FAMILY MEMBERS' NEEDS AT INTENSIVE CARE UNITS: COMPARATIVE ANALYSIS BETWEEN A PUBLIC AND A PRIVATE HOSPITAL[1]

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This cross-sectional study proposed to analyze the needs of adult ICU patients' family members at a public and a private hospital, regarding their level of importance and satisfaction. Ninety-one family members were interviewed, 47 from the public hospital and 44 from the private one, using the Brazilian adaptation of the Critical Care Family Need Inventory (INEFTI). There was no significant difference between the groups in the total score of importance attributed to the needs (p=0.410). The satisfaction score was higher in the private hospital than in the public one (p=0.002). Multiple linear regression analysis allowed us to establish a hierarchy of importance and satisfaction of the family members' needs in each group. The differences observed between the groups suggest that the fulfillment of their needs requires interventions directed at the specificity of each type of hospital.

DESCRIPTORS: family; family nursing; needs assessment; intensive care units

NECESIDADES DE LOS FAMILIARES DE PACIENTES EN UNIDADES DE TERAPIA INTENSIVA: ANÁLISIS COMPARATIVO ENTRE HOSPITAL PÚBLICO Y PRIVADO

Se trata de un estudio transversal, con objeto de analizar y comparar las necesidades de los familiares de pacientes adultos internados en UTIs de un hospital público y un privado, respecto al grado de importancia y satisfacción. Se les entrevistaron a 91 familiares, 47 de la institución pública y 44 de la privada, utilizándose el Inventario de Necesidades y Estresores de Familiares en Terapia Intensiva (INEFTI). No hubo diferencia significativa entre los grupos en la puntuación total de importancia atribuida a las necesidades (p=0,410). El grado de satisfacción fue mayor en el hospital privado con relación al público (p=0,002). El análisis de regresión linear múltipla permitió establecer una jerarquía de importancia y de satisfacción de las necesidades de los familiares de cada grupo. Las diferencias observadas entre los grupos sugieren que el atendimiento de sus necesidades requiere intervenciones direccionadas a la especificidad de cada tipo de institución.

DESCRIPTORES: familia; enfermería de la familia; evaluación de necesidades; unidades de terapia intensiva

NECESSIDADES DE FAMILIARES DE PACIENTES EM UNIDADES DE TERAPIA INTENSIVA: ANÁLISE COMPARATIVA ENTRE HOSPITAL PÚBLICO E PRIVADO

Trata-se de estudo transversal que teve como proposta analisar comparativamente as necessidades de familiares de pacientes adultos, internados em UTIs de hospital público e privado, quanto ao seu grau de importância e satisfação. Foram entrevistados 91 familiares, sendo 47 de instituição pública e 44 de particular, utilizando-se o Inventário de Necessidades e Estressores de Familiares em Terapia Intensiva (INEFTI). Não houve diferença significativa entre os grupos no escore total de importância atribuído às necessidades (p=0,410). O grau de satisfação foi maior no hospital privado (p=0,002). A análise de regressão linear múltipla permitiu estabelecer uma hierarquia de importância e de satisfação das necessidades dos familiares de cada grupo. As diferenças observadas entre os grupos sugerem que o atendimento de suas necessidades requer intervenções direcionadas à especificidade de cada tipo de instituição.

DESCRITORES: família; enfermagem familiar; determinação de necessidades de cuidados de saúde; unidades de terapia intensiva

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INTRODUCTION

The hospitalization of a family member in an Intensive Care Unit (ICU) generally occurs acutely and without previous warning, leaving little time for family adjustment. In view of this stressful situation, relatives can feel disorganized and helpless and face mobilization difficulties, giving rise to different types of needs.

Family members' needs are conceptualized as something essential, required by people and which, when attended to, relieve or decrease their immediate affliction and anguish and improve their perception of well-being [1]. Most studies on relatives of critical patients have concentrated on describing the importance of their needs and the extent to which they are satisfied. Nurses were pioneers in studying this theme.

The first study about family needs in the ICU context was published by the North-American nurse Nancy Molter in 1979, and aimed to identify the needs perceived by patients' relatives. Therefore, the author elaborated a questionnaire with 45 needs items, scored according to their level of importance [2].

In 1986, Jane Leske replicated Molter' study and applied the same questionnaire, after a random reorganization of the items' sequence. This questionnaire was called the Critical Care Family Needs Inventory (CCFNI) and consisted of the same 45 needs, to which family members attributed different levels of importance, using a rising scale from 1 to 4. In 1991, Leske used the CCFNI to conduct a study of 677 relatives and, after factor analysis, the items were allocated in five dimensions: Support, Comfort, Information, Closeness and Reassurance [2-3].

Most studies have used the CCFNI either in its original form or translated and adapted to different languages, countries and populations. In Brazil, Castro[4] carried out the cross-cultural adaptation and validation of the CCFNI in 1999 and used the name *Inventário de Necessidades e Estressores de Familiares em Terapia Intensiva* (INEFTI). In this study, 74% of needs considered very important or important were related to Information and Reassurance. Twenty-six percent of needs referred to ICU infrastructure, organization and functioning [4].

In international literature, different aspects of relatives' needs at ICU have been examined and existing study results contribute to create awareness about the fact that no single hospital can ignore the responsibility of attending to families' needs[5].

Hospital care in Brazil is quite selective. Access to hospitalization is conditioned by the existence of the necessary resources, such as specialists, equipment and bed and service availability, and fundamentally depends on having financial resources or a hospitalization funding system [6]. Hence, differences between the socioeconomic and clinical characteristics of patients attended at public and private health institutions can probably influence the qualitative and quantitative expression of their relatives' needs.

Thus, this study aimed to comparatively analyze the needs of family members of patients hospitalized at the ICU of a public and a private hospital and identify what needs most contributed when assessing their importance and the extent to which they were satisfied.

METHODS

A cross-sectional and comparative study was carried out at three ICU in São Paulo City - two from a public and one from a private hospital. At the public hospital, the Medical Clinical ICU (11 beds) and the Surgical ICU (14 beds) were selected in order to obtain a general, clinical and surgical sample. At the private hospital, the ICU was selected where adult patients received clinical and surgical treatment, with 19 beds.

The project was assessed by the hospitals' Research Ethics Commissions and approved without restrictions.

Study subjects were the relatives of patients hospitalized at the selected ICU between November 2004 and February 2005. Only one relative was interviewed for each patient. Family member was defined as that person indicated as being the closest to the patient, with or without blood relations, with whom the patient was living in a close relationship.

The inclusion criteria were: age of 18 or older; having an adult relative hospitalized in the ICU for at least 24 hours; having visited the patient at least one during the hospitalization period; being able to understand and answer the instrument questions, and agreeing to participate in the research by signing the Free and Informed Consent Term.

Sample size was estimated at 44 relatives for each institution, considering a 0.05 alpha error and a 0.20 beta error.

Four instruments were used for data collection: the ICU characterization form, to record structural and functional information about the units; the patient characterization form to collect sociodemographic and clinical data; the family member characterization form to register socioeconomic, demographic data and information about his/her relationship with the patient, and the *Inventário de Necessidades e Estressores de Familiares em Terapia Intensiva* (INEFTI) to assess the relatives' needs.

The INEFTI is an instrument derived from the Critical Care Family Needs Inventory (CCFNI), which was adapted and validated for the Brazilian culture[4] and assesses the importance of the needs of ICU patients' family members and the extent to which they are satisfied. The instrument addresses needs related to five dimensions: Information, Reassurance, Closeness, Support and Comfort. The Portuguese version consists of 43 items. In the above mentioned study[4], the author assessed the internal consistency of the items through the split-halves method, and obtained Spearman-Brown coefficients of 0.74 and 0.77. Internal consistency reliability through Cronbach's alpha coefficient was not analyzed for the complete instrument and its domains.

The original scoring scale, which ranges from 1 to 4, was modified to a range from 0 to 3[4] in the Brazilian version of the CCFNI. In the present study, we decided to maintain the same range as in original instrument, in order to facilitate comparisons with results of international studies that used the CCFNI. The range from 1 to 4 was also adopted in another Brazilian study [7].

The score scales are rising, that is, the higher the score attributed to the item, the higher the level of importance or satisfaction. In this study, needs with a mean score ≥ 3 were defined as having the greatest importance and satisfaction. The same criterion has been adopted in other studies [8-9].

Patients who had been hospitalized for at least 24 hours were identified by consulting the units' daily census. Family members who complied with the inclusion criteria were invited to participate in this study and received information about its objectives. If they agreed, an appointment was made for an interview, according to the relative's availability. At the start of the interview, family members who agreed to participate signed the Free and Informed Consent Term.

Interviews were held in a private location, near or inside the ICU, and took between 20 and 60 minutes.

Descriptive statistics was used to characterize patients and their respective relatives. Pearson's Chi-square test was used to compare categorical data of the public and private groups, and Student's t-test for continuous and semi-continuous data. Multiple Linear Regression was used to identify the needs that most contributed to the variation in importance and satisfaction scores. Dependent variables were the satisfaction and importance scores, and independent variables were the needs listed in the INEFTI. Items that appeared as significant predictors ($p<0.05$) of satisfaction and importance in the simple linear regression were included in the multiple analysis.

Reliability of the INEFTI was assessed by analyzing the internal consistency of items and domains through Cronbach's alpha coefficient. The value of 0.70 was adopted as the lower limit of consistency [10-11].

Data were stored and analyzed in *Statistical Package for the Social Sciences* (SPSS) software, version 12.0 for Windows. A significance level of p£ 0.05 was adopted for all analyses.

RESULTS

Characteristics of patients and relatives

We studied 91 patients from two public and one private hospital, who displayed similar

characteristics in terms of age range, gender, religion, marital situation, previous ICU hospitalization experience, death risk as measured by the Acute Physiology and Chronic Health Evaluation - Classification System II (APACHE II) and condition to leave the ICU (death or discharge). Patients were mostly women (53.8%), catholic (73.6%) and married (52.7%), with an average age of 59.6±19.3 years; 68.1% had been hospitalized in an ICU on a previous occasion; median death risk was 19.6% (10.3%-36.9%) and 79.1% were discharged from the ICU.

We found significant differences between patient groups in terms of education (p=0.032), with more patients with a higher education degree at the private (25.6%) than at the public hospital (6.4%); unit of origin (p=0.028), as most patients at the public ICU came from the operating room (46.8%) and at the private ICU from the emergency care unit (52.3%); reason for hospitalization (p=0.012), with higher numbers of patients in the immediate postoperative stage at the public units (46.6%), against patients with cardiovascular diseases at the private (25.0%); and ICU hospitalization time (p<0.001): at the public hospital, most patient stayed at the ICU for more than seven days (55.1%) while, at the private, between three and six days (43.2%).

We interviewed 91 relatives, 47 from the public hospital and 44 from the private. Both groups were similar in terms of age range, gender, religion, marital situation, work situation, previous experience with family members hospitalized at ICU and knowledge about the patient's diagnosis. Almost all family members were younger than 59 years (88%) and about half (49.5%) were between 40 and 59 years old. Most relatives were women (74.7%), catholic (64.8%) and married (61.5%); more than half performed paid work (58.2%) and had previous experience with family members hospitalized at ICU (59.3%), and most relatives were aware of the patient's medical diagnosis (91.2%).

Statistically significant differences between the public and private groups were identified in terms of educational level (p=0.024), degree of kinship with the patient (p<0.001), monthly family income (p<0.001) and knowing of patient's physician (p=0.014) and nurse (0.003). At the private hospital, more family members had a higher education degree (50%) than at the public hospital (25.5%). At both hospitals, children were the most present relatives, but more frequently at the private (61.4%) than at the public (44.7%); at the latter, 29.8% were siblings, uncles, cousins and grandchildren while, at the former, they represented a mere 4.5% of relatives; 40.9% of relatives at the private ICU gained an income of more than 10 minimum wages, against only 10.6% at the public units; at the private institution, 81.8% of family members knew the physician's name, against 57.4% at the public hospital; only 54.5% of relatives at the private and 23.4% at the public ICU knew the nurse's name.

INEFTI reliability analysis

Considering the importance measure of needs, four of the five CCNFI domains (Reassurance, Closeness, Information and Comfort) presented reliability coefficients far below acceptable limits, with Cronbach's alpha ranging between 0.27 and 0.43. In the Support domain, an alpha of 0.62 was found. With respect to satisfaction measurements, Closeness and Comfort domains presented coefficients that either bordered acceptable limits or indicated inconsistency (0.67 and 0.47, respectively). When analyzed jointly, reliability rates for the 43 INFEFTI items were quite satisfactory, for the importance (Alpha=0.79) as well as for the satisfaction scale (Alpha=0.86).

In view of these results, family needs were analyzed based on the full set of items, without considering different domains. Despite this option, it should be emphasized that, in this study, needs were individually named according to the nature of its original domain.

Levels of importance and satisfaction of ICU patients' family needs at the public and the private hospitals

In the total group of 43 needs, family members at both institutions considered about 90% of them as important or very important, adopting the criterion of items with a mean score $\geq$3.

Table 1 shows the comparison between the two groups of relatives in terms of mean importance scores of INEFTI needs.

Table 1 - Mean values and standard deviation of importance scores for 43 INEFTI needs. São Paulo, SP, 2005

Item	Needs	Public Mean±SD	Private Mean±SD	p-value*
42-CL	To see the patient frequently	3.98±0.14	3.82±0.65	0.106
40-RE	To feel that the hospital personnel care about the patient	3.98±0.14	3.98±0.15	0.963
37-CL	To be told about transfer plans while they are being made	3.98±0.14	3.89±0.49	0.222
17-RE	To be assured that the best care possible is being given to the patient	3.98±0.14	4.00±0.00	0.323
16-IN	To know how the patient is being treated medically	3.98±0.14	3.95±0.21	0.529
13-IN	To know why things were done for the patient	3.98±0.14	3.98±0.15	0.963
01-RE	To know the expected outcome	3.98±0.14	3.98±0.15	0.963
03-IN	To talk to the doctor every day	3.96±0.20	3.98±0.15	0.598
34-CL	To have visiting hours start on time	3.94±0.24	3.73±0.49	0.029
33-RE	To have explanations given that are understandable	3.94±0.24	3.95±0.21	0.703
05-RE	To have questions answered honestly	3.94±0.24	3.84±0.64	0.362
15-IN	To know about the types of staff members taking care of the patient	3.91±0.45	3.89±0.38	0.748
11-IN	To know which staff members could give what type of information	3.91±0.45	3.93±0.25	0.827
09-SP	To have directions as to what to do at the bedside	3.87±0.49	3.84±0.52	0.770
14-RE	To feel there is hope	3.87±0.61	3.89±0.49	0.904
41-RE	To know specific facts concerning the patient's progress	3.87±0.53	3.95±0.21	0.345
02-SP	To have explanations of the environment before going into the critical care unit for the first time	3.85±0.36	3.91±0.29	0.399
39-CL	To receive information about the patient at least once a day	3.85±0.62	3.95±0.30	0.322
28-CM	To be assured it is alright to leave the hospital for a while	3.83±0.63	3.89±0.38	0.607
21-CM	To feel accepted by the hospital staff	3.83±0.52	3.82±0.44	0.909
19-IN	To know exactly what is being done for the patient	3.83±0.63	3.93±0.25	0.324
32-CM	To have a toilet near the waiting room	3.81±0.64	3.80±0.59	0.920
31-SP	To be told about other people that could help with problems	3.72±0.71	3.82±0.49	0.461
23-CM	To have a telephone near the waiting room	3.68±0.81	3.57±0.95	0.546
06-CL	To have visiting hours changed for specific conditions	3.66±0.86	3.45±1.04	0.313
27-SP	To have someone be concerned with your health	3.62±0.87	3.20±1.13	0.054
12-SP	To have friends nearby for support	3.57±0.95	3.75±0.71	0.321
38-CL	To be called at home about changes in the patient's condition	3.55±1.03	3.77±0.74	0.252
04-IN	To have a specific person to call at the hospital when unable to visit	3.53±0.85	3.45±1.02	0.697
30-SP	To feel it is alright to cry	3.47±1.01	3.64±0.75	0.374
26-SP	To have another person with you when visiting the critical care unit	3.47±1.06	3.57±0.87	0.623
43-CL	To have the waiting room near the patient	3.47±1.06	3.09±1.27	0.127
22-SP	To have someone to help with financial problems	3.36±1.09	3.70±0.73	0.084
24-SP	To have a pastor visit	3.34±1.10	3.57±0.87	0.391
29-CL	To talk to the in charge nurse every day	3.32±1.12	3.45±0.97	0.540
25-SP	To talk about the possibility of the patient's death	3.23±1.23	3.59±0.97	0.131
07-SP	To talk about feelings about what has happened	3.13±1.26	2.68±1.44	0.120
08-CM	To have good food available in the hospital	3.11±1.16	3.73±0.49	0.002
35-SP	To be told about religious services	2.91±1.28	3.36±1.05	0.073
36-IN	To help with the patient's physical care	2.89±1.38	2.75±1.40	0.624
20-CM	To have comfortable furniture in the waiting room	2.81±1.36	3.39±1.06	0.027
10-CL	To visit at any time	2.55±1.28	2.41±1.41	0.613
18-SP	To have a place to be alone while in the hospital	1.89±1.25	2.55±1.47	0.025
	Total store	**3,59±0,26**	**3.64±0.25**	**0.410**

Observations: *Student's t-test; RE: Reassurance, IN: Information, CL: Closeness, SP: Support, CM: Comfort.

Table 1 shows that there was no significant difference between relatives at the public and private ICU in terms of total importance score (p=0.410). They considered about 90% of these needs as important or very important, adopting the criterion of items with mean score $\geq$3.

The comparison between mean scores for each of the items demonstrated significant differences between both groups about the importance of four needs only: "to have visiting hours start on time" (p=0.029), "to have good food available in the hospital" (p=0.002), "to have comfortable furniture in the waiting room" (p=0.027) and "to have a place to be alone while in the hospital" (p=0.025). Except for the first item (have visiting hours start on time), which relatives at the public ICU considered more important, the three other items were considered more important by relatives at the private institution.

Table 2 below compares both groups in terms of mean satisfaction scores about meeting INEFTI needs.

Table 2 - Mean values and standard deviation of satisfaction scores for 43 INEFTI needs. São Paulo, SP, 2005

Item	Needs	Public	Private	p*
		Mean±SD	Mean±SD	
03-IN	To talk to the doctor every day	3.81±0.39	3.73±0.69	0.500
40-RE	To feel that the hospital personnel care about the patient	3.77±0.56	3.73±0.54	0.739
05-RE	To have questions answered honestly	3.77±0.52	3.91±0.29	0.112
17-RE	To be assured that the best care possible is being given to the patient	3.72±0.64	3.82±0.54	0.450
41-RE	To know specific facts concerning the patient's progress	3.70±0.62	3.68±0.60	0.875
14-RE	To feel there is hope	3.61±0.80	3.77±0.57	0.288
01-RE	To know the expected outcome	3.60±0.71	3.59±0.69	0.974
28-CM	To be assured it is alright to leave the hospital for a while	3.57±0.86	3.45±0.95	0.565
33-RE	To have explanations given that are understandable	3.45±0.90	3.66±0.68	0.211
21-CM	To feel accepted by the hospital staff	3.40±0.92	3.64±0.75	0.194
19-IN	To know exactly what is being done for the patient	3.40±0.94	3.61±0.75	0.245
16-IN	To know how the patient is being treated medically	3.38±0.96	3.57±0.69	0.300
13-IN	To know why things were done for the patient	3.38±1.01	3.77±0.64	0.032
25-SP	To talk about the possibility of the patient's death	3.30±1.09	2.91±1.36	0.131
12-SP	To have friends nearby for support	3.30±1.08	3.68±0.82	0.062
30-SP	To feel it is alright to cry	3.30±1.08	3.48±0.97	0.408
39-CL	To receive information about the patient at least once a day	3.19±1.15	3.50±0.92	0.165
42-CL	To see the patient frequently	3.19±1.15	3.57±0.90	0.087
15-IN	To know about the types of staff members taking care of the patient	3.13±1.05	3.64±0.75	0.010
43-CL	To have the waiting room near the patient	3.11±1.23	3.09±1.25	0.953
11-IN	To know which staff members could give what type of information	3.11±1.20	3.43±1.02	0.167
02-SP	To have explanations of the environment before going into the critical care unit for the first time	3.09±1.13	3.57±0.78	0.022
23-CM	To have a telephone near the waiting room	3.07±1.18	2.79±1.37	0.307
34-CL	To have visiting hours start on time	2.91±1.24	3.34±0.83	0.058
08-CM	To have good food available in the hospital	2.83±1.16	3.16±1.11	0.186
26-SP	To have another person with you when visiting the critical care unit	2.77±1.35	3.64±0.75	0.001
07-SP	To talk about feelings about what has happened	2.75±1.29	2.66±1.32	0.746
09-SP	To have directions as to what to do at the bedside	2.68±1.28	3.05±1.25	0.175
18-SP	To have a place to be alone while in the hospital	2.67±1.34	3.36±1.12	0.011
10-CL	To visit at any time	2.62±1.26	3.11±1.26	0.070
37-CL	To be told about transfer plans while they are being made	2.61±1.42	3.19±1.19	0.042
24-SP	To have a pastor visit	2.44±1.34	2.42±1.38	0.938
27-SP	To have someone be concerned with your health	2.38±1.34	2.55±1.26	0.554
06-CL	To have visiting hours changed for specific conditions	2.38±1.31	2.95±1.33	0.053
29-CL	To talk to the in charge nurse every day	2.35±1.28	3.07±1.16	0.007
20-CM	To have comfortable furniture in the waiting room	2.32±1.28	2.84±1.27	0.055
36-IN	To help with the patient's physical care	2.26±1.35	2.93±1.26	0.017
04-IN	To have a specific person to call at the hospital when unable to visit	2.05±1.28	2.16±1.40	0.712
38-CL	To be called at home about changes in the patient's condition	2.02±1.34	2.37±1.44	0.264
35-SP	To be told about religious services	1.91±1.29	2.37±1.38	0.110
31-SP	To be told about other persons that could help with problems	1.79±1.17	2.91±1.25	0.001
22-SP	To have someone to help with financial problems	1.62±1.11	2.03±1.38	0.151
32-CM	To have a toilet near the waiting room	1.53±1.03	2.51±1.38	0.001
	Total Score	**2,92 ±0,50**	**3.23±0.42**	**0.002**

Observations: *Student's t-test; RE: Reassurance, IN: Information, CL: Closeness, SP: Support, CM: Comfort

Family members of patients at the private ICU presented a higher total satisfaction score (3.23) than at the public one (2.92), with a statistically significant difference (p=0.002). Considering the 43 satisfaction items, relatives at the public ICU were dissatisfied or little satisfied (mean<3) with almost half of the needs (46.5%), against 32.5% among relatives at the private ICU.

When comparing mean scores per item, significant differences between groups appeared for ten needs, most of them related to support and information. On all items, mean scores for relatives at the private ICU indicated greater satisfaction.

Table 3 shows Multiple Linear Regression analysis results for the items of importance scale.

Table 3 - Multiple Linear Regression of INEFTI importance scale items. São Paulo, SP, 2005

Needs	Item type	Beta	Position	p-value	r
Public*					
To know why things were done for the patient	IN	0.578	1	<0.001	0.497
To know which staff members could give what type of information	IN	0.140	2	<0.001	0.265
To talk to the in charge nurse every day	CL	0.082	3	<0.001	0.493
To be told about religious services	SP	0.057	4	<0.001	0.581
To have good food available in the hospital	CM	0.046	5	<0.001	0.255
To have a pastor visit	SP	0.042	6	<0.001	0.396
To have someone to help with financial problems	SP	0.040	7	<0.001	0.585
To have comfortable furniture in the waiting room	CM	0.032	8	0.004	0.559
Private**					
To know the expected outcome	RE	0.479	1	<0.001	0.366
To be told about transfer plans while they are being made	CL	0.145	2	<0.001	0.152
To have friends nearby for support	SP	0.134	3	<0.001	0.401
To have comfortable furniture in the waiting room	CM	0.074	4	<0.001	0.424
To feel it is alright to cry	SP	0.058	5	0.006	0.347
To be told about religious services	SP	0.056	6	<0.001	0.519
To have a place to be alone while in the hospital	SP	0.041	7	<0.001	0.685
To visit at any time	CL	0.031	8	0.002	0.507

Observations: *adjusted r^2= 0.99; ** adjusted r^2= 1.0; RE: Reassurance, IN: Information, CL: Closeness, SP: Support, CM: Comfort.

In accordance with Table 3, the item that most contributed to variation in the total importance score at the public hospital was "to know why things were done for the patient" (b=0.578). At the private ICU, this was the case for "to know the expected outcome" (b=0.479). Among the needs that continued in both models, only "to have comfortable furniture in the waiting room" and "to be informed about religious services" were present in both groups. However, "to have comfortable furniture in the waiting room" caused a greater increase in the total score at the private (ß= 0.074) than at the public hospital (ß= 0.032).

Multiple Linear Regression analysis results of INEFTI satisfaction scale items are presented in Table 4.

Table 4 - Multiple Linear Regression of INEFTI satisfaction scale items. São Paulo, SP, 2005

Needs	Item type	Beta	Position	p	r
Public*					
To know specific facts concerning the patient's progress	RE	0.396	1	<0.001	0.601
To know why things were done for the patient	IN	0.158	2	0.001	0.418
To have the waiting room near the patient	CL	0.119	3	<0.001	0.500
To have a telephone near the waiting room	CM	0.108	4	0.001	0.411
To be told about religious services	SP	0.092	5	<0.001	0.451
To have visiting hours start on time	CL	0.086	6	0.004	0.476
To have explanations of the environment before going into the critical care unit for the first time	SP	0.081	7	0.007	0.522
Private**					
To have questions answered honestly	RE	0.404	1	<0.001	0.382
To know about the types of staff members taking care of the patient	IN	0.297	2	<0.001	0.572
To have another person with you when visiting the critical care unit	SP	0.154	3	0.006	0.380
To be told about religious services	SP	0.093	4	0.001	0.401
To help with the patient's physical care	IN	0.079	5	0.006	0.445

Observations: *adjusted r^2= 0.99; ** adjusted r^2= 1.0; RE: Reassurance, IN: Information, CL: Closeness, SP: Support, CM: Comfort.

At the public unit, seven out of 43 INEFTI items continued in the model as satisfaction predictors when adjusted by the other items. The item that most contributed to family members' satisfaction at this unit was "to know specific facts concerning the patient's progress" (b=0.396). The other needs caused a smaller increase in the final satisfaction score (b ranging from 0.081 to 0.158).

At the private unit, only five items continued as predictors in the multiple analysis. The items that most contributed to the total satisfaction score were "to have questions answered honestly" (b=0.404) and "to know about the types of staff members taking care of the patient" (b=0.297). Only "to be told about religious services" appeared in both models, leading to a similar variation in the total satisfaction score (b=0.093 and 0.092).

DISCUSSION

Various studies have looked at the needs of critical patients' relatives. Although using different quantitative or qualitative methodologies, all of them have the same goal: getting to know these family members' needs and allowing for intervention planning in order to meet patients' and families' actual demands.

Assessment of these relatives' needs has been guided by the perception of the degree of importance and satisfaction with aspects related to patient and family care delivery. Identifying the importance makes it possible to get to know how families value these needs and provides data to plan and implement actions in order to meet these needs, as well as to redirect the possible focus of situations which relatives and patients do not consider important. Measuring satisfaction levels, on the other hand, supports the identification of unmet needs and the assessment of care quality.

Despite the differences in sociodemographic profile, both groups showed no significant difference between total importance scores (Table 1). When comparing items individually, the two groups differed in terms of the importance they attributed to some needs. Family members at the public unit considered "to have visiting hours start on time" more important. This may be related to constant delays in visiting hours and waiting times they experienced during the restricted visits allowed at this institution. The same group found "to have good food available in the hospital", "to have comfortable furniture in the waiting room" and "to have a place to be alone while in the hospital" less important, a fact that was also observed in other studies [8-9]. The fact that relatives at the private ICU attribute more value to comfort needs may be associated with their higher education level and family income, which general makes them more demanding and aware of what services they can require from the hospital and professionals.

These study results evidenced a significantly higher level of dissatisfaction among relatives at the public institution (Table 2). The greater dissatisfaction, mainly with respect to support and information needs, can be attributed to the Unit's and the relatives' characteristics: reduced number of patient visits, once per day and with limited duration; restricted contact with team professionals, with physicians as the only professionals responsible for giving information about the patient's condition; absence of strategies for nurse-family integration and communication difficulties, whether due to lower education levels or altered emotional state, which are factors that affect interaction with the team and create anguish in family members. The lack of comparative studies about family members' needs at different kinds of institutions makes it difficult to confront them with the obtained research results.

The multivariate analysis performed in this study made it possible to analyze the simultaneous effect of independent variables (in this case the needs) on the dependent variable (importance or satisfaction level). Differently from means comparison tests, regression analysis can help health professionals and managers to establish priorities, in view of the wide range of aspects they need to take into consideration. Some needs that seemed less important when analyzed isolatedly became important when assessed in interaction with other needs. This was the case of comfort needs for relatives at the public hospital. Hence, if at least the eight needs that most contributed to the importance score were met, relatives' satisfaction level would probably increase, as their most important needs would be attended to. If only one of their needs could be met, priorities should be established on the basis of the increase (b) each of them would provide. Thus, at the public hospital, informing family members about why treatments are offered to the patient would be the most important aspect. At the private institution, on the other hand, the priority would be to inform relatives about the patient's chances of improvement (Table 3).

Most research on family members' needs have used descriptive statistics to examine the importance given to these needs, so that there are no studies to compare the multiple regression results with. Information, Reassurance and Closeness have been identified as the most important needs for family members of critical patients, and Support and Comfort needs as the less important domains [9,12-14].

The multivariate analysis of satisfaction levels about the 43 needs demonstrated that, at the public hospital, relatives' satisfaction level is influenced by a larger number of needs than at the private institution. At the public unit, the satisfaction level was mainly influenced by the fact that relatives received information about the patient's clinical progress. At the private institution, on the other hand, satisfaction was related to "having questions answered honestly" and "knowing about the types of staff members taking care of the patient".

It should be emphasized that "to be told about religious services" was the only need that continued in the importance and satisfaction models at the public and private institutions. This interesting result seems to be peculiar to our reality and deserves more in-depth study. Empirical studies have identified that religion and spirituality exert significant influence on people's physical and mental health. Religious and spiritual practices are considered as psychosocial support that favors the feeling of subjective well-being and the manifestation of greater security, hope and self-esteem [15]. For family members of intensive care patients, they can represent an important internal resource in coping with critical situations, such as pain, suffering and death.

These study results indicate the main factors capable of contributing to how family members' needs at public and private ICU can be met adequately. However, implementing interventions among these persons is not only an individual responsibility of ICU professionals, but should be assumed together with health institution managers. Acknowledging and including patients' families as a care focus presupposes fundamental changes in the perspective on and organization of public and private health institutions.

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