

## **Nursing Relational Laboratory: Educational, dialogical and critical projet**

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### **Abstract**

*Nursing is a relational profession and communication is the basic instrument in its practice. The Nursing Relational Laboratory aims to collaborate in the development of communication skills of students of the Nursing, using Portuguese sign language, dramatization and emotional facial expression. 73 students participated (Experimental group; EG; n=38; Control group; CG; n=35). General self-efficacy scale(GSES), the Patient Health Questionnaire-9 Depression Module(PHQ-9), Assertiveness Questionnaire(ASS), Emotional Thermometer(ET), Inventory of Barrett-Lennard interpersonal relations(OS-M-40), and autoscopies, are used. The main results were as follows: a) better outcomes of EG on final autoscopy; b) significant reduction of the levels of assertiveness and revolt from the beginning to the end in EG; c) lower levels of emotional distress and need for help of EG, compared with CG at the beginning; d) lower levels of emotional distress, anxiety, need for help, empathy and congruence, and higher levels of revolt and unconditionality in EG, at the end; e) teachers recognize the high potential of the LRE. The LRE allowed the development of communicational skills of GE students through sign language, drama and emotion analysis. It is incentivized the development of projects in the area and reinforces the importance of this skills training in health professionals.*

**Keywords:** *Communication; Skills; Teaching and learning strategies; Nursing students; Dramatization; Portuguese Dign Language; Emotional facial expression .*

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## **1. Introduction**

Nursing, besides being a scientific corpus, is, in essence, a profession of relation. In this way, communication is a basic tool of nursing care. It is present in all actions taken with the patient, either to guide, inform, support, comfort or meet their basic needs (Pontes, Leitão & Ramos, 2008).

Communication is the subject of multiple approaches that focus on the perspective of the relationship between two people, that is, who cares and who is cared for. According to Leopardi (1999), interpersonal communication, as a dimension of relational competence, corresponds to the relationship between at least two people who interact, share ideas and feelings, exchange information, and influence each other in order to establish levels of trust and relationship with a common goal. Communication is one of the tools nurses use to develop and improve professional know-how (Cianciarullo, 2003). According to Pontes, Leitão and Ramos (2008), the use of communication should be a basic tool of the nurse, being a means used to meet the needs of the patient.

Benner (2001), in this context, refers to the creation of an environment favourable to the therapeutic relationship, ensuring comfort, confidence, tranquility and effective presence, respect for personality and dignity of the person, encouraging him to use his own resources. Meleis (2007) specifies some attitudes that best fit the art of caring, such as: simplicity in language, subtlety (skilful acumen), active listening, respect and consideration for the other, and subtle forms of humor without neglecting looking after themselves. This challenge contributes to the empowerment of self-confidence, as well as its autonomy, commitment and responsibility for its own decisions. This process makes a person be open to development, positive learning, the potential for self updating of his feeling and acting (Fernandes, 2007). The helping relationship is a form of intervention guided by knowledge and techniques, manifested in the professional's behavior and attitudes (Hesbeen, 2000), and as consequence it is a dynamic process that develops in a given time and space. It is also an experience, or a series of unique experiences, between the person who facilitates the help and the one who desires and needs help. It therefore assumes a special way to act within the framework of interpersonal relationships in which each person needs to be looked at, listened to, embraced, understood and recognized in its identity and uniqueness. Chalifour (1989) refers to several categories of skills developed during contact between two individuals who exert a mutual influence on each other through verbal and non-verbal communication. In the context of the helping relationship model, one can conclude that they empirically support the fact that the helping relational skills are organized as a multidimensional constructor, differentiating themselves into four dimensions (), called generic competences (show how the nurse understands the other, the work and the person), empathic skills (, communication skills and contact skills

In this way, this project intends to collaborate in the development of relational skills of the students of the Nursing Degree Course (CLE) through an active educational action centered on instrumental and interactionist communication. This project has the following specific objectives: to develop relational strategies used by the student in the context of interaction between nurse / patient / family and multidisciplinary team; to develop strategies to mobilize knowledge about: Portuguese sign language, voice intonation, drama, analogue and digital language, and to resort to hetero and self-evaluation of performances using autoscopia and to analyze the effects of this strategy on relational performance.

## **2. Method**

### **2.1. Participants**

The sample of the present study was made by nursing students of the Nursing School of the Portuguese Red Cross of Oliveira de Azeméis (ESEnfCVPOA). The sample consisted of 73 students, aged 17-37 years ( $M = 19.77$ ,  $SD = 3.66$ ). There were no significant differences in age distribution by experimental design [ $U = 540.50$ ,  $p > .05$ ]. The sample is divided into two groups, the experimental group (GE) and the control group (GC) with 38 and 35 students, respectively.

### **2.2. Materials**

In this work, the following assessment tools were used: the Perceived Self-Efficacy Scale (EAGP; Schwarzer & Jerusalem, 1995; Nunes, Schwarzer & Jerusalem, 1999), the depression module of the Patient Health Questionnaire-9 (PHQ-9; Kroenke, Spitzer, & Williams, 2001; Torres, Pereira, Monteiro, & Albuquerque, 2013); Assertiveness Questionnaire (ASS); Emotional Thermometers (TE, Mitchel, Baker-Glenn, Granger, & Symonds, 2009; Pereira & Teixeira, 2009); Barrett-Lennard Interpersonal Relations Inventory (OS-M-40; Marques-Teixeira et al. (1996)), to evaluate perceived self-efficacy, depressive symptomatology, assertiveness, emotional indicators (emotional distress, anxiety, depression, anger and need for help) and interpersonal relationships, respectively.

EAGP is a self-report instrument that seeks to assess the general sense of personal competence to deal effectively with a variety of stressful situations. Interpersonal and communication process can be stressful for unexperienced students of 1<sup>st</sup> year degree.

The PHQ-9 consists of nine questions that assess the presence of each of the symptoms for the episode of major depression. The nine symptoms consist of depressed mood, anhedonia, sleeping problems, fatigue or lack of energy, change in appetite or weight, feeling guilty or worthless, concentration problems, feeling slow or restless, and thoughts of suicide (Santos et al. ., 2013). The evaluation of depression symptoms is important in order to control the

mood influence in relational and communication processes, because generally mood disturbance lead to isolation (depressive mood) or to externalization (elevated mood).

The SSA consists of 15 items, answered on a Likert scale from 1 to 5. 1 corresponds to "Never" and 5 to "Always". The quotation is the sum of the total values. It evaluates the assertiveness level.

The TE is a combination of five visual analogue scales in the form of four domains (distress, anxiety, depression, anger) and a domain result (need help). Each domain is evaluated on a Likert scale of 11 points (0-10), in a visual thermometer format. The evaluation of emotional states is important in order to control its influence in relational and communication processes.

The OS-M-40 consists of 40 items that constitute 4 subscales: "respect", "empathy", "unconditionality" and "congruence". Of the total number of items, half are listed positively and the other half are listed negatively. It evaluates interpersonal relation qualities.

In this work we also used autoscropy, which allows us to evaluate the observation of relational skills of the students involved during the simulation of nursing scenarios.

### **2.3. Procedures**

The distribution of the participants was not random, it was made based on the school year, that is, the GC is made up of the students of the 2<sup>nd</sup> year of CLE, who was subject to a usual teaching during the 1<sup>st</sup> year, while the GE corresponds to the 1<sup>st</sup> year of CLE, which was subject to the activities of the LRE (Portuguese sign language, dramatic art and facial expression of emotions). The preparation of the Nursing Relational Laboratory (LRE) contains several phases. Initially we carried out a study of what existed as scientific evidence about the difficulties of communication of nursing professionals. Next, we defined the scientific areas that are favorable to develop the relational communication skills of students. Thus, it was set three areas of knowledge, i.e., sign language, drama and analysis of emotional facial expressions. Partners related to these fields were established: Deaf Association in Porto; the Porto Theater Academy; FEELAB (Fernando Pessoa University) and Metropolitan Manchester University.

The present study includes an evaluation and an intervention phase. In this way, the evaluation phase consists of the pre and post-test sessions. In these sessions the evaluation tools previously described were used. These tools were applied prior to initiating the LRE and at the end to measure the differences in assertiveness, depressive symptoms, interpersonal skills, satisfaction and emotional indicators (emotional distress, anxiety, depression, anger and need for help). In the first application of the instruments, participants were explained the objectives of the study, the informed consent form was provided, and consequently obtained (in a letter of commitment format). It should also be noted that the

confidentiality of all the information collected from the self-reporting instruments was ensured and the possibility of withdrawing the study at any time during the investigation was provided, in order to guarantee the ethical treatment of the participants. (APA, 2010).

The intervention phase consists of the application of the LRE activities. The LRE is the programmatic introduction of themes in the curricular units of the Nursing Degree Course as: voice and communication; digital and analogue language; Portuguese sign language to speaking community; art and drama; body language; emotions and facial expression analysis. The students had scenarios with story creation and characters living in health-disease situations. The mentioned techniques laid also, in the application of autoscopies, both at the beginning of the LRE, and at the end of it.

#### **2.4. Data analysis Procedure**

In this study we chose a research paradigm with a mixed approach, using quantitative and qualitative data. Statistical analysis was performed in the Statistical Package for Social Science (SPSS 21.0), with non-parametric tests, due to a none normal distributed results. The level of statistical significance was set at  $p < .05$ . According to Cohen (1992), the values of .10, .30 and .50 are considered small, medium and high effect sizes, respectively. Regarding the qualitative analysis, it was applied in the content analysis of the following variables: initial and final autoscopies; open questions about teachers' satisfaction with LRE.

### **3. Results**

As for the results obtained by qualitative analysis, it is possible to say that during the viewing, analysis and synthesis phases, the students showed expressive motivation in their participations proving they were prepared for the sessions, bringing their notes about the reflections they had already done. The testimonies during the sessions are assertive about the efficacy of autoscopia in the comprehension they sought about the diversity of relationship and communication behaviors present in their practices,

The main results are expressed by the increase of the first to the final autoscopia in the following dimensions under analysis: effects for relational commitment, voice projection, articulation and pronunciation, use of expressive facial and body skills, posture of fitness, instant improvising, construction and use of the imaginative process, articulation of scenography and spatial elements, as well as integration and relational dynamics.

Regarding the evolution of the quantitative variables evaluated through the self-report instruments completed at the beginning and at the end of the project, the GE from the 1st semester to the 2nd semester presented statistically significant differences, that is, a

decrease in the levels of assertiveness and revolt between the 1st and the 2nd semesters, both with a mean statistical effect size.

Regarding the comparison between the EG and CG, the Mann-Whitney test was applied to compare the groups at the beginning (1st semester), and median differences were observed between the two groups in Emotional Suffering and Need for Help (variables for Emotional Thermometers). In this way, the students of the GE presented lower levels of emotional distress (Mdn= 1.50) compared to the CG at the beginning (Mdn= 4.00), differing significantly between them,  $U = 326.50$ ,  $z = -3.10$ ,  $p < .01$ ,  $r = -.38$ , with an average effect size. It was also verified that 1st year students (Mdn= 1.00) presented lower levels of need for help compared to 2nd year students (Mdn= 3.00), differing significantly between them,  $U = 343.00$ ,  $z = -2.77$ ,  $p < .01$ ,  $r = -.34$ , with an average effect size.

In order to verify the results obtained from the intervention, we applied again the Mann-Whitney test to compare the groups after the intervention of the LRE project, at the end (2nd semester), comparing with the beginning of the CG, and there were differences of averages between the two groups in Emotional Suffering, Anxiety, Revolt and Need for Help (variables related to Emotional Thermometers), as well as Empathy, Unconditional and Congruence (variables referring to OS-M-40).

It was observed that 1st year students presented lower levels of emotional distress (Mdn = 2.00) compared to 2nd year students (Mdn = 4.00), differing significantly between them,  $U = 246.00$ ,  $z = -2.87$ ,  $p < .01$ ,  $r = -.55$ , with a high effect size. It was verified that 1st year students presented lower levels of anxiety (Mdn = 4.00), differing significantly from 2nd year students (Mdn = 6.00),  $U = 264.00$ ,  $z = -2.58$ ,  $p < .05$ ,  $r = -.50$ , with a high effect size.

The results related to relational ability are less clear, showing that 1st year students (GE) initially present a perception of relational skills equivalent to the 2nd year (GC) students. The results show equivalence of the perception of these competences also at the end of the project in the "Level of respect" and show better levels of "unconditional" of the 1st year students (GE) at the end of the project intervention than those of the 2nd year (GC), showing a potential perceived improvement with the project.

The opinions of the teachers about the operation of the intervention sessions of the LRE project were also collected, such as: "articulate these contents with the first clinical teaching and translate these competences into the clinical teaching evaluation document".

#### **4. Discussion and conclusion remarks**

Nursing is a relationship profession and its professionals are prepared in this context, in an ecological and brofrenberniana view of their development. The quality in the production and effectiveness of nursing care depends on the interaction between the professional and the care recipient, being the communication an important intervention strategy of this

interaction. Thus, considering the communication is crucial in the establishment of the human relationship, as well as the determinant role of the School in the training of future nurses regarding the teaching-learning of relational skills, it was pertinent to adapt innovative educational strategies. The results obtained show that the implementation of the LRE contributes to the development of communicational skills of 1st year students of CLE using strategies based on Portuguese Sign Language, Drama and the analysis of emotional facial expressions. Autoscopy allowed us to improve students' communication and relational skills.

The results suggest that 1st year students (GE) revealed better emotional functionality than 2nd year (GC) students presented at the beginning and at the end of the project intervention, highlighting the results of emotional functionality with the intervention project. The results related to relational ability are less clear, showing that 1st year students (GE) initially present a perception of relational skills equivalent to 2nd year (GC) students. The results show better levels of "unconditionality" as well as lower levels of "empathy" and "congruence" at the end of the educational intervention. Equivalence of the perception of these competences at the end of the project in the factor "level of respect" was also emphasized. This may be due to different factors, such as the fact that by acquiring representation / dramatization skills, control over facial and body expression, may evaluate that they are less empathetic and congruent with their emotions, feeling a greater control in the expression of their emotions and not being so driven by them, but by what is desirable to show therapeutically. Another possible explanation may be related to the increase of students' demands for their behaviour, since having more knowledge about the importance of communication and relation, it is possible to be more critical and demanding in the self-assessment of their behaviours. Decrease in assertiveness levels was not also expected and can be explained by the increased knowledge. Decrease of the revolt, another interesting result, may be associated with less resistance/opposition to the exposure in the innovative activities (dramatization, voice intonation, and others).

#### *Limitations*

As obstacles, among others not so important, we have to mention the fact that it was not proceeded to random assignment. It is also important to mention that the theoretical modules are taught over the semesters and with a short weekly classroom hours. We considered that it would be more beneficial if the theoretical modules were taught in a summed up way so as not to lose information.

#### *Current Implications*

The clinical experience and the development of projects represented a great moment of construction, maturing, and personal and professional learning, essential to the teaching practice among students who develop their skills to be nurses.

The results express the need to introduce into the school curricula these activities that can be continuously developed in the following years and semesters during the CLE. Finally, we would like to reinforce the importance of the development and dissemination of this type of projects for the development of Nursing as a profession and as a discipline. Future studies with random assignment would be an important contribution to knowledge in this field.

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