ACQUISITION OF SKILLS TO COLLECT SUBJECTIVE DATA AND MANAGE PATIENTS' EMOTIONS

AQUISIÇÃO DE HABILIDADES PARA OBTENÇÃO DE DADOS SUBJETIVOS E MANEJO DE EMOÇÕES DO PACIENTE

ADQUISICIÓN DE HABILIDADES PARA LA OBTENCIÓN DE DATOS Y MANEJO DE EMOCIONES DEL PACIENTE

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ABSTRACT

Objective: to analyze the contribution of the Problematization Methodology in the learning of communicative skills of nursing students in collecting subjective data and managing patients' emotions. **Method:** qualitative, descriptive study in which the Problematization Methodology was developed using the Maguerez Arc. A video was used to trigger discussion and raise key points. After theorizing about problem-solving hypotheses, the students answered the questions initially formulated. The solution was applied in practice through simulation, in which the roles of nurse, patient, companion and observer were assigned to the students. The students who played nurses assessed the patients complaint and intervened by managing the emotions patients represented. The observers identified communicative techniques used in the interaction. All the students took part in the debriefing. **Results:** 88 undergraduate students attending the nursing program of a public university took part in the study. During the identification of key points the students pointed out 54 issues that concerned communication between nurse and patient. The speech of students during the implementation of the Maguerez Arc reveal the following elements: interviewing elements; recording of complaints using the OPQRST technique; management of emotions using the communicative techniques NURSE, Ask-Tell-Ask, Tell Me More and Therapeutic Communication; in addition to other topics students identified. **Conclusion:** data show that in this study's conditions, the Maguerez Arc was an efficacious method to teach this content.

Keywords: Methodology; Teaching; Education, Nursing; Communication; Simulation.

RESUMO

Objetivo: analisar a contribuição da metodologia da problematização na aprendizagem de habilidades comunicativas de estudantes de enfermagem para obtenção de dados subjetivos e manejo de emoções do paciente. Métodos: estudo descritivo, com o desenvolvimento da metodologia da problematização usando o arco de Maguerez. Um vídeo foi usado como disparador da problematização, posteriormente foram identificados os pontos-chave e, após a teorização, na hipótese de solução, os alunos responderam às questões formuladas inicialmente. A aplicação à realidade deu-se por simulação em grupos com cinco participantes; aos estudantes foram atribuídos papéis de enfermeiro, paciente, acompanhante e observador. Os estudantes que representaram enfermeiros avaliaram as queixas e intervieram no manejo de emoções dos que representaram os pacientes. Os observadores identificaram as técnicas comunicativas presentes na interação. Todos participaram do debriefing. Resultados: participaram do estudo 88 estudantes de graduação em Enfermagem de uma instituição pública. Na identificação dos pontos-chave, os estudantes destacaram 54 questões referentes aos aspectos da comunicação enfermeiro-paciente. Ao longo do desenvolvimento do arco foi possível identificar, nas falas dos participantes, os elementos condução da entrevista, obtenção de dados das queixas por meio da técnica OPQRST; manejo de emoções usando as técnicas comunicacionais NURSE, Ask-Tell-Ask, Tell Me More e

comunicação terapêutica; além de outros tópicos identificados pelos estudantes. **Conclusão:** os dados revelaram que nas condições deste estudo o arco de Maguerez foi um método eficaz para o ensino do conteúdo proposto.
Palavras-chave: *Metodologia; Ensino; Educação em Enfermagem; Comunicação; Simulação.*

RESUMEN

Objetivo: analizar el aporte de la metodología de la problematización en el aprendizaje de habilidades comunicativas de estudiantes de enfermería para obtención de datos y manejo de emociones del paciente. *Métodos:* estudio descriptivo realizado según el método de la problematización con el arco de Maguerez. Se utilizó un video como efecto disparador de la problematización, se identificaron los puntos clave y, después del proceso de teorización, en la hipótesis de solución, los alumnos contestaron las preguntas hechas al principio. En grupos de cinco participantes, los estudiantes asumieron distintos roles como enfermero, paciente, acompañante y observador, y adaptaron el problema a la realidad. Aquéllos que eran enfermeros evaluaban las quejas e intervenían en el manejo de las emociones de los "pacientes". Los "observadores" prestaban atención a las técnicas de comunicación en la interacción entre ellos. Todos participaron del debriefing. *Resultados:* participaron 88 estudiantes de un instituto público de grado en Enfermería. Al identificar los puntos clave los estudiantes apuntaron 54 cuestiones sobre aspectos de la comunicación entre enfermeros y pacientes. Durante el desarrollo del arco, en las charlas de los participantes, pudieron identificarse los elementos que condujeron la entrevista, obtención de datos de las quejas a través del método OPQRST, manejo de las emociones con las técnicas de comunicación NURSE, Ask-Tell-Ask, Tell Me More y comunicación terapéutica, además de otros asuntos indicados por los estudiantes. *Conclusión:* los datos mostraron que en las condiciones del presente estudio el arco de Maguerez es eficaz para la enseñanza del contenido propuesto.
Palabras clave: Metodología; Enseñanza; Educación en Enfermería; Comunicación; Simulación.

INTRODUCTION

When effectively developed by nurses, communication skills influence interactions with patients, facilitating the establishment of bonds and humanized care. Nurses are trained to acquire general and specific competencies and communication is present in both cases, from the context of leadership to the systematization of care. Thus, it is paramount to pay attention to the training of nurses for care delivery such that they not be restricted to the performance of technical procedures only, but also take into account patients' histories, feelings and expectations in order to provide safe and quality care.

Communicative skills should be addressed during the training of nurses and professors are supposed to adopt methods that enable students to develop communicative skills in a critical and reflective manner. The use of active strategies in teaching-learning[1], such as the Problematization Methodology with Maguerez Arc[2] and simulations replicating real-world en-

vironments[3] can be useful to improving the collection of subjective data and manage the feelings of patients, competencies that are essential in safe and quality clinical nursing practice.

The Problematization Methodology enables the construction of knowledge and reconstruction of new ideas based on the experience of both educator and the recipient of education during the teaching process. The training of critical thinkers, independent individuals, able to reflect upon their contexts, requires a liberating education and for that, professors are supposed to facilitate knowledge, that is, guide students for them to become protagonists in the process of professional qualification. In this methodology, the Maguerez Arc is divided into five stages that require students to observe contexts, determine what the problems are, seek answers for such problems, intervene, and finally transform their contexts.[4]

One study evidences the effectiveness of the problematization methodology, as well as successful examples of its use in different fields of nursing.[5] One of the relevant points of this method is to enable students to have contact with problem situations. The literature presents different means to bring students into proximity with real-life contexts, such as simulating real-world environments, developing clinical histories, narratives of problem situations, and by using film or video.[6]

Delivering care to patients includes experiences that may cause students to become anxious, fearful, apprehensive, nervous, and/or insecure. The use of clinical cases, clinical case scenarios, laboratory practices, simulation, or a combination of these strategies contributes to decrease such negative aspects, promoting the development of critical thinking and psychomotor skills, giving students an opportunity to repeat and practice procedures without harming patients[7], in addition to promoting communication skills.[1] Thus, employing tools such as clinical case simulation is very useful in enabling students and nursing professionals to analyze their experiences as if in a real-world environment.

Clinical case simulation enables students to approximate reality, increase their satisfaction, and promote active and reflective participation in the whole process, from taking part in a clinical situation to reflectively discussing such an experience. The latter is called debriefing, which takes place after the simulation *per se*. It is when thoughts and feelings experienced during the simulation are analyzed and positive aspects are reinforced, while alternatives are presented for students to prepare for exposure to real care practice settings.[8] This critical reflection regarding a clinical case scenario complements learning[7], as a study addressing the development of communication skills in simulated nurse-patient interactions has shown.[1]

After considering the aforementioned active learning strategies, one video was used in the second stage of the Maguerez Arc to prompt problematization and a simulation was implemented in the last stage to reproduce the application of knowledge in

communication skills as if in a real context, both were included in the active teaching model to teach communication skills.

OBJECTIVE

To analyze the contribution of the Problematization Methodology to the learning of communication skills of nursing students to enable them to collect subjective data and manage the emotions of patients.

METHOD

This descriptive study with a qualitative approach was conducted in a public university in the interior of *São Paulo*, Brazil with students regularly enrolled in the course of Semiology and Semiotics during two meetings (one theoretical and one practical meeting) within the course's regular schedule, intending to address the content of Communication in Nursing. The study was equally implemented in the second semester of 2016 in one undergraduate class and in the first semester of 2017 in another undergraduate class.

All the students regularly enrolled in the course were invited by an assistant researcher (not enrolled in the course) to participate in the study. The professors were not informed which students agreed to participate.

After receiving the invitation, the students who signed *Termo de Consentimento Livre e Esclarecido* (TCLE) were included in the study and their information was included in the analysis. The students who entered the classroom after the invitation and those who participated only on the second day of

activity (simulation) merely participated in the academic activity prepared for those days and, for purposes of the study, were considered non-participants.

People were assigned to a group composed of five participants. Each group received a card of a different color and this group remained the same throughout the entire intervention. The professors were not informed which groups were composed of study participants and the activity was not taken into account in the course's assessment.

The study's stages are described in Figure 1.

The following instruments were developed for this study:

- **instrument to characterize the participants responsible for assessing** the video and instrument to record observation of communication skills including name, age, sex, profession, time since graduation, professional experience, and whether s/he has taught or teaches communicative skills;

- **a video with a duration of 11minutes and 17 seconds** developed according to the pre-production, production, and post-production phases[9] validated by experts. It was used to prompt problematization during the communication classes (1st part) and as an example of how to use communicative techniques (2nd part). In its introduction, the video portrays a patient accompanied by his wife waiting for nursing care after being informed he needed to undergo surgery due to colorectal cancer. The second part of the video presents the patient and wife being welcomed by a nurse, who identified the patient's complaints (symptoms) and concerns about the surgery, showing how the nurse handled the situation by using communication techniques and concluded the interview with the couple;

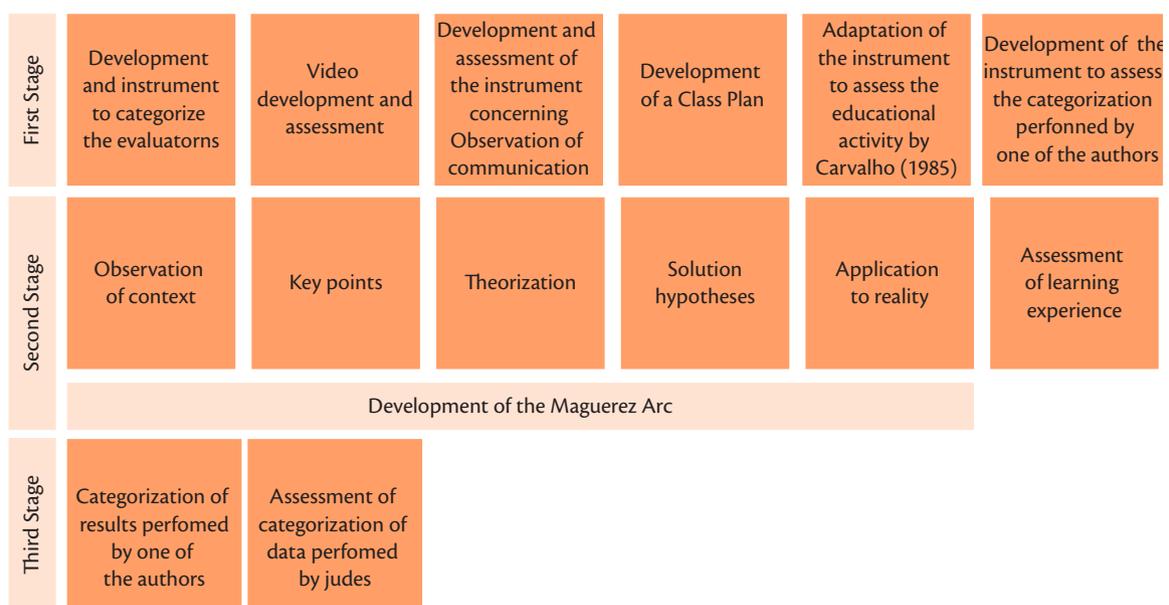|						
First Stage	Development and instrument to categorize the evaluatorns	Video development and assessment	Development and assessment of the instrument concerning Observation of communication	Development of a Class Plan	Adaptation of the instrument to assess the educational activity by Carvalho (1985)	Development of the instrument to assess the categorization perfoned by one of the authors
Second Stage	Observation of context	Key points	Theorization	Solution hypotheses	Application to reality	Assessment of learning experience
	Development of the Maguerez Arc					
Third Stage	Categorization of results perfomed by one of the authors	Assessment of categorization of data perfomed by judes				

Figure 1 - Study's stages. *Ribeirão Preto*, SP, Brazil 2016-2017.
Source: Author's data.

- **class plan**: the plan contains data identifying the school, faculty members, name of the course, duration of each activity, objectives, and class strategy using the Maguerez Arc;
- **development of the simulation plan** according to criteria provided by Loice *et al.*[3]: assessment of needs, objectives, format of the simulation-based experience, clinical case scenario, reliability, facilitator, briefing, debriefing, assessment, preparation of participants, and pilot test of the simulation-based experience.

The following phases were adopted to conduct the Maguerez Arc:

- **observation of reality,** in which the students watched the video's introduction phase, which prompted the problem;
- **key points,** each group was asked to develop three open questions that conveyed their main doubts about the content addressed in the video. Poster board sheets and black marker pens were provided for the groups to take notes and record data;
- **theorization,** phase in which the students received scientific material such as papers, books addressing semiology and communication, and had access to the internet so they could search content and answer their own questions according to programed content. After search and discussion, the groups presented a synthesis of their search of the scientific literature. Concomitantly, the professor assessed content dialoguing with the class, after which, the second part of the video was presented, portraying the use of theorized techniques in order to exemplify content;
- **solution hypotheses,** each group was asked to provide written answers to the questions they had developed on the same poster board sheets previously distributed;
- **application to reality –** this phase was implemented on the second day of activities, through simulation. Each group chose among their members someone to play the nurse, to play the patient, the companion, and one member to observe the simulation. The student playing the nurse was asked to welcome the students playing patient and companion, to collect subjective data, and intervene to manage the patient's feelings. The students playing patient and companion were asked to freely play the role of a 67-year old patient with diabetes *mellitus*, who found bloodstains on his steps. He realized the bloodstains on the floor came from his right foot and, when inspected the site, noticed an injury. He did not report pain and did not relate it to trauma caused by any object. At the health unit, the patient cried and was afraid of the possibility of amputating his right foot. The observers were asked to identify, using a checklist, the communication skills presented by the student-nurse, that is, to relate them to each communication technique presented in the theorization.

When the simulation was finished, the professor proceeded with the debriefing. A structured debriefing following Gibb's model[10] was used with the students who played nurses. This model has the following stages: emotional, descriptive, evaluative, analytical, conclusive, and planning of actions. In this study, the phase of planning of actions was not implemented because, according to the course's program, students would have other times to train communication skills in an assisted laboratory context. Unstructured debriefing[11], which includes the emotional and evaluative stages, was used with the remaining participants, while the analytical stage was implemented with the observers.

One of the authors categorized data based on theoretical considerations concerning communication skills (interviewing, data collection, and management of emotions)[12-16] and based on the Maguerez Arc[4] to analyze data originating from the phases of Identification of key points, Hypotheses of solution, and Application into reality; and Debriefing models.[10,11]

Data categorization was based on the aforementioned references and labeled as: interviewing (subcategories: presentation, development, and conclusion); data collection; management of emotions; knowledge; support resources (subcategories: social support and social network); and others (subcategories: training of nurses, nurses' actions, information seeking, nursing prescription, intervention, and referral to other specialties workers). Three collaborators assessed these categories and disagreements were reviewed until consensus was obtained.

The colors assigned to the groups were replaced by letters (A to R) in the phase of data description.

The project was submitted to and approved by the *Comitê de Ética em Pesquisas* (CAAE - 56550116.4.0000.5393). Free and informed consent forms were signed by all the study's participants: students and those who assessed the script, video, and the observation instrument.

RESULTS

Thirty-five out of the 39 students enrolled in the Semiology and Semiotics course of the Nursing Bachelor's and Teaching Diploma programs and 53 out of the 77 students enrolled in the Nursing Bachelor's program took part of the study. Thus, 88 students were divided into 18 groups composed of five participants each, while two groups were composed of four participants each. Groups were represented by the letters A to R.

The video introductory part was presented (1 minute and 25 seconds) with the purpose to prompt the problem to be addressed. After this, 54 questions were developed; two of these questions were excluded because their answers were not coherent with the following phase.

The 52 remaining questions (key points) and their respective answers (hypotheses of solutions) were grouped into the categories: interviewing (presentation, development, and conclusion/validation), managing emotions, knowledge, support resources (social support and network support) and "others" (nurse's actions, nurse's education, and search for information) (Table 1).

Questions asking how to establish bonds with a patient were added to the **Interviewing** category and the participants answered that communication techniques, such as OPQRST, NURSE, Tell Me More should be used, in addition to therapeutic communication.

Questions addressing how to approach a patient's and/or a companion's emotional response were added to the **management of emotions** category and in the fourth phase the participants responded that empathy and communication techniques should be adopted to relieve emotional tension when dealing with emotional situations.

The knowledge **category** included questions that revealed the interests of students regarding the knowledge of nurses about a patient and his/her disease. The answers to these questions clarified doubts, doubts nurses had regarding patients and doubts of the patients, themselves.

The category **support resources** included questions regarding the social support provided by companions, such as how a family member can aid in a patient's health treatment and the existence of social support. In this category, the participants concluded that workers should encourage the presence of family members and strengthen social networks.

The **others** category, especially in the subcategory nurse's actions, included questions that addressed professional practice and the preparation of nurses to provide care to a patient with cancer. In the Arc's fourth phase, students answered they should show respect to the patient and have knowledge of the nursing process, especially the prescription of care, as well as being competent in communication skills.

Among the points discussed, one refers the knowledge of patients concerning their disease and the possibility of the children of patients also presenting the disease. This topic, partially addressed in a previous course, enabled the students to hypothesize that nurses are qualified, among other things, to provide genetic counseling.

Those who took part in the third phase of the Arc were able to determine a theoretical basis from scientific literature, the key points highlighted in the second phase and solve them in the fourth phase.

In regard to application to reality, two times of learning are noteworthy: the development of the simulation and the debriefing. Table 2 describes the actions performed by the students who played nurses using the OPQRST mnemonics.

The observers verified that most groups identified the characteristics of the symptoms during the simulation using the OPQRST mnemonic, though incompletely.

In regard to the management of emotions, another point of interest in this study is that students could choose a technique they deemed necessary to achieve the simulation's objective (Table 3).

Three groups employed the NURSE technique in all the phases, while the other groups used it only partially (understanding, respecting and exploring). Some groups use other techniques completely (Table 3).

Table 1 - Topics of the questions and answers corresponding to the second and fourth phases of the Maguerez Arc according to the categories under study. *Ribeirão Preto*, SP, Brazil 2016-2017

Categories / Subcategories	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
INTERVIEWING																		
Presentation			X															
Development					X								X					
Conclusion / Validation		X													X			
MANAGEMENT OF EMOTIONS	X*	X	X	X	X	X	X	X*	X	X*		X		X*		X*		X
KNOWLEDGE							X					X					X*	
SUPPORT RESOURCES																		
Social support		X		X	X	X				X	X	X		X	X	X		X
Network support	X		X			X												
OTHERS																		
Nurse's actions				X			X				X*		X*				X	X
Nurse's education															X			
Search for Information							X											

Source: Study's data Note: *referred to two questions.

Table 2 - Use of the OPQRST technique to assess symptoms during simulation in the different groups. *Ribeirão Preto*, SP, Brazil 2016-2017

Assessment of symptom (OPQRST)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Onset	X	X	X		X	X	X	X	X	X	X	X	X			X	X	X
Provocation or palliation		X	X		X	X		X		X					X	X		
Quality / frequency		X	X		X	X	X	X	X	X		X				X		
Region / Radiation	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X
Severrity / Intensity	X	X		X	X	X		X	X	X			X			X		X
Time (duration)	X	X	X	X	X	X	X	X	X		X	X	X		X	X		X

Source: study data. OPQRST technique proposed by Bickley, Szilagyi.[12]

Table 3 - Use of the techniques NURSE, Ask-Tell-Ask and Tell Me More during the simulation by the different groups. *Ribeirão Preto*, SP, Brazil 2016-2017

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Emotion management (NURSE)																		
Naming – named the patient's emotion			X		X		X								X	X		
Understanding – explained that s/he understood patient's feeling or not	X		X	X	X	X	X		X	X		X	X			X		X
Respecting – express respect for the patient either verbally or non-verbally)	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Supporting – show the patient s/he would be there for him/her, encouraged ways to cope with the situation	X		X	X	X	X							X		X	X		X
Exploring – showed interested in patient's concern	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X		X
Emotion clarification/approach (Ask-Tell-Ask)																		
The patient was asked what question he had		X	X		X	X	X	X	X	X	X		X	X		X		X
He asked the patient if the understood what he said				X	X		X										X	
From previous questions made a cycle seeking to achieve the proposed					X		X		X		X		X			X		
Emotion clarification/approach (Tell Me More)																		
He recognized that in the patient´s speech there was a problem to be solved	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X		X
He was interested in the subject by saying "Tell me more"			X	X	X	X	X		X		X	X	X			X		X

Source: study's data. NURSE technique by Smith[13]; Tell Me More technique by Stone; Patton; Heen[14]; Ask-Tell-Ask technique by Back *et al.*[15]

Another technique that was used to relieve emotional tension was therapeutic communication, as described in Table 4.

In regard to therapeutic communication, according to the observers, all the students who played the nurse role mastered the techniques of the category Expression. The Clarification and Validation techniques were less often employed (Table 4).

In the debriefing, the final phase of the simulation, in which all the students participated, the observers reported they perceived feelings during the simulation; in general they detected anxiety, fear, frustration, anguish, nervousness, and insecurity.

In the descriptive phase, the students who played nurses recalled the main aspects concerning the collection of data, emotional management, and support resources with an emphasis on social support, and also highlighted positive actions. It was possible in the evaluative phase to recall content related to the interviews, especially presentation and conclusion. In the analytical stage, when asked about what they would do differently in another opportunity, students reported they would collect more comprehensive data, especially family history and the patient's self-care competency, and would also clarify the risks of an amputation. Note that the students mentioned aspects that went beyond the key points, that is, content that was not previously included in the course. Some relevant aspects did emerge, such as referral to other specialties and the search of information in electronic media on the part of patients and families.

Table 4 - Use of the therapeutic communication technique during simulation in the different groups. *Ribeirão Preto*, SP, Brazil. 2016-2017

Therapeutic Communication	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
EXPRESSION – Encourage the manifestation of feelings and thoughts																		
Active listening	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Used therapeutic silence	X			X	X		X	X				X	X	X		X		
Verbally expressed interest	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X
Asked questions	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Asked questions related to what the patient said	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Used open-ended questions		X			X	X		X	X				X					X
Introduced a related problem	X		X	X	X	X		X	X	X		X				X		X
Repeated the patient's comments		X	X	X	X	X	X		X	X								X
Repeated the patient's last words				X	X	X			X									X
Redirected patient's questions to the patient him/herself		X	X	X				X	X	X	X	X						X
Verbalized doubts		X	X	X	X	X	X	X	X		X	X	X			X		X
Used descriptive sentences		X	X	X	X	X	X	X	X			X				X		X
Did not allow the patient to change the subject	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X
Allowed the patient to choose the subject	X		X	X	X	X	X	X			X	X	X			X		X
Focused on the main idea	X	X	X	X	X	X	X		X	X		X	X	X	X	X		X
Encouraged the expression of underlying feelings (verbalized what was implicit)			X	X	X		X		X									X
Said no	X	X				X	X	X			X			X		X		X
Used humor therapeutically		X				X	X											
CLARIFICATION – Clarify (help the patient to clarify the messages sent s/he sent)																		
Encouraged comparisons							X	X			X			X				
Asked the patient to clarify uncommon terms				X			X										X	
Asked the patient to say what the agent of action agent was	X		X		X							X	X			X		
Described the events in a logical sequence	X			X	X			X	X	X	X	X	X				X	
VALIDATION – Validate (repeat patient's message and summarize content addressed in communication)																		
Repeated the patient's message				X	X	X	X	X	X	X		X				X		
Asked the patient to repeat what s/he said				X	X	X			X			X				X		
Summarized the content interaction					X				X					X	X	X		

Source: Author's data. Therapeutic Communication technique proposed by Stefanelli[16].

The students who played patients and companions reported during the debriefing evaluative phase that among the nurses' positive actions were clarifications regarding care and diet, aspects that were also mentioned by those who played nurses.

In the analytical stage, the students who observed the simulation reported being able, with the aid of a checklist, to make suggestions for a future situation. These suggestions included the intensification of other communication skills, in addition to those that were adopted, in order to decrease feelings that emerged during the activity. This suggestion was because the students conducting the interviews did not use all the techniques addressed in the theoretical phase.

In general, in the last phase of the Arc, students were able to apply the knowledge acquired in each step of this method in reality. Note that new themes also emerged in this phase. According to the theoretical framework, the purpose of the last phase of this method is to transform real contexts.

DISCUSSION

The success achieved with the use of the Maguerez Arc in this study confirms the contributions of this method[4] as reported in other studies.[17] The questions that emerged in the second phase of the Arc suggest that the video was an effica-

cious tool, because after the introductory part, the students recorded problematizing questions, which favored the development of this methodology.

In regard to questions categorized as emotional management, nurse's knowledge of how much a patient knows about his/her disease and treatment, search for information on the part of patients, interviewing, nurse's actions, and nurse's background, were content not included in the course's curriculum prior to this academic experience. That is, these questions emerged after the triggering experience of the video. It is known that this pedagogical resource may be a useful complement for professors to facilitate interaction with students and, consequently, encourage more interest in the topic.[18]

The theorization phase was efficacious because the hypotheses of solutions were appropriate. Students included, in most solutions hypothesized, aspects of communication techniques, of the therapeutic approach, of care provided to the patient and companion for them to feel welcomed and reassured after nurses established a communication intervention. The relevance students assigned to social networks is based on the literature, which defends the view that the work of nurses is to identify social networks, considering these networks provide psychological support and contribute to the delivery of integral care.[19]

In agreement with the framework adopted here, theoretical content is consolidated in the phase in which hypotheses of solution are established. This is a strategic phase in the process of transforming real contexts, which "brings to the world a new man aligned with new ideas and propositions".[20]

The transformation of real contexts becomes apparent when students connected the two moments, especially the second one, when they correctly answered the questions, and during the simulation, when they expressed the content learned (as participants of the simulation) or assessed the relevance of actions (as observers).

Note that the fact that the students partially employed the techniques during the simulation is because this was their first contact with the topic and also because they were not required to employ all the techniques. They were expected to use communication techniques to handle a potential emotional situation but they were free to choose among the NURSE, Ask-Tell-Ask, Tell Me More, or therapeutic communication techniques. To characterize the symptom, however, the OPQRST mnemonic was very frequently used because it was the only technique available to collect subjective data.

In this study, those observing the simulation acquired knowledge regarding the interviewing steps, symptom assessment, and employed communication techniques used to manage emotions. Data show that the students playing the role of observers appropriately identified the steps adopted by the students playing nurses, as well as those steps that could

have been adopted during consultations. Being an observer of a simulation is another form of acquiring knowledge, especially learning how to identify solutions chosen and other potential solutions that could be chosen for a given situation.[21] In the case of observers, learning skills in nursing communication took place when they reflected upon the situation by using a checklist containing the techniques that could be employed by their peers playing the role of nurses.

Learning in a case simulation context also takes place among those playing the role of the recipient of care. A primary health care scenario was used in the Advanced Nursing Practices course where graduate students played the role of nurses and undergraduate students played the role of patients. The latter reported that the experience contributed to their preparation for their own practice[22], that is, undergraduate students learned about the practice of nurses.

The simulation generated different feelings among the students playing the role of nurses, as well as for those who played patients and companions. This is an important time for students to reflect and bravely face the feelings that emerged from the experience and also reflect upon what came out as positive, productive, and/or useful as well as on what they would change in their future practice.[10]

During debriefing, the students reported negative feelings such as anxiety, fear, frustration, and anguish, among others. These findings corroborate those reported by Almeida et al.,[23] concerning a simulation in which nursing students interviewed psychiatric patients. The same is reported by Teixeira et al.[7] when assessing nursing students who participated in a clinical case simulation in which participants experienced anxiety and nervousness. This reflection is important to identify feelings that emerge during a simulation and that can also emerge in similar situations encountered in real clinical practice settings.

Note that the content expressed during debriefings[10,11], such as that expressed in the categories emotional management, search for information on the part of patients regarding their diseases, and support resources, had also been expressed by the students in the theorization phase and the results suggest that such content was actually consolidated during the debriefing. Further content, however, emerged and was expressed in the categories data collection, nursing prescription, intervention, and referral to other specialty professional, showing that the students were breaking free and seeking autonomy and a perspective to change practice. According to Freire[20], this shows that the views of students of a situation that was presented to them went beyond knowledge they had acquired up to that point.

These processes reveal a positive result because, after theorization and hypotheses formulation, the students were able to implement positive actions into reality, clarifying doubts and talking about risks with patients; that is, they exercised the pur-

pose of the Maguerez Arc concerning the action-reflection-action dialectic chain.[4]

It was possible to establish, and value, dialogue between educator and recipient of education. Note that the possibility to dialogue is central in the teaching activity. In this study, students were aware and professors respected the knowledge students bring to school. The use of the problematization strategy in teaching, associated with simulation, was challenging and gratifying because it awakened the need to develop communication skills when establishing a humanized relationship with patients.[24]

In regard to this study's limitations, note that the assessment of the debriefing, as relevant as it may be, was considered to be tiresome by the students of one of the programs due to the amount of students reporting their experiences in the simulation. In spite of the positive results, a suggestion to develop this activity in the future would be to establish a group with a maximum of 40 participants divided into groups of five. Additionally, participants should be allowed a longer period of time to search the literature to improve the efficacy of this active teaching method.

CONCLUSION

This study addressing the contribution of the problematization methodology using the Maguerez Arc to teach nursing-patient communication to nursing undergraduate students shows that problematization triggered by a video improved the perception of students of a problem situation. Pertinent hypotheses of solutions were presented for 52 problematization key points based on content identified by students in a scientific search and addressed in the theorization phase as well as on the example presented by the educational video. The case simulation of a real-world context was appropriate to apply recently acquired knowledge. Having a checklist of communication techniques to guide the collection of subjective data and the techniques to manage emotions were useful to improve the knowledge of students observing the simulation. The debriefing enabled the identification of negative feelings that students experience, which is inherent to simulations, as well as the identification of content that had not been previously included in the theorization process, showing students broke free and sought autonomy and a perspective to change care practice.

Therefore, in this study the Maguerez Arc was an efficacious method to teach Nursing Communication content that is adopted at this point of the program's *curriculum*.

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