Abstract

Introduction: Non-verbal communication is essential in health, because it is a dynamic process that allows accessibility between people, making it easier to obtain valuable information for therapeutic management.

Objective: To assess proxemic communication between nurse and elderly in nursing consultation.

Methods: Descriptive exploratory study with a quantitative approach, performed in basic health units in the city of João Pessoa, Paraíba, Brazil. The subjects were 32 nurses and 32 elderly. Data were collected by shooting, evaluated with basis on an instrument built on Proxemics Theory of Hall and analyzed through descriptive and exploratory statistics.

Results: Evaluations were classified in general as Regular being the worst the evaluation of visual code factor (2.81) and improved voice volume (3.44).

Conclusion: These results show that significant barriers have not been overcome, to strengthen the communicative links between nurses and elderly.

Keywords
Nursing; Elderly; Health Communication; Nonverbal Communication; Primary Health Care.
Introduction

People add in their life communication skills that start from birth, being expressed by crying or facial expressions, which is evolved with the development of language, in order to facilitate relationships.

In the quest for reflection modes of the individual relate to the world, it is understood that the basic purpose of human communication is guided in the opinion, the understanding, the operation of the world and transforming it and the other through non-verbal and verbal language, which can occur simultaneously. The non-verbal language, or psychobiological, envelops the body with physiological, physical and gestural qualities, including the artifacts used by humans and placed in the environment, and the distance maintained between people and body postures that individuals take in a particular place [1, 2].

Among the qualities, facial expressions have significant roles on what is happening internally with the emotions of people, which is one of the aspects most studied by psychologists. These expressions are significant because they have a regulatory factor of human social interactions, for demonstrating willingness to continue keeping the interaction or communicate the time to stop it [3].

Concerning this, the Ministry of Health points out that non-verbal communication is essential in health, because it is a dynamic process that allows accessibility between people, making it easier to obtain valuable information for the therapeutic management based on the biological, psychological, social and cultural aspects. When performed properly, it provides the implementation of actions aimed at health promotion and disease prevention [4].

Despite the attention given to the elderly, it is worth noting that the aging process may compromise communication skills of the elder, which may be associated with reduced functionality. Finally, it affects the biopsychosocial aspects of the elderly.

One of the major disorders that compromise the communication of the elderly and prevents them from playing their role in society refers to hearing loss, which may be accompanied by a decrease in speech understanding. Another factor relates to voice change, which is originated from aging. We also can mention that the cognitive abilities and the elderly orientation level significantly contribute to an effective communication process, and these are more attentive to the physical manifestations when compared to the other patients, thus facilitating its decoding [5].

Thus, it is suggested that the elderly are more communicative by body language than the transmission of words spoken verbally, whereas even in silence, body posture can point an opinion of satisfaction or caring for the interaction, becoming important in the care delivered.

Based on these, the non-verbal communication is essential to the realization of assistance and may act as a basic instrument for the provision of care as nurses need it to perform their functions [6, 7].

However, it is observed, in certain situations of health care, the inexperience of the professionals regarding the execution of non-verbal communication and caring for patients, reflecting the quality of care. Non-verbal communication permeates all actions taken by the patient, making it necessary knowledge to enable these professionals to develop their relevant skills to the theme while providing care, whether provided under the level of primary, secondary or tertiary care and for any age group, such as care for the elderly.

In this context, this study aimed to evaluate the proxemic communication between nurse and elderly in nursing consultation.

Methods

This is a descriptive exploratory study with quantitative approach, performed in basic health units in the city of João Pessoa, state of Paraíba. Regarding the Health Care System, João Pessoa is marked territorially in the form of health districts, seeking
to organize the progressive care network system and to guarantee the population access to basic services, as well as to specialist and hospital care. It is distributed territorially in five health districts. The district selected for the study was the Sanitary District III, in that it was the district with the most basic health units.

The population consisted of 54 nurses and all the elderly linked to this district. The sample consisted of 32 nurses and 32 elderly people were cared by these nurses during the collection period. The sample was intentional, and the inclusion criteria for the nurses were: to be part of primary care, to be present at the time of data collection. For the elderly, the inclusion criteria were to be part of the community assisted by the basic unit, to be sixty years-old and to wait consultation with the nurse at the time of data collection.

Data were collected through filming, methodology that provides the advantages to the researcher is able to review as often as necessary the collected material and also to get certain degree of accuracy, it is possible to analyze everything that has been collected without losing details of copyrighted material [8]. In each reporting unit, to ensure the completion of filming, the researcher performed pretest of technical equipment before starting the collection, in order to tailor the ideal angulation of the equipment and to observe the ambient lighting, to be captured images satisfactory that allow properly view the study data.

The contact with the nurses of the units was made to invite them to participate and to get the signature of the Consent Form and Image Concession Agreement. But with the elderly occurred in all the days of collection when they were approached while waiting for the call for guidelines for the study, and when they agreed to participate they signed the consent form and the Concession of Image Term.

Before starting the nursing consultation, the equipment for filming was positioned in the environment, and the necessary adjustments were made before the nurse and elderly patients come for consultation. During the consultation, they were in the nursing room only the nurse and the elderly, to make them more comfortable, given that the presence of the camera could have influence the behavior of study participants.

We used for filming two portable digital cameras, with batteries charged and long-lasting, connected to a power source, placed in strategic positions to make it possible to visualize the subject and the record of the communication. It was decided to use two cameras, because these recorded images in different positions, being chosen for refinement after collection, the images from the camera that were better with angulation at each visit.

Data collection was carried out during nursing appointments with elderly patients in the period from August to September 2012. After collection, the data recorded by camcorders were transferred to the computer and converted to WMV (Windows Media Video) to allow proper playback of images on any computer, thus ensuring the analysis of filming. For the transcription of data captured by the film, we used an instrument built on Proxemics Theory Hall, covering issues relating to non-verbal communication process. This went through its validation process of contents performed by three specialists in the area of communication, making it legitimate for the analysis of filming. The number of experts is justified to avoid dubious questions in case of draw [9].

The data analysis took place with the participation of three other judges, nurses, trained on the Proxemics Theory of Hall, who watched the filming and met the instrument validated by experts. In order to judges maintain a pattern analysis in regard to the identification of communicative interactions we set judgment criteria which refer to indicia which can be used to assist in the identification of non-verbal actions of nurses in filming 49 items of interactions contained in the proposed instrument, considering
the variables of Proxemics Theory of Hall from the Likert scale.

Later, it began the analysis of filming every minute. This condition allowed the images to be evaluated carefully. When the image was paused after each minute, the judges made the record, using a tool for every minute analyzed and filling it individually, without exchanging information with each other. The researcher made the control of this time. To avoid fatigue by the judges, we did not analyze more than three shots per match, there is always a gap between one and another.

After reviewing the footage, the instruments generated data processed in the statistical software SPSS Statistic, version 18, and analyzed by descriptive and exploratory statistics. Finally, from calculations of mean scores and individual factors, we used statistical technique for multiple comparisons.

As required, the project was approved by the Ethics Committee of the Universidade Federal da Paraíba-UFPB under No. 0220/12, ethical principles are respected by the National Health Council Resolution 196/96 [10], and harvested signature Terms of Consent.

Results

Nurses were characterized as most females (90.63%), with a predominance of (56.25%) between the age group of 40 to 49 years old. The elderly were mostly women (65.63%) with a mean age 60-69 years old (65.63%).

The overall assessment of the nine factors of Hall's theory presented an arithmetic average around 1, reflecting a sort of non-verbal communication as regular. It was also the most frequent evaluation (fashion) was 3 and 50% (median) of the interaction time had rating below 3, as shown in Table 1.

Table 1. Distribution of assessment of judges, as proposed by Hall factors for evaluation - João Pessoa, Paraíba, Brazil, 2012.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Minimal</th>
<th>Medium</th>
<th>Median</th>
<th>Mode</th>
<th>DP</th>
<th>Maximum</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valuer 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posture-Sex</td>
<td>2.00</td>
<td>3.27</td>
<td>3.00</td>
<td>3.00</td>
<td>0.49</td>
<td>4.00</td>
<td>87.50</td>
</tr>
<tr>
<td>Sociofugo-Sociopeto Axis</td>
<td>2.50</td>
<td>3.40</td>
<td>3.33</td>
<td>3.33</td>
<td>0.27</td>
<td>4.00</td>
<td>62.50</td>
</tr>
<tr>
<td>Distance Evaluation</td>
<td>2.00</td>
<td>3.56</td>
<td>4.00</td>
<td>4.00</td>
<td>0.53</td>
<td>5.00</td>
<td>68.75</td>
</tr>
<tr>
<td>Kinesthetic</td>
<td>2.25</td>
<td>3.33</td>
<td>3.33</td>
<td>3.00</td>
<td>0.46</td>
<td>4.75</td>
<td>62.50</td>
</tr>
<tr>
<td>Contact behavior</td>
<td>2.00</td>
<td>2.81</td>
<td>3.00</td>
<td>3.00</td>
<td>0.68</td>
<td>4.00</td>
<td>81.25</td>
</tr>
<tr>
<td>Visual code</td>
<td>2.00</td>
<td>2.74</td>
<td>2.67</td>
<td>2.00</td>
<td>0.72</td>
<td>5.00</td>
<td>87.50</td>
</tr>
<tr>
<td>Thermal code</td>
<td>2.00</td>
<td>3.45</td>
<td>3.00</td>
<td>3.00</td>
<td>0.57</td>
<td>5.00</td>
<td>62.50</td>
</tr>
<tr>
<td>Olfactory code</td>
<td>2.00</td>
<td>3.15</td>
<td>3.00</td>
<td>3.00</td>
<td>0.59</td>
<td>5.00</td>
<td>68.75</td>
</tr>
<tr>
<td>Voice Volume</td>
<td>2.00</td>
<td>3.61</td>
<td>4.00</td>
<td>4.00</td>
<td>0.69</td>
<td>5.00</td>
<td>62.50</td>
</tr>
<tr>
<td>Valuer 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posture-Sex</td>
<td>2.00</td>
<td>3.20</td>
<td>3.00</td>
<td>3.00</td>
<td>0.51</td>
<td>5.00</td>
<td>87.50</td>
</tr>
<tr>
<td>Sociofugo-Sociopeto Axis</td>
<td>2.00</td>
<td>2.94</td>
<td>3.00</td>
<td>3.00</td>
<td>0.36</td>
<td>4.00</td>
<td>62.50</td>
</tr>
<tr>
<td>Distance Evaluation</td>
<td>2.00</td>
<td>3.04</td>
<td>3.00</td>
<td>3.00</td>
<td>0.45</td>
<td>5.00</td>
<td>68.75</td>
</tr>
<tr>
<td>Kinesthetic</td>
<td>2.00</td>
<td>2.96</td>
<td>3.00</td>
<td>3.00</td>
<td>0.49</td>
<td>4.50</td>
<td>62.50</td>
</tr>
<tr>
<td>Contact behavior</td>
<td>2.00</td>
<td>3.15</td>
<td>3.00</td>
<td>3.00</td>
<td>0.79</td>
<td>5.00</td>
<td>81.25</td>
</tr>
<tr>
<td>Visual code</td>
<td>2.00</td>
<td>2.82</td>
<td>3.00</td>
<td>3.00</td>
<td>0.53</td>
<td>5.00</td>
<td>87.50</td>
</tr>
<tr>
<td>Thermal code</td>
<td>2.00</td>
<td>3.14</td>
<td>3.00</td>
<td>3.00</td>
<td>0.57</td>
<td>5.00</td>
<td>62.50</td>
</tr>
</tbody>
</table>
Discussion

The findings that characterize the study show there are still supremacy of women for the nursing profession, while the age of nurses suggests a possible long vocational training. As for the elderly, the supremacy of the female can be justified by the growing demand for health care by women, compared to men, and also women are, among the elderly, those with longer survival and tendency to self-care [11].

When examining the marks given by the evaluators, shown in Table 1, we see the same performance profile of the overall assessment, it was found an average score around 3 median and mode, around also 3. In addition, there has been also the factor with worse evaluation was the Visual Code, averaging around 2.81, while the factor with best evaluation was the voice volume, averaging around 3.44.

So, the factor with worst evaluation is Visual Code, for the difficulty of viewing of nurses’ eye opening in the video, by the judges. This difficulty was related to ambient light, sometimes the use of glasses by the nurse, which reflected glow in the shooting, or the nurse’s own hair that appeared in front of eyes.

Visual Code factor depicts the interaction and interest of nurses in what is being said by the elderly. It is necessary that nurses keep eye contact, from the knowledge on which culture the elderly belongs, because the permission of this contact may vary depending on culture. For Westerners, this contact for a few seconds, at the right time is allowed and transmits interest, respect and acceptance, and
to be set at 50% of the time of interaction [12]. This factor represents the largest source of information of the human being, expressing the interest and attention of communicating by the interaction, which enables greater exchange of information between them [1].

As for the voice volume, even with the best assessment, it is noteworthy also that this was influenced by the recording technique of consultations with the varied sound as the kind of environment, since the recordings have taken place in consultation site.

It is worth noting that both the tone and the emphasis of voice established during the interaction with the elderly have contributed decisively to the success of interaction. Research carried out in order to show discomfort situations experienced by hospitalized elderly said that the act of raising and lowering the tone provides a more pleasant speech to the people. [13]

The voice is identified as one of the key communication tools, present both in verbal and the non-verbal language. Their tone, imposed during the interaction can express feelings, interventions, or the existence of intimacy or not among the communicators. However, the tone set in the interaction can also be influenced by the distance between sender and receiver of the message and is set to increase or decrease this distance [1].

Another influential factor in the tone set by the nurses was conducting the service with open door that beyond they raise their voice volume they suffered influence of external noise that facilitated its spread.

Regarding the factors Sociofugo-Sociopeto Axis and Olfactory Code, it is clear that they had the same average total of 3.11, to consider themselves all raters. As to Sociofugo-Sociopeto axis, they did not relate difficulties in analysis, since the position taken by the nurse, in most filming was captured by the cameras, as well as the furniture is presented unchanged in all interactions. Thus, the above position adopted by the nurse also favored analysis of Olfactory code.

For Factor Axis Sociofugo-Sociopeto, which provides greater involvement or removal of communicating, reflecting the desire of these to maintain intimacy or not during the interaction, the nurse must consider the old culture, because when interacting with Westerners, the interaction must be established with body facing towards the elderly, since this gesture implies demonstration of interest [1, 14].

The interaction between man and the environment makes him to perceive and to interpret the odors, according to their characteristics that can present pleasant and comfortable or not, because the man is olfactory in nature, which makes it possible to interact with the environment, understand and interpret feelings, remain comfortable or uncomfortable physically or psychologically. Thus, the human characteristic of share values, beliefs and goals is important when coping and adapting to the challenges smell [15].

However, even when they feel the repulse of bad odor from the elderly, nurses of primary care as well as any level of health care need to dominate their expressions and feelings about this sense, in order not to offend them and thus to compromise the interaction. It was found during the study that, in the presence of bad odor evidenced by one of the elderly, the nurse while keeping a hand between the nose and mouth she dominated satisfactorily, for the most part, their expressions and feelings, visible at the beginning of interaction, since olfaction is able to adapt and tends to become accustomed to the bad odor after a certain contact time [16].

Thermal Code and Distance Evaluation showed proportional average 3.22 and 3.20, concurrently. These factors were readily analyzed, because both the distance and the position of nurses during the interaction were easily identified in the images.

As for the factor thermal code, it is noted that effective communication is established when the
sender sends a message to the receiver, and this understands. However, environmental factors such as heat or cold can compromise the transmission and reception of the message. Under these conditions, it is necessary for nurses to assess the elderly in order to identify any areas that may disrupt communication [17].

The analysis of environmental factors in the filming was possible from the training of judges, where it was determined the evaluation of the heat when the nurse is fanning herself, with the fan close to face, keep the window open, without the use of coat or to verbalize about the temperature, evaluation of cold addition of verbalization on temperature was determined by the presence of the use of coats.

The Distance Evaluation factor refers to care, action inherent to the profession of nursing that when it is done well, eventually invading the personal space of the elderly, as there should be care without physical contact with the patient. Thus, the study asserts the need for nurses to provide comfort to the elderly, to ensure privacy and minimize the adverse effects brought about by this invasion, which must be established by the effective use of communication [13].

As for the guarantee of privacy, some nurses in the study have inflicted to perform the service with the open door of the room and answer the phone during the interaction, besides allowing the excessive entry of others into the room, or to answer questions, or to take medications.

It is emphasized that the ability of human beings to use the senses in interaction facilitates the relationship, and this proper use allows the exploration of space where interaction is established, making it possible to identify the needs and then to act on them. Thus, the distances that allow the scope of touch allow any kind of observation, and when it is performed in a physical space to ensure patient privacy, the establishment of touch is more easily allowed [1]. Thus, to prevent false relationship of interpretations, it is timely to previous explanation of the nurse about what will be done with the elderly in nursing consultation in primary health care.

The factor Posture Sex refers to the position of communicating during the interaction and the influence of gender on the behavior of people interacting [1]. It asserts that sex is one of the factors that influence the choice of the distance to be adopted during the interaction. It is noteworthy that for being unrepresentative in this study the number of men did not identify the influence of gender on the attitude adopted by the parties.

About this factor, to start the interaction, both the nurse and the elderly need to determine the most effective and comfortable posture to the session as well as the distance to be maintained for this assistance, which may be changes over care. As for sex, it is emphasized that the expressions of emotions are easier to be identified in women; however, we must also pay attention to culture, as it can modulate, modify and control the expression of these emotions [18, 19].

About Kinesthetic factor, it showed the same difficulties mentioned in factor Visual Code, and their average was 3.09. The face is the part of the body that shows more emotion, it is the zone of increased consciousness of people in that the control attempts are frequently [12, 14]. During the interaction, the elderly look for signs of approval and understanding in the face of nurses, search that may be related to a possible hearing impairment that makes to understand and interpret the facial expressions that characterize the most significant form of communication [17].

It is stated the need for health professionals to demonstrate attention, maturity, responsibility, intention to care and seriousness by the role they play when interacting with elderly, whose personal situations cannot interfere with their physical and emotional state, for as well to enable a favorable interaction [19]. Thus, the nurse must understand that the Kinesthetic factor is configured in one of
the most important aspects of non-verbal communication, since facial expressions convey reliable information, need to be validated and interpreted to determine the accuracy of the message.

Finally, the Contact Behavior factor, with an average of 2.94, was easily identified in the filming. This factor is characterized by the use of touch which shows the intention of who performs, and how the sender values the receiver. This use enables sending messages such as affection, security, protection, support, appreciation of others and promote self-esteem, which can be influenced by the duration, area, intensity and frequency of touch, providing the establishment of a more effective link [20-21].

As for the older patient, this is more private physical contact, either social or physical isolation, which asserts the need for nurses to establish interaction paying attention to the touch, such as how to improve the quality of care, both in primary care health, as for any other level where the interaction is established.

Conclusion

The analysis of non-verbal communication in relations between nurse and elderly in nursing consultation reinforces the importance of using non-verbal communication in health care.

The evaluation of nine factors postulated by Hall got regular classification, with average and mode around 3, and median below 3. Among these factors, Visual Code showed the worst performance, which may indeed be attributed to lack of nurses’ knowledge about the importance of vision in the interaction with the elderly or the difficulty of judges to observe the visual behaviors through filming; the best classification was the voice volume, contributing to the effectiveness of the interaction nurse/elderly, as the tone used by nurses favored communication with the elderly, for making possible the understanding of what was being expressed.

Despite this, the reality observed is a limitation of the study, and suggests the need for nurses to master their nonverbal behaviors and empower themselves about the theme to provide assistance to the elderly with better quality, since the conscious mastery of these behaviors enable a satisfactory interpretation of body movements of these professionals by the elderly who, by his own life experiences or bio-psycho-socio-spiritual needs, use them most commonly in the interaction.

References


International Archives of Medicine is an open access journal publishing articles encompassing all aspects of medical science and clinical practice. IAM is considered a megajournal with independent sections on all areas of medicine. IAM is a really international journal with authors and board members from all around the world. The journal is widely indexed and classified Q1 in category Medicine.