

Undergraduate Nursing Students' Perception of Effective Clinical Instructor: Oman

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Abstract Clinical instructors' behaviors play a key role in learning process of students. This study explored the effective clinical instructors characteristics perceived important by Omani undergraduate nursing students of College of Nursing (CON) at Sultan Qaboos University (SQU). Permission from ethical and research committee in the CON at SQU was obtained. A forty items questionnaire on a four point Likert- scale was administered to 120 students of CON who were exposed to clinical instructions at least for a year. Data were collected during the last two weeks of clinical posting in the spring 2010, April 20th to May 5th. It was found that both male and female Omani nursing students rated professional competence of instructors as the most important characteristic and instructors' relationship with students as the second most important characteristic without any discrepancy ($p > 0.05$). Male and female students' perceptions on instructors' relationships with students was found to be significantly different ($p < 0.05$). Objective evaluation, role modeling, clinical competence and communication skills, respecting students' individuality were ranked as first five most effective clinical instructor characteristics. Students perceived 4:1 student- teacher ratio as the most optimal learning environment. These results may assist faculty to appreciate students' views and acknowledge the areas of success as well as areas that needs improvement.

Keywords Clinical Teaching, Effective Clinical Instructor, Oman Nursing College

1. Introduction

Nursing as a practice discipline, requires students to develop clinical skills that are essential in caring. The dynamic process of clinical instruction occurs in a variety of socio-cultural contexts and the behavior of clinical instructors play an important role in the learning process of students. Clinical instructors have the opportunity to greatly influence their students' learning who eventually graduate and shape nursing practice. Clinical instructors must possess effective teaching characteristics such as professional knowledge, role modeling and clinical competence with communication skills to facilitate optimal clinical learning. Current procedures used to evaluate teaching in health-related instruction areas are generally student-based. Although peer and self-evaluation are in use, most Omani universities rely primarily on students' evaluation when attempting to quantify an instructor's teaching effectiveness. Evidence suggests that student ratings can be reliable and valid indicator of effective teaching [1]. Despite the need for effective clinical education, the criteria for determining effective clinical teaching remains poorly defined [2].

Clearly, there is an urgent and compelling need to gain better understanding of what constitutes effective clinical instruction. Nursing students' perception of effective clinical teacher behavior is an important indicator to modify and facilitate effective clinical instruction.

Sultan Qaboos University is the only government-funded university in Sultanate of Oman. The College of Nursing was founded in 2002 with an annual intake of 60 students, offering a baccalaureate degree in nursing and is the pioneer of its kind in Oman. Considering the prime importance of clinical teaching in nursing, a 6:1 ratio of student-teacher has been implemented except in final semester with advanced clinical nursing course where, an individual preceptorship model was adopted. Clinical teaching learning stands unique and is one among the credibility of this College of Nursing. So authors were interested to know which of the clinical instructor characteristics are most beneficial to the students' clinical learning and what are their opinions on best student-teacher ratio for a comfortable learning environment. This study explored the effective clinical instructor characteristics perceived important by Omani nursing students.

2. Background

Clinical training as the core of nursing education is vital for the preparation of professional nurses. The quality of student - clinical instructor interaction can either facilitate or

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hinder the students' learning in the clinical area. Clinical teaching effectiveness is difficult to be evaluated in diverse, often fast-paced and highly complex clinical settings compared to more controlled environments such as seminars, laboratories and classrooms for theoretical teachings. Most researches on effectiveness of clinical instructors have compared students and faculty perceptions of effective clinical teachers. Though students and faculty differ on their views of most and least important characteristics of effective clinical instructors, overall they agree that the best clinical teachers should have sound interpersonal skills, good at providing feedback, clinically competent and know how to teach effectively. Previous studies demonstrated that there were differences in the perception on effective clinical instructor characteristic by students of different academic levels[2, 3]. Evidence of good role modeling and mutual respect is widely accepted by the students.

Heshmati-Nabavi Fatemeh, Vanaki & Zohreh[4] determined the perceptions of Iranian nursing students and faculty members' towards effective clinical educator characteristics and they identified five key features of effective clinical educators: (1) personal traits; (2) meta-cognition; (3) making clinical learning enjoyable; (4) being a source of support; (5) being a role model. The core variable "professional approach" in clinical education integrates these categories. They concluded that effective clinical educators are those who are in harmony with students and act as a role model for students and patients. The authors also concluded that the results are a direct result of the specific socio-cultural conditions of nursing profession in Iran a Middle East country with Islam as religion and have almost similar socio-cultural conditions of nursing profession like Oman. Kelly[5] explored student's perception of effective clinical teaching over 14 years (1989-2003). During that period he aimed to compare perceptions of students in diploma and baccalaureate programs within existing clinical contexts in a Canadian University. He found that students are remarkably consistent and rated teachers' knowledge as the most important characteristic followed by feedback and communication skills. Teacher's knowledge in clinical settings, curriculum, the learner and teaching/learning theory were considered critically important for being an effective clinical teacher.

Johnson_Farmer and Frenn[6] presented at the 17th International Nursing Research Congress in Montreal and synthesized the findings from 17 nurse educators into a statement that teaching excellence is dynamic process involving active engagement of students and faculty. The study recommended that faculty must be student-centered, knowledgeable, should use multiple teaching strategies which encourage all students into active questioning and learning through discovery. Furthermore, faculty should always clearly communicate expectations and outcomes to students. In a descriptive, retrospective qualitative study on strength and weakness of faculty teaching performance over a period of 4 years from 1998- 2002 in a U.S. University, identified faculty being knowledgeable, strategic teacher

with professionalism, being supportive and creating positive learning environment with displaying of scholarly traits as faculty strength[7]. Teaching and nursing competence was rated as more important nurse educator competence than evaluation skills, personality factors and relationships with students in a quantitative descriptive correlation study by Johnson, et al[8] using nursing teacher questionnaire among 348 nurse educators in Norway.

Lee[2] conducted a study entitled "nursing students' and clinical educators' perceptions of characteristics of effective clinical educators" in Australia. They administered the Nursing Clinical Teacher Effectiveness Inventory (NCTEI) to undergraduate nursing students and clinical educators simultaneously to explore the perceived characteristics of effective clinical educators. When compared both students' and educators' perceptions of characteristics that contributed to effective clinical education, significant differences and commonalities were noted. The authors concluded that interpersonal relationships were the most highly valued characteristic rated by both students and clinical educators, and both groups ranked the subset of personality as the lowest amongst five categories of NCTEI. This Western study highlights clinical instructor interpersonal relationships. Clinical teacher's effectiveness has been a popular area of study in nursing, Knox and Mogan's Nursing Clinical Teacher Effectiveness Inventory (NCTEI-1985)[9] was used in many studies[2, 10]. NCTEI is a reliable and valid tool describes discrete teacher characteristics grouped in five subscales which are teaching ability, interpersonal relationship, personality traits, nursing competence and evaluation.

The Clinical Teacher Characteristics Instrument (CTCI) was used by Bergman[11] in an extension study on faculty and student perceptions of effective clinical teachers in 1990 following an initial study of its same kind which was done by Brown in 1981[12] who developed Clinical Teacher Characteristics Instrument to assess faculty and students perceptions of effective clinical teachers. This instrument CTCI has 20 statements of effective clinical instructor characteristics grouped into three dimensions 1) professional competence 2) relationship with students 3) personal attributes. Nahas[3] explored Jordanian undergraduate nursing students' perception of effective clinical teacher characteristics using CTCI reported that the nursing students rated the professional competence of clinical teacher as the most important characteristic. The study highlighted that third year students perceived clinical teachers relationships with students as most important whereas fourth year students rated personal qualities of clinical teacher as very important effective clinical teacher characteristics.

The Effective Clinical Teaching Behaviors Inventory (ECTB) developed by Zimmerman and Westfall[13] is a 43-item, 5 point Likert scale used by Wolf[7]. Seven characteristics of clinical excellence reported by Irby[14] are teacher's knowledge, their clear and well organized presentation skills, clinical skills, enthusiasm, skillful interaction with students, ability to provide clinical

supervision and above all, modeling professional characteristics. The three key roles of clinical instructors are role modeling, clinical supervision and instructional leadership/scholarship[14]. He also emphasized that faculty should serve as role models and mentors to students. The role modeling process should be purposeful that demonstrate the knowledge, skills, attitudes and ethical behaviors that students should acquire and cherish throughout their professional life.

An earlier survey among Omani undergraduate nursing students, an unpublished study by Shukri et al in 2006 as a part of feedback of nursing program revealed that clinical instructors were professionally competent with good knowledge and clinical skills. Though students appreciated teaching ability of clinical teachers, an area of improvement in their communication style and friendly approach to students (12%) and fairness in grading (21%) were suggested. Overall students were satisfied with clinical teachers' professional competency. Ongoing students' evaluation of clinical instructors also revealed similar findings.

Students' cultural background and their educational beliefs, values and practices are unique to Omani nursing students as they all belongs to Islam and hailing from extended families with strong family ties. This study explored nursing students' perception of important characteristics of clinical instructors. Multicultural faculty from Asia, Middle East and Africa are involved in clinical teaching of Omani nursing students. It is therefore important to emphasize those characteristics that are perceived as important by these students in order to facilitate clinical learning. Teachers being aware of the students' most rated effective behavior of the clinical instructor; their teaching strategies and attitudes may be reinforced, changed or developed to maximize effective clinical teaching. Effective clinical teaching makes nursing students appreciate clinical learning more. This explorative study determined the Omani nursing students' perceptions of effective clinical instructor characteristics, essential for enhancing clinical teaching learning, which is the core of the Omani BSN nursing education.

Objectives of the study were to:

1. Determine the important characteristics of the effective clinical instructor perceived by nursing students in College of Nursing at SQU.
2. Examine the differences between male and female nursing students' perceptions of the important characteristics of a clinical instructor.
3. Explore the differences in perception of students at different levels of academic year on important characteristics of clinical instructor.
4. Find out the best student teacher ratio for clinical instruction as perceived by the SQU nursing students.

3. Methods

An explorative cross-sectional quantitative survey

approach was used to elicit learner's views on most effective clinical instructor characteristics which impact them in clinical learning. Nursing students of College of Nursing at SQU were the population of this study. Using convenient sampling method, 120 Omani nursing students of all cohorts who were exposed to clinical instruction in the clinical settings were invited to participate in the study. Students who were exposed only to skill lab teaching and never exposed to clinical settings were excluded from the study.

3.1. Measurements

The newly developed Effective Clinical Instructor Characteristics Inventory (ECICI) is self-administered questionnaire adapted from previous tools such as 1) Nursing Clinical Teacher Effectiveness Inventory[9]. 2) The Effective Clinical Teaching Behaviors Inventory[13]. 3) Clinical Teacher Characteristic Instrument[11]. Few changes were made based on major concepts cited from the literature and modified to be culture specific. The adapted questionnaire initially had 45-items categorized into three subgroups namely Professional Competence, Relationship with Students and Personal Attributes. After content validity by six experts, the final validated questionnaire had only 40 items in three sections.

Section-I contains demographic data such as gender, cohort, number of exposure to clinical instructors. Section-II, listed 38 items of clinical instructor characteristics to be rated, using a four point Likert- rating scale, ranging from "most important" to "unimportant". (1= unimportant, 2 = less important, 3 = important and 4=most important). These 38 statements of clinical instructor characteristics were grouped into three categories as (1) Professional Competence with 18 statements (2) Relationship with Students consisted of 8 statements (3) Personal Attributes with 12 statements. Section III, consisted of two open ended questions which addressed the rank order of the five most effective clinical instructor characteristic and the best student-teacher ratio. Under the professional competence category items related to clinical instructors' knowledge, clinical skills, role modeling behaviors, teaching and evaluation skills and being available in the clinical settings were included. Respecting student as an individual, being approachable, honest, supportive and helpful with room for free discussion were the items listed under the category of relationship with students. Good communication skills, collaborative skills, being responsible, confidential, organized, prompt and exercising self control with patience were the items under the category of personal attributes.

3.2. Validity and Reliability of the Tool

The content validity of the newly developed self-administered questionnaire adapted from previous tools was evaluated to determine relevance of the items to the concepts by expert reviewers and pilot testing. Two doctoral faculty members and four master prepared clinical instructors with expertise in teaching baccalaureate nursing

students validated the questionnaire. According to experts' suggestions and pilot results, five items were deleted and three items were reworded for better clarity. The final modified questionnaire had 40 items. Cronbach's alpha reliability coefficient was 0.87; demonstrating the reliability of the tool.

3.3. Data Collection Procedure

Permission from ethical and research committee in the CON at SQU was obtained. Consent was obtained from each student after clarifying the purpose and ensuring confidentiality of the data. Researchers personally contacted each available student of second year to final year (n=120), who were exposed to clinical instructions and administered the questionnaire. Students were asked to self-rate the questionnaire in presence of the researcher, for clarification if needed. It took on average 10-15 minutes to complete the questionnaire. Data were collected during the last two weeks of clinical posting in the spring of 2010 (April 20th to May 5th). The data were analyzed using SPSS version 16. Both descriptive and inferential statistics including frequency, percentage, mean and standard deviation and "t" test were conducted to identify the gender difference and differences in perception of students at different levels of academic year.

4.1. Socio-demographic Data

A total of 120 students participated in the study. Table 1 show that 70% of the samples were female. The gender distribution concurs with the overall gender distribution of the nursing students in this College of Nursing. Most of the students were (41.6%) in their fourth year, 37.5 % in the third and about 21% in the second year. Almost all students (99.1 %) were exposed to clinical instructions by more than five clinical instructors.

Table 1. Distribution of Male and Female Nursing Students by Academic Year (n=120)

Gender	Second Year n (%)	Third Year n (%)	Fourth Year n (%)	Total n (%)
Male	5 (4.17%)	15 (12.5%)	16 (13.33%)	36 (30%)
Female	20 (16.7%)	30 (25%)	34 (28.3)	70%

4.2. Important Characteristics of the Effective Clinical Teacher

As shown in Figure 1 Omani nursing students perceived professional competence of clinical teachers' as the most important characteristic (77.6%), followed by teachers' relationship with students 72.9%. Only 53.2% rated personal attributes as highly important

4. Results

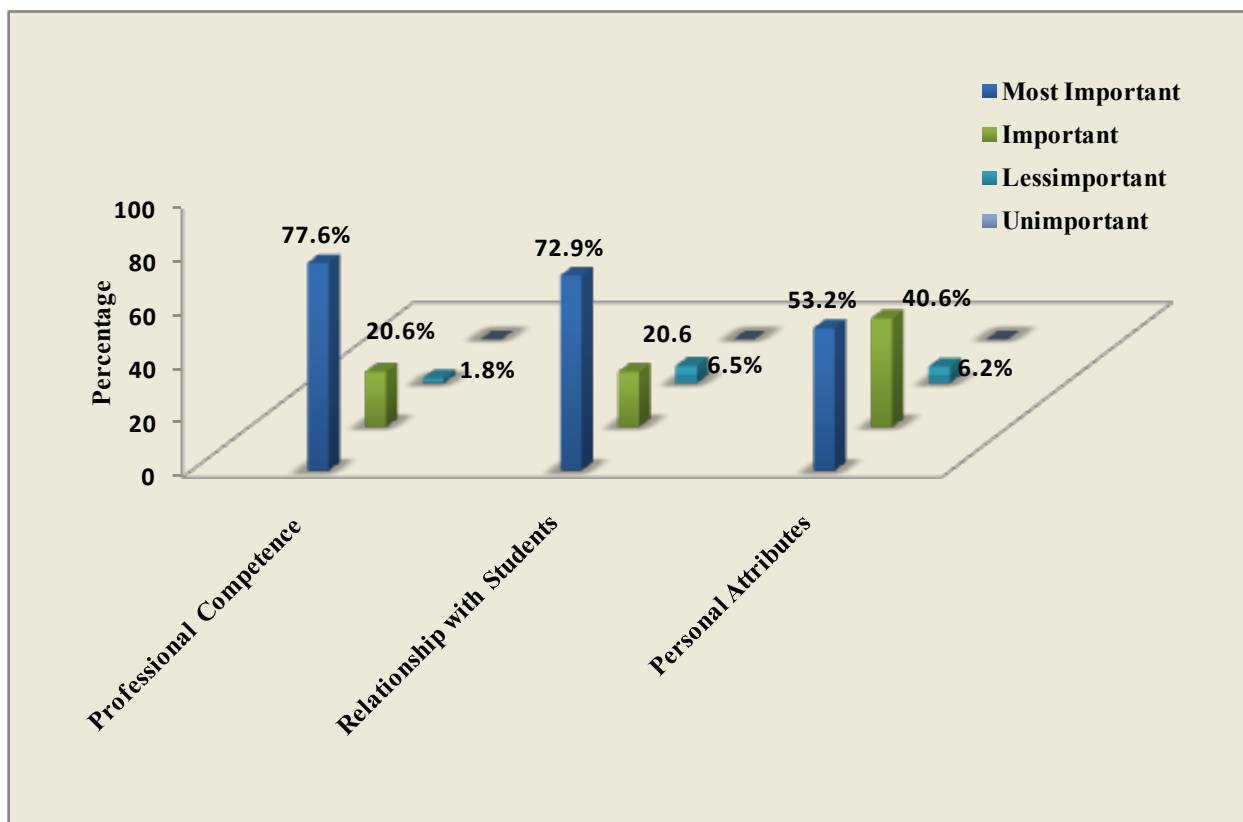


Figure 1. Distribution of Three Categories of Effective Clinical Instructor Characteristics

Table 2. Rank Order of Effective Clinical Teacher Characteristic Perceived Important (>90%) by Nursing Students of Sultan Qaboos University

Effective Instructor Characteristic	Most Important (4)	Important (3)	Less Important (2)
Professional Competence	%	%	%
Evaluate students objectively and fairly	90	10	0
Demonstrate role modeling	80	18	2
Shows competence in clinical skill	75	22	3
Able to relate theory to practice	75	20	5
Shows genuine interest in patients and their care	72	23.0	5
Provide positive feedback on student progress	75.4	18.6	6
Facilitates student's awareness of their professional responsibility	74	20	6
Demonstrates knowledge of nursing in the area of instruction	73.4	20.6	6
Being available in the clinic	72	22	6
Provides feedback in areas of improvement	70	22	8
Provides individualized timely feedback	69	22	9
Relationship with students			
Respects student as individuals	75	25	0
Is approachable	73	20	7
Is supportive & helpful.	70	23	7
Permits freedom for discussion	71	22	7
Is realistic in expectations of students performance	70	21	9
Personal Attributes			
Demonstrates good communication skill	65	35	0
Exhibits responsibility	56	40	4
Responds confidently	55	40	5
Able to collaborate with other disciplines	55	38	7
Exhibits autonomy	52	40	8
Demonstrates self-control & patience	50	41	9
Is organized and well prepared	50	41	9

It is evident from Table 2 that among the variables under professional competence, majority (90%) of students identified "evaluating students objectively" as the most important characteristic of a clinical instructor. Students rated "clinical instructor's role modeling behavior" as the second most important characteristic (80%). Among 18 professional competency items, 11 items were rated as important characteristic (>90%). Providing freedom for discussion, approachable, being supportive and helpful in the clinical settings was rated as the important characteristics (93%) under the category of relationship with students. Study results highlighted that all students wished to be respected as an individual by each clinical teacher. All participants valued good communication skills of clinical teachers as an important priority and the most important effective characteristics along with other 6 more items (>90%) under the category of personal attributes.

In section three of the questionnaire students were asked to prioritize the five most important effective characteristics of the clinical instructors. Students perceived and rated fair

evaluation, role modeling, skill competence, communication skills and respecting students in the following rank order as shown in Table 3.

Table 3. Rank Order of the Five Most Important Effective Clinical Instructor Characteristic Perceived by Nursing Students of Sultan Qaboos University

1	Evaluate students objectively and fairly
2	Demonstrate Role modeling status
3	Show clinical skill competence
4	Demonstrate good communication skills
5	Respect student as an individuals

4.3. Difference in Male and Female Students Perception

The mean scores of the combined items of the three categories of clinical instructor characteristics between male and female students in Table 4 revealed significant differences for category of relationships with students, which females rated higher than male students. Clinical instructors' "professional competence and personal attributes were equally rated by both male and female students.

Table 4. Difference between Men and Women of Three Categories of Clinical Teacher Characteristics

Categories of Clinical Teacher Characteristics	Gender	N	Mean	S. D	t- Value	Significance
Professional Competence	Male	36	84.3	6.75	1.72	0.89
	Female	84	86.9	7.53		
Relationship with Students	Male	36	33.4	7.43	2.81	0.034*
	Female	84	38.3	4.11		
Personal Attributes	Male	36	52.0	7.26	1.75	0.83
	Female	84	53.6	6.32		

* P-value < .05

4.4. Perception of Students at Different Academic Levels

Differences of perception of students from different academic year showed no statistical differences, indicating that students at all academic levels values clinical instructors' professional competency as the most important characteristic for an effective clinical instructor

4.5. The Best Student – Teacher Ratio for Clinical Instructor

The second open question authors explored was the students' opinion on optimal ratio of students per teacher. Most (60 %) of students preferred having one teacher for 4 students. In student's perspective a 4:1 ratio of student-teacher maximizes their clinical learning compared to 5: 1 or higher ratios.

5. Discussion

Findings of the study highlighted professional competencies of a clinical teacher as the most important characteristic. These findings are consistent with previous studies, which revealed that a professional competence and expert knowledge were most important to nursing students[4, 5]. This study findings confirm results from studies conducted in other Arab countries like Jordan[3]. The present study revealed that role modeling behavior of the clinical instructor as the most important characteristic under professional competencies and is in par with finding of Ibray[14]. In addition, teaching and nursing care competency were reported as the most important domains of nurse educators[6]. The findings of this study differed from Western studies where students rated interpersonal relationship as the most important domains[2, 10]. There were no differences in perception of students from different academic year and they all agree to the same most important characteristics. This is not congruent with a similar study[3]. Overall many researchers agree that the best clinical teachers are clinically competent and know how to teach effectively along with a sound interpersonal skills and ability to provide feedback. Teacher's knowledge about the curriculum, clinical setting, the learner and teaching/learning theory appeared very important to students' views of effective clinical teaching. Clinical teachers with effective clinical teaching characteristics are always appreciated as good role models. Because baccalaureate nursing in Oman is at its

initial phase of professionalization, a ‘‘professional approach in clinical education’’ is the effective key to success. As this study is one of the pioneering of its kind, no evidence could be sort to explain the gender differences regarding relationships with students. Possibly the Omani nursing students' unique cultural background and educational beliefs, values and practices as they all belong to Islam and hailing from extended families with strong family ties could have contributed to the significant variation of gender differences in perceptions with regards to the category of instructors relationships with students. The same could be a factor for Omani nursing students' preference to 4:1 student teacher ratio for clinical teaching where more intense interaction and attention is ensured and is in contrast with higher student teacher ratio at international context. These two aspects call for further exploration and future studies. The results of the current study, by its nature, cannot be generalized to the international arena however; it demonstrated the core characteristic of an effective clinical teacher which agrees with many studies carried out in Arab countries and other parts of the world.

Limitations: Since the College of Nursing at Sultan Qaboos University was the pioneering and is the only one public college established in 2002 with 60 student intake, the sample size was limited to 120. The newly developed instrument though it was developed observing all rigors of tool development, it needs further standardization in large scale sample.

6. Implications

The results of this study will assist faculty to appreciate students' views and acknowledge areas of success as well as areas needing improvement. Omani students' cultural background and their educational beliefs, values and practices are unique to the students of the College of Nursing. As multicultural faculties are involved in clinical instruction, being aware of those characteristics that are perceived as important by nursing students, teaching strategies and attitudes may be reinforced, changed or developed in order to promote clinical instruction to the greatest extent. Clinical competencies of the instructors are of primary importance as they are considered as good role models for their students as well as their credibility as good teachers. Since this College and the University is fostering student centered curriculum, the students' feedback will definitely help to

mold clinical teaching by multicultural faculty to the students' perspective. This study proposes the need to implement programs to foster and to promote uniformly identified effective clinical teaching characteristics which will foster Omani students' clinical learning.

This research has implications for employment and evaluation practices of clinical instructors. Given the special challenges of clinical education, persons with effective clinical instruction skills should be urged to enter clinical instruction. Academic administrators can use the findings of the study to guide the faculty development process and provide useful educational tools to assist faculty in providing effective clinical instruction.

7. Conclusions

Clinical instructors need to model professional behavior to facilitate optimal student learning. Clinical teachers must possess effective teaching characteristics to enhance clinical learning. Nursing students value clinical instructors' professional competencies as the most important characteristic. Omani undergraduate nursing students rated "objective and fair evaluation", "clinical competence," "respecting students as an individual" and "communicative skills" as the most important characteristics. Role modeling characteristics were highly valued by nursing students. The study results allows faculty to understand students' views and provides opportunities for areas of success as well as areas needing improvement.

Academic administrators can optimally orient new clinical faculty to effective clinical teaching behaviors as perceived important by students and can use the findings to guide the faculty development process. As clinical teachers become aware of those characteristics that are perceived important, teaching strategies and attitudes can be reinforced, modified, or developed in order to promote clinical learning as valuable experience for students. Application of the results in devising clinical educational models and as indicators for educators' role can make the results more tangible.

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