and the post test knowledge score was 82.6%, the enhancement of knowledge found to be 52.0%. Regarding available health services at PHC the pre test knowledge score mean Percentage was 57.1% and post test knowledge score was 84.1% and the enhancement of knowledge is found to be 12.6%. The statistical paired ‘t’ test indicates the enhancement of mean knowledge scores was found to be significant, i.e the obtained ‘t’ value 22.89 is more than the table value 1.96 (at 0.05, 49df).

It was inferred that there was significant enhancement in the mean post test knowledge score and the research hypothesis accepted.

**Table 1: Association between demographic variables with Pre test Knowledge level on Available Health Services at PHC**

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>$\chi^2$ Value</th>
<th>“P” Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group (years)</td>
<td>6.49(S)</td>
<td>P&lt;0.05</td>
</tr>
<tr>
<td>Marital status</td>
<td>0.45 (NS)</td>
<td>P&gt;0.05</td>
</tr>
<tr>
<td>Type of family</td>
<td>5.82(S)</td>
<td>P&lt;0.05</td>
</tr>
<tr>
<td>Educational qualification</td>
<td>3.37 (NS)</td>
<td>P&gt;0.05</td>
</tr>
<tr>
<td>Monthly income of the family</td>
<td>9.81(S)</td>
<td>P&lt;0.05</td>
</tr>
<tr>
<td>Total experience in years</td>
<td>0.80 (NS)</td>
<td>P&gt;0.05</td>
</tr>
</tbody>
</table>

* Significant at 5% Level,  
S: Significant  
NS: Non-significant

Table 1 reveals the association between demographic factors and pretest knowledge level on available health services at PHC. It shows that the knowledge was influenced by age group, type of family, monthly income and there is no association with other demographic variables like marital status, educational qualification, and total experience in years. Hence hypotheses of the study was accepted. It was inferred that there was a significant association between pretest knowledge scores and their selected demographic variables regarding available health services at PHCs among ASHA workers.

**Table 2: Association between demographic variables with Post test Knowledge level on Available Health Services at PHC**

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>$\chi^2$ Value</th>
<th>“P” Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group (years)</td>
<td>0.41 (NS)</td>
<td>P&gt;0.05</td>
</tr>
<tr>
<td>Marital status</td>
<td>2.86 (NS)</td>
<td>P&gt;0.05</td>
</tr>
<tr>
<td>Type of family</td>
<td>5.36(S)</td>
<td>P&lt;0.05</td>
</tr>
<tr>
<td>Educational qualification</td>
<td>9.28(S)</td>
<td>P&lt;0.05</td>
</tr>
<tr>
<td>Monthly income of the family</td>
<td>6.85(S)</td>
<td>P&lt;0.05</td>
</tr>
<tr>
<td>Total experience in years</td>
<td>0.88 (NS)</td>
<td>P&gt;0.05</td>
</tr>
</tbody>
</table>

* Significant at 5% Level,  
S: significant  
NS: Non-significant
Table 2 reveals the association between demographic factors and post-test knowledge level on available health services at PHC. It shows that the knowledge was influenced by educational qualification, type of family, monthly income and there is no association with other demographic variables like age group in years, marital status, total experience in years. It was inferred that there was a significant association between post test knowledge scores and their selected demographic variables regarding available health services at PHCs among ASHA workers.

IV. CONCLUSION

Study concluded that knowledge wise the pretest score was inadequate 54.0%, Moderate 46.0% and Adequate was 0.00%. The post test knowledge level score was moderate 30.0%, Adequate 70.0% and none of them had inadequate knowledge. The present study revealed that there is need to educate the ASHA workers regarding available health services at PHCs and also computer assisted teaching programme was found to be effective in terms of post test knowledge scores. Hence H1 was accepted. Among demographic variables analyzed in this study it was inferred that there is a significant association between pretest and post test knowledge scores and their selected demographic variables regarding available health services at PHCs among ASHA workers knowledge scores at 5% level. Hence H2 was accepted.

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