Research Paper Medical Science

Evaluation of Mobile phone learning as a Teaching Learning Method for Undergraduate Medical Students –Single group Interventional Study

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ABSTRACT

Introduction: With increasing use of Mobilephones, the usage of it for teaching clinical skills shall reach large number of students with minimal resources and uniformity, thereby avoiding crowding over the patient and limited chances to the students.
Aim: To evaluate the effectiveness of Mobilephone learning as a T-L Method for medical students
Methodology: After explaining the basic obstetric skills in the traditional method, written exam was conducted for 51 and OSCE for 21 students. The recorded obstetric demonstrations was then sent to their mobile phones for their repeated learning. Exam was conducted again.
Results: The results showed improvement both in the written and OSCE performance of the students(p-value- < 0.001).

KEYWORDS Mobile phone learning; Clinical skill; OSCE, T-L Method

Introduction
Mobile phones have nowadays become an essential communicating technology among students. Usage of this technology for education purpose shall save time and needs minimal resources. Mobile phone usage among students can be used for improving their clinical skills also. Studies show an increased proportion of adults achieving higher scores through the use of mobile phone technology.[1]With limited researches available, this study was planned to evaluate the clinical performance among first clinical year medical students using mobile phones as teaching –learning method.(T-L Method)

Aim: To evaluate the effectiveness of Mobilephone learning as a T-L Method for Undergraduate Medical students.

Methodology:
Study design:
Hospital based Single group Interventional study

Study population:
First clinical year medical students (51) who were posted in the OG Department.

Study period:
August 2014- October 2014(period of clinical postings)

Methodology:
After explaining the basic obstetric skills in the traditional method to the students at the beginning of their postings, written exam was conducted in theory for these students.

21 students were selected randomly for Objective Structured Clinical Examination (OSCE). The recorded manual of abdominal examination of pregnant mothers was then sent to their mobile phones so as to enable them to study as and when possible. Both theory and OSCE exams were conducted again to the same students at the end of their postings.

Ethical clearance was obtained from the institution.

Marks obtained were analysed using paired t-test.

Results:
Both theory and OSCE marks obtained by the students were analysed using paired t- test.

Table no.1:
Distribution of the overall students theory performance marks before and after mobile phone intervention

Marks obtained (for 100)	Before		After	
	Number of students (51)	Percentage	Number of students (51)	Percentage
30-40	2	3.9	0	---
40-50	5	9.8	4	7.8
50-60	7	13.7	3	5.9
60-70	13	25.5	10	19.6
70-80	20	39.2	13	25.5
80-90	4	7.8	19	37.3
90-100	0	--	2	3.9
Mean	60.98		69.02	
SD	12.68		13.00	
Paired t-value	9.069			
p-value	<0.001			

Using Paired t-test, the mean scores obtained by the students in the theory were (60.9 ±12.7) before and (69 ± 13) after the mobile phone learning . t-value -9.069. (p-value- < 0.001).

The mean OSCE marks obtained by the students were (6.14 ± 0.57) before and (8 ± 0.63) after intervention. (p-value- < 0.001)

FIGURE:1

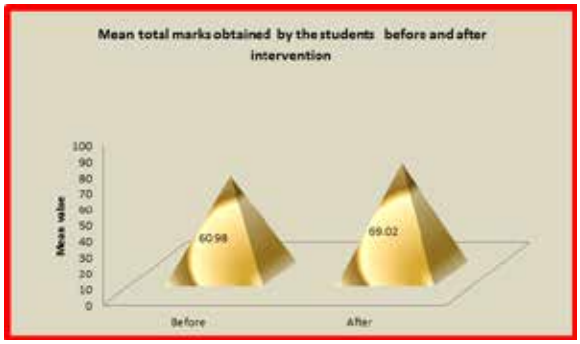
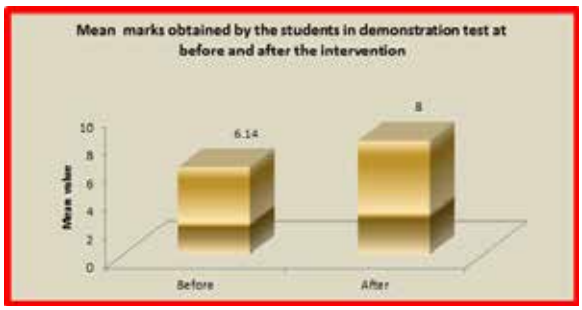


Table no.2:
Distribution of the students performance based on their OSCE before and after mobile phone intervention

Marks obtained (for 10)	Before		After	
	Number of students	Percentage	Number of students	Percentage
5	2	9.5	0	--
6	14	66.7	0	--
7	5	23.8	4	19.0
8	0	--	13	61.9
9	0		4	19.0
Mean	6.14		8.0	
SD	0.57		0.63	
Paired t-value	23.72			
p-value	<0.001			

FIGURE:2



Discussion:
The results showed that there is an improvement both in the written and clinical performance of the first year medical students using mobile phones as teaching- learning method. Modules for demonstrating clinical skills through mobile phones shall be developed in future for students benefit. This study shows that mobile phones shall not only be used for communication and entertainment but also for educational purpose.

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