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A study to assess the effectiveness of PTP on knowledge regarding weaning among nursing students

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Abstract
Introduction: Children constitute a major proportion of the global population today they constitute the most important vulnerable segment of a population.
One of the factors contributing to infant mortality is the ignorance of child care. Lack of breastfeeding and faulty feeding practices during weaning are the factors associated with high infant mortality in India. knowledge of my nutrition for infants is important because it helps to provide the best possible nutrients to infants for their growth and development. In addition to meeting the nutritional needs, positive feeding experiences can enhance fine motor skills and provide interaction during infancy. The growth rate during infancy is more rapid than any other time during the life cycle [1].
The aim of the present study is to assess the effectiveness of planned teaching program on knowledge regarding weaning among second-year GNM students of selected school of nursing at Mangalore.
Objectives of the study
1. To determine pre-test level of knowledge regarding weaning among nursing students as measured by structured knowledge questionnaire.
2. To evaluate the effectiveness of planned teaching program on knowledge regarding weaning in terms of gain in mean post knowledge score.

Methodology: An evaluative approach was used for the study which was conducted at selected school of Nursing Mangalore. The sample comprised of 30 students of second year GNM. The convenient sampling technique was used to select the sample. The data was collected by administering structured knowledge questionnaire. Data were analysed by using descriptive and inferential statistics.
Result: The result of the study shows that the pre-test knowledge score regarding weaning range between 6-16 with the pre-test mean of 10.20 where a post test score range between 16 - 27 with the mean of 22.56. The mean difference was 12.36 between the pre-test and post-test knowledge score was found to be significant (t_{29}, $p \leq 0$ 05). This showed that the Planned teaching programme was highly effective in improving the knowledge of student on weaning.
Conclusion: The findings of the study support the need for conducting a planned teaching program to increase the knowledge of student nurses on weaning and the finding of the study showed that the PTP as effective in improving knowledge of student nurses regarding weaning.

Keywords: Effectiveness, knowledge level, students, planned teaching programme

Introduction

Weaning is introducing foods other than breast milk into an infant's diet while slowly reducing breastfeeding. For the first 4 to 6 months, exclusive breastfeeding is the WHO's recommended method for full-term infants by healthy, well-nourished mothers. The world health organisation (WHO) recommends exclusive breastfeeding for the first six months of life, with the addition of complementary feeds from six months with continued breastfeeding until at least the age of two. Proper breastfeeding and complementary feeding practices can prevent under-five mortality by 19%. Knowledge of mothers about these factors will help plan interventions to improve feeding practices. It has been shown in many studies that mothers in India cannot start complementary feeding at the right time. Delayed weaning can lead to serious health complications for infants. After six months of age, breast milk alone is not sufficient in quantity and quality to meet the child's nutritional requirements, especially for energy and micronutrient.
Additionally, mothers are responsible for the children's health, and mothers' knowledge can be a barrier to weaning practice. Appropriate weaning practice depends on accurate information and support from the family, community and healthcare system. Inadequate knowledge about the right foods are weaning practices is often a more significant cause of malnutrition during infancy and early childhood [2].

Objectives

Objectives of the study

- To determine the level of knowledge of second year GNM Nursing students regarding weaning as measured by a structured knowledge questionnaire.
- To evaluate the effectiveness of Planned teaching programme and knowledge regarding weaning in terms of gain in the mean post-test knowledge score.

Methodology

An evaluative approach and a quasi-experimental one group pre-test post-test design was adopted for the study. The setting was a selected school of Nursing at Mangalore. Simple random sampling technique was used to select 30, 2nd year GNM students based on inclusion criteria. Structured knowledge questionnaire on weaning was used for data collection. Questionnaire consists of 30 questions.

The resulting knowledge scores were categorized as below average (0-33%), average (34-66%), good (66-100%). Validity of the tool were established by the guide. Permission was obtained from the concerned management of the school of Nursing to conduct the study. The study was conducted and was found to be feasible and practicable. Informed consent was obtained from 2nd year GNM students for data collection. After collection of baseline data planned teaching programme was administered with the help of power point and LCD project. Post- test was conducted on the 7th day using the same structured knowledge questionnaire.

Result

This chapter deals with the analysis and interpretation of data collected from 30 2nd year GNM nursing students through a structured questionnaire to assess their knowledge and to determine the effectiveness of planned teaching programme on weaning. Analysis is the process of organizing and synthesising the data in such a way that research questions can be answered and hypothesis is tested. The purpose of the analysis is to reduce the data in intelligible and interpretable form. Therefore, that relation of the research problem can be studied and tested.

In this study the data was analysed based on the objectives and hypothesis of the study using descriptive and inferential statistics.

Organization of findings

The data is analysed and presented in the following headings

Section 1: Level of knowledge regarding weaning.

Section 2: Effectiveness of planned teaching programme in terms of gain in knowledge scores regarding weaning.

Section1: knowledge level of student nurses regarding weaning

Knowledge level of 30 2nd year GNM nursing students, regarding weaning was assessed with a structured knowledge questionnaire and was analysed using descriptive statistics, which is presented in table 1 and figure 1.

Table 1: Frequency and percentage distribution of pre-test and post-test knowledge scores.

Grading of knowledge	Score range	Pre test Frequency	Percentage	Post test Frequency	Percentage
Below average <40%	0-10	21	70%	0	0
Average 40-76%	11-20	9	30%	10	33%
Good >76%	21 -30	0	0	20	67%

Maximum score = 30

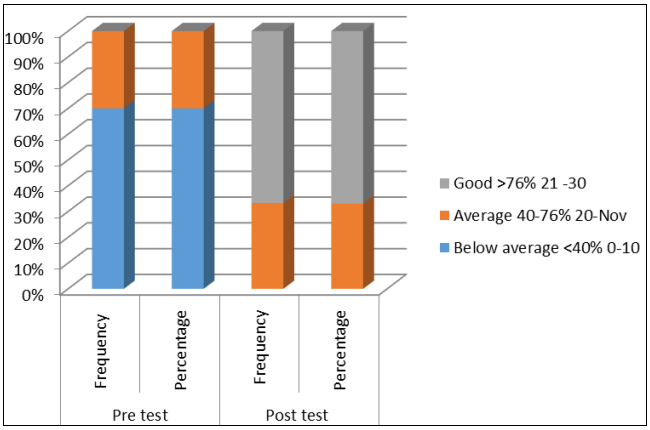

Fig 2: Bar diagram representing the pre and post-test knowledge level of student nurses.

Data in table 1 and figure 1 shows that majority of the subjects (67%) scored between 34-67% in the post-test as compared to pre-test where the subjects (30%) scored 34-66% and 70% where poor.

Table 2: Range, Mean, Standard deviation, and mean % score of pre-test and post-test knowledge score of 2nd year GNM nursing students regarding weaning. N = 30

Knowledge level	Range	Mean ±SD	Mean %
Pre test	6- 16	10.20 ± 3.60	22.66%
Post test	16-27	22.56±3.04	50.13%

Data presented in table 2 shows that range of pre-test knowledge score is 6-16 and that of post-test are 16-27. Mean value is higher in post-test 22.56 than in pre-test 10.20. Standard deviation of pre-test is 3.60 and that of post-test is 3.04. Mean percentage is higher in post-test 50.13% than in pre-test 22.66%.

Section 2: Effectiveness of Planned Teaching Programme in terms of gain in knowledge score regarding weaning.

In order to find out the significant difference between mean pre-test and post-test knowledge scores, paired' t' test was computed and the data is presented in table 3.

To test the statistical difference between pre-test and post-test knowledge score the following hypothesis was formulated.

Table 3: Paired 't' test the significant difference mean difference, SD Difference, and' t' value knowledge scores. N= 30

Group	Mean value	Mean difference	SD difference	't' value
Pre test	10.20	12.36	0.55	13.958
Post test	22.56			

Maximum score: 30. T_{29} =2.05, P≤0.05

Data presented in table 3 shows that the mean post-test knowledge score (22.56) is higher than the mean pre-test knowledge score (10.20). The computed value t =2.05 was greater than the table value t29=2.05. at 0.05 level of significance. Hence the null hypotheses is rejected and research hypotheses is accepted. Thus its inferred that the planned teaching programme was highly effective in improving the knowledge score of 2nd year GNM nursing students regarding weaning.

Discussion

In order to achieve the objectives convenient sampling technique was used to select the sample. The data was collected from 30 student nurses in selected school of nursing.

In the present study it was found that the overall pre-test knowledge of the student nurses on is found to be (10.20) with the standard deviation of (3.60). The study supports the

finding of the study conducted on mother's knowledge of weaning of food which was found that mother had inadequate knowledge regarding weaning 50 (83%) and 10 (17%) mother's had moderately adequate knowledge on weaning foods in pre-test and the investigator had developed planned teaching program on weaning in order to improve the knowledge of students. The investigator has also recommended a follow up study to evaluate the effectiveness of planned teaching program. In the present study means percentage of post - test knowledge of student nurses on weaning (50.13%) was highly than the mean percentage of pre-test knowledge score of (22.66%).

This studies support the findings of another study conducted to examine the association between supplementary feeding practice and mother's education status in Islamabad, among 500 Pakistani mothers of infants attended the paediatric outpatient department by using a questionnaire. The result showed that there is a positive relationship found between nutritional status of infants educational status of mothers and they introduced complimentary food at an appropriate age (6 months) of infants ($p < 0.001$). So mother's education plays a vital role in increased receptive to and awareness related to nutritional requirements of their infants.

A paired 't' test was done and it was found to be significant t 29= 2.05, ($p<0.05$). Hence it reveals the planned teaching program on weaning was effective in improving the knowledge of student nurses and we can conclude that planned teaching p

Conclusion

A study was conducted to evaluate the effectiveness of planned teaching program on weaning among 2nd yr. GNM Nursing students of selected School of Nursing at Mangalore. The research approach adopted in present study is Quasi experimental one group pre-test and post-test design with a view to measure the knowledge on pre-test and effectiveness associated in the post-test to know the gain in the knowledge of student nurses. A knowledge questionnaire was use to assess the knowledge of student nurses The data was interpreted by suit

Conflict of interest: None

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