



EFFECTIVENESS OF HANDS ON SKILL TRAINING PROGRAMME REGARDING PAEDIATRIC EMERGENCY PROCEDURES ON OBJECTIVE STRUCTURED CLINICAL EXAMINATION PERFORMANCE AMONG STAFF NURSES AT SMCH

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ABSTRACT

The study was conducted with the aim of evaluating the effectiveness of Hands on Skill Training Programme regarding Paediatric Emergency Procedures on objective structured clinical examination performance among staff nurses. Quasi-experimental study design was used to conduct this study. The study samples were 30 staff nurses working in various Institutions. Hands on Skill Training Programme was conducted to the group. Samples were selected by convenience sampling technique. The tool used for this study was checklist for O2 administration and nebulization to assess the knowledge with objective structured clinical examination performance. The collected data were tabulated and analyzed by using descriptive and inferential statistics. The result reveals the percentage distribution, mean and standard deviation of SKILL assessment regarding paediatric emergency procedures by OSCE performance. In this out of 30 samples all the staff nurses 100% had adequate skill regarding paediatric emergency procedures like O2 administration and nebulization. The mean and standard deviation score are 29.76 and 1.79. Also the study reveals that there is a significant association between the skill score regarding paediatric emergency procedures and age, sex, ion and years of experience education.

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INTRODUCTION

Pediatric respiratory emergency nurse should have typical responsibilities and skills include completing assessments and on-going health evaluations, diagnosing conditions, capable of skills to meet emergencies, developing and implementing care plans, administering treatments and completing medical procedures and acquire the skill through the simulation. Simulation based hands on skill is a technique for practice and learning to replace and amplify real experiences with guided ones, often "immersive" in nature, that evoke or replicate substantial aspects of the real world in a fully interactive

fashion which can be evaluated by OSCE. OSCE is a Specific foundational and functional clinical competencies, with an emphasis on skills and attitudes are tested objectively at each station and the marking schema for each station is structured.

The Objective Structured Clinical Examination (OSCE) is becoming more prevalent within healthcare education programmes, because it is regarded as a useful method for assessing skills and underpinning knowledge required for practice (Merriman and Westcott 2010). The OSCE is an assessment technique in which students demonstrate their competence under a variety of simulated conditions (Watson et

al. 2002). Thus, providing evidence that students are competent in those specific skills tested within the exam context. However, the OSCE is a very different experience for students, in comparison to more established methods of assessment, for example: written assignments and continuous assessment in practice (Dr.Aleyamma Kurian George, 2002). The OSCE consisted of a scenario based assessment in which a student was required to demonstrate safe assessment and management of a child with an upper airway obstruction. To simulate this scenario, a medium fidelity infant manikin known commercially as SIM Baby was used. During the OSCE, a student was marked against set criteria which demonstrated required skills, underpinned by knowledge and safe practice. All students passed the OSCE and went forward to participate in the study (Basavanhappa, 2006). The OSCE examination tests a wide range of skills thus greatly reducing the sampling error. This very significantly improves the reliability of the examination” Harden, 1988. Assessment of clinical skills has a central role in medical education and the selection of suitable methods has been a matter of permanent concern for clinical teachers, course directors and medical educators. The objective structured clinical examination is now established as one of the most valid, reliable and effective tests for the assessment of clinical skills. In a typical OSCE, examiners rotate through a number of stations staffed by either real or standardized patients, where they are required to perform different clinical tasks. The examiners are observed and their performance is assessed using structured checklists. One of the important, continuing and integral parts of teaching is evaluation. A complete evaluation programme involving total faculty planning and participation is required. The faculty also would agree on the description of general student behaviour that could be used to describe different levels of student's performance. The Objective Structured Clinical Examinations (O.S.C.E.) method of evaluation is more comprehensive, systematic and objective and provides a uniform basis for evaluation of Nurses. OSCE was used to assess clinical competence of Nurses. It involved the individual student rotating through a number of practical and theoretical "stations" where he/she was assessed using a set criteria (Bhat, 2006).

Objectives

- To determine the skill of STAFF nurses on paediatric emergency procedures by OSCE.
- To associate the skill of STAFF nurses on paediatric emergency procedures by OSCE with the demographic variables.

METHODS AND MATERIALS

Research Methodology

Research Design: Quasi Experimental –post test only design.

Setting: The study was conducted in Saveetha College of Nursing at thiruvallur district in Tamilnadu

Population: The Staff nurses from various hospitals.

Sample: The samples are the The Staff nurses from various hospitals.

Sample Size: The sample size will be comprised of 30 Staff nurses from various institutions

Sampling Technique: Convenience Sampling technique was used for the study.

Criteria for sampling technique

Inclusion Criteria

- Staff nurses are included in the study
- Willing to participate in the study
- Available during hands on skill training programme

Exclusion Criteria

- Nursing students are excluded
- Teaching staffs are excluded

Description of the Instrument

The tool used for this study consists of two parts. They are described below.

Part I: Demographic data.

Part II: observational checklist to assess the effectiveness on hands on skill training regarding paediatric emergency procedures on OSCE performance.

Part I: Demographic data

Demographic data consists of age, sex, parents income, education, monthly expense for mobile

Part II: Observational checklist for o2 administration and nebulization

Score Interpretation

The Checklist consists of 20 questions assess the effectiveness on hands on skill training regarding paediatric emergency procedures on OSCE performance Each item was given a score of '1' for correct answer and '0' mark for wrong answer

$$\text{Score interpretation} = \frac{\text{Obtained score}}{\text{Total score}} \times 100$$

The knowledge score was ranged as following

- Inadequate : 0-50%
- Moderately adequate : 51-75%
- Adequate : 76-100%

Data analysis and interpretation

This Chapter deals with the analysis and interpretation of data assess the effectiveness on hands on skill training regarding paediatric emergency procedures on OSCE performance

Organisation of Data

The analysis and interpretation of the data are presented under the following sections.

Section I: Frequency and distribution of the demographic variables among nurses

Section II: Assessment of knowledge on regarding paediatric emergency procedures on OSCE performance

Section III: Association between level of knowledge regarding paediatric emergency procedures on OSCE performance with the selected demographic variables.

Table 1. Frequency and distribution of the demographic variables among the nurses

Sl.no	Demographic variables	Frequency (NO)	%	
1	Age	a. 20-25 years	2	6.67
		b. 26-30years	4	13.33
		c. Above 30 years	24	80
2	Sex	a. Male	9	30
		b. Female	21	70
3	Education qualification	a. Msc.Nursing	2	6.67
		b. Post bsc.Nursing	4	13.33
		c. Bsc.nursing	24	80
4	Years of experience	a. 1-2 years	18	60
		b. 2-4 years	6	20
		c. 4-6 years	6	20
		d. above 6 years	0	0

Age: Distribution of samples based on age Eighty percentage of staff nurses were above 30 years and 13 % of the staff nurses were between 26-30 years of age. Remaining 6%of staff nurses were in the group of 20 – 25 years.

Sex: Based on sex majority of samples 70% of samples were female and 30 % of samples were male.

Education: Based on education 80% of staff nurses are BSc. Nursing and 13% of staff nurses are P.BSc. Nursing and remaining 6% of samples were M.Sc. Nursing

Years of experience

Based on years of experience, majority of 60% of staff nurses were between 1-2 years, 20%of staff nurses were between 2-4 years and 20%% of staff nurses were between 4-6 years.

This table reveals that All the staff nurses had adequate skill regarding paediatric emergency procedures like O2 administration and Nebulization. The mean and standard deviation score are 29.76 and 1.79. Table 3 presents the association of demographic variables of staff nurses with the level of skill score regarding paediatric emergency procedures. This table shows. That there is a significant association between the skill score regarding paediatric emergency procedures and age, sex, ion and years of experience education

RESULTS

The results reveals that the frequency and percentage od demographic Variables are

- Based on education 80% of staff nurses are BSc .Nursing and 13% of staff nurses are P.BSc.Nursing and remaining 6% of samples were M.Sc.Nursing
- Based on sex majority of samples 70% of samples were female and 30 % of samples were male.
- Based on years of experience majority of 60% of staff nurses were between 1-2 years, 20%of staff nurses were between 2-4 years and 20%% of staff nurses were between 4-6 years.

Assessment of skill regarding paediatric emergency procedures by OSCE performance

Skill	NO	%	MEAN	Standard Deviation
Inadequate skill	0	0	29.76	1.79
Moderate skill	0	0		
Adequate skill	30	100		

Table 3. Association between skill score regarding paediatric emergency procedures on OSCE performance with the selected demographic variables

S.No	Socio-demographic variables	Inadequate		Moderate		Adequate		Chi-square
		N	%	N	%	N	%	
1.	Age							$\chi^2=5.27$
	a. 20-25 years	2	6.67	-	-	-	-	df=4
	b. 26-30years	1	3.33	3	10	-	-	p=9.49
	c. Above 30 years	7	23.33	13	43.33	4	13.33	S
2.	Sex							$\chi^2=0.14$
	a. Male	7	23.33	11	36.67	3	10	df=2
	b. Female	3	10	5	16.67	1	3.33	p=5.99
								S
3.	Education qualification							$\chi^2=2.77$
	a. Msc.Nursing	1	3.33	1	3.33	0	0	df=4
	b. Post bsc.Nursing	2	6.67	2	6.67	0	0	p=9.49
	c. Bsc.nursing	7	23.33	13	43.33	42	13.33	S
4.	Income							$\chi^2=8.49$
	a. <10,000	6	20	12	40	4	13.33	df=6
	b. 10,000-20,000	0	0	3	10	0	0	p=12.59
	c. 20,000-30,000	1	3.33	0	0	0	0	S
	d. >30,000	3	10	1	3.33	0	0	
5.	Years of experience							$\chi^2=1.84$
	a. 1-2 years							df=6
	b. 2-4 years	6	20	10	33.33	2	6.67	p=9.59
	c. 4-6 years	3	10	2	6.67	1	3.33	S
	d. above 6 years	1	3.33	4	13.33	1	3.33	
		0	0	0	0	0	0	

Distribution of samples based on age Eighty percentage of staff nurses were above 30 years and 13 % of the staff nurses were between 26-30 years of age. Remaining 6%of staff nurses were in the group of 20 – 25 years.

The percentage distribution of SKILL assessment. In this out of 30 samples All the staff nurses 100% had adequate skill regarding paediatric emergency procedures like O2 administration and Nebulization. The mean and standard deviation score are 29.76 and 1.79. The study reveals that there is a significant association between the skill score regarding paediatric emergency procedures and age,sex,ion and years of experience education,

DISCUSSION

This study was conducted with the aim of evaluating the effectiveness of Hands on Skill Training Programme regarding PaediatricEmergency Proceedures on on objective structured clinical examination performance among staff nurses . Quasi-experimental study design was used to conduct this study. The study samples were 30 staff nurses working in various Institutions. The first objectives was:To determine the skill of STAFF nurses on paediatric emergency procedures by OSCE. Table. 1 reveals the frequency and percentage od the demographic variables

Age: Distribution of samples based on age Eighty percentage of staff nurses were above 30 years and 13 % of the staff nurses were between 26-30 years of age. Remaining 6%of staff nurses were in the group of 20 – 25 years.

Sex: Based on sex majority of samples 70% of samples were female and 30 % of samples were male.

Education: Based on education 80% of staff nurses are BSc .Nursing and 13% of staff nurses are P.BSc.Nursing and remaining 6% of samples were M.Sc.Nursing

Years of experience: Based on years of experience majority of 60% of staff nurses were between 1-2 years, 20%of staff nurses were between 2-4 years and 20%% of staff nurses were between 4-6 years.

Table 2 reveals the The percentage distribution, mean and standard deviation of SKILL assessment. In this out of 30 samples All the staff nurses 100% had adequate skill regarding paediatric emergency procedures like O2 administration and Nebulization. The mean and standard deviation score are 29.76 and 1.79. The second objective was To associate the skill of STAFF nurses on paediatric emergency procedures by OSCE with the demographic variables. Table reveals that there is a significant association between the skill score regarding paediatric emergency procedures and age,sex,ion and years of experience education,

Conclusion

Thus the study shows that reveals the The percentage distribution, mean and standard deviation of SKILL assessment. In this out of 30 samples All the staff nurses 100% had adequate skill regarding paediatric emergency procedures like O2 administration and Nebulization. And . there is a significant association between the skill score regarding paediatric emergency procedures and age,sex,ion and years of experience education.

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