Clinical Simulation Versus Traditional Laboratory Training on Nursing Students' Level of Competence

Thesis

Submitted for Partial Fulfillment of the Doctorate Degree in Nursing

(Maternity –Gynecological Nursing)

By

Nabaweya Saleh Saleh Shehata
(Master in Nursing 2011)
Assistant lecturer in maternity & Gynecological Nursing
Faculty of Nursing - Ain Shams University

Faculty of Nursing
Ain Shams University
2016

Clinical Simulation Versus Traditional Laboratory Training on Nursing Students' Level of Competence

Thesis

Submitted for Partial Fulfillment of the Doctorate Degree in Nursing

(Maternity –Gynecological Nursing)

Supervised by

Prof. Dr. Shadia Hamido

Professor of Maternity & Gynecological Nursing
Faculty of Nursing - Ain Shams University

Assist. Prof. Dr. Eman Moustafa Sayed

Assistant Professor of Maternity & Gynecological NursingFaculty of Nursing - Ain Shams University

Faculty of Nursing
Ain Shams University
2016

Acknowledgement

First and foremost I am grateful to **ALLAH** for giving me the opportunity to complete this study, and give Him thanks and praise.

I would like to express my deep gratitude to ***Prof.Dr. Shadia Hamido,*** *Professor of Maternity and gynecological Nursing, Faculty of Nursing, Ain Shams University, for her scincere help and continuous supervision, encouragment and for being so generous with time and effort through this work. Her help and support helped my completion of this work.*

I am especially indebted and feel appreciated to ***Assistant Prof. Dr. Eman Moustafa,*** *Assistant Professor of Maternity and gynecological Nursing, Faculty of Nursing, Ain Shams University, for her close supervision, cooperation, encouragement, constructive criticism and valuable guidance.*

Finally yet importantly, I would like to thank and appreciate target group and everyone who has given me an unfailing support and assistance.

Nabaweya Saleh Saleh Shehata

LIST OF CONTENTS

LIST OF TABLE

LIST OF FIGURE

LIST OF ABBREVIATIONS

Abb.	Meaning
AACN	American Association of Colleges of Nursing
CAI	Computer Assisted Instruction
SP	Standardized Patient
ACCE	The academic coordinator of clinical education
ICCCEJ	Center coordinator of clinical education
ICI	The clinical instructor
ICU	Intensive care unit
PP	Postpartum

ABSTRACT

Effective clinical teaching method should positively affects student performance. This study **aimed** to evaluate the effect of clinical simulation versus traditional laboratory training on student level of competence. **A comparative quasi experimental** dsign was utilized. The study conducted at clinical maternity skill laboratory at faculty of nursing Ain Shams University. **A convenient sample** of two hundred students included in the study, those students were divided into two equal groups (simulation and traditional).Data were collected through four tools (a self administerd questionnaire sheet, Student's knowledge assessment tool , Practical skills assessment tool, Attitude assessment tool) .The study results **revealed** that There was significance differences between simulation group and traditional group regarding students' level of knowledge , level of satisfaction, and self confidence also there was a significance difference between the two groups in students' practical skills, Regarding student level of competence and different aspects of clinical environment there was a statistically significance difference in simulated group regarding training method in form of training material .**The study concluded** that Simulation as a teaching strategy is effective on students' level of competence than traditional laboratory training, as it enhanced students' level of knowledge, students' attitude . **The study recommended** Integrating Clinical simulation as a teaching method in student teaching curriculum. **Further** researches are needed to evaluate the effect of simulation versus other types of teaching methods on student's level of competence.

Key words: simulation, level of competence, self confidence.

Introduction

Nursing education, theory, technical and clinical experience are provided to prepare the graduates to function as a practical nurse, nursing education requires the full and active participant of the student in an organized program of study. Educational experience are designed to provide nursing education while encouraging a self-improvement and participation in professional and community activities, the faculty creates a learning environment that facilitates opportunities for practice of therapeutic nursing interventions, effective communication technique, self-awareness, critical thinking and decision making **(Branch and Paranjape, 2002).**

Traditional teaching methods usually don't meet students' requirements to be active learner, as they don't allow time for independence, critical thinking, this require nursing educators to shift from a teacher centered to student – centered approach, which can foster independence in learning, creative problem- solving skills, a commitment to life- long learning and critical thinking **(Chapman, 2007)**.

Clinical teacher should function as culture broker to help integrate student more fully into the real word of nursing practice, the instructors have a responsibility to assess that students have the designed level of skill

development before entering the clinical setting, when learning a complex skill, it is more efficient for students to practice the parts first in a simulated setting such as a skill laboratory, free from demands of actual practical setting. Students should have a skill practice, so that they are not expected to perform a skill for the first time the process of educational change presents unique challenges for students, faculty and institutions as they participate as stakeholders in curriculum transformation **(Kenny and Mann, 2011).**

The demands for change in curricula have escalated in the last decades, it's a widely a knowledge that a nursing curricula should overtly and systematically foster the development of the behaviors and skills that graduates will require to fulfill the societal expectations of the health care professionals. Content focused curriculum cannot keep pace as the advances in technology and information continue to dramatically change the skill set needed for professional practice **(Strunin and Barber, 2012).**

Simulation activities involve controlled representations of actual clinical events. This strategy allows the learner to experience real world patient situations without risk. Learners are required to assess and interpret the situation, and make decisions based on information provided. Usually conducted in a laboratory setting, simulation learning allows students to practice a

variety of skills including assessment, psychomotor skills, and decision making.

As a teaching methodology, a clinical simulation experience is an active event in which students are immersed into a realistic clinical environment or situation. During this authentic clinical experience learners are required to integrate and synthesize core concepts and knowledge and apply appropriate interpersonal and psychomotor skills. Students must incorporate critical thinking and decision making skills using a process (e.g., nursing process) involving assessment, diagnosis, planning, implementation or intervention and evaluation (**Virginia State Simulation Alliance, 2008)**.

Competence is a complex multidimensional phenomenon and is defined as the ability of the Nurse to practice safely and effectively, fulfilling their professional responsibility within her scope of practice. Nursing level of competence involved several domains represented the level the student must reach on completion of the education program such as: professional organized practice, the Integration of Knowledge, Collaborates with all members of the health care team, documents relevant information, and Personal & Professional development **(Adamson et al., 2013)**.

Competency assessment is always outcome oriented; the goal is to evaluate performance for the effective application of knowledge and skill in the practice setting. Competency assessment techniques address psychomotor, cognitive, and affective domains. Competencies can be generic to clinical practice in any setting, specific to a clinical specialty, basic or advanced **(Benner, 2012).**

The purpose of evaluation is to measure performance, enhance attainment of goals, and minimize risk to patients. Evaluation begins in the pre-experience planning phase and continues throughout the clinical learning experience, concluding with a summative evaluation at the end of the experience. This summative evaluation incorporates multiple sources of information to make the decision about the student's readiness to practice by assessing the students' cognitive, psychomotor, and affective behaviors **(Gurvi and Grey, 2009).**

Significance of the study

The largest health (discrepancy in the world is maternal mortality with most deaths occurring around the labor, delivery and postpartum period. The presence of skilled qualified competent nurses, optimal student learning for high quality maternity care is a leading factor in averting maternal death and disability **(Piscotty, 2011).**

The process of educational change presents unique challenges for students, faculty and institutions as they participate as stakeholders in curriculum transformation. The demands for change in curricula have escalated in the last decades, it's a widely a knowledge that a nursing curricula should overtly and systematically foster the development of the behaviors and skills that graduates will require to fulfill the societal expectations of the health care professionals. Content focused curriculum cannot keep pace as the advances in technology and information continue to dramatically change the skill set needed for professional practice **(Benner, 2012).**

Simulation is an event or situation made to resemble clinical practice as closely as possible, using of simulation is relatively new in nursing education compared with other professions and there is little information available about the effectiveness of this strategy to help nursing students

improved their level of competence **Alfes, (2011)**, so the purpose of this study will be done to evaluate the effect of clinical simulation as a teaching strategy for nursing practice at laboratory versus traditional training in addition to evaluate its effect on students level of competence) **.**therefore this study will contribute to a better understanding of the effect of simulation on the quality of care provided to the woman during childbearing period and consequently decrease the problem that could encounter the nursing students through the direct contact without exposure to that in laboratory, this study also add to the body of knowledge to nursing and will provide an evidence on the effect of simulation versus traditional training methods on nursing student competences.