

**The use of simulation in therapeutic communication skills achievement in undergraduate nursing students in psychiatric wards of ShahidBeheshti University of Medical Sciences, 2013-2014.**

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**Abstract:**

**Background:** Communication in mental health nursing is one of the most important component of therapeutic intervention. The ability to have an effective therapeutic communication with a psychiatric disorder patient, is the most important skill, expected a psychiatric nurse to have. The results of conducted research, shows nurses have problem in having effective interaction and therapeutic communication with patients and they lack in required skills. Communication training leads to skill acquisition. Perry believed, to enhance communication skills, learning should be both Participatory and Experimental. Substantial number of simulation studies, are evident of usefulness of this method of teaching. According to experimental studies, simulation as an active learning approach, and according to its known benefits in clinical teaching such as lack of harm to the patients and the possibility of providing a variety of scenarios in Rare and crisis situations ; have been chosen as a method of teaching therapeutic communication skills. This study was conducted with the purpose of determination of the impact of simulation on undergraduate nursing student's trainee's therapeutic communication skills in psychiatric wards of ShahidBeheshti University of medical science, 2013-2014 .

**Methods:** This study is a semi-empirical, self-control and pretest-posttest. Considered intervention was a simulated movie of Standardized Patient, which shows the expected communication skills in an interview. Through census sampling, 30 undergraduate trainees in psychiatric ward were done. Data gathering was done with researcher made checklist of "Evaluation of Therapeutic Communication Skills", which it's Inter-rater Reliability due to Inter class correlation coefficient and Content Validity Index was confirmed. The study was conducted during psychiatric internships. As pretest, each student had an interview with a patient and the check list of "Evaluation of Therapeutic Communication Skills" was filled. Following the film simulation, during the remaining days of internship, post test was conducted. Data analyzing was done with SPSS/22 software and Paired Samples T-Test .

**Results:** Compare to the pre-test both verbal and nonverbal communication skills were significantly higher in post-test ( $p$ -value  $< 0.001$   $t = -22.530$ ). By comparing the mean scores of the assessment of medical communication skills these skills shows 66.26 percent increase after the intervention .

**Conclusion:** Final results of the study, shows that communication skills have improved due to the simulated movie of Standardized Patient. Both verbal and non-verbal communication skills show improvement in post-test after the intervention. Therefore this approach in teaching therapeutic communication skills-Along with traditional methods of teaching- can be used to enhance these skills .

**Key words:** Simulation, Therapeutic communication skills, Undergraduate nursing student.

**Background:**

Nursing is a profession that is associated with multiple roles and responsibilities, and each of them has general and specific duties. The most important task in the profession of nursing is preservation and promotion of public and individual health. Developing an effective communication with the patient in the process of treatment, it is of particular importance. Therefore, nurses must have the efficient knowledge and skills in communication due to have an impressive therapeutic relationship [1]. Patient-Centered Care of patients with psychiatric and behavioral disorders, and having an effective therapeutic relationship with them, their relatives and those involved in their care, requires specialized knowledge and skills in communication [2,3,4].

Communication is the stone base of psychiatric interactions and intervention, and it results in developing and facilitating the therapeutic interventions. The importance of the effect of therapeutic communication skills in psychiatry and psychiatric nursing is significantly confirmed in the core curriculum, in numbers of countries [4]. The communication models used in the Major of nursing are humanistic and patient-oriented paradigm drives from Roger's model (1951), which are rectified by Egan and Bernard. Framework of these models is: respect, sincerity, and focused on care and developing a relationship based on trust and commiserative understanding [5].

Having an appropriate relationship with the patient, results in positive effects such as improvement in vital signs, alleviate of pain and anxiety, increase in satisfaction, improvement of care results and Improvement in patient participation in the treatment program. In other hand, inefficient communication with patient can end up in errors in diagnosis; reduce of patient participation in care plan and lack of efficient information from patient [6]. Mastery in communication skills should be on such level that students could effectively communicate with patient with any range of age and cultural and ethnic backgrounds [7]. This means, nurses should know which skills in communication to use and the reason behind it, and every time occasions calls, could change his/her strategy from one skill to another skillfully. Since every patient has unique needs, it's inevitable for nurses to use varieties of communication skills [5].

Results from conducted research shows the majorities of nurses have faced with problem in establishing an effective relationship and they are lack in necessary skills [1, 8]. The ability to establish a therapeutic relationship with the patient with psychological disorders requires such skills which nurses cannot obtain spontaneously [2].

Generally, in undergraduate education, two main principles are desired: first increasing knowledge in the field of psychology and psychiatric diseases and disorders, second developing clinical skills in students to have effective, sensitive and accurate interaction with psychiatric patients and assessment of client's mental status [9]. Through traditional methods in training interview skills, which the main philosophy in it is "seeing one interview, doing one and teaching one"; students were expected to interact with more and more patients with psychiatric disorders, both acute and chronic, in any clinical situation and only with the help of theoretical texts and lecture notes distributed among them [9]. Several researches demonstrate that apprenticeship style in teaching required communication skills are inefficient. In result, there is increasing attention on clinical communication skill training [10].

Education in the field of psychiatric nursing students could be a challenging matter. Students in their first experience of interaction with mental patients may not know what action to take. Generally, nursing students feel stressed and anxious about signs and symptoms of

psychiatric illness, during their mental apprenticeship [11]. Student's fear and anxiety, could be meddling with their learning and development of their therapeutic relationship with the patient [12]. Yung Jung [13] (2012), quoting from Park and Ha, reported the existing barriers in traditional nurse internships which were mentioned in other studies, such as: Difficulty in coping with the clinical environment; confusion of roles; Fear of committing an error; uncertainty in the application of theoretical knowledge in practice; difficulty in interpersonal relationships; psychasthenia and feeling of powerlessness.

Parry (2008), believed, to develop communicational skills, learning should be participatory and in clinical context. Active-learning, defined as an educational strategy in which learners could be forced to answer questions that could be generated based on existing knowledge, and simultaneous acquisition of new knowledge, and may provide much more completed responses [3]. During active-learning, students are participating in educational curriculum through writing, discussions, application and reflections [14, 15]. As a method of active-learning, simulation is known as an effective way to facilitate and improve critical thinking, and can enable students in application of learned knowledge in practical environment [16, 17, and 18]. Simulation is a dynamic process, Provides an opportunity in which demonstrate a perception of reality of practical environment, effectively and accurately. This can facilitate student's active involvement in learning and understanding the complexities of clinical and theoretical context; and provides an opportunity to repetition, feedback, evaluation and reflection of comments [19]. It's been reported in previous studies that throughout simulation experience, students had lesser anxiety and stress, cause of acknowledgment that commission of error was permissible and there'll be no harm to patient in the end [20].

Jenkins L. and Schaivone K., (2007), suggested simulation with standardized patient, as a problem-based learning approach have been applied successfully in the education of health care providers[21]. This method of teaching is one of the usual approach of simulation, used in interaction with patients [22]. Since students required to gather information from various resources in interviewing patients with psychiatric disorders, such as observation of affects (facial expression) and speech (tone, speed of speech, pattern of speech and...); the use of standardized patient film is facilitating [25].

Application of this method of teaching in nursing curriculum, is a novice way. Nehring W. and Lashley F. (2004), found that application of simulation in nursing education is rare. There are few studies conducted about simulation in psychiatric nursing [25]. Considering the importance of communication skills in intervention with hospitalized mental health nursing's and positive outcomes of several studies regarding the use of simulation in other fields of nursing (such as nursing management, medical surgical nursing and.....), the importance of doing this study was illuminated. Considering the findings and various literatures, till now there is no fundamental study about the use of simulation in mental health nursing education considering required communication skills, in Iran. This study, conducted with aim of determination of the effect of simulation (Standardized patient) on achievement of therapeutic communication skills in undergraduate nursing students in psychiatric wards of ShahidBeheshti University of Medical Sciences, 2013-2014.

## **Methods:**

This study was a Semi- Experimental, Self-controlled and pretest-posttest. The study population, in this study contains all the nursing student who were apprentices in mental health wards of collage of Nursing and Midwifery of ShahidBeheshti in first semester, 2013-2014. For sampling, Census methods was used. Therefore, those available groups of nursing

students who had apprenticeship at the time of sampling were 30 individuals and all of them were participated in the study. Intervention in this study were done at the School of Nursing and Midwifery school of ShahidBeheshti and psychiatric wards of psychiatric hospital of Imam Hosein.

Data collecting tool in this study was a Researcher-made checklist consists of 55 items which evaluate Verbal communication skills (29 items) and Nonverbal communication skills (26 items). Scoring the checklist of “evaluation of therapeutic communication skills” was based on 3 score Likert scale. Content validity of the tool, in this study were evaluated using Waltz and Basel’s criteria, in which, regarding the aim of the study, and review of resent literatures and publication checklist of “evaluation of therapeutic communication skills” was designed and adjusted. Then, after corrections and approval of supervisor and consultants, to determine the Content Validity Index (CVI), 10 specialized individuals- 7 faculty of psychiatric department of nursing and midwifery of ShahidBeheshti University of medical science and 3 head nurses working in psychiatric wards- were asked to score all 55 items of the checklist using 4 score Likert scale in three criteria: relativity, clarity and simplicity.

In the end, findings showed the CVI of 53 checklist items were graded higher than 0.79 which was identified significantly appropriate. 2 items “Given the right time to relate the issues (5 to 10 minutes)” and “Enabling the patient in participation and cooperation” with CVI of less than 0.69 were excluded. Ultimately, considering the amendments of supervisor and consultants’ checklist of “evaluation of therapeutic communication skills” with 29 items of verbal communication skills and 24 items of nonverbal communication skills were adopted. Reliability of the checklist was evaluated using Inter-rater Reliability due to Inter class correlation coefficient [26]. For this purpose, the checklist was completed simultaneously for 10 individuals; then from the obtained scores from two observers, inter-class correlation coefficient were calculated (0.94).

Intervention in current study was simulation through simulated movie of interview with a Standardized Patient, which shows the expected communication skills in an interview. To set up the scenario, mental health nursing literature in communication skills was considered. Conditions which are essential for preparation of interview such as: physical conditions and the alter impacts of disregarding these tips, and required verbal communication skills (listening, replications, debriefing, asking questions, silence and...) and nonverbal communication skills (open postures, body language, somehow of sitting, facial expressions and...), were considered [27]. Often through the interview, students make mistakes which leads to failure to communicate with the patient; the simulated scenario designed to address these errors and their impact on the therapeutic communication. Mentioned issues, were included in the simulated scenario of interviewing a patient with psychiatric disorders. Ultimately, simulation was adjusted as atherapeutic interview of a nurse with a psychiatric patient.

As Standardized Patient, one the staff nurses of the women’s psychiatric ward in psychiatric complex of Imam Hossein Hospital, volunteered to participate and play a role as a patients with psychiatric disorders. The reason for selecting a psychiatric nurse as the Standardized Patient was that this individual had the sufficient experience in interaction with mental health disorders and understanding the basics of therapeutic communication skills and also she knows the Negative reactions of the patient disregarding these principles.

After verification, the film performed by the supervisor and advisor, and obtaining permissions for filming, the simulated scenario was filmed at the building of International Branch of ShahidBeheshti University of Medical Science which lasted 10 hours over two days. For filming there researcher worked with a professional group of film shoot, including

director, cinematographer, lighting and Sound Recordist. The final version of the educational film, after 2 months of editing and sound edition was 20 minute film which was provided for the supervisors and advisors to review and approve.

This study was conducted with the participation of those nursing students who had mental health apprenticeship in psychiatric wards over a period 9 days. According the list set out in the Education Planning Unit of Nursing and Midwifery collage, students were divided into groups of maximum 10 individuals. The research intervention was conducted during the apprenticeship program of these students in psychiatric wards.

According to the apprenticeship program, in the first day students had been oriented to the psychiatric complex of Imam Hossein Hospital, ward's principals, and expected duties and..... To participate in this study all students filled a Consent form. Afterward the aim of the study, simulation and Standardized Patient and the experience which they'll be having were explained. To insure all students remember the basics of therapeutic communication skills, in the first day of their apprenticeship, during the orientation process, basic principles of therapeutic communication and interview were briefly reviewed. Ultimately, in the end of the first day, for every student, 2 patient was chosen to interact and communicate. Criteria for choosing the right patient for any student was their cooperation and eagerness to participate in an interview and their favorable mental conditions; therefor, those patients who had better and more stable mental conditions in compare to others. Through next three days of the apprenticeship, researcher filed the "evaluation of therapeutic communication skills" by direct observation of student's interviews with psychiatric patients as the pretest. Intervention through simulation was done in the 5<sup>th</sup> day of the apprenticeship. Immediately at the end of the film, 15 to 30 minutes were given for debriefing and to answer students' questions.

For the second time, for every students, for the purpose of interviewing, 2 different patients was chosen. Reason behind selecting different patient, have been emphasizing on assessing student's first encounter with patients with psychiatric disorders. During the remaining days, student's interviews were evaluated by checklist of "evaluation of therapeutic communication skills" as the posttest.

### **Findings:**

Study findings suggests that in sum, from 30 students who participated in this study, 17 were female and 13 were male who their mean age with the standard deviation (SD) of 3.31, was 23.12 (90%) and Their maximum age was 25 appendix (1). Findings from checklist of the "evaluation of therapeutic communication skills", before the simulation, implies that therapeutic communication skills in all participants was graded weak (0-33), appendix (2). After the simulation, findings shows communication skills of 75% of the participants were upgraded to good (67-100) and 25% to intermediate (34-66), appendix (3).

After the intervention (Therapeutic Communication Skills Training Video), significant differences between therapeutic communication skills before and after the intervention was detected ( $t=-22.530$ ,  $p<0.001$ ). Considering the mean difference of pretest and posttest (119.68), after the intervention, therapeutic communication skills had a 66.26 percent increase. Also verbal therapeutic communication skills indicated a significant difference between pretest and posttest ( $t= 19$ ,  $p<0.001$ ). Mean difference of pretest and posttest was 27.20 which showed 66.42 percent increase. As well, nonverbal therapeutic communication skills with  $t:-18.75$  and  $p<0.001$ , indicated a significant difference between these skills in pretest and posttest. Mean difference of pretest and posttest implied a 67.39 percent increase in this skill in sum, appendix (4).

Verbal and nonverbal therapeutic communication skills, after the simulation, with  $t=-707$  and  $p>0.05$  implied no significant differences between these two skills, which indicate the two skills had changed in the same degree. In the end, it could be concluded that simulation in this study (Therapeutic Communication Skills Training Video), had impacted both skills and resulted in their increase, appendix (5).

### **Conclusion:**

This study was a semi-experimental, self-controlled, pretest-posttest study with the aim of determining the impact of using simulation in achieving therapeutic communication skills in undergraduate nursing students in psychiatric wards of ShahidBeheshti University of Medical Science in 2013-2014.

Regarding the specific aim of studies- determination of the impact of using simulation on achieving therapeutic communication skills of undergraduate nursing students in psychiatric wards of ShahidBeheshti University of Medical Science in 2013-2014- checklist of "evaluation of therapeutic communication skills" was filled before and after the simulation for every participant. Checklist items were classified into two categories: verbal communication skills and nonverbal communication skills. Scoring the checklist was based on 3 score Likert scale.

After the intervention, there was a significant difference between communication skills before and after the simulation ( $t=-22.530$ ,  $p<0.001$ ). Considering the mean difference of pretest and posttest (119.68), communication skills had 66.26% increase in scores. Both verbal and nonverbal communication skills had significantly increased in their score (66.42% verbal and 67.39% nonverbal).

Ultimately, it can be concluded that the educational intervention had impacted on therapeutic communication skills and caused their increase in score; this finding is consistent with Carson et al. study which determined the effect of teaching communication skills on the increase of its score.

On the other hand, Namdar et al.(2009), in their study with the aim of determination of the impact of Model of teaching communication skills based on feedbacks on psychiatric nursing, showed that teaching therapeutic communication skills, whether in traditional ways or with the model of communication teaching based on feedback in the case group, leads to the increase of these communicational skills. But this increase in communication skills score in those group which model of communication training was used, in compare with those group who just used traditional ways of teaching these skills were higher ( $t=-4.37$ ,  $p<0.001$ ) [6]. The tool which was used in Namdar et al. study was a consolidated checklist of "evaluating communication skills" of Kjellberg& Takahashi, in which communication skills were classified to 3 categories of verbal communication skills, nonverbal communication skills and general communication skills. Whereas, in current study, only those specific communication skills required for interaction with psychiatric patients were mentioned.

Ryan et al.report results of their study(2010), showed after the use of Standardized Patient as an intervention, from 46 medical students who were participated in the study, 33 individuals and from 64 nursing students, 56 individuals, in the evaluation of their communication skills were passed; those who were unsuccessful to get the quorum score (C score from the scale of A, B, C, D, E, F) were referred to retraining classes[29]. 9 medical students from 13 students who did not pass, had native language other than English. In current study, difference in language was not one the study's limitation and all the participants had Persian for their native language.

In 2011, a study by Lee et al. with the use of Virtual Learning through film prepared from a standardized patient, was done. The tool which was used in this study was “evaluation of Clinical practice” which had 10 items (1. Getting information from the patient, 2. History taking from the patient, 3. Clinical examinations, 4. Provide information to patients, 5. Maintain records of patient, 6. Problem Solving, 7. Responsibility, 8. Relationship with the patient, 9. Relationship with the families of the patient, and 10. Relationship with the treatment team) which evaluate the student during interaction with the patient [20]. According to this study findings, nursing student’s communication skills (106 participants) were scored higher in the evaluation of clinical practice ( $p < 0.001$ ), while other evaluated skills- History taking and physical examination- had no significant difference by the impact of intervention. Model of educational videos of interviews with simulated patients in current study, was an affordable method which could be used over the years by the students. In this study, intervention (Films prepared from standardized patients) was designed based on study aim of teaching communicational skills and in the end all participants were evaluated with the checklist which was designed to evaluate communication skills. Also, since the educational film was shown during one session to all participants of every group, it could be ensured that all the participants had watched the film and duration and the number of times participants could watch it was fixed. On the other hand, in current study, after students had watched the film, they had the opportunity for assessment and asking questions. Therefore this model of teaching communicational skills is an effective and affordable model for teaching therapeutic communicational skills to students who had the basic theoretical knowledge.

Despite the education process which had several practical and clinical models for teaching communicational skills to have an effective relationship with the patient specifically psychiatric patients and evaluating these educational programs in the field of nursing, there are few studies constructed and few models are introduced therefore, there are few research evidences. Lane & Rollnic (2007), reported in their review study that finding of researches done about the impact of teaching communicational skills with simulation and role playing, are vague and most of the studies done in this field had weak structure [29]. Namdar et al (2002), quoting from Chant et al. states that there are the same problem in teaching therapeutic communicational skills in nursing students and still needs for further more studies to find appropriate models [6]. Schiavenato (2009), had reported using simulation in education is limited to the trainer’s knowledge. He suggested that to accept simulation as the main method of teaching in nursing educational program, still needs to be studied furthered; additionally, he mentioned that a theory which could answer questions related to the causes of using this training method by teachers, are demanding [30].

### **Final conclusion:**

Current finding from this study demonstrated that researcher’s intervention-educational film provided from interview with Standardized Patient- had effected on therapeutic communicational skills of nursing students who were apprentices in clinical psychiatric wards, and caused the increase in the score of these skills. Both verbal and nonverbal therapeutic communication skills were equally increased in scores by the intervention.

**Appendix (1)**

**Distribution of subjects by age in the Faculty of Nursing and Midwifery ShahidBeheshti University of Medical Sciences in 2013-2014.**

Percent	N	Age(year) <span style="float:right">Frequency</span>
3/33	1	18-20
90	27	21-23
6/66	2	24-26
100	30	<b>Total</b>
23/12		<b>Mean age</b>
3/31		<b>Std. Deviation</b>
20		<b>minimum</b>
25		<b>maximum</b>

**Appendix (2)**

**Descriptive statistics therapeutic communication skills in pre-test scores of the subjects**

Percent	Absolute frequency	Frequency <span style="float:right">Communication skills</span>
100	30	<b>weak (0-33)</b>
-	-	<b>Intermediate (34-66)</b>
-	-	<b>Good(67-100 )</b>
100	30	<b>Total</b>
47/14		<b>mean</b>
9/49		<b>Std. Deviation</b>
24/21		<b>minimum</b>
60/92		<b>maximum</b>

**Appendix (3)****Descriptive statistics therapeutic communication skills in pre-test scores of the subjects**

Percent	Absolute frequency	Frequency
		Communication skills
-	-	Weak (0-33)
25	8	Intermediate (34-66)
75	22	Good (67-100)
100	30	Total
75/45		mean
21/26		Std. Deviation
58/00		minimum
96/00		maximum

**Appendix (4)****Distribution of communication skills score in pre-test & post-test**

Percent increase	Mean difference of pre & post-test	Maximum score based on 100	Minimum score based on 100	Std. Deviation	Mean score based on 100 scale	Frequency	
						Pre-test	Communication skills
66/42%	27/20	31/03	13/79	3/33	23/70	Pre-test	Verbal communication skills
		93/10	50/00	6/96	70/60	Post-test	
67/39%	23/225	33/33	10/42	2/97	23/43	Pre-test	Nonverbal communication skills
		91/67	56/25	5/12	71/87	Post-test	
66/26%	119/68	60/92	24/21	9/49	47/14	Pre-test	communication skills
		180/60	110/42	21/26	142/47	Post-test	

**Appendix (5)****The results of t-test communication skills both verbal and nonverbal communication skills after interventional therapy in subjects.**

results of t-test	df	Nonverbal skills		Verbal skills		Skills
		SD	Mean	SD	Mean	
p= 0/488 t= -707	19	10/67	71/87	12/016	70/60	Post-test

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