

Development of Clinical Teaching Skills Standards

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Abstract: Background: Education is a major mission at every teaching hospital. Clinical nursing education went from apprentice training in the early 20 century to educational accountability. Clinical nursing educators have full responsibility for clinical teaching. Students and teachers must develop a close working relationship. Thus, faculty has tremendous influence over students' feelings of success or failure in the clinical setting. Aim: To develop clinical teaching skills standards. Method: This study is a methodological study. The study subjects consisted of three groups: clinical instructors (55), faculty students (243) and jury (15). The study was conducted at faculty of nursing, Zagazig University. Three tools were used for collecting data (the clinical teaching skills assessment questionnaire format and two experts' opinionnaires format). Results: There were statistically significant differences among different years. There was no significant difference between male and female regarding all categories of clinical teaching skills and total scores. There were statistically significant differences between students and clinical instructors. Conclusion: The clinical teaching skills instrument is reliable and valid, as well as usable. The clinical teaching skills standards was developed and validated

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1. Introduction

Clinical teaching lies at the heart of nursing education and its importance cannot be overemphasized. This is because it is in the clinical setting where student nurses are primed for the reality of their professional roles. In other words, clinical teaching and learning helps to prepare students for the kind of work they will have to do as practicing nurses. Furthermore, real life clinical experience allows student nurses to improve their skills. Therefore, clinical practice enables student nurses to become competent practitioners. Effective clinical teaching is critical for quality nursing practices and clinical nurse educators (CNEs) are mostly responsible for teaching student nurses in the clinical setting. (Eta *et al.*, 2011)

Both the novice and the experienced nursing teacher need to modify their mindsets on many occasions. They need to shift their actions from the delivery of quality care of patients to the delivery of quality education to students who will one day provide patient care (Kan, Stabler-Haas, 2009).

The goal of nursing education is to prepare students to think critically, communicate effectively, demonstrate caring behaviors and perform safe and effective nursing interventions in an ethical fashion. The expectation for nursing education is to produce graduates which will be competent practitioners upon graduation (O'Conner, 2001). For this reason clinical experiences are a major component of nursing education. The clinical environment is the place students learn to take theoretical knowledge

learned in the classroom and apply it to individual clinical situations (Benner, 2001). The clinical instructor plays a major role in the development of graduates who are prepared to deliver safe, effective nursing care (Hanson & Stenvig, 2008).

Nursing education provides the foundation from which nurses learn the art and science of their profession. Content underpinning health assessment, nursing interventions, pharmacology, therapeutic communication, and management of patient care forms the core of nursing curriculum and is necessary for safe nursing practice. Metacognitive strategies, such as knowing how one best learns and continual reflection on strengths and limitations, however, also need to be emphasized in order to facilitate life-long professional growth. Pedagogical practices that emphasize questioning of rationales for actions can facilitate development of decision making, especially in the clinical setting (Silverthorne, 2008).

Educating student nurses to employ active learning strategies may improve their critical thinking skills for patient safety and quality management. Traditional classroom, laboratory and multiple choice test questions do not assure that students employ a problem solving approach. Innovative teaching strategies are essential (Stevens & Brenner, 2010).

Clinical learning is defined as a process that is able to be known to learners and allows students to use what has been learned in a clinical experience in subsequent experiences. Clinical teaching is defined

as actions, activities, and verbalizations of the clinical instructor which facilitate student learning in the clinical setting” (Kube, 2010).

Effective clinical teaching is defined as clinical instruction which assists the novice student nurse to make connections between theoretical knowledge and clinical situations and assists the novice in the development of clinical knowledge and judgment (Benner, 2001).

Spending time in the clinical area allows students to apply principles to actual situations and to observe the practice of nursing. Students have the opportunity to see the real-life practice of nursing, observe nurse role models in action and confront complex problems that cannot be simulated in the classroom or laboratory setting. The clinical instructional experiences are designed to prepare nursing students for entry into practice (Hickey, 2005).

One of the most valuable components of a nursing program is the clinical learning environment (CLE). This setting provides students with unique learning opportunities in which classroom theory and skills are put to the test with real life situations. Clinical learning environments include hospitals, doctors’ offices, health departments, hospice units, and other health care settings utilized for student learning. The CLE differs from the classroom or lab setting in many ways. Typically, the classroom and labs are controlled by instructors. This includes lectures, labs, tests, dress codes, student conduct, break times, attitudes, and the learning environment atmosphere. The CLE is a different story. Indicated nursing students are taught to provide holistic care but at times may be faced with more technical tasks than holistic patient care (Koontz et al, 2010).

Teaching in the clinical environment is defined as teaching and learning focused on, and usually directly involving, patients and their problems. The clinical environment consists of inpatient, hospital outpatient and community settings, each with their own distinct challenges. It is in this environment that students learn what it means to be a real. Skills such as history taking, physical examination, patient communication and professionalism are best learned in the clinical setting, medical knowledge is directly applied to patient care, trainees begin to be motivated by relevance and self-directed learning takes on a new meaning (Spencer, 2003).

Interprofessional (IP) collaboration is recognized as critical for patient-centred care. The clinical setting is an ideal environment for students to learn the competencies required to effectively work with providers from other professions (Lait et al, 2010).

Clinical experience is the most important

component of nursing education. As part of the clinical learning environment, the clinical teaching behaviors of nursing faculty have significant potential to influence students' learning. Nurse educators have a responsibility to provide nursing students with clinical instruction that is most effective at facilitating learning however, there is a paucity of research on which to base practice. Clinical experience is defined as any planned situation in which students interact with patients to apply the nursing process. The clinical experience is inclusive of simulation and must involve variables that are unknown to students during preparation activities, e.g. a case study in which all information is available would not be considered clinical experience (Kube, 2010).

Clinical experiences are excellent learning opportunities, and they must be utilized to maximize learning potential. Active learning strategies improve students' CT skills and enhance their motivation to learn and apply new knowledge (Chafee, 2000; Browne & Keeley, 2001, Ruggiero, 2001 cited from Stevens & Brenner 2010).

The primacy of clinical experience in the education of nursing students cannot be overstated: it is the lifeblood of nursing education. It is a more important component of the educational process than classroom learning (Walker, 2005; Gaberson & Oermann, 2007). The educational process is unique in the practice professions because being able to perform the activities of the profession in live situations as opposed to simply being able to express understanding of principles is a requisite competency of graduation (Shulman, 2005).

The clinical experience involves direct observation and care of patients in a variety of health care settings. It is an essential part of the nursing curriculum to obtain an associate degree in nursing and to be eligible to take the licensure exam for the practice of registered professional nursing (RN). Students observe and demonstrate the application of learned skills and theory in a variety of clinical settings under the supervision of a nursing faculty member or nursing preceptor (Hickey, 2005).

The ideal clinical learning experience would integrate knowledge, attitudes, caring, and skills with active involvement of clients, staff, students and faculty". Clinical education is the most valuable training for nursing students. Students learn to make sense of nursing practice in real work clinical (NLN, 2008). Clinical education will be measured by the clinical educational teaching and learning subscale of the Clinical Instructional Experience Questionnaire. "Clinical competence is described by the theoretical and clinical knowledge used in the practice of nursing, incorporating psychomotor skills, with

problem solving ability" (**Hickey, 2005**).

Clinical competence is further defined by **The National League for Nursing Essentials for Associate Degree Nursing (2000)** as having the following eight core components for associate degree graduates professional behaviors: communication, assessment, clinical decision-making, caring interventions, teaching and learning, collaboration and managing care. Associate degree nursing faculty expects students to exhibit these professional nursing practice standards.

Nurses must be able to assess, diagnose, plan care, communicate with patients and families, and apply nursing and scientific theory to patient care. Students learning the profession encounter problem solving experiences and thus, reinforce skills during clinical experiences. Clinical experiences help student nurses "tie it all together", that is lecture and lab, while providing competent and compassionate care (**NLN, 2008**). For ultimate clinical learning to occur, all players, clients, staff nurse and faculty, must work collaboratively. Clinical competence was measured by the clinical competence/nursing skills subscale of the Clinical Instructional Experience Questionnaire (**Hickey, 2005**).

The quality of the clinical experience is often directly related to the quality of the clinical instructor (**Hart, 2009**). Clinical teachers have a dual role in, to provide patient care and to teach (**Prideaux et al., 2000; Irby & Bowen 2004**). Though all clinical teachers are usually well prepared for their clinical roles, few are trained for their teaching roles (**Steinert 2005**). Clinical teachers take their role as teachers of future generations seriously and with enthusiasm. Yet, most lack knowledge of educational principles and teaching strategies thus may be inadequately prepared for this additional professional role (**Ramani & Leinster, 2008**).

Effective clinical nursing instructors are essential to maximizing the educational experience of nursing students. Due to a shortage of clinical placement sites and advancements in technology, today's nursing students are increasingly learning clinical judgment and decision making in the simulated clinical experience (SCE) with human patient simulators. In this environment, SCE instructors assist students to acquire knowledge and skill in decision-making in a controlled, risk free, hospital-type clinical environment (**Bridget, 2011**).

Clinical teacher is defined as a registered nurse who has been delegated responsibility for planning, conducting, and evaluating clinical experiences with nursing students. This term is used interchangeably with instructor by the nursing profession. Instructor: a registered nurse, who has been delegated responsibility for planning, conducting, and

evaluating clinical experiences with nursing students. This term is used interchangeably with teacher by the nursing profession (**Kube, 2010**).

Clinical faculty/instructor defined as Functions as a guide for the novice student nurse in the development of clinical knowledge and skill acquisition (**Benner, 2001**). **Stokes and Kost (2005)** describe clinical faculty as "the crucial link to successful experiences for students". The faculties who teach in the clinical setting are vital to the quality of the clinical experience. Clinical faculties spend many hours in clinical settings with students to ensure they are getting the experiences they need (**Hart, 2009**).

Teaching in the clinical environment is a demanding, complex and often frustrating task, a task many clinicians assume without adequate preparation or orientation. Twelve roles have been described for teachers, grouped into six major tasks: (1) the information provider; (2) the role model; (3) the facilitator; (4) the assessor; (5) the curriculum and course planner; and (6) the resource material creator (**Harden & Crosby, 2000 cited from Ramani & Leinster, 2008**). Good clinical educators are more likely to be seen as specialist role models for most residents. Good Clinical Teachers Likely to be Specialist Role Models (**Lombarts et al,2010**).

The learning climate: ambiance of teaching interaction, all teachers agreed on an ideal attitude that allows students to ask questions, without feeling any threshold, quality to keep enthusiasm, control of session, the ability to communication of goals; expectations and outcomes, competency to ensure horizontal integration, understanding and retention, teaching methods used, strategies for demonstration, strategies for linking skills with clinical setting, teachers link physical examination skills training to clinical situations as an effective teaching method (**Duvivier, et al.,2009**).

Work based assessment, how the teacher approaches their teaching: The starting point for any good teacher must be enthusiasm for the subject being taught. Learning styles: It is apparent that different individuals have different approaches to learning. Role modeling, soliciting feedback on teaching (**Ramani & Leinster, 2008**).

Seven features of excellent clinical teaching: (1) knowledge and analytic ability; (2) organization and clarity of presentation; (3) enthusiasm and stimulation of interest; (4) group interaction skills; (5) clinical supervision skills; (6) clinical competence; and (7) professionalism (**Irby, 1978; Irby & Rakestraw, 1981; Ramsey et al., 1988; Irby et al., 1991; Ramsbottom-Lucier et al., 1994 cited from Duvivier, Van dalen, Van Der Vleuten & Scherpier,2009**).

Inpatient teaching: the role of the inpatient teacher is one of the most challenging in medical education, that of a master, mentor, supervisor, facilitator, or all of the above. Outpatient teaching: In recent years, the outpatient clinics have become an integral venue to teach clinical skills, with shorter hospital stays, it has become impossible for trainees to follow and learn the natural history of a disease from the inpatient environment. Teaching at the bedside: It has been stated that since clinical practice involves the diagnosis and management of problems in patients, teaching of clinical medicine should be carried out on real patients with real problems (**Nair et al., 1997** cited from Ramani & Leinster, 2008)

MacDonald et al, 2010) delineated six key competencies of inter professional collaborative practice for patient-centered care: communication; strength in one's professional role; knowledge of professional role of others; leadership; team function; and negotiation for conflict resolution.

Clinical practices are often limited by a lack of meaningful communication between nursing students and registered nurses (RNs). (**Cooke et al, 2010**)

Factors facilitate clinical learning such as availability of learning experiences, acceptable unit organization, space and resource availability, and accessibility to students, adequate staffing with qualified staff who actively participate in teaching, appropriate and quality patient care role modeled, lecturer availability and involvement in clinical teaching, team building and inclusion of students in the team, committed nurse managers involved in students' learning, conducive relationships among staff, students and patients, comfort relationships, advocacy and creating conducive relationship by the nurse manager, were identified as necessary for learning. These factors however, were found to be lacking, inadequate or inaccessible to students (**Cynthia et al, 2011**)

Nursing is a practice discipline, and, as such requires nursing students to apply theory to nursing care in all health care settings. Nursing care requires assessment, clinical decision-making, caring interventions, teaching and learning collaboration, and managing care. In addition, nursing students are held to the same professional standards as licensed registered nurses. These standards include adhering to standards of professional practice, being accountable for one's actions, practicing nursing with legal, ethical, and regulatory frameworks, having concern for others, valuing the profession of nursing and participating in ongoing professional development. Communication for nurses is defined as a goal directed interactive process through which there is an exchange of information that may occur nonverbally, in writing, or through information

technology (**NLN, 2000**).

Transmitting knowledge and skill, which is at the heart of the teaching act, relies heavily on the interpersonal effectiveness of the instructor. Her ability to interact and communicate effectively with students, staff, and patients is an essential component of her success. The instructor tailors her interactions to meet the multiple demands of the situations in which students are learning nursing. She strives to maintain her authenticity as a person and as a nurse (**O'Connor, 2006**)

Faculties are the gate keepers of the profession. They have the ultimate responsibility to make sure students are competent to practice the art and science of nursing. But, they are also responsible for honoring students' rights and providing every opportunity for students to succeed (**Emerson, 2007**).

Clinical teaching faculty guide students to link theory with clinical practice, to think critically in solving complex clinical problems, and to deliver quality patient care (**Louise , 2007**). Faculty can remind the staff that students are watching and listening; communicate a positive image of professional nursing; to think back on their own student days; the vulnerability and anxiety of students; remember that students need to feel they belong and are supported and remember that we can learn together (**LaFauci,2009**).

Teachers help students to make the links between theory and practice (**Landmark et al., 2003**). Evaluation of performance is also an important aspect of the teacher's role (**Viverais-Dresler & Kutschke, 2001**cited from Forbes, 2009).

Stevens& Brenner (2010) identified areas evaluated as, the course as a whole, the course content, the instructor's contribution, the instructor's effectiveness, comparatively amount learned, use of class time, contribution of assignments, sequential development of skills, appropriate freedom to develop ideas and tailoring of instruction to student skills

High quality formative assessment has been linked to positive benefits on learning while good feedback can make a considerable difference to the quality of learning. It is proposed that formative assessment and feedback is intricately linked to enhancement of learning and has to be interactive (**Lai Chan Koh, 2010**).

Evaluation and feedback: how to assess learners' achievement of desired goals and how to improve learners' performance self-directed learning: enhancing learners' abilities to identify and act on own needs and strategies to answer questions. Teaching Qualities as attracted to teaching, sense of

humour, clear idea about limitations in own knowledge, to respect students' limitations without being pejorative, awareness of responsibility as role-model. Strategies to adapt, the content of the training, the level of depth, the teaching method to the needs of any particular group, explicitly inviting students to ask questions, providing feedback on examination skills in a stimulating way, guard intimacy and integrity by peer physical examination, emphasize on the wider perspective: the formulation of differential diagnosis and detection of underlying pathology, stimulate contextual learning by linking physical examination skills training to clinical situations (**Duvivier, et al, 2009**).

Nursing is described as a practice and scientific discipline. The knowledge base for professional nursing practice includes: science, humanities, social sciences, ethics, and biomedical sciences. Nurses use and generate research to incorporate nursing's values of health care, as well as its relevance to professional nursing (**American Nurses Association, 2003**). Nursing is a large part of the health care system and therefore, nursing faculties must identify best practices for nursing education (**NLN, 2008**).

Nursing remains a practice discipline and as nursing practice becomes more complex, faculties of nursing are asked to evaluate and change the clinical nursing education experience. The history of nursing sheds light on how education and practice separated. The shortage of nurses and the nursing faculty shortage may provide the impetus for change in clinical education. Clinical education accounts for half of the instructional experience time for nursing students (**Hickey, 2005**).

Clinical teaching of all kinds encounter obstacles such as lack of faculty training and weak support from the hospital hierarchy (**Busari et al., 2002; Seabrook, 2003; Morrison et al., 2005**). Other obstacles are more specific to clinical teaching of communication skills (**Perron et al., 2009**).

The challenge to nursing education is to develop new innovative ways to teach nursing practice. Schools of nursing must research the most effective ways to help students learn the complex role of nursing practice. They also must address assessment of nursing clinical performance for nursing students in pre-licensure RN programs in addition to teaching diverse student populations the affect of patient care on diverse patient populations (**NLN, 2008**).

Clinical faculties are faced with many challenges as well. Clinical faculty must use creative methods to meet the curriculum needs of students while maintaining a safe environment for patients. Clinical faculty must also meet the learning needs of a variety of students (**Stokes & Kost, 2005**). To try

to meet the need for more registered nurses, schools of nursing are not only admitting students into traditional baccalaureate programs they are also admitting students into accelerated second-degree baccalaureate programs (**Hart, 2009**).

Nursing faculties today are bound by accreditation agencies to produce graduate nurses who can think critically. Clinical instructors play the dominant role in transitioning students from the didactic experience to the clinical experience. The clinical experience is where students practice higher levels of thinking under the supervision and guidance of a clinical instructor in order to arrive at safe patient care decisions. Regardless of the teaching method used to develop critical thinking skills, it is the underlying questioning skill of the instructor that facilitates the growth of critical thinking (**Giddings, et al, 2000; Hermiz, 2001.; Myrick & Yonge, 2002 in Michelle Kelly, 2011**). Societal trends that affected nursing include feminism, the women's movement, cultural diversity, men in nursing, violence and technological advances in health care and information management (**Chitty & Black, 2007**).

These societal changes influenced the ANA's (**2003**) latest definition of nursing, which is: "Nursing is the protection, promotion, and optimization of health and abilities, prevention of illness and injury, alleviation of suffering through the diagnosis and treatments of human response and advocacy in the care of individuals, families, communities, and populations" (**LaFauci,2009**).

Educators must make the essential connections to patient centered care and continued collaboration with nursing practice. Innovative clinical strategies are challenging. Faculty has to be taught to teach conceptually and minimize the emphasis on content. They must learn to use community settings for clinical experiences. Acceptance of new clinical models takes time, requires acceptance by nursing service and needs an adequate pool of qualified preceptors (**NLN, 2008**).

The current changes in health care systems challenges knowledgeable, mature and independent practitioners to be able to integrate theoretical content with practice. (**Maselesele & Mashudu, 2011**).

It is clear that many of these roles require a teacher to be more than an expert. In a pure educational setting, teachers may have limited roles, but the clinical teacher often plays many roles simultaneously, switching from one role to another during the same encounter. Being effective teachers becomes more challenging in the context of expanding clinical responsibilities and shrinking time for teaching (**Prideaux et al., 2000**). Institutions

need to provide necessary orientation and training for their clinical teachers. This Guide looks at the many challenges for teachers in the clinical environment, application of relevant educational theories to the clinical context and practical teaching tips for clinical teachers. This guide will concentrate on the hospital setting as teaching within the community is the subject of another. Due to advances in education such as new methods of teaching and learning, a more student-centered teaching, competency based assessment and emphasis on professionalism; educators today are required to have an expanded toolkit of teaching skills and clinical expertise (**Ramani & Leinster, 2008**)

One of the major challenges is the issue of role modeling by clinician educators in delivering high-quality clinical training. Faculties are the gate keepers of the profession. They have the ultimate responsibility to make sure students are competent to practice the art and science of nursing. The expectation for nursing education is to produce graduates which will be competent practitioners upon graduation.

Several studies under taken in the area of clinical teaching, as have teaching in the clinical environment (**Ramani & Leinster, 2008**). Clinical teachers' approaches to nursing (**Forbes, 2009**). The Relationship of Nursing Faculty Clinical Teaching Behaviors to Student Learning (**Kube, 2010**). However, among all of these studies there are no studies about developing and validating clinical teaching skills standards which enable faculties to; prepare students to think critically, solve problems, communicate effectively, demonstrate caring behaviors, provide safer environment for patients and perform safe and effective nursing interventions. The quality of the clinical experience is often directly related to the quality of the clinical instructor. Thus in Egypt, faculties of nursing need to develop its own national clinical teaching skills standards. Though all clinical teachers will be prepared well for their clinical roles, Clinical teacher can have responsibility for planning, conducting, and evaluating clinical experiences with nursing students and to be able to have effective clinical teaching skills

There is variety of definitions of standards as follows: **Kavaler & Spiegel (2003)** defined standards as statements concerning proper procedures and /or actions to be taken in given clinical or administrative situations. In this regard **Evans & Lindsay (2005)** mentioned that standards are documents defining characteristics (for example, dimensions, safety aspects, performance requirements) of a product, process or service, in line with the technical/technological state-of-the art. Recently **Marquis & Huston (2006)** added that a standard is a

predetermined level of excellence that serves as a guide for practice.

A standard is a performance model that results from integrating criteria with norms and is used to judge quality of nursing objectives, orders and methods (**Basavanthappa, 2000**). In addition **Sale (2000)** added that standards can be used as a means of monitoring the effectiveness of care in both guidelines and care pathways.

Important objectives of standardization include: 1) Facilitating technical communication through the unification of symbols, codes and interfaces. 2) Increasing the cost-effectiveness of production and use by defining and unifying products and processes, performances and final inspection/testing modalities. -Promoting safety and environment protection, 3) Acting in the general interests of consumers and community (**Malta Standards Authority, 2002**).

No profession in the coming decades can afford to be isolated from the reality of being accountable for efficiency and effectiveness of the services provided by its members. To be accountable is to be answerable for quality. The following are some of the purposes of standards: 1-standards give direction and provide guidelines for performance of nursing staff. 2-standards provide a baseline for evaluating quality of nursing care ranging from excellent care to unsafe care. 3-standards help improve quality of nursing care, increase effectiveness of care and improve efficiency. 4-standards may help to improve documentation of nursing care provided, i.e. maintaining record of care. 5-standards may help to determine the degree to which standards of nursing care maintained and take necessary corrective action in time. 6-standards help supervisors to guide nursing staff to improve performance. 7-standards may help to improve basis for decision-making and devise alternative system for delivering nursing care. 8-standards may help justify demands for resources association. 9-standards may help clarify nurses area of accountability. 10-standards may help nursing to define clearly different levels of care (**Basavanthappa, 2000**).

Standards have distinguishing characteristics which include; they are predetermined, established by an authority, and communicated to and accepted by the people affected by them. Because standards are used as measurement tools, they must be objective, measurable, and achievable (**Marquis & Huston, 2006**).

Moreover **Sale (2000)** mentioned that standards should be valid and be acceptable definitions of the quality of care. In addition **Basavanthappa (2000)** stated that the characteristics of standards which undo that standard include: 1-statement must be

broad enough to apply to a wide variety of settings. 2-must be realistic, acceptable, attainable. 3- must be developed by members of the nursing profession; preferable nurses practicing at the direct care level with consultation of experts in the domain. 4-should be phrased in positive terms and indicate acceptable performance, i.e. good, excellence etc. 5- must express what desirable optional level is. 6-must be understandable and stated in unambiguous terms. 7-must be based on current knowledge and scientific practice.8-must be reviewed and revised periodically. 9-may be directed towards an ideal, i.e. optional standards or may only specify the minimal care that must be attained, i.e. minimum standard. A standard must be reasonable, capable of being achieved, and measurable (**Kavaler & Spiegel, 2003**).

Standards can be classified and formulated according to frames of references (used for setting and evaluating nursing care services) relating to nursing structure, process and outcome, because standard is a descriptive statement of desired level of performance against which to evaluate the quality of service structure, process or outcomes. Standards can be established to appraise care according to many approaches. The most common approaches are based on structure, process and outcome (**Evans & Lindsay, 2005**).

Structure standards are those that if ignored or modified would put the customer, the staff or the organization at risk. **Abd Elwahab (2001)** stated that structure standards outline the legal parameters that govern performance expectations. They represent the absolutes of behavior that cannot be changed at will. They include the mission, philosophy, goals, policies, and job descriptions of the organization/department. Structure defines the scope of authority within which the individual or group representing the organization may function.

Process standards are as important as structure standards, but they do not carry the same degree of weight in the organization. With process standards there is not an expectation of 100% compliance, some variation is expected which may be acceptable or not. Process outlines how the knowledge, skills and attitudes of the organization are operationalized. The written process standards define operational norms (**Green & Katz, 1997 in Abd Elwahab, 2001**). They flow from those functions carried out by health care providers in the delivery of health care. For nurses, these functions can be translated into the use of nursing process (**Ellis & Hartly, 2000**). One of the key concepts of a quality improvement program is to prioritize, evaluate, and improve process. Process standards include procedures, practice guidelines, plans and documentation.

Outcomes are the result obtained through

enactment and completion of a process. Well-defined structure and process standards, however, greatly increase the likelihood of achieving desired outcomes. Outcomes can be divided into expected (desired) outcomes and unexpected (undesired) outcomes. They are attached to all process standards. They relate to practice processes and governance as well. Outcomes are written for every procedure, practice, guideline, and plan. In order to develop reliable and valid outcomes, the process of benchmarking is extremely helpful (**Green & Katz, 1997; Dicker & Sullivan, 1997 cited from Abd-Elwahab, 2001**).

All these standards provides the yardstick for measuring quality care, e.g. outcome standards are defined in terms of what the patient will know, do, express or experience and reflect nursing also for physiological, emotional and mental well- being (**Basavanhappa, 2000**).

Othman (2007) determined steps of standard development as:

Step1-define and agree. The area or topic for which standards are being developed.

Step2-select who should be involved.

Step3- gathers information.

Step4- draft standards.

Step5- tests the standards.

Step6- communicates the standards.

Malta Standards Authority (2002) identified four approaches to monitoring standards which include: A-retrospective monitoring, B-concurrent monitoring, C-questionnaires and D-the care plan,.

2. Significance of the Study

There are many challenges in nursing education today as: Providing more experiential learning opportunity than instruction, more emphasis on outcome-based than process-based education, more evidence-based education strategies and curriculum, student competency and evidence-based education required to maintain accreditation, diversity, distance learning increases access, culturally competent care as an outcome criterion for graduates, technology & nursing informatics' impact, computer competence and internet utilization, lifelong learning a requirement, reforms in health care & higher education: graduate education producing practitioners to meet consumer demands, curricula standardized & streamlined to reduce cost and confusion and improve student mobility, specialization, Professionalisation, Political& economical forcers, social & cultural forces, challenges to entire nursing profession, change & health care delivery, globalization and nursing,

quality and patient care, nursing shortages and staffing

In addition according to Peer review report on the developmental engagement for Faculty of Nursing Zagazig University, November (2007) there were: Limited and in conducive clinical sites affect clinical performance of the graduates, the students and staff have inadequate access to the learning resources at teaching hospitals, there is no standardized strategy for evaluating the clinical performance of the students, there is no adequate formative assessment function with mechanisms for providing structured and timely feedback to the students, questions do not differentiate between levels of student achievement, the inefficient use of available facilities, the inadequate number of staff members especially in the medical surgical nursing department.

So development clinical teaching skills standards are very important and it is a must to meet the standards of clinical teaching, promote staff satisfaction, provide students satisfaction, represent a step to faculty accreditation, to promote better preparation of new nurses who are able to compete national and international; think critically; solve problems; caring with evidence-based practice, ensure patient safety and satisfaction

Theoretical Framework

The Donabedian model 1987 which divided into three parts namely, structure standards, process standards, and out come standards provide the foundation for theoretical framework for this study

2. Subjects and Methods

Aim of the Study

The aim of this study was to develop clinical teaching skills standards
To fulfill this aim the following research objectives were formulated to:

- 1- Develop a tool measuring clinical teaching skills
- 2- Validate the developed tool.
- 3- Assess the clinical teaching skills at Faculty of Nursing ,Zagazig University.
- 4- Develop clinical teaching skills standards
- 5- Validate the developed clinical teaching skills standards

Research Questions:

The specific research questions for this study were:

1. Is there a significant difference among students from different years regarding clinical teaching skills?
2. Is there a significant difference in the clinical teaching skills identified between nurse students

and their clinical instructors?

3. Is there a significant difference in the skills of clinical teaching as rated by nurse students male and female?

Research Design:

Methodological design was used to achieve the objectives of the present study; it aimed at developing and validating standards for clinical teaching skills. This was achieved through cross-sectional assessment of clinical teaching skills.

Setting:

This study was conducted at Faculty of Nursing, Zagazig University. That includes sex scientific departments.

Subjects:

To collect data for the present study three types of samples were used:

- I- A convenience sample including the clinical instructors at faculty of nursing Zagazig University who agreed to participate in the study.
- II- A stratified proportionate sample from different years of student nurses was taken as follows.

Sample size: the sample size is estimated with a 20% precision and Confidence level 95%, Population size 1073, and Margin of error 5%.

Ideal sample size was 283. After adjust of a dropout rate of 10 % the sample size required was 312

Sampling method: the sample was taken through a stratified proportionate random sampling technique, based on the distribution of the different years of student nurses

III- Jury committee (20)

They were faculty staff members from faculty of nursing in ain shams, Cairo and Zagazig Universities, faculty of education in Benha and zagazig universities

Operational definition:

For the purposes of this study, the following operational definitions were used:

1- Nursing Student:

A student enrolled in a traditional B.SC-N program and who has completed at least one clinical course

2- Clinical instructor.

A registered nurse, employed by the study university that has a minimum of a Bachelor's of Science in nursing degree and teaches at least one clinical course per semester to undergraduate nursing students in one of the following clinical settings: administration, medical/surgical, pediatrics, obstetrics, psychiatric and community/public health.

3) Clinical teaching skills

Qualities, Attributes and/or traits of effective clinical instructors which are rated by students and their clinical instructors using the clinical teaching skills questionnaire. skills are grouped into the following categories: : the professional competence, creating favorable learning environment, teaching ability, facilitator, guider, supporter, an observer, interpersonal relationships and communication, evaluator and personal attributes. Each attribute was scored on a scale from one to five.

4) **The clinical teaching skills standards** were defined as a suggested document that contains precise criteria designed to be used consistently as a rule or guideline for evaluating clinical teaching skills.

Tools:

Data for the present study was collected using the following three tools:

- 1- The clinical teaching skills assessment questionnaire.
- 2-Experts opinionnaire about content validity and face validity of the proposed clinical teaching skills questionnaire.
- 3- Experts opinionnaire about content validity and face validity of the proposed clinical teaching skills standards

1 The clinical teaching skills assessment questionnaire:

The clinical teaching skills assessment questionnaire sheet was developed by the researcher to collect data about skills of clinical teaching. It includes two parts; the first part contains socio-demographic data of samples' subjects. Based on the literature the second part was developed. The sheet contained ten dimensions involving 167 items representing all types of clinical teaching skills as follows: the professional competence, creating favorable learning environment, teaching ability, facilitator, guider, supporter, an observer, interpersonal relationships and communication, evaluator and personal attributes

2-Opinionnaire

Two types of sheets were designed:-

- I- The first sheet: was developed to assess the content validity and face validity of the clinical teaching skills assessment questionnaire sheet about the assessment of skills through expert's opinions. It involved two parts:-
 - A- The opinions of the experts for each item were recorded on a two point scale: relevant, not relevant
 - B- General or overall opinions about the form.
- II- The second sheet: was developed to assess the

content validity and face validity of the standards of clinical teaching skills about the assessment of skills through expert's opinions. It involved two parts:-

- A- The opinions of the experts for each item were recorded on a two point scale: relevant, not relevant
- B- General or overall opinions about the form.

Procedure

The current study was carried out on three phases; preparation phase, implementation phase and developmental or designing phase.

1-Preparation phase

This phase was concerned with managerial arrangements to carry out the implementation phase, as well as the construction, designing, validation and preparation of different data collection tools.

Managerial arrangements, an official permission was obtained from the dean of the Faculty of Nursing at Zagazig University to select the samples, to conduct the study and to collect the data. The researcher explained the aim of the study.

Regarding preparation of the clinical teaching skills assessment questionnaire tool, it required an extensive review of relevant literature. Then the researcher developed it and tests the content validity and reliability of the tool.

Validity and reliability of the clinical teaching skills assessment questionnaire tool.

Content validity:

The researcher designed an opinionnaire sheet to test the content validity of the clinical teaching skills assessment questionnaire sheet by a jury including 20 faculty members from education involved colleges of education and nursing faculties. It involved two parts:

- A- The opinions of the experts for each item were recorded on a two point scale: relevant, not relevant.
- B- General or overall opinion about the form.

They were requested to express their opinions and comments on the tool and provide any suggestions for any additional or omissions of items. Then necessary modifications were done.

A pilot study was carried out on 38 students and 15 clinical instructors selected randomly that is to identify obstacles and problems that may be encountered during data collection; to test clarity, feasibility and reliability of the tool and whether it was understandable; and to determine the time needed to fill the forms. The tool was handed to participants to fill it and collected by the researcher. The time for the completion of the questionnaire sheet was ranged from 40-55minutes. Then reliability

of the tool was done

Reliability Testing:

The reliability estimate used for the current study was internal consistency reliability. It is the estimate used to assess the consistency of results across items within a test. In internal consistency reliability estimation; a single measurement instrument (Tool) administered to a group of people on one occasion is used to estimate reliability. In effect, the reliability of the instrument is judged by estimating how well the items that reflect the same construct yield similar results. In other words, the estimates look at how consistent the results are for different items for the same construct within the measure. There are a wide variety of internal consistency measures that can be used. Three estimations were used for the tool used in the study:

1. Average Item-Total Correlation
2. Split Half Reliability
3. Cronbach's Alpha (α)

1. Average Item-total Correlation

This approach also uses the inter-item correlations. In addition, we compute a total score for the items is computed and used that as a variable (Total) in the analysis, with the average of .995 in this sample analysis

2. Split-Half Reliability

In split-half reliability we randomly divide the tool administered to the sample into two sets. Scores of subcategories of the tool are correlated between the 2 halves. The split-half reliability estimate, is the mean of the correlation between these two total scores which was .989-.992

3. Cronbach's Alpha (α)

Cronbach's Alpha is mathematically equivalent to the average of all possible split-half estimates from the same sample. The computer analysis does the random subsets of items and computes the resulting correlations.

Cronbach's alpha was .738 - .780 for all items and none of the items was proved to affect alpha level if removed.

2-Implementation phase

A- Clinical teaching skills assessment from the study sample. The researcher copied 312 sheets. Data collection took the period from May 2011 to June 2011.

The researcher began to collect data from students and the clinical instructors by explaining to each participant the aim of the study and take him or her acceptance and explaining the scale and how to file the sheet. Filling the questionnaire sheet about clinical teaching skills assessment was ranged from 40 minutes -1 hour, this time was depend on the

work conditions and interference of many variables (exams). Data collection for some participants carried out through distribution of the questionnaire sheet to the subjects and was handed back to the researcher upon completion.

3- Developmental phase:

Based on the results of clinical teaching skills assessment and an extensive review of relevant literature, the researcher developed the proposed standards for clinical teaching skills guided by the Donabedian model 1987 into three parts namely, structure standards, process standards, and out come standards. The structure standards entail structure items that should be available in the faculty. The process standards entailed the clinical teaching skills standards and their criteria that should be rendered for students and the out come standards entailed the clinical teaching skills outcome. Then develop an opinionnaire sheet to assess the validity of the proposed clinical teaching skills standards from expert's view points as mentioned before.

They were requested to express their opinions and comments on the suggested clinical teaching skills standards and provide any suggestions for any additional or omissions of items. Then necessary modifications were done. Then the final components of the clinical teaching skills standards were developed.

Statistical analysis:

Data entry was done using Microsoft Excel computer software package, while statistical analysis was done using SPSS 13.0 statistical software package. Quality control was done at the stages of coding and data entry. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, and means and standard deviations for quantitative variables. Statistical significance was considered at p -value <0.05 .

Administrative and ethical aspects:

To conduct the study in the Faculty of Nursing, Zagazig University, official permission was taken from the dean then the researcher obtained study subjects' approval orally after explaining the aim and method of data collection, confidentiality of subjects' responses was assured.

3. Results

Data in Table (1) shows one way ANOVA test to detect significance among studied groups for four years toward the clinical teaching skills categories. It was found that there were statistically significant differences in Professional competence, Creating favorable learning environment, Teaching ability,

facilitator, Guiding, Supporter, observer, interpersonal relationships and communication, evaluator, Personal attributes, and Total scores at

p-value (0.000). To detect this significance the researcher conducted t.test between every two years as follows:

Table (1): one way ANOVA test to detect significance among studied groups for four years toward the clinical teaching skills categories

Categories of clinical teaching skills		Sum of squares	df	Mean squares	F test	Sig
1- The professional competence	Between groups	27506.864	3	9168.955	20.512	*.000
	Within groups	106831.877	239	446.995		
	Total	134338.741	242			
2- Creating favorable learning environment	Between groups	1515.056	3	505.019	15.073	*.000
	Within groups	8007.619	239	33.505		
	Total	9522.675	242			
3- Teaching ability	Between groups	45830.281	3	15276.760	12.566	*.000
	Within groups	290548.904	239	1215.686		
	Total	336379.185	242			
4-Facilitator	Between groups	1893.913	3	631.304	9.859	*.000
	Within groups	15303.281	239	64.030		
	Total	17197.193	242			
5- Guider	Between groups	1585.465	3	528.488	13.158	*.000
	Within groups	9599.202	239	40.164		
	Total	11184.667	242			
6- Supporter	Between groups	21530.390	3	7176.797	13.806	*.000
	Within groups	124239.371	239	519.830		
	Total	145769.761	242			
7-An observer	Between groups	2147.922	3	715.974	23.276	*.000
	Within groups	7351.592	239	30.760		
	Total	9499.514	242			
8- Interpersonal relationships and communication	Between groups	8279.436	3	2759.812	14.873	*.000
	Within groups	44348.424	239	185.558		
	Total	52627.860	242			
9- Evaluator	Between groups	16043.898	3	5347.966	17.210	*.000
	Within groups	74267.049	239	310.741		
	Total	90310.947	242			
10- Personal attributes	Between groups	1883.046	3	627.682	10.233	*.000
	Within groups	14659.620	239	61.337		
	Total	16542.667	242			
Total	Between groups	868207.711	3	289402.570	17.650	*.000
	Within groups	3918728.248	239	16396.353		
	Total	4786935.959	242			

* Significant

From Table (2) demonstrated the mean percentages of clinical teaching skills among students (first year and second year). It was found that there were statistically significant differences in all categories of clinical teaching skills questionnaires and also the total scores at p-value (0.000) between first year and second year students

Data in Table (3) shows the mean percentages of clinical teaching skills among students (second year and third year). It was found that there were statistically significant differences in all categories of clinical teaching skills questionnaires and also the total scores at p-value (0.000) and teaching ability and personal attributes at (0.001) between second year and third year students

Data in Table (4) demonstrated the mean percentages of clinical teaching skills among students (third year and fourth year). As regard to professional competence, teaching ability, the total score of all categories of clinical teaching skills questionnaires, it was found that third year had the

higher mean percentage than fourth year (71.14 & 61.94 -114.36& 109.81 - 434.53 & 418.72 respectively).

From Table (5) describes the mean percentages of clinical teaching skills among students (third year and first year). It was noticed that there were statistically significant differences in Professional competence, Teaching ability, Guider, Supporter, observer, Interpersonal relationships and communication, evaluator and Total scores at (0.001, 0.019, 0.015, 0.013, 0.002, 0.016, 0.014, 0.005 respectively).

From Table (6) demonstrated the mean percentages of clinical teaching skills among students (first year and fourth year. it was found that there were statistically significant differences in Professional competence, creating favorable learning environment, Teaching ability, Guider, Supporter, observer, interpersonal relationships and communication, evaluator, and Total scores at (0.000, 0.001, 0.000, 0.035, 0.000, 0.000, 0.007, 0.028, 0.000 respectively).

TABLE (2) :Mean percentages of clinical teaching skills among students (first year and second year)

Categories of clinical teaching skills	Students No = 99	% \pm SD	t. test	Sig
1- The professional competence	First year No = 36	88.2778 \pm 23.0981	8.347	*.000
	Second year No = 63	55.6508\pm 15.6969		
2- Creating favorable learning environment	First year No = 36	15.7971 \pm 5.6791	7.113	*.000
	Second year No = 63	12.1111 \pm 4.3296		
3- Teaching ability	First year No = 36	107.3188 \pm 34.4701	7.133	*.000
	Second year No = 63	91.4127 \pm 25.8567		
4- Facilitator	First year No = 36	21.2319 \pm 8.1388	6.092	*.000
	Second year No = 63	16.5873 \pm 5.6330		
5- Guider	First year No = 36	16.3913 \pm 6.8044	7.036	*.000
	Second year No = 63	12.5556 \pm 4.6655		
6- Supporter	First year No = 36	63.2319 \pm 21.9184	7.348	*.000
	Second year No = 63	51.4762 \pm 16.8177		
7- An observer	First year No = 36	13.4203 \pm 5.4189	8.522	*.000
	Second year No = 63	10.4286 \pm 4.2225		
8- Interpersonal relationships and communication	First year No = 36	36.9275 \pm 13.8885	7.553	*.000
	Second year No = 63	27.6032 \pm 9.7857		
9-Evaluator	First year No = 36	51.1884 \pm 17.8237	7.708	*.000
	Second year No = 63	37.3492 \pm 12.2054		
10- Personal attributes	First year No = 36	20.9420 \pm 8.1039	6.294	*.000
	Second year No = 63	16.6667 \pm 4.9220		
Total	First year No = 36	410.7536 \pm 128.6569	8.433	*.000
	Second year No = 63	331.8413 \pm 87.4105		

* Significant

TABLE (3): Mean percentages of clinical teaching skills among students (second year and third year) no= 132

Categories of clinical teaching skills	Students No = 132	$\bar{x}\% \pm SD$	t. test	Sig
1- The professional competence	Second year No = 63	55.6508± 15.6969	-4.015	*.000
	Third year No = 69	71.1449± 26.7022		
2- Creating favorable learning environment	Second year No = 63	12.1111± 4.3296	-4.879	*.000
	Third year No = 69	17.0725± 6.9289		
3- Teaching ability	Second year No = 63	91.4127± 25.8567	-3.496	*.001
	Third year No = 69	114.3623± 45.8700		
4- Facilitator	Second year No = 63	16.5873± 5.6330	-3.758	*.000
	Third year No = 69	22.0145± 10.1177		
5- Guider	Second year No = 63	12.5556± 4.6655	-3.576	*.000
	Third year No = 69	16.5942± 7.7750		
6- Supporter	Second year No = 63	51.4762± 16.8177	-3.872	*.000
	Third year No = 69	67.3913± 28.3866		
7- An observer	Second year No = 63	10.4286± 4.2225	-5.026	*.000
	Third year No = 69	15.3333± 6.6103		
8- Interpersonal relationships and communication	Second year No = 63	27.6032± 9.7857	-4.154	*.000
	Third year No = 69	37.6232± 16.7025		
9-Evaluator	Second year No = 63	37.3492± 12.2054	-4.923	*.000
	Third year No = 69	51.6087± 19.8103		
10- Personal attributes	Second year No = 63	16.6667± 4.9220	-3.560	*.001
	Third year No = 69	21.3913± 9.4218		
Total	Second year No = 63	331.8413± 87.4105	-4.461	*.000
	Third year No = 69	434.5362± 162.4681		

* Significant

TABLE (4): Mean percentages of clinical teaching skills among students (third year and fourth year) no= 144

Categories of clinical teaching skills	Students No = 144	$\bar{x} \pm SD$	t.test	Sig
1- The professional competence	Third year No = 69	71.1449± 26.7022	2.434	.016
	Fourth year No = 75	61.9467± 18.1576		
2- Creating favorable learning environment	Third year No = 69	17.0725± 6.9289	1.305	.194
	Fourth year No = 75	15.7200± 5.4737		
3- Teaching ability	Third year No = 69	114.3623± 45.8700	.714	.476
	Fourth year No = 75	109.8133± 29.4034		
4- Facilitator	Third year No = 69	22.0145± 10.1177	-.115	.908
	Fourth year No = 75	22.1867± 7.7175		
5- Guider	Third year No = 69	16.5942± 7.7750	-.875	.383
	Fourth year No = 75	17.6133± 6.1642		
6- Supporter	Third year No = 69	67.3913± 28.3866	.707	.481
	Fourth year No = 75	64.4667± 20.9964		
7- An observer	Third year No = 69	15.3333± 6.6103	2.574	.011
	Fourth year No = 75	12.8400± 4.9540		
8- Interpersonal relationships and communication	Third year No = 69	37.6232± 16.7025	-.237	.813
	Fourth year No = 75	38.2133± 13.1244		
9-Evaluator	Third year No = 69	51.6087± 19.8103	-.528	.599
	Fourth year No = 75	53.2933± 18.4953		
10- Personal attributes	Third year No = 69	21.3913± 9.4218	-.840	.402
	Fourth year No = 75	22.6267± 8.2262		
Total	Third year No = 69	434.5362± 162.4681	.675	.501
	Fourth year No = 75	418.7200± 116.5080		

TABLE (5): Mean percentages of clinical teaching skills among students (third year and first year) no= 105

Categories of clinical teaching skills	Students No = 105	%±SD	t. test	Sig
1- The professional competence	Third year No = 69	71.1449± 26.7022	3.263	*.001
	First year No = 36	88.2778± 23.0981		
2- Creating favorable learning environment	Third year No = 69	17.0725± 6.9289	1.902	.060
	First year No = 36	15.7971 ± 5.6791		
3- Teaching ability	Third year No = 69	114.3623± 45.8700	2.384	*.019
	First year No = 36	107.3188 ± 34.4701		
4- Facilitator	Third year No = 69	22.0145± 10.1177	1.400	.165
	First year No = 36	21.2319 ± 8.1388		
5- Guider	Third year No = 69	16.5942± 7.7750	2.466	*.015
	First year No = 36	16.3913 ± 6.8044		
6- Supporter	Third year No = 69	67.3913± 28.3866	2.539	*.013
	First year No = 36	63.2319 ± 21.9184		
7- An observer	Third year No = 69	15.3333± 6.6103	3.152	*.002
	First year No = 36	13.4203 ± 5.4189		
8- Interpersonal relationships and communication	Third year No = 69	37.6232± 16.7025	2.461	*.016
	First year No = 36	36.9275 ± 13.8885		
9-Evaluator	Third year No = 69	51.6087± 19.8103	2.512	*.014
	First year No = 36	51.1884 ± 17.8237		
10- Personal attributes	Third year No = 69	21.3913± 9.4218	1.919	.058
	First year No = 36	20.9420 ± 8.1039		
Total	Third year No = 69	434.5362± 162.4681	2.894	*.005
	First year No = 36	410.7536 ± 128.6569		

* Significant

Data in Table (7) shows the mean percentages of clinical teaching skills among students (second year and fourth year). It was cleared that there were statistically significant differences in Professional competence, Creating favorable learning

environment, Teaching ability, facilitator, Guider, Supporter, observer, Interpersonal relationships and communication, evaluator, and Total scores at (0.033, 0.000, 0.000, 0.000, 0.000, 0.000, 0.033, 0.000, 0.000 respectively).

TABLE (6): Mean percentages of clinical teaching skills among students (first year and fourth year) no= 111

Categories of clinical teaching skills	Students No = 111	×%±SD	t. test	Sig
1- The professional competence	First year No = 36	88.2778± 23.0981	6.533	*.000
	Fourth year No = 75	61.9467± 18.1576		
2- Creating favorable learning environment	First year No = 36	15.7971 ± 5.6791	3.420	*.001
	Fourth year No = 75	15.7200± 5.4737		
3- Teaching ability	First year No = 36	107.3188 ± 34.4701	4.005	*.000
	Fourth year No = 75	109.8133± 29.4034		
4- Facilitator	First year No = 36	21.2319 ± 8.1388	1.617	.109
	Fourth year No = 75	22.1867± 7.7175		
5- Guider	First year No = 36	16.3913 ± 6.8044	2.133	*.035
	Fourth year No = 75	17.6133±6.1642		
6- Supporter	First year No = 36	63.2319 ± 21.9184	3.824	*.000
	Fourth year No = 75	64.4667 ±20.9964		
7- An observer	First year No = 36	13.4203 ± 5.4189	6.068	*.000
	Fourth year No = 75	12.8400±4.9540		
8- Interpersonal relationships and communication	First year No = 36	36.9275 ± 13.8885	2.732	*.007
	Fourth year No = 75	38.2133±13.1244		
9-Evaluator	First year No = 36	51.1884 ± 17.8237	2.224	*.028
	Fourth year No = 75	53.2933±18.4953		
10- Personal attributes	First year No = 36	20.9420 ± 8.1039	1.262	.210
	Fourth year No = 75	22.6267±8.2262		
Total	First year No = 36	410.7536 ± 128.6569	4.104	*.000
	Fourth year No = 75	418.7200±116.5080		

* Significant

Data in Table (8) clarifies the Mean percentage of clinical teaching skills among students (male and female). As evident there was no significant difference between male and female regarding all dimensions of clinical teaching skills (the professional competence, creating favorable learning

environment, teaching ability, facilitator, guider, supporter, an observer, interpersonal relationships and interpersonal relationships and communication, evaluator and personal attributes). But it was found that female had the highest mean percentage than male related to the total mean percentage of

categories of clinical teaching skills questionnaire (417.87%, 410.75 respectively).

From Table (9) describes the Mean percentage of clinical teaching skills between students and their clinical instructors. It was found that there were statistically significant differences in Professional

competence, Creating favorable learning environment, Teaching ability, facilitator, Guider, Supporter, observer, Interpersonal relationships and communication, evaluator, Personal attributes, and Total scores at (0.000) between students and their clinical instructors.

TABLE (7): Mean percentages of clinical teaching skills among students (second year and fourth year) no= 138

Categories of clinical teaching skills	Students No = 138	%±SD	t. test	Sig
1- The professional competence	Second year No = 63	55.6508± 15.6969	-2.157	*.033
	Fourth year No = 75	61.9467± 18.1576		
2- Creating favorable learning environment	Second year No = 63	12.1111± 4.3296	-4.236	*.000
	Fourth year No = 75	15.7200± 5.4737		
3- Teaching ability	Second year No = 63	91.4127± 25.8567	-3.867	*.000
	Fourth year No = 75	109.8133± 29.4034		
4- Facilitator	Second year No = 63	16.5873± 5.6330	-4.786	*.000
	Fourth year No = 75	22.1867± 7.7175		
5- Guider	Second year No = 63	12.5556± 4.6655	-5.350	*.000
	Fourth year No = 75	17.6133±6.1642		
6- Supporter	Second year No = 63	51.4762± 16.8177	-3.958	*.000
	Fourth year No = 75	64.4667 ±20.9964		
7- An observer	Second year No = 63	10.4286± 4.2225	-3.044	*.003
	Fourth year No = 75	12.8400±4.9540		
8- Interpersonal relationships and communication	Second year No = 63	27.6032± 9.7857	-5.297	*.000
	Fourth year No = 75	38.2133±13.1244		
9-Evaluator	Second year No = 63	37.3492± 12.2054	-5.853	*.000
	Fourth year No = 75	53.2933±18.4953		
10- Personal attributes	Second year No = 63	16.6667± 4.9220	-5.041	*.000
	Fourth year No = 75	22.6267±8.2262		
Total	Second year No = 63	331.8413± 87.4105	-4.876	*.000
	Fourth year No = 75	418.7200±116.5080		

* Significant

TABLE (8): Mean percentage of clinical teaching skills among students (male and female)

Categories of clinical teaching skills	Students No = 243	×%±SD	t. test	Sig
1- The professional competence	Male No = 69	64.3043 ± 21.6485 2	-1.051	.294
	Female No = 174	67.8276 ± 24.2645		
2- Creating favorable learning environment	Male No = 69	15.7971 ± 5.6791	.062	.950
	Female No = 174	15.7414 ± 6.5089		
3- Teaching ability	Male No = 69	107.3188 ± 34.4701	-.728	.467
	Female No = 174	111.1839 ± 38.3808		
4- Facilitator	Male No = 69	21.2319 ± 8.1388	.203	.840
	Female No = 174	20.9885 ± 8.5646		
5- Guider	Male No = 69	16.3913 ± 6.8044	-.023	.982
	Female No = 174	16.4138 ± 6.8156		
6- Supporter	Male No = 69	63.2319 ± 21.9184	-.481	.631
	Female No = 174	64.9138 ± 25.5530		
7- An observer	Male No = 69	13.4203 ± 5.4189	-.785	.433
	Female No = 174	14.1207 ± 6.5748		
8- Interpersonal relationships and communication	Male No = 69	36.9275 ± 13.8885	.357	.722
	Female No = 174	36.1782 ± 15.1072		
9-Evaluator	Male No = 69	51.1884 ± 17.8237	.637	.525
	Female No = 174	49.4368 ± 19.9068		
10- Personal attributes	Male No = 69	20.9420 ± 8.1039	-.113	.910
	Female No = 174	21.0747 ± 8.3549		
Total	Male No = 69	410.7536 ± 128.6569	-.355	.723
	Female No = 174	417.8793 ± 145.4284		

TABLE(9): Mean percentage of clinical teaching skills between students and their clinical instructors

Categories of clinical teaching skills	Students No = 138	×%±SD	t. test	Sig
1- The professional competence	Students No = 243	66.8272± 23.56096	-6.358	*.000
	Clinical instructors No= 55	89.2909± 24.11214		
2- Creating favorable learning environment	Students No = 243	15.7572 ± 6.27295	-7.145	*.000
	Clinical instructors No= 55	22.7273± 7.59009		
3- Teaching ability	Students No = 243	110.0864±37.28266	-6.685	*.000
	Clinical instructors No= 55	148.0000±40.95662		
4- Facilitator	Students No = 243	21.0576±8.42987	-6.484	*.000
	Clinical instructors No= 55	29.2182± 8.42327		
5- Guider	Students No = 243	16.4074± 6.79836	-5.965	*.000
	Clinical instructors No= 55	22.3455±6.04066		
6- Supporter	Students No = 243	64.4362± 24.54291	-6.222	*.000
	Clinical instructors No= 55	87.4545±25.80039		
7- An observer	Students No = 243	13.9218± 6.26532	-6.920	*.000
	Clinical instructors No= 55	20.6545±7.53564		
8- Interpersonal relationships and communication	Students No = 243	36.3909± 14.74688	-7.143	*.000
	Clinical instructors No= 55	52.1273±14.78870		
9-Evaluator	Students No = 243	49.9342± 19.31802	-6.504	*.000
	Clinical instructors No= 55	69.1818±21.91827		
10- Personal attributes	Students No = 243	21.0370± 8.26790	-7.109	*.000
	Clinical instructors No= 55	29.8000±8.19982		
Total	Students No = 243	415.8560± 140.64397	-7.234	*.000
	Clinical instructors No= 55	570.8000±155.40537		

* Significant

4. Discussion

Clinical teaching is an important component of clinical education. In nursing, clinical teaching is ensured by clinical nurse educators. Nurses constitute an important element of the medical team. A poorly trained nurse may not only hamper the team's effectiveness but also lead to low quality health care (Eta et al, 2011). Results of the present study revealed that there were statistically significant differences in Professional competence, Creating favorable learning environment, Teaching ability, facilitator, Guider, Supporter, observer, Interpersonal relationships and communication, evaluator, Personal attributes, and Total scores at level (0.000) for all

years. This may be due to the similarity of level of performance of clinical teaching skills among clinical instructors in four years, the students perceive well their needs to these skills and at the same time the lack in performance of these skills among their clinical instructors in four years and the students become more open to express their opinions freely that their clinical instructors should have these clinical teaching skills.

These findings were consistent with many researches as follows: **Soliman & Hashim, 2005** who mentioned that role components of clinical instructors include: professional, creating favorable learning environment, facilitator, guider, supporter, an observer, communicator, assessor and evaluator.

As will as **Louise, 2007** who said that clinical instructors should be observer, communicator and have professional competence. Moreover **Bridget, 2011** groups instructor characteristics into five categories: Teaching Ability, Interpersonal Relationships, Personality, Nursing Competence and Evaluation. Also with **Rose Gaydour (2011)** who stated that there was variability in student responses to effective clinical teaching behaviours. And also with **knox and morgan, 1985** who identified that differences were noted among the various years in a nursing program, but did not specify the differences among years. To detect these differences in the present study, the researcher conducted t.test between every two years as follows:

The results indicated that there were statistically significant differences in all categories of clinical teaching skills questionnaires and also the total scores at level (0.000) between first year and second year students. That could be due to students in first year still immature to judge, fear from the concept that the clinical instructors will punish them through their grades so their rate is higher than second year. This result was antagonized with **Morgan (1997)** who concluded that there was no statistically difference between second year and first year (between the two levels of the program), and consistent with **Susan Kay (2011)** who stated that a statistically significant difference was found to exist between the two faculty groups.

According to the present study, It was found that there were statistically significant differences in all categories of clinical teaching skills questionnaires and also the total scores at level (0.000), and teaching ability and personal attributes at level (0.001) between second year's and third year's students. In which second year's students rate skills of their clinical instructors lower than third year students' rate, that could be due to the shortage in staff in second year and nature of the clinical assignments related to second year which need professional clinical instructors, the staff did not receive any training about their duties and responsibilities in the department.

As regard to professional competence, teaching ability , the total score of all categories of clinical teaching skills questionnaires, it was found that third year had the higher mean percentage than fourth year (71.14 & 61.94 -114.36 & 109.81 - 434.53 & 418.72, respectively). That could be due to the courses and clinical assignments delivered in third year are lighter than those in fourth year and third year students may overrate their clinical instructors than fourth year desiring to have more grades.

It was noticed that there were statistically significant differences in Professional competence,

Teaching ability, Guider, Supporter , observer , Interpersonal relationships and communication, evaluator , personal attributes, and Total scores at levels (0.001, 0.019, 0.015, 0.013, 0.002, 0.016, 0.014, 0.058, 0.005 respectively) between third year's and first year's students. That could be due to students in first year face difficulties in their study than students in third year

It was found that there were statistically significant differences in Professional competence, Creating favorable learning environment, Teaching ability, Guider, Supporter , observer , Interpersonal relationships and communication, evaluator , , and Total scores at levels (0.000, 0.001, 0.000, 0.035, 0.000, 0.000, 0.007, 0.028, 0.000, respectively) between first year's and fourth year's students. That could be due to nature of teaching , courses and clinical assignments are novice to first year students so they perceive difficulties and heavy to fourth year students as well as many students work in private hospitals so they were not committed to attend to their study

It was found that there were statistically significant differences in Professional competence, Creating favorable learning environment, Teaching ability, facilitator , Guider, Supporter , observer, Interpersonal relationships and communication, evaluator, and Total scores at levels (0.033, 0.000, 0.000, 0.000, 0.000, 0.033, 0.000, 0.000 respectively) between second year's and fourth year's students. That could be due to shortage in staff in second year and nature of the clinical assignments related to second year which need professional clinical instructors; the staff did not receive any training about their duties and responsibilities in the medical surgical department, students are still face difficulties in clinical teaching so second year students rate skills of their clinical instructors lower than fourth year students rate

According to the present study findings, there was no significant difference between male and female regarding all dimensions of clinical teaching skills (the professional competence, creating favorable learning environment, teaching ability, facilitator, guider, supporter, an observer, interpersonal relationships and communication, evaluator and personal attributes) and total scores but it was found that female had the highest mean percentage than male related to the total mean percentages of categories of clinical teaching skills questionnaire (417.87%, 410.75 respectively). From the point of view of the researcher this might be due to the female students more committed than male, wish to have a high score, have a concept of fear from clinical instructors than male. This was consistent with **Rose Gaydour (2011)** who

mentioned that gender was the only demographic variable that showed significant difference between mean scores of the ECTB effective clinical teaching behaviours

It was found that there were statistically significant differences in Professional competence, creating favorable learning environment, Teaching ability, facilitator, Guider, Supporter, observer, interpersonal relationships and communication, evaluator, Personal attributes, and Total scores at level (0.000 between students and their clinical instructors. That may be due to the clinical instructors are not aware by their professional roles or standards of clinical teaching skills, they are not receive training about orientation for novice clinical instructors or skill training program for present clinical instructors, they fear to say that there is a lack in their performance. This result was consistent with **Bridget, 2011** who identified that there were some of the differences in student and instructor perceptions.

Conclusions

1- The clinical teaching skills instrument is reliable and valid, as well as usable. It can be used as an evaluation tool for a wide variety of clinical teaching settings.

2- According to the present study findings there were statistically significant differences in Professional competence, creating favorable learning environment, Teaching ability, facilitator, Guider, Supporter, observer, interpersonal relationships and communication, evaluator, Personal attributes, and Total scores at level (0.000) For all years.

3- There were no significant differences between males and females regarding all categories of clinical teaching skills and total scores

4-there were statistically significant differences in Professional competence, creating favorable learning environment, Teaching ability, facilitator , Guider, Supporter , observer , interpersonal relationships and communication, evaluator , Personal attributes , and Total scores at level (0.000) between students and their clinical instructors.

5-The clinical teaching skills standards were developed and validated

Recommendations

The current study recommended the following:

- The suggested clinical teaching skills standards should be used at Faculty of Nursing, Zagazig University.
- The suggested clinical teaching skills standards should be disseminated by the faculty administration to all clinical instructors
- Clinical teaching skills standards should be

reviewed revised and updated periodically every three years as appropriate and as necessary to reflect ongoing improvements.

- Faculty of Nursing, Zagazig University should determine and allocate the needed and required resources for application of clinical teaching skills standards
- Further researches to investigate specific skills in each department and develop each own standards.
- Faculty of Nursing, Zagazig University should design and implement training programs about clinical teaching skills standards
- Rewards should be given for clinical instructors who apply clinical teaching skills standards

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