



Exploring Importance of Professional Attributes of Nursing Students as Prior Indicators of Preparedness for Successful Clinical Education

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Abstract

Background: Clinical education provides nursing students with an opportunity to develop the competency and skill needed to function within dynamic and complex settings. The unpredicted nature of clinical practice requires students who are well equipped and prepared to face the challenges of clinical learning environment. Little or no researches however addressed the issue of nursing students' professional attributes as elements of readiness for clinical learning experiences. Despite the fact that educators agree on the importance of professional behaviors they however differ as to the perception of significance of each.

Objective: The current study aimed at exploring importance of professional attributes of nursing students as prior indicators of preparedness for successful clinical education.

Study design: A cross-sectional approach was used to collect data pertinent for current study. Setting: This study was conducted at King Saud bin Abdul-Aziz University for Health Sciences -College of Nursing- Jeddah.

Study Sample: Convenient sampling technique was used for recruiting fifty-four nursing faculties as well as clinical teaching assistants for participation in the study.

Results: The range of means for the different dimensions of students' pre-clinical readiness was 5.92 to 5.65 on a scale of 1 to 7. Among which; willingness, professionalism, and personal attributes; had been reported as the most important pre-clinical readiness requirements for nursing students. Significant relationships between each of years of experience in teaching, academic position and perceived importance of students' communication and interaction as a prior factor affecting students' clinical success. Perception of knowledge and understanding significantly differed among different nursing specialties.

Conclusion: Willingness, professionalism, and personal attributes; had been reported as the most important pre-clinical readiness requirements for nursing students. Consequently, it is recommended that curriculum developers should ensure the development of such traits in students before embarking into their clinical exposure.

Introduction

Clinical training, as the heart of nursing education, is vital for the preparation of professional nurses [1]. Clinical experience is regarded as an important component of nursing education [2], the quality of which is crucial for development of students' professional competence [3] as well as their role as caring practitioners [4].

Al Haqwi [5] emphasized that practical experiences help students to develop an appropriate attitude toward patients, promote their motivation and confidence; gave students opportunities to apply and integrate their previous knowledge, develop interpersonal skills and appreciate the value of patient-centered care. Consequently, organizing a good learning for nursing students in clinical settings is very essential [3].

Clinical training promotes student nurse professional socialization through enabling the process of internalization of the core values, attitudes and ethics of the nursing profession, despite the obstacles caused by their anxieties of having insufficient knowledge, the fear of making mistakes or of not being able to maintain and assert herself/himself in the health care team as a professional nurse [6].

Students' clinical experiences however are variable, largely due to the unpredicted nature of clinical practice and the difficulty in having previously well-known contents of clinical activities [5]. Al Haqwi [5] further added that there are many factors that influence the quality of students' learning in these settings, like number of patients

and varieties of pathologies (patient mix) seen by students, quality of feedback, students' relationship with faculty, and organization of teaching. On the same vein, Ansary, et al. [7] also contended that other factors, such as include clinical cases encountered, quality of supervision and feedback, and characteristics of learners and teachers can also crucially affect clinical learning.

In the clinical milieu, the student applies classroom theory to real patients in different situations that often involve life and death decisions. Because of the risks involved, some learner and teacher anxiety is present which is when combined with the environment itself makes the clinical setting unique [8]. Learning in the contextual setting of clinical practice therefore, brings with it many challenges not normally seen in the classroom [8].

Learning in clinical contexts consequently requires students that can negotiate complex and ambiguous learning situations and learn from a variety of clinical educators who have different methods and styles of teaching [9-11]. The findings in the study by Dale et al. [3] showed

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that individual, relational, and organizational aspects; specifically reported were the students' competence level and learning outcomes, as well as the students' and supervisors' mutual expectations, responsibility, and roles; seem to be important conditions for nursing students' opportunities meant for personal and professional learning and growth.

Smith, et al. [12] explained that clinical environment may aggravate stress for students, they may be nervous about being unable to answer questions, the possibility of unintentionally harming patients, and not being able to work at a rapid, efficient pace. Students' preparation and skill acquisition are therefore important aspects in ensuring that students will have successful clinical experience [13].

Extensive research studies had also addressed the issues of the influence of the clinical environment; presence of an effective teacher and an ideal teaching relationship for the success of the clinical education in nursing. Kaphagawani and Useh [2] suggested that learning in the clinical practice for student nurses to become competent is dependent on availability of challenging opportunities which encourages students to ask questions and reflect on their experience hence becoming critical thinkers and be able to make clinical judgment. The authors therefore emphasized the important role of students' pre-clinical characteristics, as an input factor that might play a significant role in quality of learning occurring in clinical. On the same line, Hakimzadeh, et al. [14] showed that student's self-efficacy and interest had positive and significant relationship with clinical competence, where students with high self-efficacy had obtained higher clinical competence.

Little or no researches, however, addressed nursing students elements of readiness as a vital element required if students' clinical learning experiences are to be maximized. Duvivier et al. [15] studied the desired qualities, competencies and strategies for clinical skills teachers, among teaching skills identified, thorough comprehension of students' context (level of knowledge, prior experience and insight in the curriculum) is considered the most helpful among others. So despite the fact that educators recognize the value of evaluating students' characteristics as important elements before entry-to-practice education programs, yet have published little supporting evidence and have yet to evaluate importance of these before embarking into clinical experience from educators' perspective. The limited research information available with regard to that important issue, gave impetus to the current research. Therefore, the purpose of this survey was to explore the most important professional attributes which are required for students' practice education success, consequently recommend and incorporate needed changes in the curriculum to stress and emphasize the development of such traits in students before their clinical exposure, as well as to help in designing new educational curricula. For the purpose of the study, preparedness is viewed as being equipped with the attributes that could enhance their ability to engage in the clinical training, achieve desired objectives successfully and develop necessary competencies required for socialization to their future role. Moreover, professional attributes are considered as those traits which are independent of the profession's core of knowledge and skills but are necessary for successful practice [16].

Methods

Aim of the study: The aim of this study was to explore the importance of professional attributes of nursing students as prior indicators of preparedness for successful clinical education as perceived by nursing

faculty and clinical educators, in an effort to provide educationalists with better insights into the dynamics of the effects of how individual variables determine students' learning.

Study design: Exploratory descriptive, cross-sectional approach was used to collect data needed for describing faculty and clinical educators' perceptions of the important characteristics that are required to ensure nursing students success in the clinical education.

Study sample: Study participants consisted of 54 nursing faculty as well as clinical educators (clinical teaching assistants) table 1. Convenient sampling technique was utilized. Inclusion criteria were being a faculty or a clinical teaching assistant who are taking a part in students' clinical learning and being willing to participate in the study. Clinical teaching assistants were the nurse preceptors appointed for students' clinical training. These preceptors were experienced nurses who function as role models, teachers, evaluators and support system for students. Nursing faculty are the coordinators of the nursing courses, they are responsible for teaching, organizing, guiding, coordinating and facilitating students' learning experience.

Setting: The study was conducted at King Saud bin Abdul-Aziz University for Health Sciences - College of Nursing- Jeddah, Ministry of National Guard, Kingdom of Saudi Arabia.

Data collection: The researchers utilized two instruments for collecting data pertinent for the current study. This included a socio-demographic data sheet which was developed by the researchers to elicit data related to: age, educational background, academic position, years in clinical education and nursing specialty.

Staff perspective of students' professional attributes was measured using the questionnaire that was developed by Chipchase et al. [17]. This instrument consisted of 62 items, divided into six dimensions. These were: knowledge and understanding, willingness, professionalism, communication and interaction, personal attributes, and skills. Knowledge and understanding questionnaire consisted of 10 items - denoted responses relevant to students' demonstrating knowledge and understanding of related theory, processes and tasks; willingness questionnaire measured by 10 questions - denoted responses relevant to students' willingness to engage, assist, learn and practice.

Professionalism was measured with 11 questions-denoting responses relevant to students' demonstration of professional skills and behaviors; communication and interaction questionnaire made of 6 questions that assessed responses relevant to students' demonstration of communication and interactive ability, while personal attributes questionnaire included 17 questions covered responses relevant to students' personal characteristics such as their personality traits. Finally skills questionnaire consisted of 8 questions which denoted responses that were relevant to the students' demonstration of various professional and interpersonal skills. Each scale item was assessed using a seven-point Likert scale (1 = not important, 2 = slightly important, 3 = somewhat important, 4 = moderately important, 5 = important, 6 = very important, 7 = extremely important).

Pilot Study: A pilot study was carried out on 17 academic staff members to ascertain the clarity and applicability of the tool. The data were collected by using a structured interview questionnaire. Needed modifications were done based on analysis of the pilot results and feedback from the respondents. Data from pilot study was not included in the final analysis. Modified form was then utilized for the final data collection.

Concerning reliability, the Cronbach's alpha was used to examine the instrument's internal consistency and homogeneity. The overall scale Cronbach's alpha was 0.985, and the subgroup alphas ranged from 0.894 (for knowledge and understanding) to 0.965 (for personal attributes), indicating good to excellent degree of internal consistency in the responses for characteristics within each domain.

Ethical Considerations: Official approval was obtained prior to data collection. Permission to conduct the pilot and to collect data for the study was obtained from College of Nursing, King Saud bin Abdul-Aziz University for Health Sciences Research Committee.

The study was conducted with careful attention to ethical standards of research and rights of the participants. Faculty and clinical teaching staff were given a written invitation to participate that explained the study and their rights. The invitation described the purpose of the study and how the data would contribute to advancement of nursing education. It also explained that participation is voluntary and that there will be no risk of either participating or declining to participate. All data were reported in aggregate form only so that individual data remained confidential. Completed surveys were maintained in a secure location by the main investigator.

Statistical analysis: Statistical package for social science software (SPSS version 20.0) was used for data analysis. Although the 7-point rating scale used in the present study is inherently ordinal, descriptive statistics were calculated on each item in an effort to provide a comprehensive review of similarities and differences among items. The percentage of participants who agreed that the attribute was either 'important', 'very important' or 'extremely important' (percentage of rating > 4), along with mean, standard deviation, Inter Quartile Deviation (IQD) were calculated. IQD is the absolute value of the difference between the 75th and 25th percentiles divided by 2. An IQD of ≤ 1.00 has been identified as an indicator of consensus among respondents with smaller values of which indicates higher degrees of agreement [18].

Inferential data analyses (ANOVA tests) were carried out to compare variations in perceptions among participants. P value less than 0.05 was considered statistically significant.

Levels of importance were further assigned to each attribute based on the group mean score; using the following scoring range which is similar to that established by Goodrich [19] to get a comprehensive clear view of the obtained data:

- 1 - 1.99 = not important
- 2 - 3.99 = low important
- 4 - 5.99 = important
- 6 - 7 = essential

Results

A response rate of 100% was obtained from entire study population of the fifty-four faculty and clinical teaching assistants working in the college of nursing. Age ranged between 24 and 59 years with mean of 39.87 ± 9.56 . Almost half of participants had teaching experience exceeding 10 years of work in academia (48.1%). Thirty-eight percent had a PhD in nursing, the majority of which 24.1% were assistant professors. 55.6% of respondents were teaching faculties as compared to 44.4% of clinical teaching assistants (CTAs). Participants were from different nursing specialties, 35.2% of them were teaching medical surgical nursing courses.

The means and the IQD for each of the six studied dimensions, along with the percentage of participants who agreed that the attributes were 'important', 'very important' or 'extremely important' (rating > 4), are presented in Table 2. The mean range for the different dimensions of students' pre-clinical readiness was 5.92 to 5.65 on the scale of 1 to 7 (1= not important; 7= extremely important); meaning that all were considered as important pre-clinical characteristics that students should have. Among those different measured dimensions; willingness, professionalism, and personal attributes; had been reported as the most important pre-clinical readiness requirements for nursing students as evidenced by both higher mean scores and percentage rating above 4 (Mean $5.90 \pm SD 0.81$ with 86.5%, Mean $5.92 \pm SD 0.96$ with 86.8% and $5.85 \pm SD 0.88$ with 91.8%; respectively). All dimensions showed high consensus among study respondents as revealed by high percentage agreement on items (rating above the cutoff point set in the study of > 70%) and small value of IQD (0.5).

According to items' group mean scores analysis; seventeen characteristics were considered essential (mean of 6 - 7) and 45 important (mean of 4 - 5.99) to clinical success (Table 3). Complying with professional matters such as confidentiality, willing to ask questions, dressed appropriately, arrives at placement on time, working as a team, willing to receive feedback, appearance is appropriate, demonstrates good observational skills, having a desire to learn, being attentive, demonstrate sound basic science knowledge, takes responsibility for own learning, effective communication and interpersonal skills, attends each day, polite, demonstrates problem solving skills and understands code of conduct were all rated as essential attributes.

Although there were items from each of the 3 major categories rated as essential, professionalism had the greatest number of items (6) rated as essential followed by willingness (4 items) and personal attributes (3 items). High agreement according to IQD value of 0.5 was seen among the following: students complies with confidentiality, arrives at placement on time, works as a team and receives feedback and constructive criticism.

Items scored the highest in the important column included knows how to access information when gaps in knowledge or need for further information is identified, demonstrates knowledge of clinical assessment tools, is assertive, has foundation skills, shows initiative, demonstrates respectful communication, demonstrates knowledge of basic treatment principles for common conditions and is diligent. A consensus was shown for all of those items as evidenced by the IQD value of 1 (Table 3).

Characteristics of students' pre-clinical readiness as per the six different studied domains are shown in table 4. Among knowledge and understanding dimension, attribute that has been reported as the most important was demonstrating sound theoretical knowledge in basic sciences (Mean= 6.06 ± 1.08 ; 92.5% rating > 4). This characteristic not only had the highest mean but also had highest percent rating above 4 among all items in the knowledge dimension. The lowest items as per lowest percent ratings above 4 (> 70%) were: demonstrating some understanding about the department organization (Mean= 4.72 ± 1.62 ; 63%), and demonstrating knowledge of other professions and their roles (Mean= $5.00 \pm SD 1.36$; 68.5%).

Percent agreement as well as mean analysis for willingness dimension as shown in table 4, revealed that the highly important items were: willing to ask questions and clarify to ensure understanding (Mean= $6.28 \pm SD 0.89$; 96.3%), receive feedback/constructive criticisms

(Mean= 6.09± SD 0.92; 96.3%), willing to work as a team with peers, colleagues and other health professionals (Mean= 6.17±SD1.02; 90.7%), and take responsibility for their own learning (Mean= 6.06± SD 1.09; 90.7%). The lowest item as per percent rating was willing to stray from their comfort zone (Mean=5.26 ± SD 1.21; 75.5%).

Regarding professionalism, items that have been rated as most important were complies with professional matters such as confidentiality (Mean=6.43 ± SD 0.84; 98.1%), and attends each day having demonstrated appropriate follow up from previous day (Mean=6.04 ± SD 0.88; 98.1%), dressed appropriately for the placement (Mean=6.20 ± SD 1.25; 92.6%); appearance is appropriate for the workplace and placement (e.g. hair, fingernails, jewellery) (Mean=6.09 ± SD 1.28; 92.6%); and arrives at the placement on time (Mean=6.20 ± SD 1.19; 88.9%).

The most important characteristics for communication and interaction dimension, as shown in table 4, were: demonstrating effective communication and interpersonal skills (verbal, non-verbal and listening) with clients across the lifespan (Mean=6.06 ± SD 0.96; 90.7%), demonstrating respectful and non-judgmental communication (Mean=5.89 ± SD 1.27, 83.5%), and demonstrating effective written communication skills (Mean=5.80 ± SD 1.16, 87%). The lowest item by percent was: ability to liaise with key stake holders, such as organizing appointments (Mean=5.02 ± SD 1.47, 70.4%).

On the other hand, perception of personal attributes varied widely. Items rated as most important were demonstrating a desire to learn (Mean=6.07 ± SD 1.08; 92.6%), being attentive (Mean=6.06 ± SD 0.93, 96.2%), polite (Mean=6.04 ± SD 0.95; 94.4%), and showing initiative (Mean=5.89 ± SD 1.07, 90.6%).

Moreover, the results in table 4 shows that the most importantly perceived items in the skills dimension were: demonstrates good observational skills (Mean=6.09 ± SD 1.04; 92.5%); demonstrates problem - solving skill (Mean=6.02 ± SD 1.12; 92.6%), and student has foundation skills for the area of practice (Mean=5.93 ± SD 1.16; 87%).

Finally, ANOVA analysis (Table 5) revealed a significant association between years of experience in teaching nursing and perception of importance of students' communication and interaction as a prior factor determining students' clinical success ($p=0.02$). Faculty and staff members with experience exceeding 31 years showed the highest belief on the important quality of students' communication and interaction exceeding that of others with lesser years of experience. The same finding was shown in analysis of perceptions of people with different academic positions ($p=0.04$). Clinical teaching assistants hold the point of view as those among people experienced more than 31 years. They also significantly believed on the importance of students' communication and interaction as a crucial factor predicting their clinical readiness.

Nursing specialty showed a significant relationship with knowledge and understanding domain ($p=0.02$). Both medical/surgical and critical care specialties showed the highest belief on the importance of prior knowledge base exceeding that of other nursing specialties.

Discussion

Clinical training plays an important role in nursing education. It provides opportunities for students to apply the theory learned in classroom to the real world of clinical nursing, as well as promoting professional socialization [20]. Nurse educators are faced with the challenge of preparing students with the theoretical foundations of

practice as well as the technical skills and performance behaviors necessary for their role in caring for patients with complex problems [21]. Although most students are equipped with satisfactory knowledge and hands on skills in the academic settings, they might have difficulty in the real practice setting with patient encounter. Educators therefore agree on the important role of professional behaviors however, they differ as to the perception of significance of each. Therefore, the current study was intended to highlight the most important professional attributes of nurse students' in an effort toward assisting nurse educators in their decision making regarding students' required per-clinical preparations.

The responses from the study showed a remarkable level of agreement between study participants. Willingness, professionalism, and personal attributes; had been reported as the most important pre-clinical readiness requirements for nursing students which was evidenced by their high mean score and percentage of ratings above 4 (moderately important and above).

The reason that knowledge and skills were not among the highlighted findings could be multifactorial. In one hand, knowledge development is a long process and an integral part of clinical training, students will refine and develop more of their knowledge throughout the learning process and the training experience. Skills, in another hand, are intensively emphasized and taught to students and are given the opportunity to practice through extensive lab simulation before start of clinical training experience. It is, however, still expected to be more competently acquired throughout the real clinical learning experience as it is not likely to provide students with the opportunity to practice all of the possible skills, before they embark in a real hospital setting. Overall, this was in line with Levett-Jones, et al. [22], who contended that clinical placements provide a realistic context for nursing students to develop the knowledge, skills, and attitudes and enables integration of theory and practice.

Willingness, on the other hand, is viewed as both an important dimension that is highly related to learning and an essential sign of students' clinical preparation. Willingness to learn conceptualizes a student's eagerness to engage in clinical practice education when given a choice. If a student is eager, or motivated, the likelihood is that student will learn. Having the interest to engage in the process of learning in clinical educational situations is regarded to be a critical factor for successful learning. Hence, it should be emphasized that in order to successfully reach the goals of education, it is the duty of instructors to use strategies which reinforce willingness to make learners intensively involve themselves in learning.

In this regards, Hakimzadeh et al. [14] found that interest have significant relationship with clinical competence which they related to the fact that career, motivation and interest are strong stimuli for effective performance as postulated by social-cognitive theory. On the same vein, Lewallen and DeBrew [24] studied successful students from the view of nursing educators. Among factors that they have found in successful students, were the interlink between eagerness to learn, preparedness for the clinical experience and accepting feedback.

Receiving feedback was among the essential criteria for willingness to learn. Students, who accept feedback, could easily identify their weaknesses and therefore can improve and develop their potentials as a step toward enhancing their learning, personalities and skills. As shown by Koh [24] and Clynes and Raftery [25], feedback develops students' deep thinking, increases confidence, improves clinical practice, enhances interpersonal skills and encourages self-regulated

learning. Willing to work as a team with peers, colleagues and other health professionals is also viewed as essential attributes among the different willingness characteristics. Peer learning has been identified as a valuable strategy for teaching and learning [26]. It is worth mentioning that among the characteristic rated low in this dimension was: willing to stray from their comfort zone. This could be explained in the view that straying from comfort zone implies having tendency to adventure which should not be encouraged in a novice nurse student as a matter of ensuring safety of both parties; the patient and the student herself which should be protected from liability.

Professionalism is also considered as extremely important in nursing career. Complying with professional matters such as confidentiality, maintaining appropriate dressing and appearance, arriving at placement on time, attending daily, taking responsibility for own learning and, understanding the code of conduct, were all considered essential attributes. These attributes commonly reflect sense of commitment on the student's side which educationalist value highly. Having students who are uncommitted can lead to RNs performing activities themselves and only handing over tasks that they know students are capable of performing them without needing to be supported [27]. A matter that could deprive students of many hands on chances that may arise during their clinical experience.

Among all these identified attributes, keeping patient's confidentiality considered the most essentially important criteria of professionalism that are required for better clinical practice. Confidentiality is one of the ethical challenges in nursing practice for students in their first exposure to clinical area. Students should be encouraged to keep confidentiality and to maintain privacy, to avoid breaking the trust relationship with their patients. On the same line, Sellman [28] explained that an intention to comply with the code of professional conduct is a vital evidence of good character that has been set as a condition not only of entry to the UK register of nurses but also for entry to and continuation on nursing programmes in the UK. Keeping patient privacy and confidentiality being part of code of conduct for nurses should therefore be developed before exposure to patient encounter.

Complying with dress code as one of the essentially required students' pre-clinical learning characteristics, is required not only to reduce infection but also enhance a good image for the profession and to build a trustful relationship with patients. Wilson, et al. [29] contended that the role of healthcare workers uniform as both vehicle and obstacle for the transfer of health care associated infections is well established. On the other hand, Rehman, et al. [30] reported that wearing professional dress while providing patient care was favorably associated with greater patient trust and enhanced confidence-building in the medical encounter. Similarly, Jabbal [31] in his study exploring medical student dress code as perceived by patients; found that medical students' attire is an important issue for patients. Patients consequently scored students who were dressed in white coats highest in trust and confidence, cleanliness, and professionalism.

Moreover, complying with professional matters such as demonstrating sound basic science knowledge is considered essential attribute for knowledge domain. The study results had also shown a significant relationship of nursing specialty with knowledge and understanding domain. Both medical/surgical and critical care specialties significantly believed on the importance of prior knowledge base for clinical practice exceeding that of other nursing specialties. The important role of studying basic science and the application of this knowledge to practice in improving understanding

and promoting efficiency in care delivery is also highly emphasized by Smales [32]. Klein [21], on the same vein, explained that nurse educators are faced with the challenge of preparing students with the theoretical foundations of practice, basic knowledge of pathophysiology and treatment modalities, technical skills, and professional behaviors. Hence, the experience and knowledge coming from clinical area should also build on what they had taught in classroom.

It is worth mentioning that among the highly rated attributes in knowledge domain was the need for students who are capable of figuring out how to access information when gaps in knowledge is identified. In this regards, Duncan and Holtslander [33]; Levett-Jones, et al. [34] contended that the significance of information and communication technology to student's learning and to their preparedness for practice has been established, as students' motivation is strongly influenced by their understanding of the relevance of information and communication technology to their education. It enables rapid and easy way of access to up to date knowledge and information to support their learning.

Students' personal attributes are considered significant pre-requisite requirements for successful clinical learning experience; that should be developed before clinical training. Nature of nurses' characteristics, including desire to learn, being attentive, polite, are viewed by respondents as most essential personal attributes that could greatly impact students' readiness to engage in clinical learning. Characteristics like, assertiveness and showing initiative were also considered highly important. Taken together, these attributes also reflect willingness and commitment to own learning which could enhance success in learning process.

Personal attributes, therefore, constitute crucial part of a person's total professional competence along with theoretical knowledge and profession specific skills. A longitudinal study conducted by Pitt, et al. [35] on 138 nursing students showed that personal qualities (PQ) play an important role in influencing students' academic and clinical performance as well as their ability to complete a pre-registration programme in three years. Nursing students need to possess qualities attitudes and behaviors that are reflective of a safe and compassionate nursing professional [36].

Surprisingly, among the different studied personal attributes, self-directed learning was not grouped among the essential attributes but was considered as an important criterion in successful nursing student's practice. Previous research have shown that students high in self-directed learning show more engagement through pinpointing human and material resources, identifying own learning needs, setting own goals, choosing appropriate learning strategies and evaluating learning process [37]. Similarly, El-Gilany and Abusaad [38], in their study of Saudi nursing students' readiness for self-directed learning and their learning styles, reported that a high level of SDL among undergraduate nursing students have a positive implication for their education and post-employment continuing nursing education.

Skills development is highly perceived as required criterion for students' later practice in the clinical area where they have the chance to practice what they will demonstrate in real professional life. Personal attributes and students' skill development are both interdependent and interrelated. To develop their skills, they should have good observation and problem solving skills which have been perceived by faculty as essential attributes among the skills domain. One of the most important criteria to get successful clinical practice is

to prepare student to think critically and apply theoretical knowledge into the care management scenarios.

Concerning communication and interaction dimension, demonstrating effective as well as respectful communication and interpersonal skills with clients across the lifespan were considered essential attributes. The reason that faculty and staff gave high ratings to those two items could be attributed to the fact that college is intensively investing in developing students' personal and professional communication hence all students are provided with mandatory health profession communication training course to improve their clinical communication skills. Interestingly, DeBrew and Lewallen, [39] reported that the most common reason given by educators for failing students was that the student was a poor communicator with patients, faculty, and staff nurses.

The current study further showed that faculty and staff members with experience exceeding 31 years highly believed on the importance of students' communication and interaction. The same finding was shown among clinical teaching assistants; they perceived students' communication and interaction as a highly important crucial factor predicting their students' clinical readiness. On the same line, Lewallen and DeBrew [23] found that by looking at successful and unsuccessful students together, three categories describing these two types of students seemed to be opposites of each other: communication, preparation, and functioning in the clinical area. They found unsuccessful students, unprepared for the clinical experience and had difficulty with communication skills, while successful students could build relationships and communicate with faculty, staff, patients, and peers.

To sum up, for nursing faculty who are responsible for the final determination of requirements of student's success in a clinical rotation, a challenge arises when a preceptor identifies a student as unsafe in practice [40]. Nursing faculty therefore should clearly describe what is expected of clinical students, prepare students well, develop strategies to recognize unsuccessful behavior early in the rotation, and document unsatisfactory behaviors and progress toward improvement [23]. Characteristics of student nurses are multiple realities, creating meaning for individuals from different perspectives and can only be understood by gaining knowledge of these individual viewpoints [41]. Therefore current study highlighted qualities that could priority indicate and determine students' readiness for successful clinical practice engagement. This list of essential as well as important pre-clinical attributes relating to expected students' behaviors should be provided to universities to incorporate within curricula hence aid nurse faculty in preparation of students for clinical learning.

Conclusion/Recommendations

The current study provided strong evidence of the important students' attributes which could influence their training's achievement. The findings in this study showed that educators and clinical teaching assistants tended to value characteristics within the domains of 'willingness', 'professionalism' and 'personal attributes' more than characteristics in the 'knowledge and understanding', 'skills', and 'communication' domains. Seventeen characteristics were viewed as essential and forty five were seen as important requirements. Students, therefore, require a solid foundation before clinical courses. Hence, successful preparation of nursing students to ensure satisfactory level of these attributes before clinical practice will increase their chances of accomplishment and increase thereby their sense of satisfaction. Furthermore, nursing faculty have to change their orientation

programs to efficiently programs to efficiently and effectively prepare their nursing students for their clinical training. Strategies that could be developed might include: simulation exercises for students to practice skills, communication, problem solving; and inclusion of socialization activities designed to assimilate the nurse student into the planned clinical education.

In addition, it is recommended that a similar study be conducted to elicit information about such important attributes that indicates preparedness for clinical education from the perspective of nursing students. This will enable nurse educationalists to better plan for such vital learning experience.

Moreover, the majority of those attributes which have been reported in the current study are considered generic and not profession specific. This should therefore have implications for nurse students' selection. Hence, there is a pressing need to consider, during the selection process of the colleges' entrance exams, which of the candidates possess such attributes that could help them get the most out of the nursing education and hence could benefit the profession. Finally, it is worth mentioning that although, many of these characteristics, are already requirements for admission to most nursing education programs, there is an intense lacking of a systematic reliable evaluation of those personal characteristics which are considered essential to nursing students' success.

Competing Interests

The authors declare that they have no competing interests exists.

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