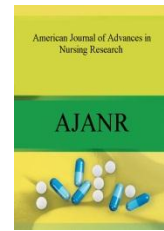




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AN INVESTIGATION OF THE SATISFACTION LEVELS OF USERS OF THE HEALTH SERVICES IN NORTHERN GREECE

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ABSTRACT

Aim: The purpose of this project is to investigate the degree of patient satisfaction and analyze the factors that influence it. The investigation is based on data selected hospitals in Northern Greece. **Objectives:** This research was conducted in order to examine the perspective of patients in the examined hospitals in a major city in Northern Greece, in terms of satisfaction, also consider the level of provision of health services in these health institutions, also to analyze the satisfaction of patients with the care provided. **Materials and Methods:** This research was based on data collected at four hospitals in the 3rd Health Region during the period May 2011 - March 2012. **Results:** Data for a range of patients were recorded. Their age ranged from 0.1 to 97 years, were of both sexes (with slightly greater representation of women) and varying educational levels, from elementary to graduate with tertiary education. Although the vast majority of patients were of Greek nationality, a sufficient number of them came from other countries. Finally, they belonged to a variety of public and private insurers. Patients were satisfied by nursing and medical staff and especially the gentle and discreet behavior. The quietness at night and early help using bath and duck were points that were evaluated positively by participants, but less than other aspects of nursing, such as the cleanliness of the rooms and bathrooms and timely help after call. **Conclusions:** Overall, patients and their relatives felt positive or very positive impact on satisfaction with health services. There is a great need for further research in order to identify the factors affected patients' satisfaction.

INTRODUCTION

Initially the concept of patient satisfaction was directly related to the accessibility of medical facilities [1,2]. The assessment of patient satisfaction as an indicator of service quality has become more prominent in the evaluation and planning of health services [3].

Patient satisfaction except that it is now important parameter of the quality of health services affects clinical outcomes and health-related quality of life and economic policy and the general planning of health services [4].

Fox and Storms (1981), identify the levels of satisfaction as the gap between patients' expectations and the coverage ratio. Each patient has different criteria for evaluating health services based on the expectations and experiences. According to this parameter, when the

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relationship between expectations and addressing them is positive, then there is satisfaction, is negative if there is no satisfaction, but dissatisfaction [5]. Patients have multiple concerns about the care they receive; the measurement of satisfaction with the use of a single model would lead to confusing results [6].

Health services must not only have pleaded quality of their services in key operational but must conduct continuous monitoring and improvement, in order to inspire confidence and security for its activities and services, and reliability. There are several studies examining patients' satisfaction in health services [7-9]. Oliveira et al, evaluated patient characteristics and satisfaction in the ophthalmology at a university hospital. They reported that there is a high level of satisfaction regarding the provided device, but there are various factors affect patient satisfaction [10]. In another study, it was evaluated satisfaction in outpatients and inpatients. They found that waiting time is associated with the lowest degree of satisfaction and for the hospitalized patient the freedom for choosing the physician [11].

Furthermore, in another study was conducted in Iran investigated satisfaction in 969 patients from eight private hospitals. They found that there is a relationship between service quality and patient satisfaction. Also, the cost of services, the quality of the process and the quality of interaction had the most positive impact on overall satisfaction [12]. Despite the fact that there is a body of evidence regarding patients satisfaction and health services is growing over the world, the existing literature in Greece is mainly focused on maternity services [13], on patients with multiple sclerosis [14] and on surgical patients [15].

To our knowledge there is ab prior Greek study in relation to patients' satisfaction but we decided to investigate this topic in Northern Greece through this broad survey. Using the data from the Greek Health system, the main objective of the current study is to evaluate the degree of user's satisfaction with health care and with the quality of practitioners towards customers' satisfaction in health services in Northern Greece (both nursing and medical staff).

MATERIALS AND METHODS

The study was descriptive in design. This research was based on data collected at four hospitals in the 3rd Health Region during the period May 2011 - March 2012. Each hospital was responsible for collecting its own data, so there are slight variations in the process of completing the questionnaires. The sample was convenience and one of the researchers explained to the potential participants the purpose of the study. The forms were placed in a conspicuous place and available to all visitors of the hospital and there was a special box for installation of acting the management of each hospital and at the request and permission. The inclusion criteria were:

a) to be at least 18 years old, b) ability to speak and read Greek, and c) willingness to participate.

The construction of the questionnaires was done by the Health Department as part of a "national effort to improve quality at the hospital." The questionnaires were completed anonymously either by the patient himself was visiting the hospital or the associate and companion-related experience from this hospital and not in general hospitals in the country. Two forms of the questionnaire were available: one for patients (and passengers) who visited the outpatient clinic and one for patients (and companions) who were hospitalized in the hospital clinics. The questionnaire for outpatients include information about admission services, timetable of appointments, experience during laboratory exams, health care provided by medical staff, health care provided by nursing staff, experience from official services, hospital assessment and demographic.

The questionnaire for in hospital patients include information about the healthcare provided by nursing staff, healthcare provided by medical staff, the hospital environment, the preparedness for discharging, hospital assessment and demographic.

All questions have multiple choice types. Some of them have dichotomous answers yes or no, or have more choices with following answers: never, sometimes, often, always or have five choices: bad, almost bad, neither good-neither bad, almost good, good.

Experts in the content area assessed face and content validity of the instrument. The panel of experts compromised a general practitioner and two specialty nurses who were recruited in order to review the questionnaire. The development of the questionnaire was based on the relevant literature and in the researchers' experiences. The content validity of the questionnaire was determined by the same panel. The reviewers examined the ability of the questionnaire to extract sufficient information and finally they proposed which questions should be included or eliminated. Cronbach's alpha in the present sample is .92 for both two populations.

Data analysis

The data analysis was performed using the statistical software package SPSS 15 for Windows. Descriptive statistics were used in order to analyze the demographic data. For the comparison of two groups is used χ^2 Fisher when the variables are dichotomus, Mann-Whitney *U* test, for categorical variables, parametric Student's *t* test only for the age. Nonparametric tests were used, due to the fact that the variables are not normally distributed. The statistical significance set at 0.05.

RESULTS

The mean age (\pm standard deviation) of participants in the group of hospitalized patients was $51,16 \pm 22,90$ years with a median of 55 years, while the

average age in the group of outpatients was $45,97 \pm 19,18$ years with a median 44 years. The hospital, therefore, had an average age greater than outpatients [$t(2316) = 5,868, p = 0,001$], as shown in Table 1.

Table 2 recorded data on the education level of the participants. Compared to inpatients, outpatients consisted of larger percentages of individuals with higher education [$\chi^2(3) = 42,105, p = 0,001$]. In other words, people with higher education (high school graduates or higher-colleges) most often visited hospitals as outpatients and less frequently to be hospitalized. Also, the level of education was negatively correlated with age [Spearman's $\rho = -0,338, p = 0,001$], more older people tended to have fewer years of formal education. Although the vast majority of participants were Greek citizenship, the percentage of foreign participants were nearly three times greater among outpatients than among hospitalized (6.9% vs. 2.4%) [$\chi^2(3) = 75,536, p = 0,001$]. Most foreigners said to originate from countries such as Albania, Armenia, Georgia and Germany. Table 3 listed in order of frequency, clinical hospitals in which they were hospitalized patients in this study. The medical, surgical, gynecological-obstetric and pediatric clinics hosted with

more than half the patients in the sample. The evaluation of the participants to the nursing staff recorded in Table 4. Approximately three quarters of the participants agreed that nurses and nurses in hospitals behave with courtesy and respect they heard with understanding and explaining in an understandable manner issues related to their illness. The polite behavior seemed to be more than appreciated by patients, while comprehensible explanations less [Friedman's $\chi^2(2) = 92,025, p = 0,001$].

Similar were the responses of patients to assess the medical staff. In Table 5 it seems that the same parameters participants rated with almost same way doctors hospitals. Again the kind of behavior was evaluated more understandable the explanation [Friedman's $\chi^2(2) = 12,185, p = 0,002$].

Comparing the estimates for the nursing staff and those for medical, found that patients felt that nurses behave with more kindness and respect than doctors [Wilcoxon $z = 3,369, p = 0,001$], that doctors gave them more understandable explanations of nurses [Wilcoxon $z = 1,976, p = 0,048$], while there was no statistically significant difference in how carefully listened to their problem [Wilcoxon $z = 0,171, p = 0,864$].

Table 1. Descriptive data for patient's age

Age (years)	In hospital patients	Outpatients
Average	51,16	45,97
Standard deviation	22,90	19,18
Intermediate	55	44
Minimum	0,1	1,0
Maximum	97	97

Table 2. Descriptive data on education of patients.

	In hospital patients	Outpatients
Up to Junior High School	551 (44,6%)	356 (32,9%)
High School	319 (25,8%)	336 (31,1%)
University	217 (17,6%)	272 (25,1%)
No discrimination	149 (12,1%)	118 (10,9%)

Table 3. Clinics where patients are hospitalized

Clinic	Number of patients
Pathology	245 (19,8%)
Surgical	169 (13,7%)
Gynecology-Obstetrics	112 (9,1%)
Pediatric	104 (8,4%)
Cardiologic	95 (7,7%)
Orthopedic	86 (7,0%)
Otolaryngology	53 (4,3%)
Short hospitalization	53 (4,3%)
Cardiovascular surgery	37 (3,0%)
Urology	35 (2,8%)
Maxillofacial surgery	25 (2,0%)
Coronary care unit	25 (2,0%)
Other clinics	103 (8,3%)
No answer	128 (10,4%)

Table 4. Answers of participants about the nursing staff

Answer	Treatment with respect and kindness	Listening with understanding	Understandable explanations
Never	17 (1,4%)	19 (1,5%)	26 (2,1%)
Sometimes	44 (3,6%)	63 (5,1%)	82 (6,6%)
Usually	181 (14,6%)	218 (17,6%)	253 (20,5%)
Always	986 (79,8%)	933 (75,5%)	870 (70,4%)
No answer	8 (0,6%)	3 (0,2%)	5 (0,4%)

Table 5. Answers of participants about the medical staff

Answer	Treatment with respect and kindness	Valuable Listening	Understandable explanations
Never	15 (1,2%)	13 (1,1%)	15 (1,2%)
Sometimes	55 (4,4%)	65 (5,3%)	90 (7,3%)
Usually	229 (18,5%)	230 (18,6%)	223 (18,0%)
Always	933 (75,5%)	924 (74,8%)	901 (72,9%)
No answer	4 (0,3%)	4 (0,3%)	7 (0,6%)

DISCUSSION

Linder-Peiz and Stewart (1986) argue that the main factors affecting the levels of patient satisfaction are the nature of communication between patients and doctors, the contact with the treating, accessibility [16]. For others, satisfaction rates are very high when patients receive full explanations ask for the problem, while in the opposite case where the patient receives almost no explanation for the course of their health satisfaction rates appear to be low [3]. According to Williams and Wilkinson (1995) satisfaction rates are very high when patients receive full explanations ask for the problem, while in the opposite case where the patient receives almost no explanation for the course of their health satisfaction rates appear to be low [3]. Most patients accommodated in general medical and surgical clinics. Patients were satisfied by the nursing and medical staff, especially the gentle and discreet behavior. The silence at night and early help using bath and duck were positively evaluated points of the participants, but less than other aspects of nursing, such as the cleanliness of the rooms and bathrooms and the direct help after a call. With regard to pain, patients appreciated more effort and much less effect on pain control, while relating to the granting of new drugs said to have been informed adequately about the etiology and much less about the potential side effects from its use. Finally, before leaving less receiving oral and written information about the help they require the problems and symptoms that may face when they return home.

Outpatients visited mainly the emergency department or outpatient clinic, much less the afternoon clinic. On their first contact with the hospital appreciated more behavioral host staff and less on the quality of telephone service, while the reception felt more positively the existence of explanatory panels and less positive cleanliness of these spaces. The participants were very satisfied with the medical staff and especially by his behavior, and the satisfaction of the administrative staff came over behavior and less on speed. Greater satisfaction

than indicated by the behavior and the respect by the nursing staff, and the less satisfaction items had to do with time, such as waiting times for appointments, waiting time to visit or making laboratory tests, compliance with the scheduled time etc.

Overall, outpatients and inpatients are further shown to be very satisfied with the services of the hospital and said they would recommend it to friends and relatives. From the analysis of demographic characteristics more satisfied seemed the patients compared with their companions, men compared with women, foreigners compared with the Greeks and participants with fewer years of education compared with those with more, whereas age did not appear to affect the feeling of satisfaction. However, these parameters are differentiated only a small proportion of the responses of participants who were all questions positive or very positive in 70-90% of completed questionnaires. It is interesting that the vast majority of respondents positively evaluated their services, using the designations "good" or "rather good." Noteworthy was the result found in this study that foreign patients reported greater satisfaction than the Greeks.

A surprising finding of our study was that it found no correlation between overall satisfactions with patient age. One possible explanation is due to the fact that the questionnaire recorded age of the patients and not those complements. Especially in hospitalized patients, the high proportion of questionnaires completed by their parents or other relatives, the correlation with the age of the patient (e.g. children) does not reflect the attitude of the actual user of the health service, in this case the parent. This is result is different with the results of other studies [10]. This difference may be attributed to the different study population, the use of different questionnaires and generally to differences in study design. A major limitation of this research is the sampling method. More specifically, the study sample is not drawn randomly (random sampling) but it was self-selected, since each

patient or attendant choose for himself whether or not he wanted to complete the questionnaire was available. As a result, the sample consists of participants who were highly motivated to state their views, either out of gratitude because he was satisfied, either out of anger and annoyance, because he was unhappy, either out of courtesy to thank the staff who proposed to complete the questionnaire. On the other hand, people with lower education or foreigners who do not know good reading / writing people who due to distance or work does not have enough free time did not complete the questionnaire was administered and, therefore, their views are not represented adequately by the results of this research.

Limitations of the study

One limitation of this study is that the results are not referred specifically to each hospital separate. In the future, research should publish results for each hospital and will make comparisons between them. Also, each hospital collected its questionnaire and this is create a systematic bias. Other limitations of this study include the use of a convenience sample. The findings of this study are based on the investigation was conducted in Northern

Greece. Additional research using random sampling from hospitals in many Greek cities and in subjective manner should be performed in order to increase the generalizability of the findings.

CONCLUSIONS

Overall, patients and their relatives felt positive or very positive impact on satisfaction with health services. Most complaints focused on delays in appointments, and seemed more pleased by hospital staff, particularly nursing. The patients, men, people of low education and foreigners, reported greater satisfaction with their attendants, women, people with higher education and the Greeks, respectively. This study tried to reach a comprehensive manner the strong and weak points of general health system in Greece. To explore specific aspects of satisfaction and even specific hospitals or health services needed more focused and specialized surveys.

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CONFLICT OF INTEREST:

The authors declare that they have no conflict of interest.

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