

EFFECTIVENESS OF COMPUTER ASSISTED TEACHING ON KNOWLEDGE AND PRACTICE OF BREAST FEEDING AMONG MOTHERS IN A SELECTED HOSPITAL IN CHENNAI

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ABSTRACT

Breastfeeding is the divine nourishment for a newborn. Although some aspects of breast-feeding come naturally to mother, learning proper skills is crucial for successful lactation. **Aim:** To determine the effectiveness of computer assisted teaching on knowledge and practice of breast feeding among mothers. **Settings and Design:** Hospital-based; Quasi experimental – time series design. Non probability convenience sampling technique was used to collect 103 experimental and 101 control group samples. Using a researcher administered questionnaire and observational checklist, data was tabulated, analysed by descriptive and inferential statistics. **Results:** In post-test among Experimental group, 25 (24.17%) of the mothers had inadequate level of knowledge score, 46 (44.66%) had moderate level of knowledge score and 32 (31.07%) had adequate level of knowledge score. In control group, 55 (54.46%) had inadequate level of knowledge score, 46 (45.54%) had moderate level of knowledge score and none of them were having adequate level of knowledge score. In post-test-1, among experimental group, 22 (21.36%) were having inadequate level of practice score, 45 (43.69%) were having moderate level of practice score and 36 (34.95%) were having adequate level of practice score. In control group, 54 (53.47%) were having inadequate level of practice score, 47 (46.53%) were having moderate level of practice score and none of them were having adequate level of practice score.

Conclusion: Computer assisted teaching enabled mothers to gain more knowledge and better practice of breast feeding.

Key Words: Breastfeeding, Knowledge, Practice, Mothers.

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INTRODUCTION

Breastfeeding is essential during the golden hour; it provides an immense benefit that greatly impacts the health of both mother and the child. The theme of World Breastfeeding Week 2020 is –“Support breastfeeding for a healthier planet,” highlighting the link between breastfeeding and the environment/ climate change with special focus to protect, promote and support breastfeeding for health of the planet and its people. UNICEF and WHO (2018) reports state that India ranks 56th among the 76 countries that were analysed with early initiation of breastfeeding. Many studies from India highlighted the lack of awareness among the mothers regarding exclusive breast feeding and timely initiation of breastfeeding. Towards the end of antenatal period the mother needs to have appropriate knowledge to initiate, practice effective breast feeding techniques after childbirth. Hence, the investigator was much interested to assess the effectiveness of computer assisted teaching on knowledge and practice of breastfeeding on postnatal mothers.

STATEMENT OF THE PROBLEM

A study to determine the effectiveness of computer assisted teaching on knowledge and practice of breast feeding among mothers in a selected hospital in Chennai.

OBJECTIVES

1. To determine the effectiveness of computer assisted teaching on knowledge and practice of breast feeding among mothers.
2. To find out the association between knowledge and practice of breast feeding with selected demographic variables.

HYPOTHESIS

H₀- There is no significant difference in the level of knowledge on breastfeeding among postnatal mothers between experimental and control groups.

H₁- There is no significant difference in the level of breastfeeding practice among postnatal mothers between experimental and control groups.

H₂- There is significant association in post-test level of knowledge and practice with background variables.

METHODOLOGY

Quantitative research approach; Quasi experimental–time series design was conducted in a selected hospital in Chennai. Using non probability convenience sampling technique, 103 experimental and 101 control group samples were selected based on inclusion and exclusion criteria. Computer assisted teaching was administered to the experimental group. For both the groups, the correct responses made by postnatal mothers to the researcher administered questionnaire on breastfeeding, during day 1 following delivery were interpreted in terms of adequate, moderately adequate and inadequate knowledge. Observation checklist on breastfeeding practice was recorded during day 1, 2 and 3 following delivery. Collected data was tabulated, analysed by descriptive and inferential statistics.

ETHICAL CONSIDERATIONS

- Obtained ethical clearance from respective authorities.
- Ensured informed consent, confidentiality and privacy of study participants.

RESULTS

In experimental group; majority of the study participants 53 (51.46%) were between 26-30 years, 56 (54.83%) studied up to higher secondary; 50 (48.54%) families had monthly income between Rs.20001-30000/- ; 64 (62.14%) were employed, 68 (66.02%) belonged to nuclear families; 47 (38.83%) were having maternal relative support as support system. With regard to gestational week at time of selection for study, majority of the study participants 67 (65.05%) were between 38-39 weeks. In terms of Gestational week at the time of delivery, majority of the study participants 90 (87.38%) were between 38-39 weeks. Majority of the mothers 91 (88.35%) were having haemoglobin values >10 g/dl; 87 (84.47%) had 6-10 antenatal visits; 93 (90.29%) had already received breastfeeding related information. With regard to sex of the child, 58 (56.31%) delivered male child; of 46 (44.66%) birth weight was between 2.6-3.0 Kgs.

In control group, majority, 53 (52.48%) of the participants, belonged to the age group between 26-30 years; 56 (55.45%) studied up to higher secondary; 42 (41.58%) were having between Rs.20001-30000/- in family monthly income; 71 (70.30%) were employed; 71 (70.30%) belonged to nuclear families; 49 (48.51%) were having maternal relative support. With regard to gestational week at the time of selection for study, majority 36 (34.95%) of the study participants were between 38-39 weeks. In terms of gestational week at the time of delivery, majority, 81 (80.20%) of the study participants were between 38-39 weeks. Majority, 89 (88.12%) of the mothers were having haemoglobin values >10 g/dl; 88 (87.13%) made 6-10 antenatal visits; majority, 93 (92.08%) of the mothers had received breastfeeding information. With regard to sex of child, 52 (51.49%) delivered male child; in 51 (50.50%) the birth weight was between 3.1-3.5 Kgs.

In comparison of post-test level of knowledge on breastfeeding, in experimental group, 25 (24.17%) of the mothers had inadequate level of knowledge score, 46 (44.66%) had moderate level of knowledge score and 32 (31.07%) had adequate level of knowledge score. In the control group, 55 (54.46%) of the mothers were found having inadequate level of knowledge score, 46 (45.54%) of them were having moderate level of knowledge score and none of them were found having adequate level of knowledge score. Statistically there was a significant difference between their post-test levels of knowledge score.

Table - 1: Comparison of mean post-test knowledge scores in experimental and control groups

N = 204 (103+101)

Assessment	Group	N	Mean score	SD	Mean difference	Student's Independent t-test
Post-test	Experimental	103	14.31	3.95	2.26	t = 4.96, p = 0.001*** DF = 58 (S)
	Control	101	12.05	2.33		

*** p ≤ 0.001 very high significant, DF = Degrees of Freedom

Table - 1 shows comparison of mean post-test knowledge scores between experimental and control group mothers. Experimental group mothers were having knowledge score of 14.31 and control group mothers had knowledge score of 12.05, so the difference in score was 2.26. This difference is large and was considered statistically significant.

In comparison of post-test 1, post-test-2 and post-test-3 levels of breast feeding practice scores of postnatal mothers in experimental and control groups, in post-test-1, among experimental group, 22 (21.36%) of the mothers had inadequate level of practice score, 45 (43.69%) of them had moderate level of practice score and 36 (34.95%) of them had adequate level of practice score. In control group, 54 (53.47%) of the mothers had inadequate level of practice score, 47 (46.53%) of them had moderate level of practice score and none of them had adequate level of practice score.

In post-test-2, among experimental group, 9 (8.74%) of the mothers had inadequate level of practice score, 43 (41.75%) had moderate level of practice score and 51 (49.51%) had adequate level of practice score. In control group, 50 (49.50%) of the mothers had inadequate level of practice score, 51 (50.50%) had moderate level of practice score and none of them had adequate level of practice score.

In post-test-3, among experiment group, none of the mothers had inadequate level of practice score, 30 (29.13%) had moderate level of practice score and 73 (70.87%) had adequate level of practice score. In control group, 47 (46.53%) of the mothers had inadequate level of practice score, 54 (53.47%) had moderate level of practice score and none of them had adequate level of practice score.

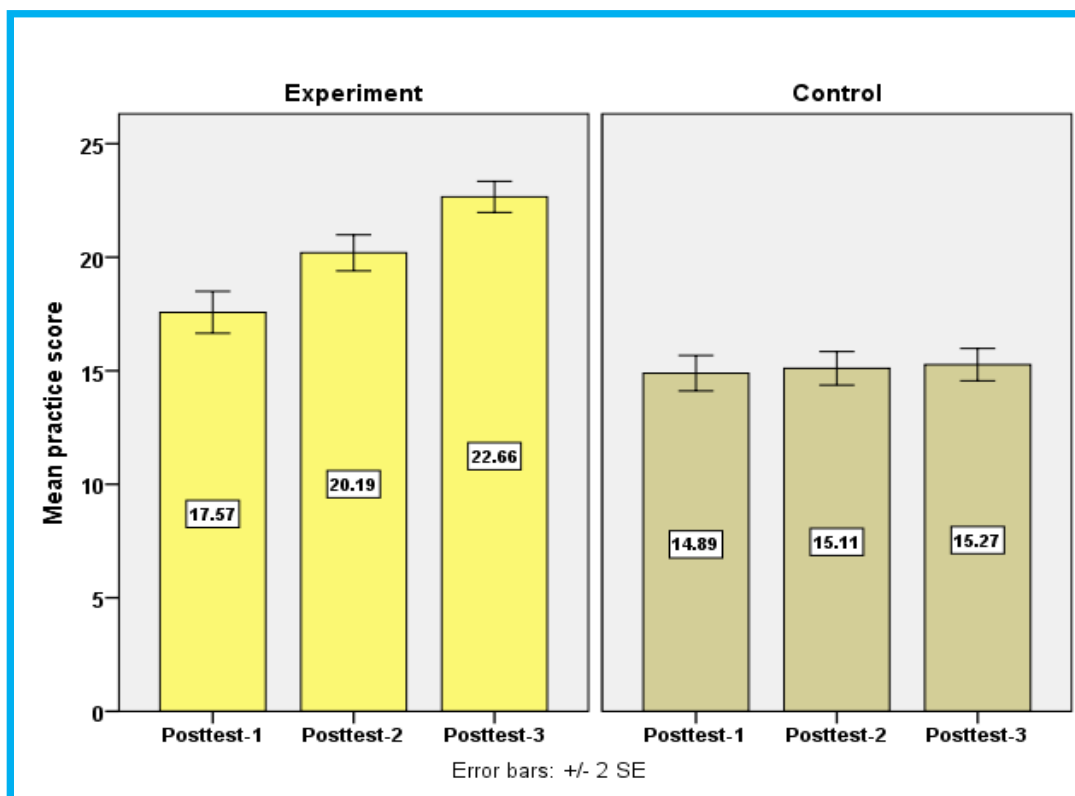


Figure - 1: Simple bar with 2 standard error bar diagrams compare the post-test - 1, post-test - 2 and post-test - 3 mean practice-scores among experimental and control groups.

Chi square test, showed association between mothers' post-test level of knowledge score and clinical variables among experimental group mothers. More antenatal visits of mothers and related information on breastfeeding received by them was significant at $p = 0.03$ and $p = 0.02$, $DF = 1$. As regards association between post-test level of practice scores and demographic variables among experimental group mothers, elder mothers and mothers with more monthly income were having more adequate practice score than others. It was confirmed using chi square test at $p = 0.03^*$. Also in regard to mothers' post-test level of knowledge scores and their clinical variables, mothers with gestational 36-37 weeks at the time of selection for study and mothers with haemoglobin >10 g/dl were found having more adequate levels of practice score than others at $p = 0.05$

CONCLUSION

Acquisition of knowledge on breastfeeding helps in better practice. Nurses and midwives need to stay proactive in imparting knowledge and positive attitude to mothers towards breastfeeding.

RECOMMENDATIONS

- Similar study can be conducted with different teaching methods to know the effectiveness of each teaching method on the knowledge and practice of breastfeeding.
- A comparative study can be done between the urban and rural setting; working and non-working mothers regarding exclusive breast feeding.
- A similar study can be conducted by using true experimental research.

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