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RESEARCH ARTICLE

PERSONNEL NURSING AND COMMUNICATION WITH THE FAMILY OF HOSPITALIZED PATIENTS IN CRITICAL AREAS OF A NAVY HOSPITAL

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ABSTRACT

In the critical areas of a hospital, the assistance provided by health professionals is focused primarily on the patient, however the attention to family members also turns out to be of great importance. The nursing staff is in charge of informing the family members about the care for their family member, how the unit works, the multidisciplinary team, how they should behave and what they can do for the patient during the visit. To date there are few studies that report data on the attention to families and the communication process of the nursing staff. In the present study, the perception of the nursing personnel about the communication process with the relatives of the patients admitted in the different critical areas (EMEA, UICA, UITA and UITP) of navy hospital was analyzed to estimate the reality of the healthcare practice of the nursing staff on this topic. The results revealed a quite evident difference between the female and male sexes of the nursing staff (71% and 29% respectively). The female group was found distributed among the four critical areas, while the male was found absent in the pediatric área (UITP). Nursing service communication was evaluated using the Scale *"Nurse Activities for Communicating with Families (NACF)"* questionary. The results of the questionnaire divided into three groups, were compared between the services that have more and less years of experience (UICA and EMEA) respectively). Despite the difference in years of experience, the communication of the staff of both services is similar, both of them practically never omit information about the treatment and care of the patient (UICA: 6.25% and EMEA: 0%), and they touch on religious topics, cultural (UICA: 31.25% and EMEA: 0%) and personal (UICA and EMEA: 0%), but not always. The results indicate that the personnel of the nursing service of the critical areas of navy hospital, regardless of their sex, age and years of experience, show the same interest on the topics to be dealt with the relatives of the patients who arrive in these areas.

INTRODUCTION

A severe disease and hospitalization are the source of strong stress for patients and their families. The family members of patients treated in the critical areas of a hospital experience many negative emotions, e.g. fear, anxiety, frustration, uncertainty, sense of guilt, anger and irritation. All these emotions are attributable to life-threatening conditions of close relatives, rapid disease onset, severe states of patients and long-term hospitalization. The efforts of the team of the critical areas of a hospital doctors and nurses primarily focus on saving the patient's life and the needs of family members are often neglected. It is worth remembering that families also require support as stress they experience can be even stronger than that of patients (Plaszewska-Zywko and Gazda, 2012). Needs of the family with a relative in the critical areas has always posed a challenge to healthcare workers especially nurses and doctors. This is because the family members relied heavily on the healthcare workers for information on the patient's condition and progress as the patient himself/herself was not able to communicate or receive any communication from the healthcare workers as well as the family members due to their medical condition (Hashim and Hussin, 2012). During the critical areas admission period, communication appears to influence relatives' perceptions of whether their needs are met (Paul and Rattray, 2008). Often patients in critical areas are too ill to participate in communication and decision making, resulting in their families taking on an important role in discussions and decisions regarding their care (Davidson *et al.,* 2007). There have been several studies published that highlight the emotional needs of family members with a relative in the critical areas (Kirchhoff *et al.,* 2008). The stress experienced by family members during this time can be greater than that of the patient. The finding of a hospitalized relative in a critical area is a traumatic experience and especially to the primary caregiver which can present negative emotions, including those included; helplessness, fear, depression and nervousness. It is also very frequent that the family group presents emotional reactions such as sleep disturbance, anguish, uncertainty, stress and despair, causing alteration in the family structure and in the adaptation to this situation (Choi *et al.,* 2014). Hope, reassurance and being able to remain in the vicinity of the

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patient are key to the family members wellbeing (Davidson *et al.,* 2007). Information regarding the evolution of the patient is considered by the family as a very important need, followed by the need for closeness with his sick relative (Guilianelli *et al.,* 2005). In addition, the relatives consider that the personnel nursing as the ideal one to inform them about the care applied, operation of the unit, multidisciplinary team, how they should behave and what they can do for the patient during the visit (Davidson *et al.,* 2007) Current evidence shows that even though the personnel nursing has the knowledge of this communication demand, in daily clinical practice the adequate imparting of this information is not always carried out. Demonstrating that in areas of intensive therapy for adults the personnel nursing communicates more technical aspects than those related to the feelings of the family, being the comfort of the patient the item that the nurse communicates the most, regardless of the experience and the type of nursing unit. critical care (Zaforteza *et al.,* 2005). In this study, nurse's perception of the communication process with patient's family admitted to different critical areas from CEMENAV was analyzed to estimate the reality of personnel nursing care practice in this subject.

MATERIALS AND METHODS

Transversal descriptive study held during the month of August 2018 in the critical áreas from the naval medical center (CEMENAV for Spanish acronym).

Population*:* The study population is made up of the nursing personnel, who develop their professional practice in the areas of critical patient care of the CEMENAV, that includes the services: Emergency and Medical Emergencies Adults (EMEA), Unit of Intensive Care Adults (UICA), Unit of Intermediate Therapies Adults (UITA) and Unit of Intensive Therapies Pediatric (UITP).

Sample*:* The choice of the simple, was made for convenience (non-probabilistic sampling) in wich all the nursing personnel attending the critical patient of the CEMENAV were included, with a total of 65 nurses.

Exclusion criteria: Nursing personnel covering part of the shift

Data collection instrument: In the Fig. 5 the questionnaire that was used is shown ("*Nurse Activities for Communicating with Families" – NACF)*, which is validated by the group "The End of Life Care Research Program" of the School of Medicine, from Washington University; and by Downey (fidelity alpha of Crombach 0.89) (Downey *et al.,* 2006), and adapted by Santana Cabrera for use in Spanish (Blanca LCQAMMSdl, 2009). The questionnaire consists from 16 open questions, with four response options (Never, Sometimes, Almost always and Forever). In the data sheet demographic variables were included and of a personal nature of the participating nursing personnel (age, gender, profesional experience and service to which they belong). An information sheet is attached to each questionnaire, which explains the right of information of each participan, the purpose and confidentiality of the study (data not shown). The nursing personeel responded anonymously and voluntarily, where the confidentiality of the data was always maintained.

Study variable: The level of communication of the nursing personnel with the family of patients admitted to critical areasis the main variable of the study. The área where the nursing personnel works, age, gender, work experience, as well as the questionnaire reagents constitute the operational variables. The data collection was performed by members of the research team, who had not atended to the patients during their stay in the study áreas. We opted for a personalized delivery of the questionnaire, since this is the form of delivery that favors better understanding.

Analysis of data: For the analysis of the data, we opted to use the Prism version 5.0 (GraphPad) statistical program.

RESULTS

Classification of nurses personnel: To order for analyzing the data, we first classify the nursing personnel of Naval Medical Center (CEMENAV for Spanish acronym) according to the unit or service that belong: Emergency and Medical Emergencies Adults (EMEA), Unit of Intensive Care Adults (UICA), Unit of Intermediate Therapies Adults (UITA) and Unit of Intensive Therapies Pediatric (UITP). We found that in the UICA the largest number of personnel nursing is found (32%), and the lowest number in UITP (12%), while in EMEA and UITA we found a same number (28%) (Fig. 1).

Service	Personnel (%)
EMEA	18 (27.69)
UICA	21 (32.31)
UITA	18 (27.69)
UITP	8 (12.31)
Total	65 (100.00)

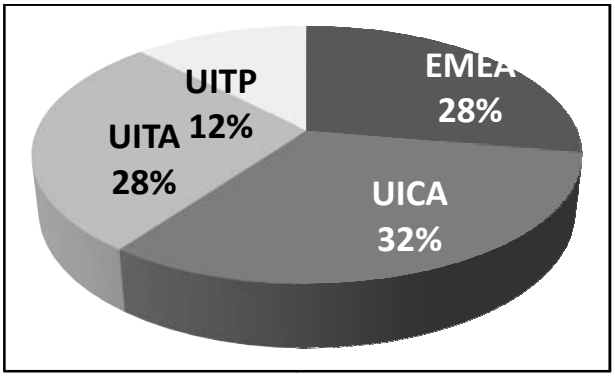


Fig. 1 Distribution of personnel nursing. The data collected on the distribution of the nursing personnel in the different services is shown in the table (top image) and in the pie graph (bottom image).

Of 100% (65) of nursing personnel than answered the questionnaire, more than a half is women (71%) and the rest men (29%) (Fig. 2). They are distributed as shown in the table of Fig.2; where we find the smallest number of the total personnel of female in UITP (17%) and the largest in UICA (35%), while of the total personnel of male, 0% in UITP and 42% in UITA respectively (Fig. 2). Then, to try to find some differences in the personnel nursing communication with the patient's family, we classify to nurses according to the gender, age, years of experience and your medical units (Fig. 3 and 4).

Gender	Personnel (%)	SERVICES			
		EMEA (%)	UICA (%)	UITA (%)	UITP (%)
Female	46 (71)	12 (18.46)	16 (24.63)	10 (15.38)	8 (12.31)
Male	19 (29)	6 (9.23)	5 (7.69)	8 (12.31)	0 (0)
Total	65 (100)	65 (100)			

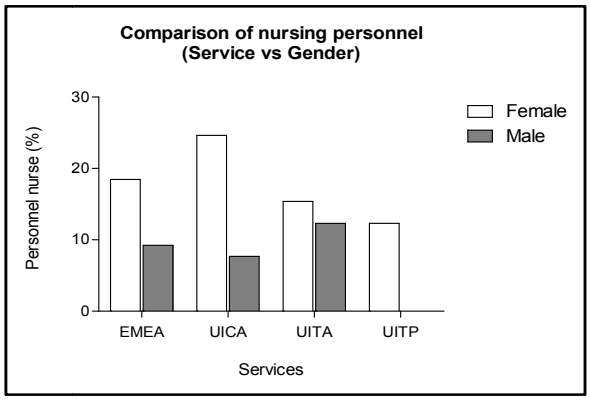
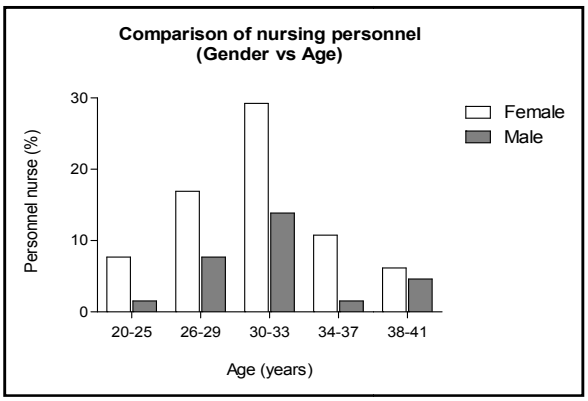


Fig. 2. Comparison of nursing personnel (Service vs Gender). The data collected on the distribution of the nursing personnel based on your gender and service is shown in the table (top image) and in the bar graph (bottom image).

Age (years)	Personnel (%)	Gender	
		Female (%)	Male (%)
22-25	6 (9)	5 (7.69)	1 (1.54)
26-29	16 (25)	11 (16.92)	5 (7.69)
30-33	28 (43)	19 (29.23)	9 (13.85)
34-37	8 (12)	7 (10.77)	1 (1.54)
38-41	7 (11)	4 (6.15)	3 (4.62)
Total	65 (100)	65 (100)	

Services			
EMEA (%)	UICA (%)	UITA (%)	UITP (%)
4 (6.15)	1 (1.54)	1 (1.54)	0 (0)
4 (6.15)	2 (3.08)	7 (10.77)	3 (4.62)
8 (12.31)	8 (12.31)	8 (12.31)	4 (6.15)
1 (1.54)	4 (6.15)	2 (3.08)	1 (1.54)
1 (1.54)	6 (9.23)	0 (0)	0 (0)
65 (100)			



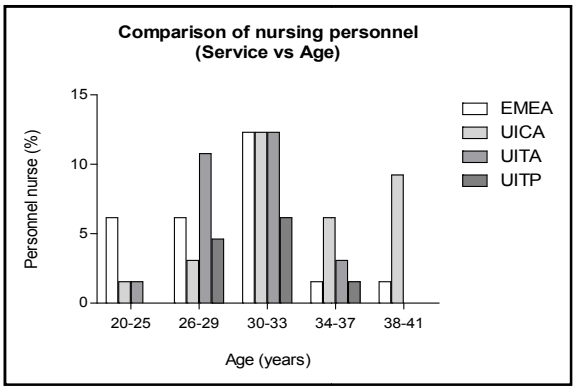
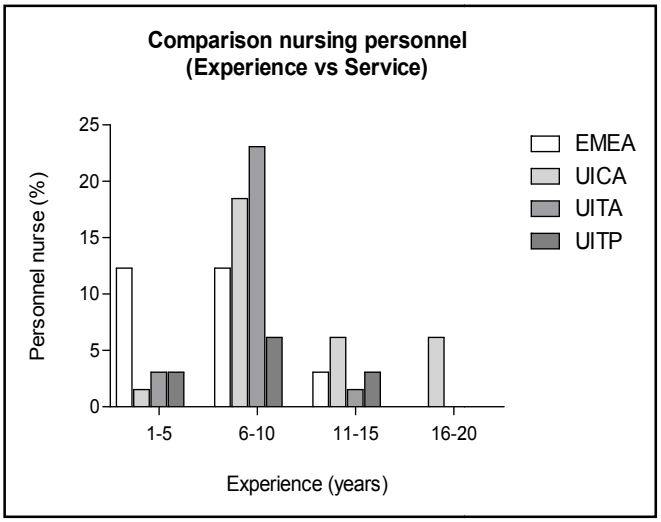


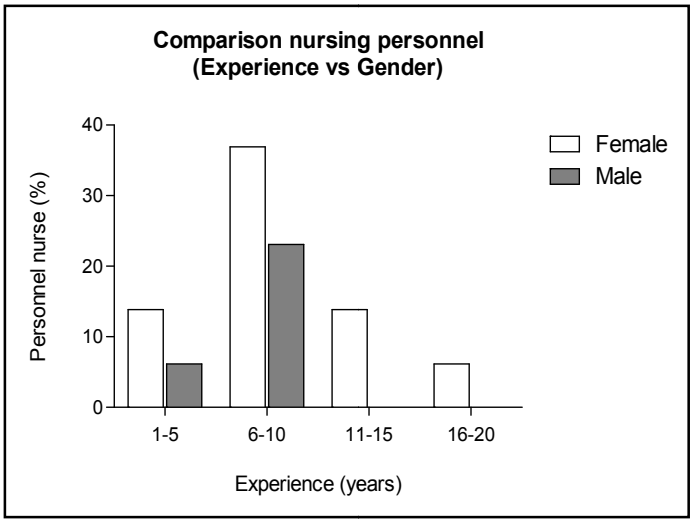
Fig. 3. Comparis on of nursing personnel (Age vs Service and Gender). The data collected on the distribution of the nursing personnel based on your gender and service they were compared with their age and is shown in the tables (top image) and in the bar graphs (middle and bottom images)

The middle age of the nurses is of 31.13 years ±4.5 (22 minimum and 41 maximum). The age of the personnel nursing was divided into 5 groups with ranges of 22-25, 26-29, 30-33, 34-37 and 38-41 years; the largest number was found in the range of 30-33 (43%) and the lowest in 22-25 (9%); however, it was also important to note the group of nursing personnel older (38-41 years), that similar to the younger group (22-25 years), present one of the lowest percentages (11%) (Fig. 3). From the youngest and oldest age ranges (22-25 and 38-41 respectively), we find 17% and 83% of men and women respectively to 22-25 range, while we find 43% and 57% respectively to 38-41 range (Fig. 3). Similarly, the distribution of these two groups (22-25 and 38-41 ranges) in the different services, showed that the youngest personnel nursing is absent from the pediatric critical área (UITP: 0%), and is found mainly in the emergency área (EMEA: 67%), while the older personnel is absent in the pediatric and intensive therapy áreas (UITA and UITP: 0%), and is located mainly in the intensive care área (UICA: 86%) (Fig. 3). These results suggest that the majority of CEMENAV nurses are adults women and are in productive age. It was compared the years of experience of the nursing personnel with the rest of the parameters previously mentioned. All nursing personnel evaluated (women and men), the results showed that the median of experiences was of 10.5 years ± 4.25 (1 and 20 years were the minimum and máximum respectively).

Experience (years)	Personnel (%)	Services			
		EMEA (%)	UICA (%)	UITA (%)	UITP (%)
1-5	13 (20)	8 (12.31)	1 (1.54)	2 (3.08)	2 (3.08)
6-10	39 (60)	8 (12.31)	12 (18.46)	15 (23.08)	4 (6.15)
11-15	9 (14)	2 (3.08)	4 (6.15)	1 (1.54)	2 (3.08)
16 -20	4 (6)	0 (0)	4 (6.15)	0 (0)	0 (0)
Total	65	65 (100)			

Gender	
Female (%)	Male (%)
9 (13.85)	4 (6.15)
24 (36.92)	15 (23.08)
9 (13.85)	0 (0)
4 (6.15)	0 (0)
65 (100)	





Age (years)				
22-25 (%)	26-29 (%)	30-33 (%)	34-37 (%)	38-41 (%)
5 (7.69)	4 (6.15)	4 (6.15)	0 (0)	0 (0)
1 (1.54)	10 (15.38)	20 (30.77)	4 (6.15)	4 (6.15)
0 (0)	2 (3.08)	3 (4.62)	3 (4.62)	1 (1.54)
0 (0)	0 (0)	1 (1.54)	1 (1.54)	2 (3.08)
65 (100)				

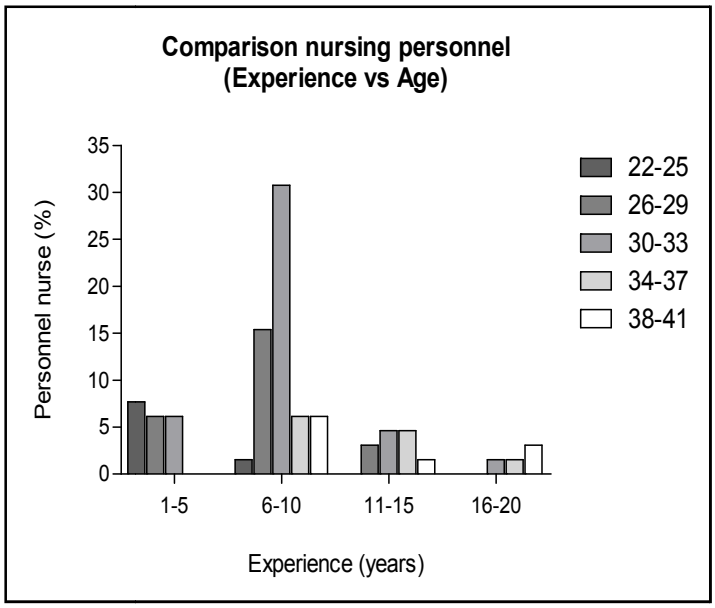


Fig. 4. Comparison of nursing personnel (Experience vs Service, Gender and age). The data collected on the distribution of the nursing personnel based on your service, gender and age were compared with their years of experience and is shown in the tables and in the bar graphs, as indicated in each

Questions	Never (%)	Sometimes (%)	Almost always (%)	Forever (%)
1- Do you explain to the relatives the treatment and the equipment with which the patient is?	0 (0)	22(34)	19(29)	24(37)
2.- Do you talk to family members about what doctors have told you about the patient's situation?	4(6)	35(54)	18(28)	8(12)
3- Do you talk with the family about possible spiritual or religious needs?	12(18)	31 (48)	22(34)	0(0)
4- Do you helpthe family members so that the seneeds are met?	7(11)	32(49)	12(18)	14(22)
5- In case of patients from other cultures or foreigners, do you talk to relatives about their cultural needs?	18(28)	23(35)	10(15)	14(22)
6- Any help for those needs to be met?	8(12)	29(45)	16(25)	12(18)
7- Do you talk with the family about what the patient most valued in life?	13(20)	17(26)	23(35)	12(18))
8- Do you talk with family members about the disease and the treatment that is being applied to the patient?	6(9)	21(32)	20(31)	18(28)
9- Do you talk to the family about their feelings?	11(17)	30(46)	22(34)	2(3)
10- Do you remember with family members about the patient's life?	11(17)	39(60)	11(17)	4(6)
11- Questions if you see any impediment to speaking or touching your family member?	15(23)	22(34)	18(28)	10(15)
12- Do you talk to the family about what the patient might have wanted if they were able to participate in the decisions to accept the tests and treatments that are being applied to them?	8(12)	28(43)	25(38)	4(6)
13- Do you talk to the family about whether there is any disagreement among the family about the treatment?	18(28)	26(40)	16(25)	5(8)
14- Do you tell family members about the changes in the care plan?	7(11)	24(37)	16(25)	18(28)
15- Do you support family decisions about patient are?	9(14)	15(23)	16(25)	25(38)
16- Do you assure family members that the patient is comfortable?	10(15)	16(25)	18(28)	21(32)
Total	157 (15.10)	410 (39.42)	282 (27.12)	192 (18.37)

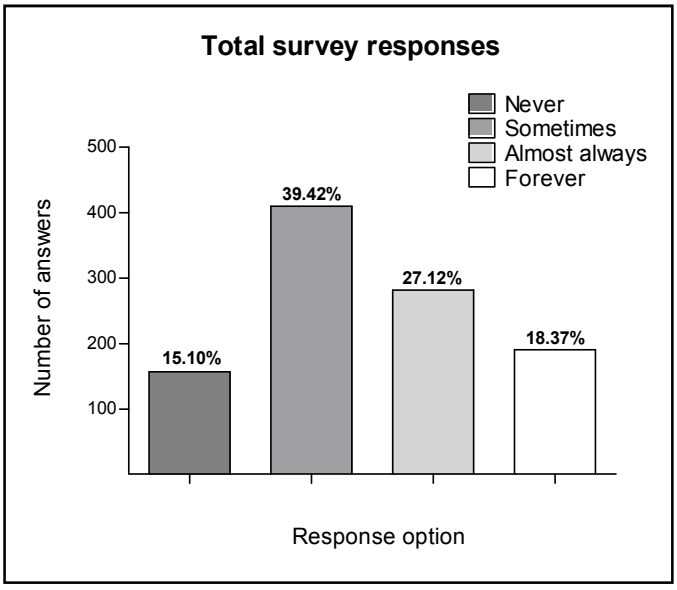


Fig. 5. Comparison of total answers of the nursing questionnaire *"Nurse Activities for Communicating with Families".* The results of the survey of the 65 nurses were grouped by question, the percentage was obtained (top table) and they were graphed taking into account the total percentage of each response (bar graph bottom)

We divide the personnel into 4 groups: 1-5, 6-10, 11-15 and 16-20 years of experience and they were compared regarding their service, gender and age (Fig. 4). We found that most of the nursing personnel is in a range of experience of 6-10 years (60%), and the lowest in the range of 16-20 years (6%). However, we focus on the smaller and more experienced groups for the comparison (1-5 and 16-20), finding that less experienced personnel, although present in the four critical areas of the hospital, are mainly in EMEA (62 %), most are of the female gender (69%), and they do not exceed 30 years of age (100%) (Fig. 4); whereas the most experienced personnel are present only in the UICA (100%), all belong to the female gender (100%) and and they are 30 years old or older, although half found in 38-41 years of age (50%) (Fig. 4).

Communication with the patient's family: To evaluate the communication of the nursing personnel with the family members of the patient, we conducted a survey through a questionnaire called *"Nursing activities to communicate with families"* (NACF), developed and validated by the group "The End of Life Care Research Program" of the School of Medicine, from Washington University. The questionary consists of 16 questions with four response options (Fig. 5). To know the level of communication of the personnel nurse, we obtained the total percentage by response and found that the option "Sometimes" was the most frequent answer (39.42%), while the option "Never" was the least frequent (15.10%) (Fig. 5). All the personnel nurse of the four medical units of CEMENAV answered the questionnaire in its entirety. Then to examine if there are differences in the communication of personnel nurse among the different paramenters mentioned above (gender, age, years of experience and type of service), the survey questions were separated in the categories of treatment and patient care (Group I), religious and cultural (Group II) and personal (Group III) (Fig. 6). The type of questionnaire response and the groups of questions were compared between the services with the greatest and least experience (UICA and EMEA respectively) and these were plotted and compared (Fig 7 and Fig. 8). We found that in the group of least years of experience as well as in the most years, the most frequent response was the option "Sometimes" (40.63% and 59.37% respectively), while the less frequent option "Never" (6.25% and 3.13% respectively) (Fig. 7). Finally, we find that, with respect to the topic "treatment and patient care", the service with less experience (EMEA) tends to always deal with this issue with the patient's family (68.75%), while those with the most experienced service (UICA) deal with these issues, however some do not (6.25%). About the topic "religious and cultural", the less experienced service, if they consider these types of topics, however some do not (25%), unlike the more experienced service, who most sometimes or almost always deal with these issues (100%).

Groups	Topics	Number of question	Total
I	Treatment and patientcare	1, 2, 8, 12, 13, 14, 15, 16	8
II	Religious and cultural	3, 4, 5, 6	4
III	Personal	7, 9, 10, 11	4

Fig. 6. Groups of questions according to the topic of interest. The 16 questions of the survey were divided into 3 groups based on the topic they refer to (table)

Nursingwith more experience	UICA				Total (%)
	Never (%)	Sometimes (%)	Almostalways (%)	Forever (%)	
1	1 (6.25)	10 (62.50)	2 (12.50)	3 (18.75)	16 (100)
2	0 (0.00)	9 (56.25)	6 (37.50)	1 (6.25)	16 (100)
3	1 (6.25)	10 (62.50)	2 (12.50)	3 (18.75)	16 (100)
4	0 (0.00)	9 (56.25)	6 (37.50)	1 (6.25)	16 (100)
Total	2(3.13)	38 (59.37)	16 (25.00)	8 (12.50)	64 (100)

Nursingwithlessexperience	EMEA				Total
	Never (%)	Sometimes (%)	Almostalways (%)	Forever (%)	
1	0 (0.00)	10 (62.50)	6 (37.50)	0 (0.00)	16 (100)
2	0 (0.00)	3 (18.75)	4 (25.00)	9 (56.25)	16 (100)
3	4 (25.00)	7 (43.75)	3 (18.75)	2 (12.50)	16 (100)
4	0 (0.00)	6 (37.50)	4 (25.00)	6 (37.50)	16 (100)
5	0 (0.00)	10 (62.50)	6 (37.50)	0 (0.00)	16 (100)
6	0 (0.00)	3 (18.75)	4 (25.00)	9 (56.25)	16 (100)
7	4 (25.00)	7 (43.75)	3 (18.75)	2 (12.50)	16 (100)
8	0 (0.00)	6 (37.50)	4 (25.00)	6 (37.50)	16 (100)
Total	8 (6.25)	52 (40.63)	34 (26.56)	34 (26.56)	128 (100)

Fig. 7. Comparison of answers between services with less and greater experience. The responses of the personnel belonging to the UICA (top table) and EMEA (bottom table) services were compared

	UICA				
QuestionsGroup	Never (%)	Sometimes (%)	Almostalways (%)	Forever (%)	Total (%)
I(Treatment and patientcare)	2 (6.25)	16 (50)	6 (18.75)	8 (25)	32 (100)
II (Religious and cultural)	0 (0)	14 (87.50)	2 (12.50)	0 (0)	16 (100)
III (Personal)	0 (0)	8 (50)	8 (50)	0 (0)	16 (100)
Total	2 (3.13)	38 (59.38)	16 (25)	8 (12.50)	64 (100)

	EMEA				
QuestionsGroup	Never (%)	Sometimes (%)	Almostalways (%)	Forever (%)	Total (%)
I(Treatment and patientcare)	0 (0)	20 (31.25)	20 (31.25)	24 (37.50)	64 (100)
II (Religious and cultural)	8 (25)	10 (31.25)	4 (12.50)	10 (31.25)	32 (100)
III (Personal)	0 (0)	22 (68.75)	10 (31.25)	0 (0)	32 (100)
Total	8 (6.25)	52 (40.63)	34 (26.56)	34 (26.56)	128 (100)

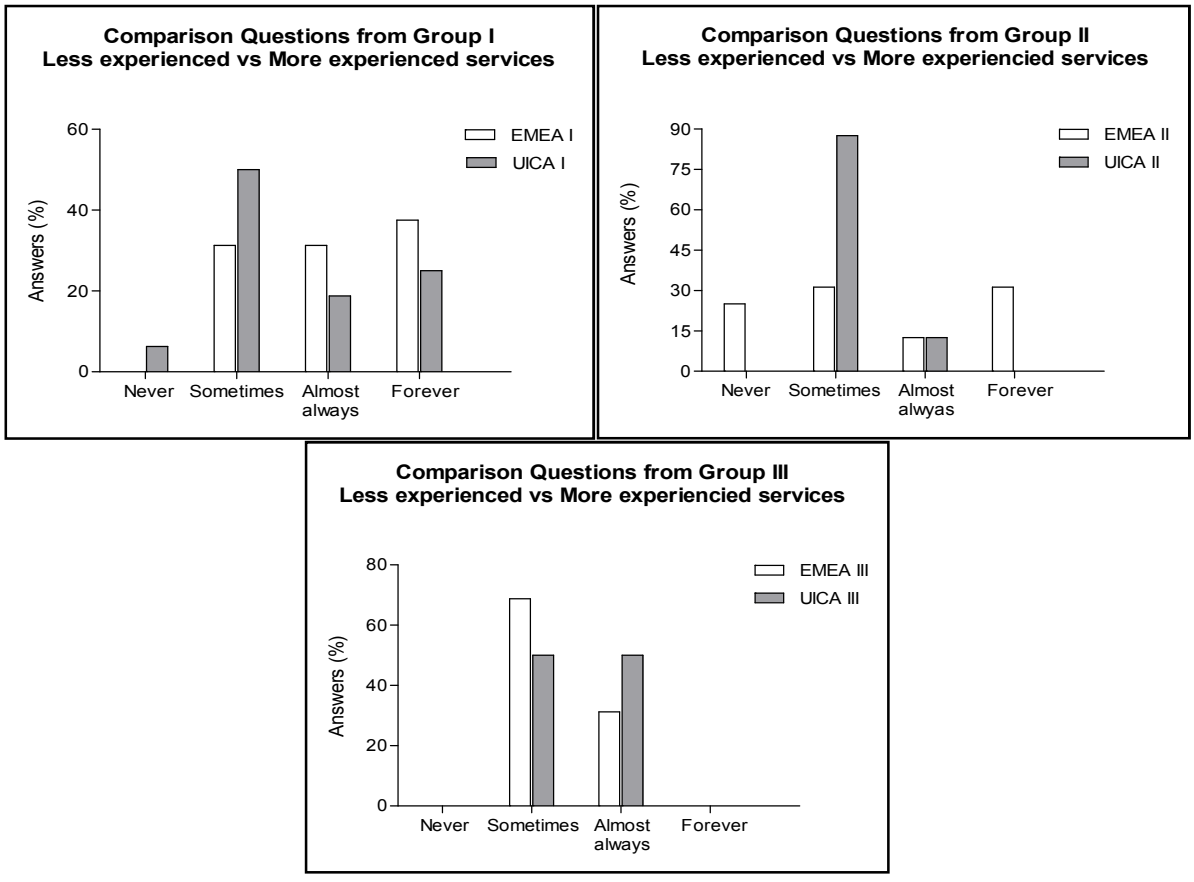


Fig. 8. Comparison of the three groups of questions between the services of lesser and greater experience. The percentage of each group of responses (I, II, III) from UICA and EMEA were compared as indicated in each image

Regarding the "personal" issue, both the minor and the more experienced service, sometimes or almost always deal with these issues (100% both) (Fig. 8). These results suggest that personnel nurse with more experience leave the personal information aside and focus on patient care and treatment, unlike with personal nurse with few experiences, they are focusing in personal information and the patient care and treatment.

DISCUSSION

The main necessities of patient's family are getting optimal information about them. The family waits for this information through nursing personnel, this consist of knowing the vital signs, the care, the comfort, the patient's rest, the treatment and specific information about the intensive care, how the technological team and how they make up the team of medical professionals. However, sometimes the nursing personnel does not comply with this and is limited to providing simple, brief and polite information (Pardavila Belioand, 2012). In this work, we first classify the nursing personnel and second evaluate the communication with patient's family, the results show that the majority of nursing personnel is female gender and are in productive age, this group is the most experienced and they are in the UICA. This is because the unit intensive care is the one that needs more experimented personnel, as seen in Figure 4, unlike with less experienced, they are mainly in the EMEA, which suggest that in this area they do not needs realize delicate processes. It should be mentioned, that in the other two areas the majority is nursing personnel both less or medium experience. To evaluate the results of the survey, we focus only on the groups with more and less experience, this because we need to know how both poles behave of the experience of nursing personnel. The data show that most commonly used option is "Sometimes", unlike to "Never" is not an option, suggesting that nursing personnel does not have the better communication with the family. For another hand, we observed that nurses with more experience they have the touch to talk about something personal, unlike the nurses with less experience, but, the last ones, have more care to transmit information about the treatment and patient care. This shows that as the experience of the nursing personnel increases, it prefers to deal with the personal emotions of relatives of the patient, leave technical issues aside, not in the whole, or with reference to the procedures performed on the patient, in order to modulate the emotions and reduce the stress, making the stay more comfortable. This is confirmed with the results of Figure 8, graph 2. We observed that all nurses with more experience deal with religious and cultural issues sometimes. When the family member is at the bedside during the rounds, they should be invited to listen and allowed to ask questions. The need for information reflects the family's need to understand the patient's condition. Information may provide understanding and allow the family to feel a greater sense of control, reducing the negative emotional responses that occur when a family is unable to function.

Schiller and Anderson found that family inclusion in daily rounds successfully addresses the family's need for involvement, information, and communication with the healthcare team (Cypress, 2010).

Conclusion

The results obtained in the application of the questionnaire, showed us that despite the differences in age, years of experience, gender or service type, the communication of the nursing personnel with the family of the patients who enter the critical areas of a hospital, is very similary. Particularly what is shown by the comparison of the services of lesser and greeter experience, shows us a similar frequency of communication in terms of the answers received, and shows us the interest of the nursing personnel principally for the issues related to the treatment and care of the patient.

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