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"A study to assess the effectiveness of planned teaching programme on knowledge regarding integrated management of neonatal and childhood illness (IMNCI) among the GNM 3rd year students of selected nursing schools at Vadodara Gujrat"

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ABSTRACT

Background:
The integrated management of neonatal and childhood illness (IMNCI) clinical interventions ensure that every child receives the benefits of preventive measures, as well as appropriate care for their illnesses, based on strong evidences and updated technical knowledge. The core of the IMNCI strategy is integrated case management of the most common childhood problems, with a focus on the most important causes of death.

Objective: 1) To assess the pre-test knowledge regarding the IMNCI among the GNM 3rd year students selected nursing schools.2) To develop planned teaching programme. 3) To assess the effectiveness of planned teaching programme regarding IMNCI. 4) To find out the association with the pre-test knowledge and selected demographic variables.

Methods:
A quantitative pre-experimental, one-group pre-test post-test design was conducted at Parul Institute of nursing Vadodara Gujrat with 50 GNM 3rd year students using non-probability purposive sampling. A self-structured knowledge questionnaire was administered before and after the teaching intervention. Data were analyzed using descriptive statistics, paired t-test, and chi-square test.

Results: The mean pre-test knowledge score was 10.35 (SD = 2.45), and the post -test mean knowledge score was higher 11.20 with SD of ±2.90 when compared with mean pre- test and post-test knowledge score which was 9.30 with SD of ±2.25. that x2 values computed between the level of knowledge scores of pre-tests and post test with selected demographic variables. Variables such as age, gender, religion, family monthly income, source of awareness were significant at 0.05 level. Hence it is interpreted that age, gender, religion of GNM 3rd year students are statistically associated with their knowledge score.**Conclusion:**
The study revealed with the assumption of the study that the knowledge level of GNM 3rd year student's the integrated management of neonatal and childhood illness IMNCI is high.

Introduction

The integrated management of neonatal and childhood illness (IMNCI) clinical interventions ensure that every child receives the benefits of preventive measures, as well as appropriate care for their illnesses, based on strong evidences and updated technical knowledge. The core of the IMNCI strategy is integrated case management of the most common childhood problems, with a focus on the most important causes of death.[1]

The birth of a baby is one of the most remarkable and joyful events in a person's life. After nine months of anticipation and

preparation, the new-born arrives, bringing a surge of excitement. This new life deeply impacts the parents as well as other family members. Children are considered our future and the most valuable treasure. Their well-being depends greatly on the nurturing practices adopted by the family. The first few days of life mark a crucial transition from dependent foetal existence within the womb to independent living outside it. This process of birth and adjustment to the new surroundings requires significant adaptations on the part of the infant.[2]

Since the 1970 ‘s, the estimated annual number of deaths among children less than five years old has decreased by almost a third. This reduction, however, has been very uneven and in some countries rate of childhood mortality is increasing. In 1998, more than 50 countries still had the childhood mortality rates of over 100 per 1000 live births. Altogether more than ten million children die each year in developing countries before they reach their fifth birthday. Seven in ten of these deaths are due to acute respiratory infection (mostly pneumonia), diarrhea, measles, malaria or malnutrition – and often to a combination of these conditions.[3]

Objectives:

- To assess the pre-test knowledge regarding the IMNCI among the GNM 3rd year students selected nursing schools.
- To develop planned teaching programme.
- To assess the effectiveness of planned teaching programme regarding IMNCI.
- To find out the association with the pre-test knowledge and selected demographic variables.

Hypothesis

- H1-: - There will be significant difference between pre- test and post- test knowledge score regarding the integrated management of neonatal and childhood illness IMNCI among GNM 3rd year students selected nursing schools at Vadodara Gujrat.
- H2- There will be significant association between the pre-test and post- test knowledge score regarding the integrated management of neonatal and childhood illness IMNCI among GNM 3rd year students with selected demographic variables.

Material and method

This study adopted a **pre-experimental one-group pre-test post-test research design** and followed a quantitative evaluative research approach. It was conducted in Parul Institute of nursing Vadodara Gujrat. The target population comprised GNM 3rd year students. The present study sample comprised of 50 GNM 3rd year students who were studying in the of selected nursing schools at Vadodara Gujrat, selected through non-probability purposive sampling technique. The purpose of the study was explained to the respondents and informed consent was obtained. Confidentiality was assured to all the subjects to get their cooperation. A pre-test was conducted using structured knowledge questionnaire to assess the Knowledge of 50. GNM 3rd year students who were studying in the of selected nursing schools at Vadodara Gujrat. The structured knowledge questioner was given to each respondent to answer the questions as per their knowledge for the pre-test. Time taken by the students for solving the questionnaire was 20-25 minutes, then planned teaching was taken on the same day and then post-test was administered on the 7th day by using the same questionnaire. The time required by the students for solving

questionnaire in post-test was 15-20 minutes.

Data were analyzed using descriptive statistics to summarize demographic data, a paired t-test to compare pre- and post-test knowledge scores, and the chi-square test to examine the association between pre-test knowledge scores and selected demographic variables.

Data Collection Procedure:

- Ethical approval obtained.
- Pre-test conducted using the questionnaire.
- planned teaching programme, delivered.
- Post-test administered after one week.

Data Analysis:

- Descriptive statistics for demographic data.
- Paired t-test for knowledge score comparison.
- Chi-square test for association with demographic variables.

Ethical Considerations

- Approval obtained from institutional ethics committee.
- Informed consent taken.
- Confidentiality maintained.

DATA ANALYSIS AND INTERPRETATION-

The analysis and interpretation of the observations are given in the following section:

•**Section A:** Distribution of GNM 3rd year students with regards to demographic variables.

•**Section B:** Assessment of pre-test and post-test knowledge regarding the integrated management of neonatal and childhood illness (IMNCI) among GNM 3rd year students.

•**Section C:** Analysis of effectiveness of planned teaching programme on knowledge regarding the integrated management of neonatal and childhood illness (IMNCI) among GNM 3rd year students.

•**Section D:** Association of pre-test and post-test knowledge score the integrated management of neonatal and childhood illness (IMNCI) among GNM 3rd year students with selected demographic variables.

Result:

The result showed 64% of GNM 3rd year students in pre-test had poor level of knowledge score, 30% had average, and 6% had good level of knowledge score. Mean Pre-test knowledge score of the GNM 3rd year students was 9.30 ± 2.25. 20% of GNM 3rd year students in post-test had poor knowledge, 60% had average knowledge and 20% had good level of knowledge score. Mean Post -test knowledge score of the GNM 3rd year students was 11.20 ± 2.90. Shows the overall mean pre -test and post-test knowledge scores of GNM 3rd year students from selected nursing schools of the city which reveals that post -test mean knowledge score was higher 11.20 ± 2.90 when compared with mean pre- test knowledge score which was 9.30 ± 2.25. The statistical Student's paired t test implies that the difference in the pre -test and post -test knowledge among GNM 3rd year students was found to be T-value 2.010 and P-value 11.81. which is statistically significant at 0.05% level of significance. The results of the study revealed that significant association is found between knowledge regarding integrated management of neonatal and childhood illness IMNCI with age, gender, religion, family monthly income.

SECTION A

Table 1: Percentage wise distribution of GNM 3rd year students according to their demographic characteristics.

N=50

Demographic Variables	Frequency	Percentage
Age in years		
19-21 yrs	27	54%
22-24 yrs	21	42%
25-27 yrs	02	4%
≥28 yrs	0	0
Gender		
Male	35	70 %
Female	15	30%
Religion		
Hindu	38	76%
Muslim	9	18%
Christian	1	2%
Others	2	4%
Monthly family income (Rs)		
5000-10000 Rs	15	30%
10001-15000 Rs	10	20%
15001-20000 Rs	10	20%
>20001Rs	15	30%
Sources of awareness		
workshop	0	0
Seminar/conference	0	0
literature	0	0
Class attended	0	0
no	50	100%

The above table 1 depicts frequency and percentage wise distribution of GNM 3rd year students according to them according to their age, gender, religion, family monthly income, sources of awareness.

Section B: Assessment of pre-test and post test knowledge of GNM 3rd year students the integrated management of neonatal and childhood illness (IMNCI) selected nursing schools at Vadodara Gujrat.

Table 2: Distribution of GNM 3rd year students with regards to level of pre-test knowledge regarding the integrated management of neonatal and childhood illness (IMNCI).

Level of knowledge score	Score Range	Level of Pre-test Knowledge Score	
		Frequency	Percentage
Poor	1-8	32	64%
Average	9-16	15	30%
Good	17-25	3	6%
Mean±SD			9.30 ± 2.25
Range			04 to 19

The above table no 2 shows the frequency and percentage wise distribution of GNM 3rd year students from selected nursing school of the city according to pre-test level of knowledge the integrated management of neonatal and childhood illness (IMNCI) the levels of knowledge were seen into 3 categories, poor, average, good. 64% of GNM 3rd year students in pre-test had poor level of knowledge score, 30% had average, and 6% had good level of knowledge score. Mean Pre-test knowledge score of the GNM 3rd year students was 9.30 ± 2.25.

Table 3: Distribution of GNM 3rd year students with regards to level of post-test knowledge the integrated management of neonatal and childhood illness (IMNCI)

Level of knowledge score	Score Range	Level of Post-test Knowledge Score	
		Frequency	Percentage
Poor	1-8	10	20%
Average	9-16	30	60%
Good	17-25	10	20%
Mean±SD			11.20 ± 2.90
Range			06 to 23

The above table no 3 shows the frequency and percentage wise distribution of GNM 3rd year students from selected nursing school of the city according to post-test level of knowledge the integrated management of neonatal and childhood illness (IMNCI). The levels of knowledge were seen into 3 categories, poor, average, good. 20% of GNM 3rd year students in post-test

had poor knowledge, 60% had average knowledge and 20% had good level of knowledge score. Mean Post -test knowledge score of the GNM 3rd year students was 11.20 ± 2.90.

SECTION C: -analysis of effectiveness of planned teaching programme on knowledge regarding the integrated management of neonatal and childhood illness (IMNCI) among GNM 3rd year students selected nursing schools at Vadodara Gujrat.

Table 4: Significance of difference between knowledge scores in pre and post-test of GNM 3rd year students regarding integrated management of neonatal and childhood illness (IMNCI)

Overall	Mean	SD	Mean & SD Difference	T-value	P-value
Pre-Test	9.30	2.25	1.90 ±0.65	2.010	11.81 S*
Post Test	11.20	2.90			

*S- Significant

Table no 4 depicts the overall mean pre -test and post- test knowledge scores of GNM 3rd year students from selected nursing school of the city which reveals that post -test mean knowledge score was higher 11.20 with SD of ±2.90 when compared with mean pre- test knowledge score which was 9.30 with SD of ±2.25. The statistical Student's paired t test implies that the difference in the pre -test and post -test knowledge among GNM 3rd year students was found to be T-value 2.010 and P-value 11.81. which is statistically significant at 0.05% level of significance.

SECTION D: - Association between pre-test and post test knowledge regarding the integrated management of neonatal and childhood illness (IMNCI) among GNM 3rd year students in selected nursing schools at Vadodara Gujrat with selected demographic variables.

Table 5: Association between pre-test of knowledge score with selected demographic variables.

Demographic variables		Knowledge score			DF	T-value	P-value	Remark
		Poor (0-8)	Average (9-16)	Good (17-25)				
Age	19-21 yrs	20	6	01	6	12.59	13.80	S
	22-24 yrs	11	9	01				
	25-27 yrs	1	01	0				
	>28 yrs	0	0	0				
Gender	Male	23	11	1	2	5.99	6.70	S
	Female	9	5	1				
	Hindu	27	10	1				

Religion					6	12.59	13.62	S
	Muslim	7	2	0				
	Christian	0	0	1				
	Others	1	1	0				
Family monthly income	5000-1000 rs	09	06	0	6	12.59	5.90	NS
	10001-15000 rs	05	04	1				
	15001-20001 rs	08	01	1				
	>20001	10	4	1				
Source of awareness	Workshop	0	0	0	8	15.00	0	NS
	Seminar	0	0	0				
	Literature	0	0	0				
	Class attended	0	0	0				
	No	32	15	3				

Table 6: Association between post-test of knowledge score with selected demographic variables.

Demographic variables		**Knowledge score**			**DF**	**T-value**	**P-value**	**Remark**
		Poor (0-8)	**Average (9-16)**	**Good (17-25)**				
Age	19-21 yrs	5	19	03	6	12.59	14.10	S
	22-24 yrs	3	15	03				
	25-27 yrs	0	1	1				
	>28 yrs	0	0	0				
Gender	Male	5	20	10	2	5.99	7.29	S
	Female	5	10	0				
	Hindu	3	30	5				

Religion	Muslim	5	2	2	6	12.59	15.22	S
	Christian	3	10	2				
	Others	0	1	1				
Family monthly income	5000-1000 rs	3	10	2	6	12.059	13.91	S
	10001-15000 rs	2	6	2				
	15001-20001 rs	3	5	2				
	>20001	5	6	4				
Source of awareness	Worksho-p	0	0	0	8	15.0	0	NS
	Seminar	0	0	0				
	Literature	0	0	0				
	Class attended	0	0	0				
	No	0	06	26				

This table 5,6 shows that x^2 values computed between the level of knowledge scores of pre-tests and post-test selected demographic variables. Variables such as age, gender, religion, family monthly income, source of awareness were significant at 0.05 level. Therefor the hypothesis stated there will be an association between pre- test knowledge score of GNM 3rd year students with the selected demographic variable is associated. Hence it is interpreted that age, gender, religion of GNM 3rd year students are statistically associated with their knowledge score. Thus, H2 is accepted.

Discussion

This chapter deals with the discussion in accordance with the objectives of the study and hypothesis. A pre-experimental approach is adapted to a study to assess the effectiveness of structured teaching programme on knowledge regarding the integrated management of neonatal and childhood illness (IMNCI) among GNM 3rd year students in selected nursing school at Vadodara Gujrat.

The finding of study are discussed under: - The shows the frequency and percentage wise distribution of GNM 3rd year students from selected nursing school of the city according to pre-test level of knowledge the integrated management of neonatal and childhood illness (IMNCI). The levels of knowledge were seen into 3 categories, poor, average, good. 64% of GNM 3rd year students in pre-test had poor level of knowledge score, 30% had average, and 6% had good level of knowledge score. Mean Pre-test knowledge score of the GNM 3rd year students was 9.30 ± 2.25.

the overall mean pre -test and post-test knowledge scores of GNM 3rd year students from selected nursing schools of the city which reveals that post -test mean knowledge score was higher 11.20 ± 2.90

when compared with mean pre- test knowledge score which was 9.30 ± 2.25. The statistical Student's paired t test implies that the difference in the pre -test and post - test knowledge among GNM 3rd year students was found to be T-value 2.010 and P-value 11.81. which is statistically significant at 0.05% level of significance.

This table 6 shows that x2 values computed between the level of knowledge scores of pre-test and selected demographic variables. Variables such age, gender, religion, monthly family income, were significant at 0.05 level. Therefor the hypothesis stated there will be an association between pre- test knowledge score of GNM 3rd year students with the selected demographic variable is accepted. Hence it is interpreted that age, gender, religion, monthly family income of GNM 3rd year students is statistically associated with their knowledge score.

This table 7 shows that x2 values computed between the level of knowledge scores of post-test and selected demographic variables. Variables such as age, gender, religion, monthly family income, were significant at 0.05 level therefor the hypothesis stated there will be an association between post- test knowledge score of GNM 3rd year students with the selected demographic variable is significant association.

Conclusion

The study revealed with the assumption of the study that the knowledge level of GNM 3rd year student's the integrated management of neonatal and childhood illness IMNCI is high.

Recommendations

- A similar study can be replicated on a large sample for wider generalization
- A Pre-experimental study can be done to find out the knowledge of knowledge regarding the integrated management of neonatal and childhood illness (IMNCI) among GNM 3rd year students.
- A similar study may be conducted to assess the knowledge, practice and awareness of knowledge regarding the integrated management of neonatal and childhood illness (IMNCI) among GNM 3rd year students.

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