Effect of Educational Program on Nursing School Students' Communication Skills Used with Hospitalized Patients

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Abstract

Background: Communication is an integral component of all nursing interventions. So, nursing students should learn effective communication skills that are necessary for establishing a relationship with patients and provide effective nursing care. The study aimed to evaluate the effect of educational program on nursing students’ communication skills that are used with hospitalized patients. The study conducted at the secondary nursing school in Tanta. The study subjects were included all of students enrolled in second academic year (90 students). Design: quasiexperimental research design was used. Two tools were used, tool (1) consists of two parts: Part (1): a socio-demographic questionnaire. Part (2): nurse-patient communication skills questionnaire, Tool (2): nurses communication skills observational sheet. The educational program was developed by researchers and consisted of six sessions about communication skills. Results There are statistically significant differences between before and after the training program regarding all items of students' knowledge and their performance of communication skills during interaction with hospitalized patients (P=0.001) Conclusion: nursing students who attended educational training program improved their communication skills that facilitate their nursing relationships, and enhance professional nursing care. Recommendations: communication training skills should be established and learned as a separate course in nursing education of nursing schools.

Keywords: Communication Knowledge, Communication skills, Nursing Students

Introduction

Communication is a dynamic process among humans that is used to influence, gain mutual support and acquire what is necessary for health and survival. Communication is the reciprocal process of imparting or interchanging thoughts, attitudes, emotions, opinions, or information by speech, writing, and signs, (Al-Qahtani A et al., 2013). Communication is a process of sending and receiving messages using a mixture of verbal and nonverbal communication skills. This process occurs in a context consisting of physical space, cultural and social values and psychological conditions, (Martin CT, & Chanda N, 2016).
Nurses are in the forefront of healthcare and communication with patients and their families. They have the primary role in the maintenance and promotion of health, in addition to relieving pain of patients. Therefore, such care requires comprehensive understanding of the patients (Özturk D, & Din I, 2014). Nurse deal with patients as whole persons, applying nursing process consists of assessment, planning, supplementing and evaluating the overall care of patient. All these steps are dependent upon open communication between nurses and patients. (Stroup C, 2014, & Manojlović M et al., 2015).

In nursing, offering technical support or expert advice is not enough. Patients expect to be accepted, listened to and understood. Communication skills are important to reach these expectations (Antón Tet al., 2020). Effective listening and speaking constitutes more than 70% of communication process. These skills are highly important, especially in nursing because nurses, as key members of the treatment process, have the highest amount of communication with patients (Sim A 2020).

Nurses through communication perform designated tasks and display behaviors such as establishing shared meaning, offering therapeutic instructions, performing patients' interviews, eliciting relevant data, explaining procedures, educating clients and families, discussing treatment options, describing adverse effects from medications, and providing crisis intervention. Nurses need to understand that therapeutic communication can make patient's well-being and improve their quality of life (Uysal N, 2016).

Communication has content and value. The contents regard to what was said, while value regards to how it was said. The nature of the relationship depends on how the two persons who are involved in communication sequence interact to each other (Fakhr-Movahedi A et al., 2011). Because the communication process is an interaction in which each sender becomes receiver and vice versa, the failure to recognize the two-way communication capability, often leads to negative conclusions (Vertino K, 2014).

In addition, the message sent by communicate is not the same as the message received. The interpretation of the messages is based on individual factors and subjective perceptions. A person interprets something that he/she received not according to what the sender actually said but according to his/her own understanding, (Sherko LK et al., 2013). Communication also happens without words. The non-verbal communication is expressed by facial expressions, gestures, posture and physical barriers such as distance between individuals (Antos G, 2011). It is important that there is an agreement between verbal and nonverbal communication, particularly under stressful conditions, where nurses see the changes in non-verbal messages of patients with whom they mostly communicate, (Fakhr-Movahedi A et al., 2012). Moreover, each patient has his own specific characteristics that influence not only behavior in the process of a communication, but also how to cooperate with nursing services and how they will undertake self-management of health (Query JL et al., 2017).

Therapeutic communication between nurses and patients has many benefits, it greatly contributes to providing patients with individualized care. Nurses who take time to understand unique problems and concerns of their patients will be able to provide quality of nursing care. Patients who feel that they receive all of the nurses’ attention during
an interaction are more likely to disclose a true extent of their feelings and symptoms much quicker. Patients may also feel more satisfied with their care if nurses provide them with more attention (Ennis G et al., 2013). It requires skills and simultaneously sincere intention of nurses to understand patients' concerns. Understanding patients is not sufficient, but nurses must also convey messages that they are understandable and acceptable.

**Significance of the Study**

Communication skills assist in the performance of accurate, consistent and easy nursing work, ensuring both satisfaction of patients and nurses. Impairment in communication leads to error in diagnosis, reduction of patient participation in treatment, missing patients' important information, wrong interpretation of patients' data, and/or causing an unreliable atmosphere between patients and nurses. Nursing students to be, successful in their caring with patients should learn how to demonstrate effective communication skills and therapeutic relationship and practices of applying these skills in different situations. These enable them to help patients to express mental and physical health problems, receive accurate nursing care, increase patient satisfaction, and improve their health condition.

**Aim of the study:**

Evaluate the effect of educational program on knowledge and performance of communication skills that are used by nursing students during interaction with patients

**Research questions:**

Nursing students' knowledge and performance of communication skills that would be used with hospitalized patients are expected be improved after implementation of the educational program.

**Subjects and Methods**

**Research design:**

Quasi experimental research design was used.

**Research setting:**

The study was conducted at the secondary nursing school in Tanta; it is affiliated to Ministry of Health of Gharbiya Governorate. The school has five academic years, the capacity of this school was 440 students, 70 students in the first, 90 students in the second, 100 students in the third academic year, 90 in the fourth and 90 in the fifth year, according to the academic year 2019-2020.

**Subjects:**

The study subjects included all of students enrolled in second academic year, because students in this academic year are firstly directly contacted with patients in clinical area. They involve 90 nursing students.

**Tools of the study:**

The data of this study were collected using the following:

**Tool (I): It consists of two parts:**

**Part (1): Structure socio-demographic questionnaire:**

It was developed by researchers to elicit information about students' age, their residence, their parents' education, and occupations.

**Part (2): Nurse-patient communication Skills' questionnaire**

This tool was developed by (Marhamati S et al., 2016). It assessed knowledge about effective therapeutic communication skills. It consisted of 25
items in five dimensions: Preliminary relationship (4 items), Paying attention (4 items), Understanding the patients (4 items), Job duties (5 items), Medical ethics (8 items).

This questionnaire contained dichotomous questions that were answered by (yes) or (no). The right answer scored one, and the wrong answer scored zero.

**Scoring system:**

Total score is 25 marks. The higher score indicated to have effective knowledge about therapeutic communication skills, the level of student's knowledge was determined as a following scoring system: less than 50% referred to lack of knowledge, 60% to 70% indicated moderate level of knowledge, more than 70% - to 100% is considered a good level of knowledge.

**Tool (II): Communication skills checklist:**

This tool was developed by Takahashi M et al., 2006. It was observational checklist to measure performance of communication skills that were used by nursing students with patients. It contained 29 items, and these items were divided into two categories:

1. General communication skills (6 items mainly non-verbal skills)
2. Interpersonal communication skills (23 items mainly verbal skills);

The first category "the general communication skills" was estimated on a five point Likert scale : (1) poor; (2) fairly; (3) sometime good; (4) often good; (5) always good, but it was modified by the Jury of five experts, in the psychiatric nursing field to become 3 point Likert scale (zero) poor; (1) sometime good; (2) always good. The second category "interpersonal communication skills" was estimated on three point Likert scale: (zero) poor; (1) sometime good; (2) always good.

**Scoring system:**

The total scores of two subcategories are summed; range of scores is (0 - 58). The higher score refers to higher level of performance communication skills. The level of students' performance communication skills is determined by the following: Less than 50% referred to mid-level, 50% -75% was considered moderate, 75% - 100% was a higher level of performance.

**Tools validity and reliability:**

Tools of data collection were translated into Arabic by the researchers, and tested for translation by the experts in languages, study tools were presented to jury composed of five experts in psychiatric field to ensure its content validity. Their modification was done accordingly. Reliability of tools was checked by Cronbach’s alpha test and the result was highly reliable (0.816 for tool one, 0.82 for tool two, respectively).

**Pilot study:**

It was carried out on 15 students, they were selected randomly from list of students name who were enrolled in first academic year in the previously mentioned setting, the pilot study was done to ascertain clarity and applicability of the study tool one, and to identify obstacles that were faced during actual data collection. Accordingly, it was found that few words were difficult and confused, these words were modified. Following this pilot study, the tools were revised, reconstructed, and ready for use in the actual study.

**Actual Study:**

1-Assessment phase:

The studied data was collected during the first semester of the academic...
years 2019-2020, from half of September to end of December 2019.

Tool (1) was distributed in a classroom on the study subjects in the presence of the researchers. The tool (II) was applied by the researchers; they observed nursing students individually in the hospital before exposing to the training program. The researcher observed five students every day per week during involvement in direct interaction with hospitalized patients and provided their nursing care in the clinical area, the observation started from 8 am at morning until 2 pm as well as schedule in secondary nursing school, the duration of applying this tool to all studied subjects took nearly three weeks, the researchers filled the observational checklist (tool 2) based on their observation.

II- Planning phase:

Based on the analysis of the data obtained from the assessment phase and review of the related literature, the researchers designed an educational program.

III-implementation phase

The studied subjects were divided into nine subgroups each of them consisted of 10 nursing students. Each subgroup attended six sessions. These sessions were scheduled as six sessions per week. The total sessions of all students were applied in nine weeks; the time of each session took nearly from one hour to an hour and half.

The program consisted of six sessions that were explained as the following:

First Session: It is an introductory session about the program; its time schedule and the researcher explained the meaning of communication, its elements, and types of communication (verbal and nonverbal), and used power point during lecture to facilitate understanding, followed by group discussion.

Second Session: the researchers explained the basic verbal and nonverbal communication skills that should be used to develop therapeutic relationships and explored professional standard of nursing relation. The researchers also focused on nursing job duties such as taking patient's history, nursing assessment, nursing diagnosis and intervention and collaboration with other healthcare workers to implement treatment plan, those can be done through professional relationships. Moreover, the researchers discussed with students code of nursing ethics, and it is considered a basic in therapeutic relationship with patients.

Third and fourth Sessions: there were two videos to show two conversations between nurse and patient in hospital; this was developed by researchers and applied by volunteer persons and reviewed by professional experts before presenting to students. The first simulated conversation was presented by a video which showed non therapeutic communication used by a nurse such as: not calling patient by his name, not wearing her gown, disrespecting patient privacy, not taking care of patient illness, leaving the patient alone in his room, not responding to him, and neglecting him and other faults that were applied by the nurse, and the patient reaction toward nurse' verbally and non-verbally. Followed this video presentation, the students discovered and discussed these faults and its effect on deteriorated patient health condition.

The second video presented how nurse used therapeutic communication skills, patient's reaction, and its effect on patient's satisfaction and in improving his health condition. This was followed by researchers who discussed with nursing
students how they can make differences between therapeutic and non-therapeutic communication skills when dealing with patients in the hospital, and explored the importance of therapeutic communication.

**Fifth and sixth sessions:** During these sessions four role plays were applied about communication skills. The researchers developed the scenarios of four case situations and presented them to nursing students for preparation. The students tried to represent the actors in those scenarios, and expressed their emotions, gave spontaneous reaction, the researchers sometimes played a patient in the role play and other times act as professional nursing, followed each role play situation, group discussion. Through these role plays, the students learn effective communication skills such as: greeting patients in the starting conversation, introducing themselves, active listening, giving attention for patients' talk and not interrupted, asking suitable questions, taking permission before any clinical procedure, and other communication skills.

The methods of teaching used in the present study weel lecturers, role played, group discussion, brain storming and home works. In addition, the learning materials used were Videos, power point, colorful pictures, papers, pencils and notebook.

**III- Evaluation phase:**
At the end of the educational program, the tool (1) was applied on all study subjects as the same way before program. Tool (2) was applied on the nursing students during their interaction with patients in the hospital, as the same way that was applied in pre educational program. At the end of the study the participants received booklet about the educational program.

**Administrative design:**
An official permission was obtained, to conduct the study, from responsible authorities after clarifying the purpose of the study.

**Ethical consideration:**
- The study protocol has approval from ethical committee in the Faculty of nursing, Tanta University.
- Formal consent was obtained from the study subjects to participate in the study.
- The nursing students have the right to withdraw at any time during data collection of the present study.
- The nursing students were reassured about their confidentiality regarding the data collected.
- Study subjects were informed that their evaluation of their academic clinical course was not affected by their participation the educational program of the present study.

**Statistical analysis:**
The collected data were organized, tabulated and statistically analyzed using SPSS version 19 (Statistical Package for Social Studies), created by IBM, Illinois, Chicago, USA. For numerical values, the range mean and standard deviations were calculated. For categorical variables, the number and percentage were calculated. The differences between the two groups were calculated by using chi square test ($X^2$). The level of statistically significance was adopted at $p<0.05$.

**Results:**

| Table (1): clarifies socio-demographic characteristics of nursing students. It appears that mean of students' | 178 |
age was 16.54±0.50, and more than half of nursing students (57.8%) lived in urban area and 42.2% lived in rural area. Regarding level of their parents' education, half of mothers finished primary education, and 46.7% of fathers finish their secondary education. In addition, 42.2% of their mothers were housewives, 28.9% were employees, and 22.2% preformed skilled work. While, around slightly more than half (51.1%) of their fathers were employees, and 22.2% had skilled work.

Figure (1) shows comparison between levels of knowledge about communication skills among nursing students before and after implementation of educational program. It is clear from the figure that, the level of knowledge about communication skills among nursing students before the educational program was, 57.8% of nurses had poor level, 33.8% had moderate level, and only 8.9% of them had good level. While after the educational program, most of nursing students had good level (85.6%).

Table (2) illustrates a comparison between items of nursing students' knowledge about communication skills before and after implementation of educational program. It is clear from the table; the majority of students (80%) acquire knowledge about preliminary therapeutic relationship after the program compared with 34.4%, 42.2%, of them who have good and moderate level of knowledge respectively before the program. Regarding the skill of "pay attention to patients" most of students 78.9% have good level of recognition of this skill after the program compared with 35.6% before. Moreover, 81.1% of students realized the skill of "how to understanding patients" after the program compared with only 32.2% before the program. Concerning the skill of "job duties", it was obvious: the majority of students (82.2%) became aware of this skill with high level after implementing the program compared with 57.8% of students who had poor knowledge before. Furthermore, the majority of students 93.3% have knowledge about medical ethics compared with only 11.1% before the program. The majority of nursing students (85.6%) acquire high level of knowledge about all items of communication skills after the implementation of the program compared with only 8.9% before. There are statistically significant differences between before and after the program regarding students' knowledge about all items of communication skills.

Figure (2) illustrates a comparison between the level of nursing students' performance of communication skills before and after implementation of educational program, it found that most of nursing students (92.2%) improved their communication skills after the educational program compared with only 24.4% of students who had good level, 20% of them had moderate level, and more than half (55.6%) had poor level respectively before the program.

Table (3) clarifies the comparison between nursing students' performance of communication skills before and after implementation of the educational program. Regarding a non-verbal communication skill, the majority (91.1%) of nursing students performed this skill in good level compared with only 24.4% of them before the program. In addition, 94.4% of students preformed a verbal communication skill during interaction with patients after the program compared with only 18.9% of students with good level and more than half 53.3% have poor level of performance before. In addition, the majority of nursing students (92.2%) have improvement in their performance of all communication skills with good level.
compared before (55.6 % poor, 20% moderate, 24.4% good level respectively). There are statistically significant improvements of all items of communication skills among nursing students after implementation of the program than before the program.

Discussion:

Communication skills are a vital element in all nursing care activities and can positively affect the quality of nursing care (Sheldon LK et al., 2015). These skills involve sensitivity toward verbal and non-verbal messages as well as listening toward patients and responding effectively, (Ruhs JE et al., 2017). The present study demonstrated that educational program for to learn nursing students effective communication skills, explored that the majority of students after the program acquired knowledge about communication skills that should be used during interaction with patients. A statistically significant difference between before and after the implementation of the program was found.

This finding was consistent with the study of Lai CY et al., (2016) under the title "Training nursing students communication skills with online video peer assessment", who found that most of their subjects get high scores in communication knowledge and completely answered all test questions. This is in agreement with Karlsen MW et al., (2017), they studied nursing students’ perception toward simulation program of learning communication skills, they reported that more than half of nursing students had good perception after the program and accepted high of knowledge regarding communication skills. In the same line, Vaghei S et al., (2019), who assessed the effect of communication skills training by workshop and virtual methods in nursing students, found that the majority of nursing students improved their skills about communication after their training by workshops.

It is important to mention that, most nursing students in the present study after the program, acquired knowledge about how to initiate and maintain therapeutic relationships and recognize the common obstacles that interfere with understanding patients' needs, and compliances. In addition, the students realized and reported, during the interview, the importance of nonverbal communication skills and it is a true way to convey true emotions, acceptance, and respect of patients. Furthermore, the majority of nursing students in the present study improved their knowledge about attention skills, and active listening, they were able to list the effective ways that improve their attention as a skill to encourage patients to talk and the nurse to understand patients' compliances.

Regarding the knowledge of nursing students about job duties, in the present study, the majority of nursing students reported after the program their job duties accurately, and how to take patients' history, maintain professional standard in their relation with patients, and importance of limiting their self-disclosure. From the research point of view, this training program in the present study was a cornerstone in building professional and successful nurses in the future. The finding of our study agreed with Shakerinia L (2018), who investigated the relation between nursing students’ communication skills and their perception of quality nursing care of elderly patients and indicated that nurses who understand their job duties and their role toward their patients, had the abilities to perform nursing care effectively.

The present study reveals that statistically significant improvement of nursing students' knowledge about
medical ethics that includes privacy, confidentiality, takes patients permission, being honest, and avoids discrimination. In this context, Elelman F et al. (2016) assessed nurses' knowledge and practice regarding professional ethics in outpatient clinics at Mansoura University Hospital and discovered that the nurses' knowledge about professional ethics was deficit such as, respecting patient rights, nurse's sincerity and honesty, they concluded that those nurses need training about professional nursing code of ethics.

On the other hand, the present study explored that the majority of nursing students, after the training program acquired communication skills and used these skills during interaction. From the researcher's point of view, these results indicated that the effect of the educational program enhances communication skills of nursing students. Whereby the researchers used interesting method of teaching such as video presented simulation scenario from clinical setting between nurse and patients, after presentation, a discussion was done to help students discover the difference between a therapeutic and non-therapeutic communication. Furthermore, role plays that demonstrated during training sessions, stimulated learning and motivated students to apply these skills in clinical settings.

In the same direction Reeves A et al., (2018), applied theatre performance to teach undergraduate nursing students communication skills and concluded that real-life scenarios in their study facilitated learning communication skills. In this context, Kondo J et al., (2019) stated that, nurses who have good communication skills feel more secure and competent in their interaction with patients and indicated that teaching communication skills is important to help nurses cope with a broad range of stressors and to increase their perceived self-efficacy.

Furthermore, the study by Sigalit W et al., (2017), who implemented communication skills course by using social media for nursing students and measured their satisfaction, found that three quarters of nursing students initiated good relationship with patients, understood their needs and respond immediately to them. This is in agreement with Khodadai E et al., (2013) who studied the effect of communication skills training on the quality of care, self-efficacy, job satisfaction, and communication skills of nurses in hospital and found that training increased nurses' communication skills and caused elevated their quality of nursing care.

Moreover, Beaird G et al., (2017), studied using of video recording and standardized patient feedback for improving communication performance of undergraduate nursing students and found that the majority of the participants improved their performance of communication skills after using the video recording during their courses.

As for nursing students' performance of non-verbal communication skills before and after implementation of educational program, the current study revealed most of nursing students applied those skills in their interaction with patients after the educational program than before. Whereby, nursing students better used non-verbal communication skills such as: using eye contact, showing enthusiasm, using facial expression appropriate to situations. In addition, these students reported, during the interview who acquired ability to read the hidden message that carried on patients' facial expression, tone of voice, and body movement. In addition, the majority of nursing students in the present study improved their skills about attentions...
skills and active listening after the training program.

This result is consistent with the study by George S et al., (2018) who showed that their students after the educational program acquired skills such as open speaking, active listening, giving/getting feedback, and the skills of emotional interactions with patients. This goes with the finding of our study after training of the program the studied students learned the essential communication skills to understand their patients' health situation, problems, and help them to be engage in treatment plan, and they can use communication skills to manage any unpredictable clinical situations.

It is important to mention that, Ramos J et al., (2018), found in his study, a positive correlation between effective communication skills of health care workers and improving health status of patients. This is consistent with Alotaibi B (2018), who concluded that good communication skills of nurses are related to better patients' enablement, and coping with their health problems.

Concerning nursing students' performance of verbal communication skills, the present study revealed that the majority of students acquired these skills and applied them appropriately on patients better after the program was achieved. The researcher observed students during their communication with patients in clinical training period of hospital and recognized that students who attended the program applied appropriate combination skills such as: asking the suitable questions according to situations, expressing their opinions appropriately, revealing positive emotions toward patients, getting permission before any clinical procedure, expressing their desire to help, correcting misinterpretation, starting and ending therapeutic communication adequately. It is important to mention that, the role played applied in the training program helped students to acquire these skills and increased their self - confidence during applying their skills in hospitals.

This agrees with the study by Gutiérrez-Puertas L et al., (2020), they applied educational intervention for nursing students to develop their communication skills, and reached the same findings. The present study tried to refresh and develop knowledge and understanding of effective communication skills among nursing students. That result affects nursing care, and improves health outcomes and patients' satisfaction.
Table (1): Distribution of socio-demographic data among nursing students (No. =90).

<table>
<thead>
<tr>
<th>Items</th>
<th>No.(90)</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td><strong>Age</strong></td>
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<td></td>
</tr>
<tr>
<td>16-</td>
<td>41</td>
<td>45.6</td>
</tr>
<tr>
<td>17- &gt; 18</td>
<td>49</td>
<td>54.4</td>
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<tr>
<td><strong>Mean ± SD</strong></td>
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<tr>
<td><strong>Residence</strong></td>
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<tr>
<td>Urban</td>
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<tr>
<td><strong>Mother education</strong></td>
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<td></td>
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<tr>
<td>Illiterate</td>
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<td>12.2</td>
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<td>Primary education</td>
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<td>Secondary education</td>
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<td>Graduated from faculty</td>
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<td>10</td>
</tr>
<tr>
<td>Post graduate level</td>
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<td>16.7</td>
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<tr>
<td><strong>Father education</strong></td>
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<tr>
<td>Illiterate</td>
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<td>12.2</td>
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<tr>
<td>Primary education</td>
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<td>17.8</td>
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<tr>
<td>Secondary education</td>
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<td>46.7</td>
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<tr>
<td>Graduated from faculty</td>
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<td>13.3</td>
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<tr>
<td>Post graduate level</td>
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<td>10</td>
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<tr>
<td><strong>Mother work</strong></td>
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<tr>
<td>Skilled</td>
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<td>22.2</td>
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<td>Professional</td>
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<td>6.7</td>
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<tr>
<td>Employee</td>
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<td>Employee</td>
<td>46</td>
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</table>
Figure (1): Comparison between levels of knowledge about communication skills among nursing students before and after implementation of educational program.

Figure (2): Comparison between level of nursing students' performance of communication skills before and after implementation of educational program(No. = 90)
Table (2): Comparison between items of nursing students' knowledge about communication skills before and after implementation of educational program. (No= 90)

<table>
<thead>
<tr>
<th>Ens of students' knowledge about communication skills</th>
<th>before program</th>
<th>after program</th>
<th>X^2</th>
<th>P-value</th>
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<tbody>
<tr>
<td></td>
<td>Poor</td>
<td>Moderate</td>
<td>Good</td>
<td>Poor</td>
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<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Preliminary therapeutic relationship</td>
<td>21</td>
<td>23.3</td>
<td>38</td>
<td>42.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Paying attention to patients</td>
<td>21</td>
<td>23.3</td>
<td>37</td>
<td>41.1</td>
</tr>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>Understanding Patient</td>
<td>25</td>
<td>27.8</td>
<td>36</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td>Job duties</td>
<td>52</td>
<td>57.8</td>
<td>28</td>
<td>31.1</td>
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<tr>
<td>Medical ethics</td>
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<tr>
<td>Total of knowledge about communication skills</td>
<td>52</td>
<td>57.8</td>
<td>30</td>
<td>33.3</td>
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<td></td>
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</table>

* Statistical significant > 0.05
Table (3): Comparison between items of performance communication skills among nursing students before and after implementation of educational program (No. = 90)

<table>
<thead>
<tr>
<th>Students performance of communication skills</th>
<th>Before</th>
<th>after</th>
<th>X²</th>
<th>P- val</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Poor</td>
<td>Moderate</td>
<td>Good</td>
<td>Poor</td>
</tr>
<tr>
<td>Nonverbal communication skill</td>
<td>50</td>
<td>55.6</td>
<td>18</td>
<td>20.0</td>
</tr>
<tr>
<td>verbal communication skill</td>
<td>48</td>
<td>53.3</td>
<td>25</td>
<td>27.8</td>
</tr>
<tr>
<td>Total performance of communication skills</td>
<td>50</td>
<td>55.6</td>
<td>18</td>
<td>20.0</td>
</tr>
</tbody>
</table>

* Statistical significant > 0.05

Conclusion:

Based on the findings of the present study, it can be concluded that, nursing students who attended the educational program improved their knowledge and performance of communication skills that facilitate their nursing relationships and enhance professional nursing practice.

Recommendations:

1. Communication training skills should be established and taught as a separate course in nursing education of nursing schools.
2. Conducting workshops about communication skills to help graduate nurses to refresh their knowledge and enhance their skills that are used in caring of patients.
3. Further studies will be needed to identify barriers that hinder nursing staff from communication therapeutically with patients.
4. Implemented training program about how to deal with patients with specific needs such as: psychiatric patients, mechanically ventilated
patients, comatose patients, or elderly patients with chronic disease or young child.

5. Using more technology to develop simulation training program that creates virtue environment similar to the reality of clinical sitting, this helps students to learn communication skills in safe environment with simulated critical patients who needs very sensitive care.

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**Conflicts of Interest Disclosure**

The authors declare that there is no conflict of interest.

**References:**


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