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Rating of Patient Satisfaction Factors in a Clinical Hyperbaric Centre of a Greek Navy Hospital

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Abstract

Background: Modern medical technology has promoted the creation and improved the organization of Diving and Hyperbaric Medical Units (DHMU).

Objective: This study evaluates patient satisfaction regarding services provided by the DHMU's in Attica, Greece.

Material and Method: This is a descriptive study, its sample constitutes of 91 patients admitted at the DHMU of Navy for Hyperbaric Oxygen (HBO) therapy. For the collection of data an anonymous self-administered, 2-part questionnaire was utilized. The first part consisted of questions recording socio-demographic data, while the second constituted of questions investigating the satisfaction of patients from the DHMU with a five-point Likert scale. The data was analyzed using SPSS (ver 17).

Results: A total of 91 patients (53 male, 38 female) with a mean age of 35.5 years, sd=+/-7.245 participated in the study. Most of them 44% were university graduates. Patients' satisfaction from the services provided at DHMU was up to 85.7%, while 87.6% of them highly appreciated the prompt initiating and availability of sessions and rated telephone communication with the DHMU as exceptional. Personnel were described by patients as polite (94.4%), respectful (95.6%) and discrete (94.5%). The 92% of patients understood the importance of abiding by the rules of safety from nurses. Gender, age and the number or treatments were the characteristics that correlated statistically with patients' satisfaction from the services provided at a Greek Diving and Hyperbaric Medical Unit.

Conclusion: The patients rated care and access to the particular D.H.M.U. as most excellent. Greek patients experience great satisfaction from the Naval Diving and Hyperbaric Medical Unit.

Keywords: Diving and Hyperbaric Medical Unit, Diving Accident, Hyperbaric Oxygen Therapy, Patient Satisfaction, Health Services Quality

Introduction

The provision of health services nowadays is defined from a variety of number of complex procedures, which exchange and use common sets of information and being applied by a group of professionals with a variety of cognitive subjects. It is also defined by an extensive use of new technologies, which have contributed significantly to increase efficiency of medical procedures and to the general improvement of the quality of the respective services. The use of those new technologies has also created new needs for the development of modern management strategies in the provision of health services. Quality patient service is for many, a healthcare standard (Stavins, 2006).

Quality improvement is the process used to enhance the delivery of healthcare services provided to healthcare users in order to best meet their needs and expectations (Barton, 2003). An example of a quality assessment tool mostly utilized by various healthcare organizations includes patient satisfaction surveys (Quinn et al, 2004). Quality acts an indicator of satisfaction based upon an individual's experience while receiving medical care (Laruffa, 2005). For example, "comfort factors, dignity, privacy, security, degree of independence, decision-making autonomy. and attention to personal preferences" (Shi & Singh, 2005, p.27) are all significant attributes of healthcare that are important to most people.

Patient satisfaction has been defined as a general reaction of people receiving healthrelated services to important aspects of the structure and processes of these services and their perceived experiences (Pascoe, 1983). The measurement of satisfaction represents a tool towards the evaluation of the quality of the services offered. The patients may provide information which, if properly handled, could contribute to the qualitative improvement of these services. It is well known/documented that patient satisfaction leads to reduced hospitalization and quicker rehabilitation "mapping" (Fillingham, 2007). The of opinions is viewed hospital users' as extremely significant by hospital directors, executive boards and everybody involved in the decision-making process, due to the www.inernationaljournalofcaringsciences.org

intense international competition in the area of Health Services. The investigation of patient satisfaction also provides precious information regarding potential problematic dimensions of care and the suitability of the various organization systems of health services. Furthermore, hospital management boards have the opportunity to make the best of these data in order to reward the most proficient employees and boost staff morale. Measurement needs to be a continuous process so that healthcare providers understand that their actions will be held accountable – by patients first, and then by the management (Ganey & Drain, 1998).

The establishment and organization of DHMU's with the availability of Hyperbaric Chambers (HU) has been achieved by means of modern medical technology. The primary tasks of a DHMU are treating the victims of diving accidents and providing Hyperbaric Oxygen (HBO) treatments (Gaitanou, 2011; Chandrinou, 2011). Hyperbaric Oxygen constitutes а contemporary therapeutic method against significant ailments of the human body. The ever-growing need for measurement of the efficacy of the various health services and patient satisfaction has led researchers to further investigations and improvement of the methods and tools of their assessment. The current study in the area of Hyperbaric Medicine and Nursing has two main targets: the first one relates to issues on the practical implementation of hyperbaric oxygen therapy in Greece. The second one concerns the accomplishment of a research project on the measurement of satisfaction levels of users of DHMU's in the Attica region. This study owes its originality to the fact that it is the first one conducted in Greece. It aspires to provide interesting data that could contribute to the relevant scientific and administrative bodies acquiring a wellrounded set of information. The latter will consist not only of the format and dimensions of the existing problems -which are highlighted and corroborated- but, also, of recommendations submitted pertaining to future developments. The analysis of the statistical data pin-pointed positive and negative aspects of patient satisfaction regarding the services offered to them at the

suggestions to the relevant government and sample group. Gender seems to correlate health authorities which may challenging for the future and create positive satisfaction by the services of a Greek Diving perspectives for the evolution of health and Hyperbaric Medical Unit. Men seemed to services provision in this area. In general, have been more satisfied than women by their this study constitutes an initial overview of telephone communication with the DHMU, Diving and Hyperbaric Medicine services in with 3% of the latter rating it as "good" (table Greece and the way these are offered in 2). Men seemed, again, more satisfied than Greece. One can be hopeful that the data women regarding the hyperbaric chamber's collected can form a solid base for further availability for swift commencement and developments in the sensitive area of health uninterrupted continuation of HBO treatments provision in our country.

Methodology

The sample for our study consisted of 102 patients presenting to the DHMU for HBO sessions and were asked to answer a questionnaire which was used for the collection of data. Ninety-one patients completed and returned it with a response rate of 89%. The questionnaire was anonymous, self-administered and comprised of three parts. The first part related to patient access to the DHMU, the second part pertained to patient satisfaction regarding the DHMU staff, whilst the third part was devoted to the study of patient satisfaction regarding the care they had received and their treatments. All three parts of the questionnaire contained of 5-point Likert-scale items and free-response items. The last part consisted of questions documenting socio-demographic data regarding the sample. The questionnaire was created by the authors of this manuscript and it was based on that used in a similar research that Houman started in 2004 (Houman, 2004: Houman 2010). Our questionnaire validity was tested with cronbach a and found it to be 0.863. The questionnaire was administered to the patients one day before the completion of their treatment sessions. Anonymity was safeguarded placing bv completed questionnaires in a special box used for their collection. The research lasted two years (2008-2010). Permission to conduct the research was granted by scientific board of the Athens Naval Hospital.

Results

DHMU in Greece. This enables us to make Table 1 shows the demographics of the patients' prove statistically significant with (table 2).

There were very positive results in the evaluation of the cleanliness of the DHMU in general, as well as the interior of the Hyperbaric Chamber in particular: 96.6% rated the latter as "excellent" while 87.6% offered the same rating for the rest of the Unit (tables 2). Age was found to be one the demographic characteristics that correlate statistically significant with the patients satisfaction and more precise with telephone communication with the DHMU, availability of chamber for therapy, cleanliness of chamber, the respect patients get from the staff, the preciseness of explanations from staff to deal with possible problems, the of adherence importance to security regulations the satisfaction bv and information and medical records given after the end of the treatment (table 3).

In table 4 the statistically significant results are given in relation with the HBO treatments done by the patients. Those who completed more HBO treatments than those with less were more satisfied by the services given by the DHMU. To be more specific those with more HBO treatments were more satisfied from flexibility of staff in order to adjust to patients' needs, easiness to make an appointment, staff availability, respectfulness/helpfulness and discretion, readiness and willingness by the Unit staff to listen to patients' problems and concerns and providing precise information and solutions to problems. Staff was also perceived as taking the issue of security seriously and being aware of the importance of adherence to security regulations.

| Questions | W | omen | Ν | Men | p-value | | | | | |
|--|---------------|----------------|-------------|--------------|---------|--|--|--|--|--|
| C C | Ν | (%) | Ν | (%) | | | | | | |
| telephone contact with | h D.H.M.U. | | | | | | | | | |
| excellent | 31 | 81.8 | 47 | 88.2 | 0.050 | | | | | |
| very good | 6 | 15.2 | 6 | 11.8 | | | | | | |
| good | 1 | 3.0 | - | 0.0 | | | | | | |
| total | 38 | 100.0 | 53 | 100.0 | | | | | | |
| accessibility to D.H.M.U. | | | | | | | | | | |
| excellent | 26 | 70.3 | 32 | 60.4 | 0.000 | | | | | |
| very good | 9 | 24.3 | 11 | 22.6 | | | | | | |
| good | 3 | 5.4 | 9 | 17.0 | | | | | | |
| total | 38 | 100.0 | 53 | 100.0 | | | | | | |
| | | cleanliness o | | | | | | | | |
| excellent | 34 | 88.9 | 46 | 86.8 | 0.000 | | | | | |
| very good | 2 | 5.6 | 7 | 13.2 | | | | | | |
| good | 2 | 5.6 | | 0.0 | | | | | | |
| total | 38 | 100.0 | 53 | 100.0 | | | | | | |
| | | | l privacy | | 1 | | | | | |
| excellent | 35 | 92.1 | 51 | 96.2 | 0.002 | | | | | |
| very good | 1 | 2.6 | 2 | 3.8 | | | | | | |
| good | 2 | 5.3 | | 0.0 | | | | | | |
| total | 38 | 100.0 | 53 | 100.0 | | | | | | |
| vi | ew of patient | s about how i | nportant is | security for | staff | | | | | |
| excellent | 34 | 89.5 | 50 | 94.0 | 0.003 | | | | | |
| very good | 4 | 10.5 | 2 | 6.0 | | | | | | |
| total | 38 | 100.0 | 53 | 100.0 | | | | | | |
| | р | recise explana | tions from | staff | | | | | | |
| excellent | 31 | 81.6 | 50 | 94.3 | 0.000 | | | | | |
| very good | 5 | 13.2 | 3 | 5.7 | | | | | | |
| good | 2 | 5.3 | | 0.0 | | | | | | |
| total | 38 | 100.0 | 53 | 100.0 | | | | | | |
| sufficient information about the terminology | | | | | | | | | | |
| excellent | 19 | 51.4 | 42 | 78.4 | 0.015 | | | | | |
| very good | 16 | 42.9 | 9 | 17.6 | | | | | | |
| good | | 0.0 | 2 | 3.9 | | | | | | |
| inadequate | 3 | 5.7 | | 0.0 | | | | | | |
| total | 38 | 100.0 | 53 | 100.0 | | | | | | |
| Length of making medical documents | | | | | | | | | | |
| excellent | 19 | 51.5 | 45 | 85.1 | 0.001 | | | | | |
| very good | 16 | 42.4 | 8 | 14.9 | | | | | | |
| good | 2 | 6.1 | | 0.0 | | | | | | |
| total | 38 | 100.0 | 53 | 100.0 | | | | | | |

Table 2: correlation of patient satisfaction with gender

Table 3 correlation of patient satisfaction with age

| Questions | | | | | | | | | | | |
|--|----------|---------------|--------|--------------|---------------------------------------|--------------|---------|--------------|---------|--|--|
| | 18-24 | -24 25-35 | | 35-45 | % | >46 | | p-value | | | |
| telephone contact with D. | | | 25-5 | 5 | 35-45 | | >40 | | p-value | | |
| | | | 10 | 7 0.4 | | 01.0 | 10 | 100.0 | 0.014 | | |
| excellent | 6 | 75.0 | 18 | 58.1 | 34 | 81.0 | 10 | 100.0 | 0.014 | | |
| very good | 0 | 0.0 | 1 | 3.2 | 1 | 2.4 | 0 | 0.0 | | | |
| good | 2 | 25.0 | 1 | 3.2 | 0 | 0.0 | 0 | 0.0 | | | |
| inadequate very inadequate | 00 | 0.0 0.0 | 9 2 | 29.0 6.5 | 7 | 16.7 | 0 | 0.0 0.0 | | | |
| total | | | | | $\begin{array}{c} 0\\ 42 \end{array}$ | 0.0 100.0 | 0 10 | 100.0 | | | |
| | | | | | | | | | | | |
| Availability of chamber for therapy macllent 2 25 0 20 2 48 40 0 000 | | | | | | | | | | | |
| excellent | 2 | 25.0 | 9 | 29.0 | 2 | 4.8 | 4 | 40.0 | 0.000 | | |
| very good | 0 | 0.0 | 0 | 0.0 | 10 | 23.8 | 0 | 0.0 | | | |
| good | 2 | 25.0 | 0 | 0.0 | 0 | 0.0 | 2 | 20.0 | | | |
| inadequate | 2 | 25.0 | 8 | 25.8 | 8 | 19.0 | 2 | 20.0 | | | |
| very inadequate | 2 | 25.0 | 14 | 45.2 | 22 | 52.4 | 2 | 20.0 | | | |
| total | 8 | 100.0 | 31 | 100.0 | 42 | 100.0 | 10 | 100.0 | | | |
| cleanliness of the chamber of D.H.M.U. | | | | | | | | | | | |
| excellent | 2 | 25.0 | 12 | 38.7 | 6 | 14.3 | 2 | 20.0 | 0.025 | | |
| very good | 2 | 25.0 | 3 | 9.7 | 6 | 14.3 | 0 | 0.0 | | | |
| good | 0 | 0.0 | 1 | 3.2 | 5 | 11.9 | 4 | 40.0 | | | |
| inadequate | 2 | 25.0 | 6 | 19.4 | 4 | 9.5 | 0 | 0.0 | | | |
| very inadequate | 2 | 25.0 | 9 | 29.0 | 21 | 50.0 | 4 | 40.0 | | | |
| total | 8 | 100.0 | 31 | 100.0 | 42 | 100.0 | 10 | 100.0 | | | |
| Respect from staff | 4 | 50.0 | 22 | 71.0 | 27 | (1) | 0 | 00.0 | 0.022 | | |
| excellent | 4 | 50.0 | 22 | 71.0 | 27 | 64.3 | 8 | 80.0 | 0.023 | | |
| very good | 0 | 0.0 | 6 | 19.4 | 7 | 16.7 | 2 | 20.0 | | | |
| good | 2 0 | 25.0 | 1 0 | 3.2 | $\begin{array}{c} 0\\ 4\end{array}$ | 0.0 9.5 | 0 0 | 0.0 | | | |
| inadequate | 2 | 0.0 25.0 | 2 | 0.0 6.5 | 4 | 9.3 9.5 | 0 | 0.0 | | | |
| very inadequate total | 8 | 23.0 100.0 | 31 | 0.3 100.0 | 4 42 | 9.3 100.0 | 10 | 0.0 100.0 | | | |
| view of patients about how | | | | | | 100.0 | 10 | 100.0 | | | |
| view of patients about not | a mpor | | cuin | y for stan | L | | | | | | |
| excellent | 2 | 25.0 | 25 | 80.6 | 29 | 69.0 | 2 | 20.0 | 0.000 | | |
| very good | 2 | 25.0 | 0 | 0.0 | 9 | 21.4 | 8 | 80.0 | | | |
| good | 4 | 50.0 | 1 | 3.2 | 2 | 4.8 | 0 | 0.0 | | | |
| inadequate | 0 | 0.0 | 2 | 6.5 | 0 | 0.0 | 0 | 0.0 | | | |
| very inadequate | 0 | 0.0 | 3 | 9.7 | 2 | 4.8 | 0 | 0.0 | | | |
| total | 8 | 100.0 | 31 | 100.0 | 42 | 100.0 | 10 | 100.0 | | | |
| precise explanations from | staff to | deal wit | h poss | ible prob | lems | | | | | | |
| excellent | 4 | 50.0 | 11 | 35.5 | 10 | 23.8 | 2 | 20.0 | 0.016 | | |
| very good | 0 | 0.0 | 4 | 12.9 | 2 | 4.8 | 4 | 40.0 | | | |
| good | 0 | 0.0 | 3 | 9.7 | 5 | 11.9 | 2 | 20.0 | | | |
| inadequate | 4 | 50.0 | 5 | 16.1 | 8 | 19.0 | 0 | 0.0 | | | |
| very inadequate | 0 | 0.0 | 8 | 25.8 | 17 | 40.5 | 2 | 20.0 | | | |
| total | 8 | 100.0 | 31 | 100.0 | 42 | 100.0 | 10 | 100.0 | | | |
| satisfaction with information/medical documents given after the treatment | | | | | | | | | | | |
| excellent | 2 | 25.0 | 10 | 32.3 | 29 | 69.0 | 8 | 80.0 | 0.004 | | |
| very good | 2 | 25.0 | 7 | 22.6 | 10 | 23.8 | 2 | 20.0 | | | |
| good | 2 | 25.0 | 4 | 12.9 | 1 | 2.4 | 0 | 0.0 | | | |
| inadequate | 0 | 0.0 | 6 | 19.4 | 2 | 4.8 | 0 | 0.0 | | | |
| very inadequate | 2 | 25.0 | 4 | 12.9 | 0 | 0.0 | 0 | 0.0 | | | |
| total | 8 | 100.0 | 31 | 100.0 | 42 | 100.0 | | 100.0 | | | |

| Questions | Number of treatments N % | | | | | | | | | | |
|---|------------------------------------|----------------------------------|---------|--------------|----------|-------------|-------|--|--|--|--|
| | Less than HBO trea | an 10 11-40 HBO More than 40 HBO | | | p-value | | | | | | |
| Flexibility of staff in order | to adjust | to patients | s needs | | | | - | | | | |
| excellent | 2 | 16.7 | 0 | 0.0 | 24 | 33.8 | 0.010 | | | | |
| very good | 0 | 0.0 | 4 | 50.0 | 20 | 28.2 | | | | | |
| good | 2 | 16.7 | 0 | 0.0 | 1 | 1.4 | | | | | |
| inadequate | 2 | 16.7 | 2 | 25.0 | 12 | 16.9 | | | | | |
| very inadequate | 6 | 50.0 | 2 | 25.0 | 14 | 19.7 | | | | | |
| total | 12 | 100.0 | 8 | 100.0 | 71 | 100.0 | | | | | |
| telephone contact with D.H | I.M.U. | | | | | | | | | | |
| excellent | 8 | 66.7 | 0 | 0.0 | 60 | 84.5 | 0.000 | | | | |
| very good | 0 | 0.0 | 1 | 12.5 | 1 | 1.4 | | | | | |
| good | 0 | 0.0 | 2 | 25.0 | 1 | 1.4 | | | | | |
| inadequate | 2 | 16.7 | 5 | 62.5 | 9 | 12.7 | | | | | |
| very inadequate | 2 | 16.7 | 0 | 0.0 | 0 | 0.0 | | | | | |
| total | 12 | 100.0 | 8 | 100.0 | 71 | 100.0 | | | | | |
| Easiness to make an appointment with D.H.M.U. | | | | | | | | | | | |
| excellent | 6 | 50.0 | 6 | 75.0 | 54 | 76.1 | 0.045 | | | | |
| very good | 0 | 0.0 | 0 | 0.0 | 6 | 8.5 | | | | | |
| good | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | | | | | |
| inadequate | 4 | 33.3 | 0 | 0.0 | 5 | 7.0 | | | | | |
| very inadequate | 2 | 16.7 | 2 | 25.0 | 6 | 8.5 | | | | | |
| total | 12 | 100.0 | 8 | 100.0 | 71 | 100.0 | | | | | |
| Availability of personnel | | | 1 | | P | | 1 | | | | |
| excellent | 4 | 33.3 | 3 | 37.5 | 33 | 46.5 | 0.027 | | | | |
| very good | 0 | 0.0 | 4 | 50.0 | 18 | 25.4 | | | | | |
| good | 2 | 16.7 | 1 | 12.5 | 2 | 2.8 | | | | | |
| inadequate | 0 | 0.0 50.0 | 0 | 0.0 | 4 14 | 5.6 19.7 | | | | | |
| very inadequate total | 6 12 | 100.0 | 0 8 | 0.0 100.0 | 71 | 19.7 | | | | | |
| cleanliness of the chamber | | | 0 | 100.0 | /1 | 100.0 | | | | | |
| excellent | 6 | 50.0 | 0 | 0.0 | 16 | 22.5 | 0.005 | | | | |
| | 0 | 0.0 | 4 | 50.0 | 7 | 22.3 9.9 | 0.005 | | | | |
| very good | 0 | 0.0 | 4 | 12.5 | 9 | 9.9 12.7 | | | | | |
| good inadequate | 0 | 0.0 | 0 | 0.0 | 12 | 12.7 | | | | | |
| very inadequate | 6 | 50.0 | 3.0 | 37.5 | 27 | 38.0 | | | | | |
| total | 12 | 100.0 | 8 | 100.0 | 71 | 100.0 | | | | | |
| Respect from staff | 12 | 100.0 | 0 | 100.0 | /1 | 100.0 | | | | | |
| excellent | 6 | 50.0 | 6 | 75.0 | 49 | 69.0 | 0.002 | | | | |
| very good | 0 | 0.0 | 1 | 12.5 | 14 | 19.7 | 0.002 | | | | |
| good | 2 | 16.7 | 1 | 12.5 | 0 | 0.0 | | | | | |
| inadequate | $\overset{2}{0}$ | 0.0 | 0 | 0.0 | 4 | 0.0 5.6 | | | | | |
| very inadequate | 4 | 33.3 | 0 | 0.0 | 4 | 5.6 | | | | | |
| total | 12 | 100.0 | 8 | 100.0 | 71 | 100.0 | | | | | |
| view of patients about how | | | | | ,1 | 100.0 | | | | | |
| excellent | 10 | 83.3 | 3 | 37.5 | 45 | 63.4 | 0.001 | | | | |
| very good | 0 | 0.0 | 0 | 0.0 | 43 19 | 26.8 | 0.001 | | | | |
| good | 2 | 0.0 16.7 | 3 | 37.5 | 2 | 20.8 | | | | | |
| inadequate | $\frac{2}{0}$ | 0.0 | 0 | 0.0 | 2 | 2.8 2.8 | | | | | |
| very inadequate | 0 | 0.0 | 2 | 25.0 | 3 | 2.8 4.2 | | | | | |
| | | | | | | | | | | | |
| total | 12 | 100.0 | 8 | 100.0 | 71 | 100.0 | | | | | |

Table 4: correlation of patient satisfaction with number of HBO treatments in the chamber of D.H.M.U

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| Questions | Number of treatments | | | | | | | | | |
|---------------------|--|----------------|-------------------------|----------|--------------------------------|-----------------|-------------------|--|--|--|
| | N % | | | | | | | | | |
| | Less than 10 HBO treatments | | 11-40 HBO treatments | | More than 40 HBO treatments | | p-value | | | |
| Discretion of staff | | | | | | | | | | |
| excellent | 4 | 33.3 | 3 | 37.5 | 35 | 49.3 | 0.012 | | | |
| very good | 0 | 0.0 | 0 | 0.0 | 13 | 18.3 | | | | |
| good | 0 | 0.0 | 0 | 0.0 | 2 | 2.8 | | | | |
| inadequate | 4 | 33.3 | 0 | 0.0 | 13 | 18.3 | | | | |
| very inadequate | 4 | 33.3 | 5 | 62.5 | 8 | 11.3 | | | | |
| total | 12 | 100.0 | 8 | 100.0 | 71 | 100.0 | | | | |
| | | | | | Cor | rect informatio | on from the staff | | | |
| excellent | 4 | 33.3 | 3 | 37.5 | 50 | 70.4 | 0.015 | | | |
| very good | 0 | 0.0 | 2 | 25.0 | 8 | 11.3 | | | | |
| good | 2 | 16.7 | 0 | 0.0 | 4 | 5.6 | | | | |
| inadequate | 4 | 33.3 | 1 | 12.5 | 5 | 7.0 | | | | |
| very inadequate | 2 | 16.7 | 2 | 25.0 | 4 | 5.6 | | | | |
| total | 12 | 100.0 | 8 | 100.0 | 71 | 100.0 | | | | |
| satisfac | tion wit | n efficient in | forma | tion and | advise y | ou were given | by the personnel | | | |
| excellent | 10 | 83.3 | 7 | 87.5 | 58 | 81.7 | 0.017 | | | |
| very good | 0 | 0.0 | 0 | 0.0 | 9 | 12.7 | | | | |
| good | 2 | 16.7 | 0 | 0.0 | 4 | 5.6 | | | | |
| inadequate | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | | | | |
| very inadequate | 0 | 0.0 | 1 | 12.5 | 0 | 0.0 | | | | |
| total | 12 | 100.0 | 8 | 100.0 | 71 | 100.0 | | | | |
| | precise explanations from staff to deal with possible problems | | | | | | | | | |
| excellent | 6 | 50.0 | 0 | 0.0 | 21 | 29.6 | 0.010 | | | |
| very good | 0 | 0.0 | 4 | 50.0 | 6 | 8.5 | | | | |
| good | 0 | 0.0 | 0 | 0.0 | 10 | 14.1 | | | | |
| inadequate | 2 | 16.7 | 2 | 25.0 | 13 | 18.3 | | | | |
| very inadequate | 4 | 33.3 | 2 | 25.0 | 21 | 29.6 | | | | |
| total | 12 | 100.0 | 8 | 100.0 | 71 | 100.0 | | | | |

Discussion

Our results revealed high levels of patient satisfaction, similarly to most relevant surveys where up to 80% of the participants affirmed their satisfaction in all the items of measurement tools (Guzman. 1988; Fitzpatrick, 1991). In our study, patient satisfaction levels were high or extremely high respectively for the access to the DHMU and communication from the nursing staff, whereas in most items patient satisfaction percentage was higher than in other studies. The results of this study are also in accordance with other data in the literature which state that patients tend to be more satisfied with the technical aspect of the care they receive and less with the information they are offered and the fulfillment of basic needs (Zahr, William, EI-Hadad, 1991; Doering, 1983). High patient satisfaction is noted regarding the ability and willingness of the staff to provide high-quality care. This can partly be attributed to the emphasis given to the technical aspect of care prior and during the HBO treatments, as a result of the elaborate specialization of our Unit. There are, however, findings from other quantitative analysis studies (Steven, 1991; Hall & Dornan, 1988; Abdellah & Levine, 1975) suggesting that it is consequent to patient lack of specialized knowledge and/or fear due to their dependence to the staff (Doll, 1979; Eriksen, 1987).

Oberst (1984) supports that the average patient does not have adequate knowledge or experience to evaluate the technical aspect of medical or nursing procedures. This results in them using representative items that they can understand and appreciate in order to assess the quality of the services offered to them in hospitals. These items usually refer to the fulfillment of basic needs which are more comprehensible to them, as attested by the quantitative analyses of our results for staff politeness, respectfulness, discretion and flexibility.

Leebov (1988), on the other hand, adds a completely different concept. He argues that patients judge the technical and medical abilities of an institution from the natural environment and amenities it offers, so that a question is posed: if the TV is not working, why should the CT scanner be reliable? According to a study conducted in the USA in

the 1960's nursing and medical staff perceived as "good patients" those who were somewhat submissive, did not request for much and were discharged home at the expected time (Taylor, 1970). Staff attitude discourage patients seemed to from commenting on sensitive aspects of their care, like the techniques used and the interpersonal relations. Furthermore, patients rarely voiced their opinions on how they would want the nurses to be and limited themselves to either praising the staff or mentioning specific complaints. It is apparent that patients feel that the continuous care provided to them by the nursing staff constitutes, to some extent, a form of control over their lives which, as a result, makes them feel it would be unwise to express their opinion freely (Nunally & Bernstein, 1994).

These factors seem to have played a significant role in the results drawn in our study in relation to the levels of satisfaction expressed by our patients; even more so when they were asked to provide comments on aspects of their care that needed improvements: they all (100%) responded negatively despite previously not giving perfect scores in specific items of the questionnaire. Ragia (1987) believed that patients want to know everything that pertains to their illness and its treatment. Besides, after coming to terms with their diagnosis, many patients "want to join in" the formulation of the course of their condition and the choice of treatment. Ragia's study showed that almost all medical and nursing staff is willing to build a good rapport with the patients and provide as much information is possible for patients to learn about their illness and the problems they are already facing or may encounter in the future. Patients in Greece tend to refer to the lack of nursing staff as the main cause for nursing insufficiencies, as reported in a study conducted in the city of Thessaloniki (Dimitriadou, 1991). Patients at Athens Naval Hospital DHMU express top levels of satisfaction, not only regarding nursing procedures specialized in the hyperbaric environment but also in relation to the showing of interest, sensitivity and flexibility of nursing staff for other, plainly administrative procedures, aiming for absolute patient satisfaction. The main findings of our study coincide with other published data: it seems patients recognize

receiving information, satisfaction of their Guzman PM, Sliepcevich EM, Lacey EP, Vitello EM, basic needs. cleanliness and general the Unit and education conditions in regarding treatment procedures as factors of paramount importance for a positive outcome Hall JA. & Dornan MC. (1988) What the patients like of their treatment.

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