

## Original Article

# Iranian Nursing Student–patient Health Communication in Medical Surgical Wards

### Abstract

**Background:** Health communication (HC) is considered an important task of nurses to provide high quality and holistic care as well as to improve patient health. The nursing student–patient HC is an abstract concept and needs to be clarified. Therefore, this study was conducted to increase the knowledge about nursing students' HC with patients by considering various participants' viewpoints. **Materials and Methods:** In this conventional qualitative content analysis, 18 semi-structured interviews were conducted with six nursing students, six nursing instructors, and six patients in educational hospitals affiliated to the University of Medical Sciences. Credibility, confirmability, dependability, and transferability were established to validate the trustworthiness of the data. The process of data collection and analysis lasted 9 months. **Results:** After data analysis, two categories were generated: (A) “junior nursing student–patient communication,” with two subcategories of “performing social communication with patients” and “failure to build therapeutic relationships with patients,” and (B) “senior nursing student–patient communication” with two subcategories of “establishing effective communication with patients” and “performing one-way communication with patients.” **Conclusions:** More attention should be paid to improve HC through shifting towards student-centered approaches in nursing curriculum. Further, role model nurses and clinical educators should guide nursing students for institutionalizing HC in future nurses.

**Keywords:** Health communication, Iran, nursing, patients, students

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### Introduction

Communication, defined as a means of exchanging messages and information among people, has captivated human attention from very early times. Communication is an intrinsic attribute of human beings and the basis of all social relationships.<sup>[1]</sup> In the realm of health care, communication may mean the difference between life and death.<sup>[2]</sup> Ineffective communication behaviors cause 68% of fatal incidents in public hospitals.<sup>[3]</sup> Communication is a critical component in all domains of nursing care.<sup>[4]</sup> Health communication (HC) is the most important kind of professional communication, which is used for patient education as well as health promotion.<sup>[3,4]</sup> Since a patient who is a unique human being, either psychologically or biologically, is placed at the center of care in the nursing discipline, United States safety goals have considered HC a required skill in healthcare providers to improve patient safety.<sup>[5,6]</sup> At present, the growing importance of

professionalism puts HC at the center of attention.<sup>[7]</sup> HC is considered an important antecedent of nursing professionalism, and achieving desired levels of professionalism is not possible unless they communicate with the patient effectively.<sup>[8]</sup> Therefore, various global nursing associations have considered HC a vital competence requirement of a healthcare provider in profession standards.<sup>[9]</sup> In Iran, this concept is considered in the charter of patient's rights and Iran's Nursing Organization ethical codes.<sup>[10]</sup> Nursing students, like nurses, should communicate with their patients verbally and nonverbally.<sup>[9]</sup> Having the appropriate level of HC as a fundamental skill for nursing students has always been a major challenge for policymakers and executives.<sup>[11]</sup> Some Asian studies mentioned that Chinese student nurses just receive theoretical instruction on HC through lecture-based teaching. They do not use communication simulation to involve nursing students in an active and student-centered approach.<sup>[12-14]</sup>

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In Iran, like China, HC education is done mainly through theory classrooms for nursing students to learn about this concept and apply HC in clinical practice.<sup>[15,16]</sup> However, the results of some studies emphasized that Iranian nursing students do not establish HC and patients are dissatisfied with communication of nursing students.<sup>[15-17]</sup> The quality of HC between nursing students and patients has even been questioned in the United States and Canada.<sup>[18,19]</sup> Nursing students considered communication with patients as one of the stressors in nursing education. There is strong evidence that stress can lead to various negative consequences such as physical ailments, mental disorders, exhaustion, and burnout in nursing students.<sup>[20]</sup> The nursing student-patient HC is an abstract, complex, and multidimensional concept.<sup>[21]</sup> Considering the fact that HC has a flexible and context-based nature, it seems that Iranian nursing students establish HC differently.<sup>[22]</sup> So, investigating nursing students' HC in the sociocultural context of Iran is essential. Therefore, the following qualitative study aimed to obtain a deeper understanding of the patient-nursing student HC in the medical-surgical wards of hospitals affiliated with the University of Medical Science.

## Materials and Methods

The researchers adopted a qualitative content analysis method to extract and summarize the real meaning of participants' experience of the empirical concept of HC.<sup>[23,24]</sup> To collect data, the researchers performed face-to-face interviews with a total of 18 participants including six nursing students, six nursing instructors, and six patients. Researchers employed heterogeneous purposive sampling technique to collect a wide range of interviewees' perceptions about the concept of HC.<sup>[23]</sup> After spending some time inspecting nursing student-patient encounters in medical-surgical wards, willing nursing students, nursing instructors, and patients with rich experiences regarding HC were interviewed. All interviews were done by the first author, a female PhD candidate in nursing with adequate clinical and educational experience, after obtaining participant consent. Nursing students who completed at least one clinical rotation in medical-surgical wards and nursing instructors who had at least 1 year of teaching experience at the School of Nursing and Midwifery at University of Medical Sciences, as well as alert patients who were being cared for by nursing students for at least 5 days in three medical-surgical wards in two hospitals affiliated with the University of Medical Sciences, were included in this study. Individual semi-structured interviews, lasting 20–60 min were conducted during 9 months from February to October 2016 according to the interview guide in a proper place. The main question for students was “how do you communicate with patients during your clinical rotations?” The main question for instructors was “in your point of view, how do nursing students communicate

with patients during their clinical rotations?” The main question for patients was “could you please tell me about your experiences of communication with nursing students during your hospitalization?”

Eighteen interviews, held in three medical-surgical wards in two university-affiliated hospitals, were analyzed simultaneously using conventional qualitative content analysis approach. This methodology is useful for subjective interpretation of textual data through a systematic process of coding and classification.<sup>[24]</sup> Recorded interviews as a unit of analysis were typed and analyzed using five-step model of Granheim and Lundman and MAXQDA12 software. After several readings of each interview and obtaining a general viewpoint of the reading, words, sentences, and paragraphs with related content were extracted as meaning units. Then, meaning units were abstracted and labeled as codes. After comparing various codes, the researchers combined codes with similar meaning to form subcategories. Then according to the meaning extracted from various participants' interviews, researchers combined subcategories to generate categories.<sup>[24]</sup>

Guba and Lincoln's trustworthiness criteria including credibility, dependability, confirmability, and transferability were applied. Credibility of data was increased by the investigator's prolonged engagement for creating trust and understanding with the participants, and data quality evaluation through five-member check and peer check sessions. By transcribing interviews immediately after recording, reviewing the entire collected data, and checking results with other experts, the researchers enhanced the dependability of the data. To maintain confirmability, the researchers used triangulation of participants. Furthermore, they documented the research process and decisions which were made during the study to help external auditors check this process and verify that the data was from participants' experiences rather than researchers' preconception. Regarding transferability, the researchers provided a comprehensive explanation of the concept, enabling readers to understand and compare the provided results with similar studies in other contexts.<sup>[25]</sup>

## Ethical considerations

After obtaining permission from the ethics committee of University of Medical Sciences (IR.TUMS.REC.1394.807), participants were informed about objectives of the study, their right to leave the study at any time, and data confidentiality. Subsequently, a written consent was obtained.

## Results

After analyzing 18 interviews, new codes and subcategories stopped emerging from interview transcriptions. The demographic characteristics of 18 participants included in this study are shown in Table 1.<sup>[23]</sup>

The average age of the participants was 21.5 years for students, 42 years for instructors, and 48.67 years for patients. Half of the participants were males. The instructors had an average of 15.5 years of teaching experience. The students had an average of 1.83 months of nursing clinical experience. The patients' average length of hospital stay was 7 days.

After reviewing the data on student nurses-patients HC, "junior nursing student-patient communication" and "senior nursing student-patient communication" were identified as two major categories. "Junior nursing student-patient communication" consisted of "performing social communication with patients," and "failure to build therapeutic relationships with patients." "Senior nursing student-patient communication" included "establishing effective communication with patients" and "performing one-way communication with patients." These four subcategories and two categories are presented in the Table 2.

### Junior nursing student-patient communication

According to the results, the first category is "junior nursing student-patient communication" with two subcategories of "performing social communication with patients" and "failure to build therapeutic relationships with patients."

#### *Performing social communication with patients*

Freshman nursing students communicate socially with good-tempered patients and only provide clinical procedures for other patients. A participant (1) said:

*"I create a social relationship with good-tempered patients. But for other patients, I only perform clinical interventions without words."*

Regarding negative outcomes of social interaction for nursing students as well as for patients, an interviewee (14) said: "Students can't meet patients' demands with establishing social interaction. Furthermore, this relationship hampers nursing students' professionalization."

**Table 1: Participants' demographic characteristics**

Code	Participant	Age (years)	Gender	Working experience	Education level	Length of hospitalization (day)
1	Student 1	21	Female		Third semester	
2	Student 2	20	Female		Fourth semester	
3	Student 3	22	Male		Fifth semester	
4	Student 4	21	Female		Sixth semester	
5	Student 5	22	Male	4 months	Seventh semester	
6	Student 6	23	Male	7 months	Eighth semester	
7	Patient 1	60	Female			13
8	Patient 2	35	Male			8
9	Patient 3	68	Male			8
10	Patient 4	49	Female			5
11	Patient 5	30	Male			2
12	Patient 6	50	Female			6
13	Instructor 1	47	Female	23 years	Master degree	
14	Instructor 2	56	Male	25 years	Master degree	
15	Instructor 3	37	Female	10 years	PhD	
16	Instructor 4	49	Male	25 years	Bachelor	
17	Instructor 5	32	Male	6 years	Master's degree student	
18	Instructor 6	31	Female	4 years	PhD student	

**Table 2: Nursing student's health communication (HC) categories and corresponding codes**

Code	Subcategory	Category
Verbal communication with good tempered patients	Performing social communication with patients	Junior nursing student- patient communication
Negative outcomes for nursing students and patients		
Patients' negative attitude towards communication	Failure to build therapeutic relationships with patients	
Nursing students' improper interactive behaviors		
Instructors' negligence and incompetency in teaching or evaluating HC		
Non-educational behavior of nurses		
Considering their qualified instructors as role models	Establishing effective communication with patients	Senior nursing student-patient communication
Improving communication skills through clinical experience		
Using strategies to re-establish communication		
Not answering patient's questions	Performing one-way communication with patients	
Referring patients to doctors		



### *Failure to build therapeutic relationships with patients*

Novice nursing students experience failure in establishing HC with patients due to four factors: patients' negative attitudes towards HC, nursing students' improper interactive behaviors, instructors' negligence and incompetency in teaching or evaluating HC, and nurses' noneducational behavior.

In interview, a participant (8) stated patients' perspectives about the futility of HC leads to patients' distrust of students and communication failure:

*"Here is an educational hospital and nursing students in white uniforms come, ask lots of questions and leave me with my unanswered questions. There isn't any benefit in HC."*

Based on interviews, students' lack of nursing and communication knowledge hampers interaction, and these factors along with nursing students' impatience leads to conflict with their clients. An interviewee (16) told the researcher:

*"Nursing student knew nothing about the disease to educate the patient. Also, she didn't introduce herself to him. As a result, when she wanted to take the patient's history of illness he didn't answer her. She got angry and left the room rapidly."*

Using noncomprehensible language with the patient was mentioned by another participant (9):

*"The student explained me about the test. However, I didn't understand as she had applied medical terms."*

An instructor (15) noted about negligence of nursing instructors in the assessment of HC:

*"Adjunct nursing instructors don't consider HC as an important item in clinical practice. As a result, they do not teach or evaluate it properly. Therefore, nursing students can't establish communication."*

A student (2) mentioned about instructors' lack of empowerment in HC:

*"My instructor didn't interact with patients skillfully. How can such an instructor help me communicate with patients?"*

Further, nurses' noneducational behavior has a negative effect on nursing students' HC. An interviewee (6) stated that nurses don't accept nursing students:

*"Nurses ignore nursing trainees in the ward. This makes clinical rotations harder for us."*

Moreover, a participant (17) stated that nurses don't communicate with patients:

*"Clinical nurses just sit in the station and don't interact with patients. Students, seeing their interactive performance, don't communicate with patients, either."*

Also, a patient (7) said:

*"Nurses don't communicate with us before doing procedures. I wake up with injection pain."*

### *Senior nursing student-patient communication*

Analyzing in-depth interviews revealed the second category, "senior nursing student-patient communication" with two subcategories of "establishing effective communication with patients" and "performing one-way communication with patients."

#### *Establishing effective communication with patients*

Qualitative content analysis indicated that senior student nurses consider their qualified instructors as role models and imitate them. An interviewee (5) mentioned:

*"I always remember one of my instructor's behaviors. I have learned much from her. I interact with patients like her."*

Further, students' knowledge and verbal skills will develop by improving experience during time and they can create a two-way communication. One interviewee (13) said:

*"Since their knowledge and skills in HC has increased, they can ask questions and receive patients' feedback with higher self-confidence."*

A participant (4) stated that she uses patients' companions to re-establish HC with bad-tempered patients:

*"An angry patient didn't communicate with me. However, he had a good companion who answered my questions. Later, the patient trusted me and he started communication with me."*

Regarding the role of nonverbal communication such as therapeutic touch in soothing the furious patient, a patient (12) said:

*"I was too wrathful to listen to doctor's words. The nursing trainee took my hand and tried to quiet me. Finally, I calmed down and obeyed the doctor's orders."*

#### *Performing one-way communication with patients*

Analyzing in-depth interviews showed that nursing students in the internship period do not answer patient's questions and they refer patients to doctors due to exhaustion after night shifts as well as in imitation of nurses' manners. An instructor (18) noted:

*"In the internship period, most of nursing students don't communicate with patients as they just imitate nurses' clinical communications."*

A patient (10) told the researcher:

*"The sleepy nursing trainee didn't respond to my questions and referred me to the physician."*

## Discussion

One of the most important parameters of an effective healthcare is efficient nurses. The most significant attribute of a nurse is HC.<sup>[17]</sup> Not only are nurses the first to interact with patients in a clinical setting but they also have the most encounters with the patients during their entire stay. HC has a tremendous effect on physical and psychological outcomes in patients.<sup>[4]</sup> It also has a significant effect on student nurses' growth and development.<sup>[6,17]</sup> Thus, nursing students must be prepared and assessed regarding establishing HC prior to completing their Bachelor's degree requirements.<sup>[12]</sup> To create a complete picture of the nursing student's HC with patients in the medical-surgical wards, this qualitative content analysis study was conducted using various stakeholders' perceptions. Results showed that junior and senior nursing students communicate with patients differently during clinical rotations. Other studies also indicated that improving trainees' clinical experiences during nursing educational program affects their HC as an important part of professional socialization.<sup>[26]</sup>

The social communication between nursing students and patients can be explained by novice students' lack of academic preparedness to establish HC. This result is congruent with the previous studies in Iran and Singapore where nursing students needed more training to acquire knowledge and experience to prepare for provision of nursing care.<sup>[16-27]</sup> In another study in Iran, nurses' lack of knowledge was the main barrier in patient education from nurses and managers' viewpoints.<sup>[28]</sup>

In addition to nursing students' lack of knowledge about communication and medical interventions, they experience failure in interaction with patients because of their stance against the client. Nursing students who cannot perform HC choose good-tempered patients for doing their assignments and their relationship with other patients is limited to providing clinical care. This patient preference, a barrier to provide nursing care and develop as a professional nurse, may be due to students considering patients' petulance as the most important barrier to interaction.<sup>[2,5,10]</sup> This finding is in line with other studies in which patient's hearing impairment and unstable mental health condition were considered barriers to communication.<sup>[1,4,29]</sup> Furthermore, nursing students' impatience as well as nurses' and doctors' struggles with patients was regarded as unethical performance, which hampered healthcare provision.<sup>[30]</sup> Interviewees mentioned nursing student's incapability of meeting different patient needs as one of the leading causes of patient's lack of confidence in nursing trainee and poor communication. This result is congruent with another study in which authors suggested that patient's attitude towards disease, treatment, and clinicians deeply affected their HC as well as treatment adherence.<sup>[31]</sup> Some nursing trainees and faculties believe that some adjunct lecturers who do not have organizational commitment and do not

identify themselves as members of the university, do not have adequate attitude and knowledge regarding HC to guide nursing students properly. This result is in agreement with another American study in which nursing educators mentioned managers' support as well as academic experience as the most significant factors which motivated them to work as qualified faculty members.<sup>[32]</sup> Since nursing instructors should reconnect nursing students and patients through removing barriers of establishing HC, they should enhance their own communication skills by proper continuing education.<sup>[33]</sup> This is in line with another study reported from Australia where authors provided a holistic guideline to support nursing educators in training students in clinical placements.<sup>[34]</sup>

Furthermore, nurses' inadequate knowledge was mentioned by some participants as a big problem in educational hospitals, which is congruent with another study regarding moderate level of nurses' knowledge and skills in breaking bad news in critical wards.<sup>[35]</sup> In addition, not accepting nursing students by nurses, which is consistent with another Iranian report,<sup>[36]</sup> impacted students' HC negatively due to decreasing their learning environment satisfaction.<sup>[37]</sup> Therefore, nursing students', patients', instructors', and clinical nurses' related factors have a substantial role in nursing students' communication failure, which is consistent with the results of another research showing that factors related to nurses, patients, and coworkers had a deep impact on nurses' HC with patients in psychiatric wards.<sup>[38]</sup>

Gradually, nursing students improve their communication knowledge and verbal skills through observing and imitating their qualified instructors as role models as well as through clinical practice.<sup>[4,9]</sup> Therefore, they can manage their interactions with patients through various strategies to do their duties.<sup>[2,17]</sup> The results of other studies also indicated that during a clinical rotation an effective instructor influences nursing students' motivation and confidence to increase their HC experiences.<sup>[6,39]</sup>

Finally, student nurses establish one-way communication in the internship period. In this clinical course, an instructor does not attend in the ward, thus nursing students work side by side with nurses in the educational hospitals.<sup>[16]</sup> Therefore, some nursing students take clinical nurses as role models, their motivation to interact with patients decreases, and they establish communication like the nursing staff. Although personnel regard patient education as a significant role, they do not educate clients due to hard work as well as lack of financial incentives.<sup>[40]</sup> The results of another study also indicated that nursing students experienced lack of progress and even reduced level of HC during internship period.<sup>[12]</sup> Another study showed that nursing students' empathy declined during the process of education.<sup>[41]</sup> Therefore, it is fundamental to have nurses who are capable of facilitating both junior and senior students' training in regard to establishing HC.<sup>[35,42]</sup>

This qualitative research investigated the viewpoints of participants who were in teaching hospitals affiliated to one nursing school. Therefore, considering perceptions of other participants with rich experiences of HC in other provinces of Iran is recommended.

## Conclusion

Because the main aim of nursing education is to train qualified nurses to establish HC in the future, it is important to consider this subject as one of the most significant sections of the nursing curriculum. Using student-centered and innovative strategies such as simulation before clinical placements is recommended to prepare novice nursing students to interact with patients therapeutically. The results indicated that having effective instructors in clinical wards is very important to foster HC in trainees. The findings also showed that having efficient clinical nurses is as important as having good instructors because nursing students take them as their role models in their internship period. Therefore, empowering and evaluating both nursing instructors and nurses respecting HC are important so that they teach, assess, and correct nursing students' mistakes in HC.

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## Conflicts of interest

Nothing to declare.

## References

- Adigwe P, Okoro E. Human communication and effective interpersonal relationships: An analysis of client counseling and emotional stability. *Int J Economics Manag Sci* 2016;5:336.
- Taylor C, Lillis C, Lynn P. *Fundamentals of nursing: The art and science of person-centered nursing care*. 8<sup>th</sup> ed. Philadelphia, PA: Wolters Kluwer; 2015.
- Campbell SH, Pagano MP, O'Shea ER, Connery C, Caron C. Development of the health communication assessment tool: Enhancing relationships, empowerment, and power-sharing skills. *Clin Simul Nurs* 2013;9:e543-50.
- Kourkouta L, Papathanasiou IV. Communication in nursing practice. *Mater Socio Med* 2014;26:65-7.
- Meleis AI. *Theoretical nursing: Development and progress*. 5<sup>th</sup> ed. Philadelphia, PA: Wolters Kluwer Health/Lippincott Williams & Wilkins; 2012.
- Sheldon LK, Hilaire DM. Development of communication skills in healthcare: Perspectives of new graduates of undergraduate nursing education. *J Nurs Educ Pract* 2015;5:30-7.
- Ghadirian F, Salsali M, Cheraghi MA. Nursing professionalism: An evolutionary concept analysis. *Iran J Nurs Midwifery Res* 2014;19:1-10.
- Regan S, Laschinger HK, Wong CA. The influence of empowerment, authentic leadership, and professional practice environments on nurses perceived interprofessional collaboration. *J Nurs Manag* 2016;24:E54-61.
- Wloszczak-Szubda A, Jarosz MJ. Professional communication competences of nurses. *Ann Agric Environ Med* 2012;19:601-7.
- Parsapoor AR, Salari P, Larijani B. Implementation of patient's rights charter: A report from Ministry of Health and Medical Education, Iran. *Iran J Public Health* 2013;42:9-12.
- Heidari H, Mardani Hamooleh M. Improving communication skills in clinical education of nursing students. *J Client-Centered Nurs Care* 2015;1:77-82.
- Xie J, Ding S, Wang C, Liu A. An evaluation of nursing students communication ability during practical clinical training. *Nurse Educ Today* 2013;33:823-7.
- Wang CC. Closing the gap in nursing education: Comparing nursing registration systems in Australia and China. *Chinese Nurs Res* 2016;3:1-6.
- Wang W, Liang Z, Blazeck A, Greene B. Improving Chinese nursing students communication skills by utilizing video-stimulated recall and role-play case scenarios to introduce them to the SBAR technique. *Nurse Educ Today* 2015;35:881-7.
- Baghcheghi N, Koohestani HR, Rezaei K. A comparison of the cooperative learning and traditional learning methods in theory classes on nursing students communication skill with patients at clinical settings. *Nurse Educ Today* 2011;31:877-82.
- Jouzi M, Vanaki Z, Mohammadi E. Factors affecting the communication competence in Iranian nursing students: A qualitative study. *Iran Red Crescent Med J* 2015;17:e19660.
- Shafakhah M, Zarshenas L, Sharif F, Sabet Sarvestani R. Evaluation of nursing students communication abilities in clinical courses in hospitals. *Glob J Health Sci* 2015;7:323-8.
- Foronda C, Gattamorta K, Snowden K, Bauman EB. Use of virtual clinical simulation to improve communication skills of baccalaureate nursing students: A pilot study. *Nurse Educ Today* 2014;34:e53-7.
- Lum L, Dowedoff P, Englander K. Internationally educated nurses reflections on nursing communication in Canada. *Int Nurs Rev* 2016;63:344-51.
- Pahlavanzadeh S, Asgari Z, Alimohammadi N. Effects of stress management program on the quality of nursing care and intensive care unit nurses. *Iran J Nurs Midwifery Res* 2016;21:213-8.
- Johnston J, Fidelia L, Robinson KW, Killion JB, Behrens P. An Instrument for assessing communication skills of healthcare and human services students. *Internet J Allied Health Sci Pract* 2012;10:1-6.
- Yuan YC, Bazarova NN, Fulk J, Zhang ZX. Recognition of expertise and perceived influence in intercultural collaboration: A study of mixed American and Chinese groups. *J Commun* 2013;63:476-97.
- Polit DF, Beck CT. *Essentials of nursing research: Appraising evidence for nursing practice*. 8<sup>th</sup> ed. Philadelphia, PA: Wolters Kluwer/Lippincott/Williams & Wilkins Health; 2014.
- Granheim UH, Lundman B. Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today* 2004;24:105-12.
- Kornbluh M. Combatting challenges to establishing trustworthiness in qualitative research. *Qual Res Psychol* 2015;12:397-414.
- Zarshenas L, Sharif F, Molazem Z, Khayyer M, Zare N, Ebadi A. Professional socialization in nursing: A qualitative content analysis. *Iran J Nurs Midwifery Res* 2014;19:432-8.
- Tan XW, Lopez V, Cleary M. Views of recent Singapore nursing

- graduates: Factors influencing nurse-patient interaction in hospital settings. *Contemp Nurse* 2016;52:602-11.
28. Arian M, Mortazavi H, TabatabaeiChehr M, Tayebi V, Gazerani A. The comparison between motivational factors and barriers to patient education based on the viewpoints of nurses and nurse managers. *J Nurs Educ* 2015;4:66-77.
29. Zöller ME, Archer T. Emotional disturbances expressed by deaf patients: Affective deaf syndrome. *Clin Exp Psychol* 2015;2:109.
30. Sadeghi R, Ashktorab T. Ethical problems observed by nurse students: Qualification approach. *Med Ethics J* 2011;5:43-62.
31. Linetzky B, Jiang D, Funnell MM, Curtis BH, Polonsky WH. Exploring the role of the patient-physician relationship on insulin adherence and clinical outcomes in type 2 diabetes: Insights from the MOSAIC study. *J Diabetes* 2017;9:596-605.
32. Candela L, Gutierrez AP, Keating S. What predicts nurse faculty members intent to stay in the academic organization? A structural equation model of a national survey of nursing faculty. *Nurse Educ Today* 2015;35:580-9.
33. Ismail LM, Aboushady RM, Eswi A. Clinical instructor's behavior: Nursing students perception toward effective clinical instructors characteristics. *J Nurs Educ Pract* 2016;6:96-105.
34. de Swardt HC, van Rensburg GH, Oosthuizen MJ. Supporting students in professional socialisation: Guidelines for professional nurses and educators. *Int J Afr Nurs Sci* 2017;6:1-7.
35. Imanipour M, Karim Z, Bahrani N. Role, perspective and knowledge of Iranian critical care nurses about breaking bad news. *Aust Crit Care* 2016;29:77-82.
36. Aghamohammadi-Kalkhoran M, Karimollahi M, Abdi R. Iranian staff nurses attitudes toward nursing students. *Nurse Educ Today* 2011;31:477-81.
37. Borrott N, Day GE, Sedgwick M, Levett-Jones T. Nursing students belongingness and workplace satisfaction: Quantitative findings of a mixed methods study. *Nurse Educ Today* 2016;45:29-34.
38. Cleary M, Hunt GE, Horsfall J, Deacon M. Nurse-patient interaction in acute adult inpatient mental health units: A review and synthesis of qualitative studies. *Issues Ment Health Nurs* 2012;33:66-79.
39. Bos E, Alinaghizadeh H, Saarikoski M, Kaila P. Factors associated with student learning processes in primary health care units: A questionnaire study. *Nurse Educ Today* 2015;35:170-5.
40. Garshasbi S, Khazaeipour Z, Fakhraei N, Naghdi M. Evaluating knowledge, attitude and practice of health-care workers regarding patient education in Iran. *Acta Med Iran* 2016;54:58-66.
41. Neumann M, Edelhäuser F, Tauschel D, Fischer MR, Wirtz M, Woopen C, *et al.* Empathy decline and its reasons: A systematic review of studies with medical students and residents. *Acad Med* 2011;86:996-1009.
42. Chan ZC, Lai CK. The nurse-patient communication: Voices from nursing students. *Int J Adolesc Med Health* 2016;9:489.

