"Effectiveness of Module Based Learning (MBL) versus Mobile Application (MABL) regarding Facility Based Newborn Care (FBNC) in terms of knowledge and practices"

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BACKGROUND

Newborn constitute the foundation of life. The neonate period refers from birth to 28 days of life. This period necessitates the provision of a conducive environment normally[1]

Paediatric health care team face unique challenges when dealing with paediatric. [2]

Mobile application used by health care professionals (HCPs) has transformed many aspects of clinical practice. Mobile devices have become common place in health care settings, leading to rapid growth in the development of medical software applications (apps) provide better clinical decision-making and improved patient outcome by providing procedures on app[3]

OBJECTIVES

1. To assess and compare the knowledge regarding FBNC among nursing students in MBL group and MABL group before and after the administration of MBL and MABL.

2. To assess and compare the practices regarding FBNC among nursing students in MBL group and MABL group before and after the administration of MBL and MABL.

3. To determine the relationship between knowledge and practices regarding FBNC among nursing students.

4. To determine the association of knowledge and practices regarding FBNC among nursing students with selected sample characteristics.

MATERIALS AND METHODS

A quantitative research approach and quasi experimental research design (non equivalent control group pr test post test) was undertaken for the study. Seventy (70) nursing students randomly divided into MBL and MABL group i.e. 35 students in each group. The study was conducted at M.M. College of Nursing , Mullana (MBL group) and M.M. Institute of Nursing, Mullana(MABL group).

RESULTS

Data was collected by using I. Structured Knowledge Questionnaire which Comprised of 40 multiple choice regarding FBNC. Technique for Structured Knowledge Questionnaire was Paper- pencil II. Observation Checklist for evaluating Nursing Student's Practice through OSCE : Comprised of 7 Technique for OSCE was Structured Observation Check list Data collection procedure, for MBL group, On first day, pre-test was conducted to assess knowledge through structured knowledge questionnaire and practice through observational check list by OSCE method. On second day , administration of module based teaching regarding FBNC Post-test was later conducted on 15th day. For MABL group : On 16th day, pre-test was conducted to assess knowledge through structured knowledge questionnaire and practice through observational check list by OSCE method. On 17th day , administration of mobile application based teaching regarding FBNC Post-test was later conducted on 30 th day.The data was analyzed and interpreted in terms of objectives of the study. Descriptive and inferential statistics were used for data analysis.

The computed chi square value for the selected variables in MBL and MABL group showed both the groups were homogenous and comparable.

Bar graph-2 showing mean of pre test and post test of FBNC knowledgescores of nursing students in MB Land MABL group.
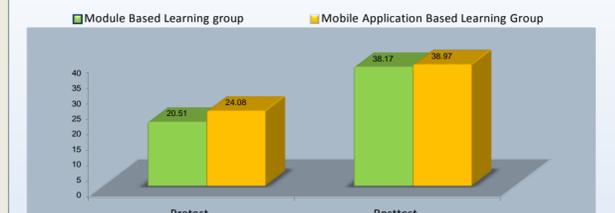
Bar graph-2 showing mean of pre test and post test of FBNC practice scores of nursing students in MB Land MABL group. N=70
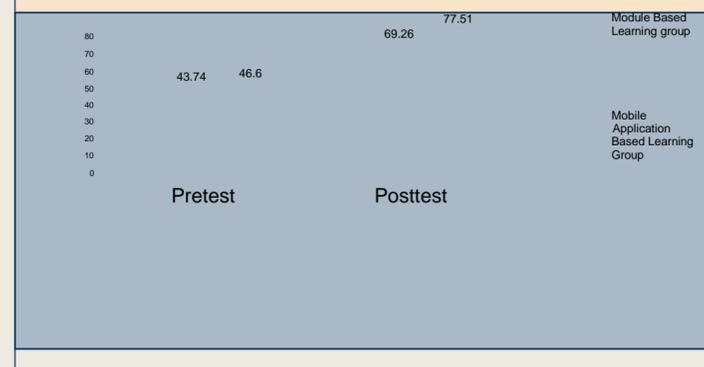
The table shows that there was a significant difference between MBL and MABL group in Knowledge and practices as computed 't' values **11.68** and **1.00** were higher than the tabulated 't' values .

	Group	Mean	MD_D	SD_D	SE_{MD}	't' value	P value
Pre-test	MBL (n=35)	43.7					
	MABL (n=35)	46.6	2.9	1.26	2.37a	1.20	0.23NS
Post-test	MBL (n=35)	69.2					
	MABL (n=35)	77.5	8.3	1.23	0.70	11.68	0.001*

There was a significant difference between pre test and post test in knowledge and practices in MBL and MABL group as calculated 't' values were 25.38, and 22.35 , p=0.001 which were higher than the tabulated values (2.00) significant at 0.05 level of significance.

Group		Mean	M_D	SD_D	SE_{MD}	't' value	p value
MBL (n=35)	Pre-test	20.5	17.6	2.35	.695	25.38	0.001*
	Post-test	38.1					
MABL (n=35)	Pre-test	24.1	14.8	2.5	.665	22.35	0.001*
	Post-test	38.9					

There was a **moderate positive correlation** between the knowledge and practices of nursing students in MABL means if knowledge were increased then practices were also increased and vice versa.

SUMMARY

In the present study, there was a significant difference at 0.05 level of significance between MBL and MABL group in terms of knowledge and practices in MBL and MABL by teaching programme. These findings were consistent with the study where they found that the MABL group was effective in enhancing both knowledge and practices of Nursing students[4].

CONCLUSIONS

The module teaching and mobile based learning was effective in enhancing knowledge of nursing students regarding FBNC .Whereas mobile based learning was effective in enhancing both knowledge and practice of nursing students regarding FBNC

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