

Assessment of Patients and Nurses' Opinions on the Bidirectional Communication During Hospitalization: A Descriptive Study

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Abstract

Background: Acquisition of efficient communication is based on particular techniques and skills and requires the participation of at least two people, namely the addresser or transmitter of the message and the addressee or receiver of the message.

Aim: The aim of the present study was to assess and compare patients' and nursing staff's opinions relating to the communication developed between them during hospitalization and to explore possible correlations with demographic characteristics.

Methods and Material: A comparative, descriptive / correlational design was utilized to accomplish the purpose of this study. Study sample were 120 nursing staff working in a University General Hospital of Crete. Sample included 120 internal patients admitted in clinics of the same hospital. Data was collected through the use of a questionnaire, created by the researchers for the needs of the present study. The survey was conducted from June 2013 to August 2013. Statistical analysis was performed with the statistical package SPSS, version 21.0.

Results: The 58,7% of the patients considered the frequency of information given by nurses not be satisfactory. Instead, the 34.2% of the nursing staff was satisfied with the time they dedicated on communicating with their patients. Appeared that patients with a higher education express a significantly higher disagreement concerning information ($r=-0.247$, $p=0.008$), care ($r=-0.366$, $p<0.001$) and communication ($r=-0.296$, $p=0.001$) they receive from the nursing staff.

Conclusions: Based on the obtained results, a bidirectional communication is efficient when the objectives of the communication are accomplished, and thus interactive relationship is enhanced. Therefore, common codes of communication promote an appropriate and effective attitude of the nursing staff towards patients.

Keywords: Communication; Hospital care; Nurses; Patients

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Introduction

The importance of communication and its impact on nursing was defined by Florence Nightingale in the 19th century and is still valid today. It approaches methods in order to describe the phenomenon of interaction between patients and nursing staff along with the peculiarities of their communication. Hospital care consists mainly of time devoted, adequate information provided

to patients and constant communication so that patients' needs are covered [1].

In this paper, the communication between the nursing staff and the patient will be explored. This sort of communication must display certain characteristics which contribute in the accomplishment of an effective interaction. Respect and understanding are significant characteristics of the development of this relationship as they are the tools through which the nursing staff is able to

understand the patient's inner world. Through this understanding a therapeutic interactive relationship is formed and the nursing staff comprehends the patient's feelings [2].

The fact that there are many different definitions of communication shows its importance. Communication, according to bibliography, is a bidirectional process of interaction between two (or more) individuals with the intention of exchanging messages using a blend of verbal and non-verbal signs and thus developing a relationship [3,4].

In social interactions the individuals or the group involved share the roles of the addresser and the addressee having mutual responsibility of establishing a common understanding and forming a common code of communication [4].

In general, communication is the exchange of a sort of "understanding" between the individuals through a common "symbol" system. Every type of communication between the individuals has a "history" and is influenced by the individuals' previous experiences. Communication can bring about results since it can influence the receiver's opinion, feelings, course of action, thoughts and attitude. It is therefore a reciprocal and constant process in which both parties are responsible for establishing a common understanding [5,6].

Communication between patient and nursing staff includes a lot more than the conveyance of information. In nursing, ideas and feelings are transmitted and recognized through communication. However, it has to be pointed out, that nursing staff, despite their higher literacy level do not approach patients because they have not grasped the meaning and importance of communication [7].

Effective communication has a positive impact on patients because it gives them the sense of security and protection and as a result increases their level of satisfaction and brings about better results on the progress of their therapy. Patients are informed about their health condition and with the guidance of the nursing staff decide about a common course of action concerning their therapy [7].

In conclusion, communication is a continuous process of information which constantly changes and alternates according to the patient's needs. This process however requires experience, dedication of time and most importantly skills on the part of the nursing staff [8,9].

Aim

The aim of the present study was to record and compare patients' opinions with those of nursing staff regarding the communication that develops between them during patients' hospitalization and to explore possible correlations with demographic characteristics.

Methodology

A descriptive comparative/correlational design was utilized to accomplish the purpose of this study.

The study was conducted in pathology and surgical clinics of Tertiary University Hospital of Crete. The sample of study was composed of 240 people, 120 of whom were nursing staff working at the hospital and 120 patients hospitalized in the same

hospital. The study lasted for 3 months, from June until August 2013, and convenience sampling was applied. A criterion for the participation of patients was the duration of their hospitalization which was set at 5 days or more.

Data Collection

For data collection purposes, two identical anonymous questionnaires were designed consisting of 26 questions for the nursing staff and 25 questions for the patients both divided into three thematic sections. The questionnaires were designed by the researchers and was based on international bibliography [10,11]. The first section included 10 closed-type questions regarding communication during hospitalization, while the next section comprised of 8 closed-type questions which were relevant to the care provided by the nursing staff and applied to both questionnaires. The third section included 8 closed-type questions concerning communication during hospitalization in the staff's questionnaire and 7 closed-type questions in the patients' questionnaire followed by 1 open-ended question concerning factors that affect the communication between the subjects of the survey. There were also some questions for the purpose of demographic data collection. The validity was subjective and determined by the researchers during the creation and face validity [12]. The final form of the questionnaire was achieved after it had been tried out in a pilot study. Patients and nursing staff were asked to answer the questions using a 5 point Likert type scale. With being "totally disagree" up to 5 "totally agree". In the phase of the pilot study were selected five nurses and five patients to determine test-retest reliability. The completion of the questionnaires again after two weeks and by controlling the degree of correlation "Nursing care evaluation scores" (Table 4) yielded correlation by Spearman: $r=0.85$, $p<0.001$ by nursing staff, and $r=0.89$, $p<0.001$ by patients.

In order for this research project to be conducted a research register was set up and written permission was issued by the hospital's Scientific Board of Directors along with the permission by the heads of the department in each clinic.

Briefing about the study and oral consent were also necessary requirements for participation in the study. Briefing included clarification of information concerning the purpose and aims of the study, whereas participants were assured of their anonymity and of the fact that the use of the data will be used for research purposes only. Furthermore, participants were assured by the researchers that they were free to withdraw from the study at any time they wished to do so, and that their denial in participating would not in any way influence the care they were provided with.

Data Statistical Analysis

Data were analyzed using SPSS software (IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp). Cronbach's α was estimated in every section, according to structure as it described in unit of "Data collection" and its value ranged from 0.845 to 0.867 or 0.930 in patients' questionnaire and from 0.755 to 0.864 or 0.897 in nursing staffs' questionnaire.

In patients' questionnaire the answers left blank or otherwise missing values were assessed at 1.4% percent of the questions

overall (0.8% in nursing staffs' questionnaire). Due to their substantially low volume they were replaced with the mode value.

Distributions of descriptive characteristics from both groups were also assessed. Pearson correlation coefficients were used to assess the relation of three sections on communication (information, care and communication) of patients and staffs' characteristics, while multiple analysis of covariance was used to compare opinions of both groups relating to the information and the communication between them as well as their evaluation scores. Statistical importance was set at $p < 0.05$.

Results

To accommodate the purpose of this study, both questionnaires were divided in three different sections: information during hospitalization, care during hospitalization and communication during hospitalization.

The sample consisted of 120 hospitalized ($n=120$) in general pathology and surgical clinics. Additionally, the sample was also made up of 120 nursing staff members ($n=120$) who worked in the same clinics.

a) Hospitalized

Out of the patients who participated, 51.7% were female and 48.3% male. The average patient age was 45 years with an average duration of hospitalization 7.8 days. All participants were of Greek origin. As regards to the literacy level, 20.2% had no education or elementary education, 44.7% had secondary level of education, while 35.1% of the patients were university graduates. Finally, the majority of patients (61%) belonged to the middle class whereas 42.9% belonged to the lower class and 2.7% to the upper class.

The highest percentage of answers expressing total agreement (5 on a 5-point Likert scale) was given in the "care provided by nursing staff" section with a percentage of 65% in a question concerning the nursing staff's friendliness and politeness.

On the other hand, the lowest percentage, 20%, expressing total agreement was given by patients in the first section "information during hospitalization". The above percentage is allocated to the question about information given to patients about their rights and to the question about information orientation in the department and its facilities.

41.3% of the patients considered the frequency of information given by nurses to be satisfactory, while 87.5% of them were not satisfied with the time the nursing staff dedicated to them, while 7 out of 10 thought that the nursing staff was not responsive to their worries (Table 1). As for their satisfaction in communication with the nursing staff and their satisfaction in overall care the scores given were 7.8 and 7.9 respectively on a 10 point Likert scale. Highly educated patients expressed significantly lower agreement in the provision of information ($r = -0.247$, $p = 0.008$), care ($r = -0.366$, $p < 0.001$) and communication ($r = -0.296$, $p = 0.001$) they received from the nursing staff (Table 2).

b) Nursing Staff

The majority of the sample were women with a percentage of

87.5% and 12.5% were men. The average age was 37.5 years with an average of 13.4 years of working experience. 62.5% of the nursing staff sample were Technological Education graduates, 5% had a University degree and 32.5% were nurses assistants. 11 nurses (9.2%) out of 120 possessed a postgraduate degree. The patient-nursing staff ratio was 22:1 on average, per shift.

The highest percentage expressing total agreement was given in the section "Care provided by nursing staff" in a question relating to friendliness and politeness displayed by nursing staff.

In contrast, the lowest percentage of total agreement was found in the first section "Information during hospitalization" with a percentage of 29.2%. This percentage was noted on the nursing staff's level of satisfaction concerning the frequency of patients' briefings.

Additionally, 34.2% of the nursing staff was satisfied with the time they dedicated on communicating with their patients, while 57.5% of them considered that there was sufficient information about patients' rights. As far as their response to patients' worries and complaints is concerned the nursing staff with a percentage of 49.2% thought their level of response was satisfactory (Table 3).

Moreover, the nursing staff estimated their communication with the patients with 8.4 (10 point Likert scale) and the care they provided with 8.6. Finally, when comparing demographic data from all three sections it was shown that the answers provided by the nursing staff were not influenced by any demographic factors in contrast to the patients' results as mentioned above.

The correlation of answers given by patients to those given by nursing staff did not present any statistical significant difference despite the fact that patients tended to give lower scores than the nursing staff in the questions overall (Table 4).

Discussion

The results of the study indicated that patients' opinions and those of the nursing staff regarding their bidirectional communication fluctuate at satisfactory levels. However, in particular sections, as, for example, in the section concerning the patients' rights, the prompt response of the nursing staff and the devotion of adequate time showed no significant statistical differences.

Effective communication between individuals depends on various factors. One factor which negatively affects communication and thus quality of care is the patients' low literacy levels and their comprehension abilities [13,14]. In this study, literacy level plays an important role since the higher the patients' literacy level, the bigger their demands. A possible explanation may be the fact that the patients' needs gradually change as their illness progresses and hence are subject to the individual's intellectual level [14].

The correlation of work experience in terms of developing a therapeutic relationship and in terms of providing quality care from both groups did not show any significant statistical difference.

On the contrary, results in related studies [15,16] have shown that the more experienced the nursing staff is the more confident they feel about the hospital care they provide. Specifically, Mackintosh [15], in his study in 2002 on 16 nurses working in surgical

Table 1 Allocation in frequency of answers expressing Total Agreement given by the 120 patients of this study relating to their communication with the nursing staff.

Sections & Questions	Totally n	Agreed %
INFORMATION DURING HOSPITALIZATION		
1. You are informed by the nursing staff regarding your rights	24	20.0
2. The nursing staff informs of the results when taking your vital signs(blood pressure, temperature, heart rate)	73	60.8
3. The staff informs you of any diagnostic tests (namely on the type of test its purpose, preparation and what will happen during the test)	61	50.8
4. The nursing staff informs you about the medication you are taking during hospitalization (kind, dose, side effects)	41	34.2
5. It keeps you informed on the condition of your health	53	44.2
6. The nursing staff informed you about the department on the day of your arrival(orientation of space, routines, bell)	24	20.0
7. They inform you as to whether and how frequently you should be in motion.	56	46.7
8. They try to include/inform you about the decisions related to your therapy	39	32.5
9. You are satisfied with the frequency of information provided to you by the nurse	50	41.7
10. You are given information the moment you ask for it	57	47.5
CARE PROVIDED BY THE NURSING STUFF		
11. They are polite and friendly towards you (manner of speaking, protection of privacy, respect in diversity).	78	65.0
12. They immediately respond to your call of help (notification button, sign)	54	45.0
13. They pay attention to every patients personal needs	54	45.0
14. They protect your privacy(partitions, protection of body exposure)	55	45.8
15. The nursing staff informs you about how to take care of yourself at home, after being released from hospital	53	44.2
16. They are promptly sensitized on anything bothersome which may have caused your health problem	61	50.8
17. The nursing staff informs you about positions which help alleviate pain and of the medication given	58	48.3
18. They check up on you regularly when in pain	49	40.8
COMMUNICATION DURING HOSPITALIZATION		
19. The nursing staff dedicates adequate time to your communication(to support you through difficult times, to discuss, to listen and understand your problems)	27	22.5
20. They respond to your concerns and complaints during your stay at hospital	40	33.3
21. You trust the nursing staff with something that troubles	49	40.8
22. You are satisfied with your communication with the nursing staff	58	48.3

departments, indicated that nurses with long work experience can handle stressful situations more efficiently. Therefore, more experienced nurses, despite the work load and the pressure in the work environment, feel better qualified to develop a satisfactory therapeutic relationship with patients. Nurses with many years of work experience manage to adapt to developing situations and develop as a result a sense of sympathy [16]. Furthermore, in a research conducted in 2013 in surgical clinics in Crete, results indicated that nursing staff with the longest work experience provided hospital care of better quality.

This was not however observed when taking their work load into account since these nurses mentioned that their work load is one of the main factors that impedes effective communication [14]. Lampraki et al. [17] indicated in their study that there is lack of information due to time limitations and the increased work load of the nursing staff.

On the other hand, another important factor which can cause emotional distress to patients is the hospital environment. The nurses' role in this environment is to encourage and urge patients to express their complaints, worries and fears to the nurses [18,19]. Patients indicate that the behavior of nursing staff is significant. Many studies claim that a feeling of acceptance and trust can have a positive effect on the treatment of the illness [4,20].

Another very important factor which should not be underestimated during briefing sessions is the patients' isolation and privacy so that there are no distractions [20]. In this study, half of the patients seem to be satisfied with privacy in particular,. A possible explanation may be the increase in the number of patients in hospitals due to the financial crisis and the insufficient accommodation infrastructure (there are rooms with five beds)

Table 2 Correlations of the three sections on communication (information, care & communication) and their evaluation with patients' characteristics of this study.

Sections & Evaluation	Sex	Age	Literacy Level	Income Bracket
	r-Pearson (p-value)			
Information During Hospitalization	-0.082	0.144	-0.247 (0.008)	0.002
Care Provided by Nursing Staff	-0.088	0.173	-0.366 (<0.001)	-0.093
Communication During Hospitalization	-0.061	0.223 (0.017)	-0.296 (0.001)	0.025
Patient Communication scores (1-10)	-0.096	0.162	-0.371 (<0.001)	-0.009
Nursing Care Evaluation score(1-10)	0.001	0.142	-0.357 (<0.001)	0.014

Categorical variables are referred to sex (males, females), literacy level (without education, gymnasium/lyceum/technical school, university school) and income bracket (lower class, middle class, upper class)

Table 3 Allocation of frequency in answers expressing Total Agreement given by the 120 nursing staff of this study relating to their communication with the patients.

Sections & Questions	Totally Agreed	
	n	%
INFORMATION DURING HOSPITALIZATION		
1. You inform patients of their rights	69	57.5
2. You inform patients of the results when taking their vital signs (blood pressure, temperature, heart rate)	82	68.3
3. You give the patient information on any diagnostic tests (namely the type of test, its purpose, preparation and what will happen during the test)	96	80.0
4. You inform the patient about the medication they are taking during hospitalization (kind, dose, side effects)	65	54.2
5. You keep patients informed on the condition of their health	80	66.7
6. You inform patients about the department on the day of your arrival (orientation of space, routines, bell)	80	66.7
7. You inform patients as to whether and how often they should be in motion	83	69.2
8. You try to include/inform them about the decisions related to their therapy	44	36.7
9. You are satisfied with the frequency of information you provide to your patients	35	29.2
10. You provide the patients with information the moment they ask for it	62	51.7
CARE PROVIDED BY THE NURSING STAFF		
11. You are polite and friendly towards your patients (manner of speaking, protection of privacy, respect in diversity)	105	87.5
12. You immediately respond to their call for help (notification button, sign)	77	64.2
13. You pay attention to the patients' personal needs	76	63.3
14. You protect patients' privacy (partitions, protection of body exposure)	86	71.7
15. You inform the patients on how to take care of themselves at home after being released from hospital	73	60.8
16. You are promptly sensitized on anything bothersome which may have caused their health problem	91	75.8
17. You inform the patients about positions which help alleviate pain and of the medication given	95	79.2
18. You check up on the patient regularly when in pain	77	64.2
COMMUNICATION DURING HOSPITALIZATION		
19. You dedicate adequate time to your communication (to support them through difficult times, to discuss, to listen and understand their problems)	41	34.2
20. The patients are satisfied with your communication	60	50.0
21. You respond to the patients' concerns and complaints during their stay at hospital	59	49.2
22. Patients trust the nursing staff with something that troubles them	62	51.7
23. You are satisfied with your communication with the patients	54	45.0

where privacy hardly exists. In a study conducted in 6 general hospitals in Athens it is indicated that quality is an important factor and that it decreases the patient's level of satisfaction since they distinctively mention that patients pay attention to conditions of hospitalization and staff's behavior [18].

Another major part in communication is information provided to patients and their immediate families, as it contributes to the

decrease of stress, has a positive impact on the patient's therapy and helps them accept their condition [20]. Patients in this study seem to have a satisfactory level of understanding without having adequate facts. In a relevant study conducted in Greece on 139 patients, 24.5% were very well informed about their health problem [21].

There have been no violations reported in this study concerning

Table 4 Comparison of score levels from all three sections of communication (information, care & communication) and their evaluation between the patients and the nurses of study.

Sections & Evaluation	Patients	Nursing Staff	p-value
	Mean score (s.d.)		
<i>Information During Hospitalization</i>	3.3 (0.8)	3.8 (0.5)	<0.001
<i>Care Provided by Nursing Staff</i>	4.1 (0.8)	4.6 (0.5)	<0.001
<i>Communication During Hospitalization</i>	3.8 (1.0)	4.2 (0.6)	<0.001
<i>Patient Communication scores (1-10)</i>	7.8 (1.9)	8.4 (1.3)	0.202
<i>Nursing Care Evaluation scores (1-10)</i>	7.9 (1.6)	8.6 (1.1)	0.032

s.d: Standard Deviation.

Multiple analysis of covariance (MANCOVA). As covariates were used age and literacy level.

patients' rights; a small percentage of satisfaction, if any, concerning information about their rights. Contrary to this, in a research conducted in 6 general hospitals in Athens in 2008, patients mentioned a weakness in the protection of their rights with a percentage of 93.5% [18].

The development of trust and politeness towards patients has positive effects on the individual [16,18]. In this study, 65% of the patients described the nursing staff as polite and friendly. In a similar study conducted by Lampraki et al. [17] 240 patients, 98.1% stated they were satisfied with the nurses' polite behavior.

Two main elements in the relationship between two individuals are respect of personality and individual needs. The results of this study, however, indicated that nurses consider that they display such characteristics when dealing with patients, whereas patients considered there was room for improvement. Similar results were also observed in a study conducted in hospitals of Crete where 66.7% of the nurses believed that they covered their patients' personal needs at a satisfactory level [17].

The simple execution of duties does not result to the satisfaction of users. An organized course of action aiming at discovering patients' needs and having their personality as a priority needs to be set. Communication strategies help in attaining the above because they successfully contribute in the feeling of security and confidence. Moreover, developing listening skills as well as being a good listener promotes sympathy and definitely promotes good communication with positive effects on the patient's health [3,21-23].

The above mentioned results are confirmed by the present study where the percentage of patient satisfaction concerning information provided by staff was 41.7%. Social skills as well as communication techniques used by health professionals are essential to the provision of information in order for communication to become more effective; this conclusion was evident in a research conducted in 2001 in New Zealand [22]. In order for effective communication to exist, there has to be adequate time devoted to it. In a study conducted in 2007 on 114 nurses, a big percentage of them answered that there was not enough time to listen to the patients' concerns [24]. In our study,

with a similarly high percentage, the nursing staff expressed that lack of time was a factor which impedes the provision of effective communication.

Lack of time in the development of effective communication is closely related to the shortage in nursing staff. The nursing staff taking part in this study declared by 28% that the shortage in staff leads to time limitation and in turn to non-effective communication with the patients.

Study Limitations

In the present study, the choice of convenience sample does not allow generalizations as the results do not express the total of the subjects but only those who met the participation requirements. A larger, random sample including nursing staff and patients from other areas of Greece would have perhaps allowed a generalization on the conclusions. Moreover, although the questionnaire was used for the first time and its level of credibility seemed to be valid.

Conclusions

This study evaluates the bidirectional communication between nursing staff and patients during their hospitalization. It can be inferred by results of the study that communication is effective in information and care provided to the patients. Specifically, patient satisfaction exists when patients are encouraged to express their fears and desires and develop interpersonal relationship. Improvement of communication and sensitization of the nursing staff result in better cooperation which is beneficial for both parties.

It is the nursing staff's duty to comprehend and handle patients' problems in the best possible way. Politeness is important since it positively contributes in the development of a sense of safety and security. The frequency of information provided and the time devoted by medical staff is an important role as well as it expresses the staff's concern for patients.

Conflict of Interest

The authors report no conflict of interest.

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