RESEARCH PAPER

Effectiveness of an intervention on the family's need for information in intensive care units*

1 **Sandra Rocio Guáqueta-Parada**

2 **Martha Cecilia Triana-Restrepo**

3 **Claudia Lorena Motta-Robayo**

4 **Ángela María Henao Castaño**

Abstract

Objective: To establish the effectiveness of a nursing intervention aimed at improving the satisfaction of the information needs of patients' family in the Intensive Care Unit (ICU).

Materials and method: A prospective experimental study with a randomized intervention was conducted. The sample was recruited from an ICU in Bogotá, Colombia. The study population consisted of relatives of patients admitted to the ICU. The intervention's outcome was evaluated using the Critical Care Family Needs Inventory and the Critical Care Family Satisfaction Survey. The sample size was 66 families. Randomization was performed using random numbers in permuted blocks, resulting in 33 families in the control group and 33 in the intervention group.

Results: A significant difference was found in communication and support. In the proximity dimension, there was statistical significance in talking to the same nurse daily ($p = 0.009$). In the dimensions of safety and comfort, there was no statistical significance. The overall satisfaction was favorable, with the intervention group showing a much greater magnitude of change ($p < 0.001$***) compared to the control group ($p < 0.01$**).

Conclusion: Developing a structured intervention using information strategies such as face-to-face meetings, information leaflets, and a notebook to record concerns allows satisfying the need for information of patients' families while maintaining the quality of care, family well-being, and coping capacity.

Descriptors: Needs Assessment; Family Relationships; Critical Care; Evaluation of Results of Therapeutic Interventions (font: DeCS, BIREME).

1 Universidad Nacional de Colombia (Bogotá, Colombia).
ORCID: https://orcid.org/0000-0002-2354-7493
E-mail: srguaquetap@unal.edu.co
Contribution: project formulation, design, development, collection, analysis, and writing of the article.

2 Universidad Nacional de Colombia (Bogotá, Colombia).
ORCID: https://orcid.org/0000-0002-9991-7999
E-mail: mctrianar@unal.edu.co
Contribution: project formulation, design, and information analysis.

3 Universidad Nacional de Colombia (Bogotá, Colombia).
ORCID: https://orcid.org/0000-0002-8452-4017
E-mail: clmottar@unal.edu.co
Contribution: conceptualization and collection and analysis of information.

4 Universidad Nacional de Colombia (Bogotá, Colombia).
ORCID: https://orcid.org/0000-0003-4203-0016
E-mail: angmhenaocas@unal.edu.co
Contribution: collection of information and state of the art for the preparation of the article.

Efectividad de una intervención en la necesidad de información de la familia en cuidados intensivos

Resumen

Objetivo: establecer la efectividad de una intervención de enfermería para mejorar la satisfacción frente a la necesidad de información de las familias de pacientes en unidad de cuidados intensivos (UCI).

Materiales y método: estudio experimental prospectivo con una intervención aleatorizada. La muestra se reclutó en una UCI en Bogotá, Colombia, y estuvo compuesta por familiares de pacientes admitidos en la UCI. La evaluación del resultado de la intervención se realizó utilizando los cuestionarios "Inventario de necesidades de la familia del paciente en cuidado crítico" y "Encuesta de satisfacción de la familia del paciente en cuidado crítico". El tamaño de la muestra fue de 66 familias y la asignación aleatoria se realizó mediante números aleatorios en bloques permutados, con 33 familias en el grupo de control y 33 familias en el grupo de intervención.

Resultados: se encontró una diferencia significativa en cuanto a los ejes de comunicación y apoyo. En la dimensión de proximidad, se observó una significación estadística en relación con la posibilidad de hablar con el mismo profesional de enfermería todos los días (p = 0,009). La satisfacción general fue favorable y se identificó que el grupo de intervención experimentó un cambio de magnitud superior ($p < 0,001{***}$) al del grupo control ($p < 0,01{**}$).

Conclusión: desarrollar una intervención estructurada utilizando estrategias de información, como reuniones presenciales, folletos informativos y un cuaderno para registrar inquietudes permite satisfacer la necesidad de información de los familiares de pacientes en UCI y contribuye a mantener la calidad de la atención, el bienestar familiar y la capacidad de afrontamiento de esta situación.

Descriptores: Evaluación de Necesidades; Relaciones Familiares; Cuidado Crítico; Evaluación de Resultados de Intervenciones Terapéuticas (fuente: DECS, BIREME)

Efetividade de uma intervenção na necessidade de informação da família em terapia intensiva

Resumo

Objetivo: estabelecer a eficácia de uma intervenção de enfermagem para melhorar a satisfação da necessidade de informação dos familiares de pacientes internados em unidade de terapia intensiva (UTI).

Materiais e método: estudo experimental prospectivo com intervenção randomizada. A amostra foi recrutada em uma UTI de Bogotá, Colômbia, e composta de familiares de pacientes internados na UTI. A avaliação do resultado da intervenção foi realizada por meio dos questionários "Inventário de necessidades da família do

paciente em cuidados críticos" e "Pesquisa de satisfação da família do paciente em cuidados críticos". O tamanho da amostra foi de 66 famílias, e a atribuição aleatória foi realizada por meio de números aleatórios em blocos permutados, sendo 33 famílias no grupo de controle e 33 famílias no grupo de intervenção.

Resultados: foi encontrada diferença significativa com relação aos eixos "comunicação" e "suporte". Na dimensão "proximidade", foi observada significância estatística quanto à possibilidade de falar todos os dias com o mesmo enfermeiro (*p* = 0,009). A satisfação geral foi favorável, e foi identificado que o grupo de intervenção experimentou uma magnitude de mudança muito maior (*p* < 0,001***) em comparação com o grupo de controle (*p* < 0,01**).

Conclusão: desenvolver uma intervenção estruturada utilizando estratégias de informação, como reuniões presenciais, folhetos informativos e um caderno para registar dúvidas, satisfaz a necessidade de informação e contribui para manter a qualidade dos cuidados, o bem-estar da família e a capacidade de lidar com essa situação.

Descritores: Avaliação de Necessidades; Relações Familiares; Cuidados Intensivos; Avaliação de Resultados de Intervenções Terapêuticas (fonte: DeCS, BIREME).

Introduction

When a person in critical health is admitted to the intensive care unit (ICU), their family is confronted with a series of situations that disrupt their functional structure and can result in high levels of anxiety, depression, and stress (1). These effects are derived from factors such as the acute admission of a relative, submission to invasive treatments, extended stays, the need to make unexpected decisions, the threat of death, and the ICU environment (2).

In a family-centered care approach, the family is considered a care unit with specific needs, especially when one of its members is admitted to the ICU (3). When a person enters the ICU, the family—which is closely interconnected and has significant relationships, often willing to provide continuous support to the patient—experiences a series of role changes, greater physical and mental demands, and the necessity to cope with unexpected situations. The hospitalization of a family member in the ICU generates a series of needs within the family, which have been extensively studied using different instruments (4, 5). The needs identified in family members have been categorized into cognitive, emotional, social, and practical needs, with information being a key component of the cognitive needs (3).

In the nursing discipline, the needs of families in the ICU have been a subject of significant investigative interest. Evidence shows that the need for information is the most important necessity reported, leading to various intervention proposals designed to address it. However, the evidence recommends continuing efforts to design interventions that can effectively meet this need (6). This includes considering a series of elements such as the characteristics of the information, assessment and identification of the need for information, essential skills of the nursing professional to manage this need, family participation in care, conditions for addressing the need for information, and the type of information provided (7). Within this setting, the present research aimed to establish the effectiveness of a nursing intervention to improve the satisfaction of the need for information of the patient's family in the ICU.

Methods

Study design

A prospective randomized experimental intervention was developed and conducted in an ICU in Bogotá, Colombia. The ICU at the selected hospital has a total of 28 beds, with a nurse-patient ratio of 1:7. Visiting hours are from 11:00 to 12:00 in the morning and from 15:00 to 16:00 in the afternoon. Information is provided to the family during the afternoon visiting hours.

Ethical approval

The study was approved by Ethics Committee of the Faculty of Nursing at Universidad Nacional de Colombia (approval ID N007-19). After selecting family members based on the inclusion and exclusion criteria, the researchers invited them to a private meeting space. There, the researchers explained the study's purpose and ethical considerations. Participants then accepted and signed the informed consent forms.

Participants

The study population consisted of relatives of patients hospitalized in the ICU who met the following inclusion criteria: relatives or companions of patients over 18 years of age admitted for treatment in the ICU for the first time, relatives of patients with more than 48 hours of hospitalization in the ICU, and relatives who visit regularly or are the primary caregivers. The exclusion criteria were: relatives of patients who died within the first 48 hours of admission, relatives of patients with limited therapeutic effort or palliative care, and relatives or companions of ICU patients with cognitive or psychological impediments that prevented them from answering the questions in the instruments.

The sample size calculation was performed with the expectation of finding a probability of 37%. The sample size determined was 66 families. Randomization was conducted using random numbers in permuted blocks, resulting in 33 families in the control group and 33 families in the intervention group (8, 9).

Data Collection

The data collection instrument used were the Critical Care Family Needs Inventory (CCFNI) and the Critical Care Family Satisfaction Survey (CCFSS). CCFNI, designed by Molter (10), consists of 45 items and assesses needs using a Likert-type scale ranging from 1 (not very important) to 4 (very important). The total score ranges from 45 to 180 points, with higher scores indicating greater perceived needs. The scale's reliability, measured by Cronbach's α, ranges from 0.88 to 0.96. This questionnaire has been translated into several languages, including Spanish, and is one of the most widely used instruments in this type of research (10, 11). The questionnaire evaluates five dimensions of needs: support, comfort, information, proximity, and security.

On its part, CCFSS is a questionnaire specifically designed to measure family satisfaction in intensive care. Developed in 2001, this tool consists of 20 items within five domains: safety, information, proximity, support, and comfort. Responses are given on a five-point Likert scale (11, 12).

Study procedures

The participants were randomized into the control and intervention groups as described above. The CCFNI and CCFSS instruments were administered to both groups. In the control group, the instruments were applied following the usual activities in the ICU regarding information. In the intervention group, the instruments were applied after the intervention had been carried out.

Elements of the intervention

The intervention was called "ICU Informed Families," based on Judy Davidson's theory of facilitated comprehension (13), the doses were two moments of 40 minutes each, and the mode of delivery was face-to-face with the families. The first moment of meeting between the nurse and the family was called "nurse-family relationship," which included a first part related to knowledge of the situation and the development of affectionate relationships, and a second part called "decoding the environment," where the nurse handed out an informative brochure and a notebook containing three guiding questions for families to record their concerns related to the information. This second moment was called "knowledge of the situation/participation in the patient's care." At this moment, the concerns that the families had regarding participation in the care were answered, and the doubts that the relatives had and that they had recorded in the notebook.

Data analysis

Information was collected from the instruments before and after the intervention in the control and intervention groups. Subsequently, a database was created in Microsoft® Excel for Mac v 16.65, where the results were recorded for each study participant. For the analysis of the results, the SPSS version 26 software was used (IBM Corp. Released 2019. IBM SPSS Statistics for Macintosh, Version 26.0. Armonk, NY: IBM Corp), while GraphPad Prism v9.3.1 software for Mac OS X (GraphPad Software, La Jolla California USA) was employed for creating the corresponding figures.

The t-test was used to compare the results of the CCFNI and CCFSS instruments before and after the intervention. For those questions or axes without normal distribution, the Mann-Whitney U test was used. A descriptive frequency analysis was performed for the qualitative variables and an average for the quantitative variables. A value of $p < 0.05*$ was considered statistically significant.

Bias control

Potential selection and information biases in the research were carefully controlled. To mitigate selection bias, a randomization process was employed to assign participants to the intervention groups. Information biases were addressed by ensuring that data collection instruments (i.e., CCFNI and CCFSS) had undergone rigorous validation processes to ensure validity, sensitivity, and specificity. Furthermore, researchers received specific training to ensure the correct application of these instruments during data collection. Quality controls were established to monitor and ensure the accuracy of the information collected in the databases.

Results

Volunteers' characteristics

In this study, a total sample of 66 participants was recruited, with 33 of them assigned to the control group and 33 to the intervention group. Among the sociodemographic variables, it was found that 51.5% of family members had a secondary school level of education, and 36.4% had a university level of education. Regarding the most fundamental level of kinship, in the control group it corresponded mostly to spouses, whereas in the intervention group it predominantly involved parents and children relationships (Table 1).

Considering the application of the CCFNI, various dimensions were evaluated for both the baseline and final groups. Ten items were identified as essential needs for family members of ICU patients. A significant difference was observed in the communication dimension for items 5 and 7, and in the support dimension for items 14 and 15, within the intervention group. Additionally, in the proximity dimension, statistical significance was found in item 32 concerning consistent communication with the same nurse daily (p = 0.009) for the intervention group (see Table 2 and Table 3). However, no statistical significance was found in the dimensions of safety and comfort.

In the CCFSS, the total satisfaction scores indicate a level between satisfied and very satisfied (4.318-4.618) in the control and intervention groups. However, it is observed that the intervention tends to increase the scores for those questions where information is directly involved, such as items 2, 6, 10, and 12, which are related to the information domain. Regarding satisfaction related to the safety domain, a similar result was obtained between the control group and the intervention group (except for item 7), associated with the promptness of the staff in responding to alarms and requests for assistance, which improved to a greater extent in the intervention group. Concerning the proximity domain, it should be noted that satisfaction improved in items 5, 15, and 18 in the intervention group. As for satisfaction related to the information domain, there was an increase in satisfaction with all items in the intervention group (Table 4).

On the other hand, although there are no statistically significant differences between the groups at the global level regarding satisfaction, the intervention group has a much greater magnitude of change in the CCFSS (p < 0.001***) versus the control group (p < 0.01**) (Figure 1).

Table 1. Demographic characteristics of family members (n = 66)

	Control group (n = 33)		Intervention group (n = 33)		p value
Age (years, mean ± SD)	45.6	12.6	46	12.7	
Sex (n) %					**0.378**
Woman	27	81.8	24	72.7	
Man	6	18.2	9	27.3	
Relationship (n) %					**0.050***
Son/daughter	7	**21.2**	**18**	**54.4**	
Husband/wife	13	39.4	10	30.3	

	Control group (n = 33)		Intervention group (n = 33)		p value
Sibling	4	12.1	0	0.0	
Mother	1	3.0	0	0.0	
Father	1	3.0	2	6.1	
Other family member	6	18.2	3	9.1	
Person who is not related with the patient	1	3.0	0	0.0	
Schooling (n) %					**0.948**
Primary	2	6.1	1	3.0	
Secondary	17	51.5	18	54.5	
Undergraduate	12	36.4	12	36.4	
Postgraduate	2	6.1	2	6.1	
System affected (n) %					**0.482**
Cardiac	10	30.3	9	27.3	
Gastrointestinal	3	9.1	6	18.2	
Infectious	6	18.2	4	12.1	
Poisoning	1	3.0	0	0.0	
Metabolic	1	3.0	0	0.0	
Neurological	1	3.0	2	6.1	
Renal	1	3.0	0	0.0	
Polytrauma	0	0	3	9.1	
Respiratory	4	12.1	2	6.1	
Vascular	6	18.2	7	21.2	
Disease severity (mean $\pm$ SD)	13.9	5.9	15.84	5.0	
Hospitalization time prior to ICU admission (days, mean $\pm$ SD)	3.1	3.4	3.11	3.8	
Is in the ICU for surgery (n) %					**0.319**
Yes	17	51.5	21	63.6	
No	16	48.5	12	36.4	
Is in the ICU due to SARS-CoV-2 (n) %					**1.000**
Yes	1	3.0	0	0	
No	32	97.0	33	100.0	
Mechanical ventilation (n) %					**1.000**
Yes	16	48.5	16	48.5	
No	17	51.5	17	51.5	

SD: standard deviation; *significant value; ICU: intensive care unit.
Source: authors.

Table 2. Results of applying the Critical Care Family Needs Inventory, communication dimension, control group, and intervention group

Dimension	Control					Intervention				
	Baseline		Final		p-value	Baseline		Final		p-value
	Mean	SD	Mean	SD		Mean	SD	Mean	SD	
Information										
To talk to the doctor every day	3.848	0.442	3.970	0.174	0.103	4.000	.00000	4.000	.00000	NC
To have specific person to call at the hospital	3.970	0.174	3.970	0.174	NC	3.818	0.392	3.970	0.174	0.057
To know which staff members could give what information	3.758	0.561	3.848	0.442	0.083	3.697	0.467	3.849	0.364	0.096
To know why things were done for a patient	3.939	0.242	3.970	0.174	0.325	3.909	0.292	4.000	0.000	0.083
To know about the types of staff members taking care of the patient	3.455	0.617	3.818	0.465	**0.001*****	3.515	0.755	3.758	0.502	**0.018***
To know exactly what is being done for patient	3.970	0.174	4.000	0.000	0.325	3.909	0.384	4.000	0.000	0.184
To help with the patient's physical care	3.879	0.331	3.939	0.242	0.160	3.788	0.545	3.909	0.292	**0.044***

SD: standard deviation. NC: cannot be calculated.
Source: authors.

Table 3. Results of applying the Critical care family needs inventory, Support dimension, control group, and intervention group

Dimension	Control					Intervention				
	Baseline		Final		p-value	Baseline		Final		p-value
	Mean	SD	Mean	SD		Mean	SD	Mean	SD	
Support										
To have explanations of the environment before going into ICU for the first time	3.879	0.331	3.970	0.174	0.083	3.909	.2919	3.970	0.174	0.160
To talk about feelings regarding the situation you are experiencing	3.303	0.637	3.364	0.822	0.572	3.333	0.736	3.515	0.712	0.083
To have directions as to what to do at the bedside	3.667	0.479	3.818	0.392	0.023	3.758	0.502	3.818	0.392	0.325

Dimension	Control					Intervention				
	Baseline		Final		*p*-value	Baseline		Final		*p*-value
	Mean	SD	Mean	SD		Mean	SD	Mean	SD	
To have a place to be alone while in the hospital	2.970	0.883	3.121	0.960	0.169	2.606	1.116	2.970	1.075	**0.003****
To feel accepted by the members of the hospital team, in this case the ICU	3.364	0.859	3.455	0.869	0.263	3.576	0.614	3.667	0.595	0.184
To have someone to help with financial problems	3.091	0.879	3.273	0.944	0.056	3.152	0.795	3.242	0.751	0.374
To have a visit from someone who provides spiritual support like a pastor	3.303	0.684	3.364	0.822	0.423	3.333	0.854	3.545	0.666	**0.033***
To talk about the possibility of the patient's death	3.364	0.742	3.485	0.755	0.160	3.182	0.882	3.576	0.792	**0.007****
To have another person with you when visiting critical care unit	3.394	0.827	3.515	0.795	0.103	3.333	0.924	3.333	0.854	1.000
To have someone be concerned with the relative's health	3.364	0.783	3.485	0.712	0.292	3.333	0.816	3.333	0.854	1.000
To be encouraged to cry	2.909	0.879	3.152	0.906	0.030*	3.303	0.847	3.515	0.619	0.070
To be told about people who could help you in certain cases (Social work, psychology, ICU nurse)	3.182	0.917	3.485	0.834	0.006**	3.576	0.751	3.576	0.708	1.000
To be alone at any time	2.939	0.827	3.152	0.939	0.090	2.697	1.015	2.939	1.088	0.103
To be told about someone to help with family problems	3.000	0.829	3.212	0.857	0.051	3.333	0.736	3.394	0.704	0.488
To be told about chaplain services	3.212	0.927	3.242	0.902	0.786	3.121	0.960	3.152	1.034	0.801

SD: standard deviation. NC: cannot be calculated.
Source: authors.

Table 4. Differences in Critical care family satisfaction survey item scores between the control group and intervention group

Item	Control					Intervention				
	Baseline		Final		*p*-value	Baseline		Final		*p*-value
	Mean	SD	Mean	SD		Mean	SD	Mean	SD	
1. Honesty of the staff about my family member's condition	4,667	0,540	4,939	0,242	0,002**	4,424	0,936	4,879	0,331	0,005**
2. Availability of the doctor to speak with me on a regular basis	4,394	0,899	4,636	0,895	0,003**	4,152	1,302	4,727	0,626	0,003**
3. Waiting time for results of tests and X rays	3,758	0,969	4,061	1,059	0,039*	4,000	0,866	4,424	0,751	0,001***
4. Peace of mind in knowing my family member's nurse	4,455	0,617	4,758	0,435	0,010**	4,394	0,788	4,727	0,452	0,006**
5. Ability to share in the care of my family member	4,394	0,747	4,576	0,708	0,056	4,394	0,788	4,697	0,637	0,006**
6. Clear explanation of tests, procedures, and treatments	4,636	0,549	4,818	0,465	0,012*	4,424	0,867	4,848	0,364	0,002**
7. Promptness of the staff in responding to alarms and request for assistance	4,576	0,561	4,788	0,415	0,033*	4,364	0,783	4,818	0,392	0,001***
8. Cleanliness and appearance of the waiting room	4,697	0,467	4,909	0,292	0,006**	4,667	0,479	4,758	0,435	0,325
9. Support and encouragement given to me during my family member's stay in the critical care unit	4,606	0,704	4,879	0,415	0,011*	4,546	0,617	4,727	0,574	0,032*
10. Clear answers to my questions	4,667	0,645	4,848	0,566	0,012*	4,515	0,712	4,818	0,392	0,010**
11. Quality of care given to my family member	4,697	0,467	4,879	0,331	0,012*	4,576	0,561	4,848	0,364	0,005**
12. Sharing in decisions regarding my family member's care on a regular basis	4,485	0,834	4,758	0,751	0,005**	4,394	0,747	4,727	0,626	0,020*

| Item | Control | | | | | Intervention | | | | |
| | Baseline | | Final | | p-value | Baseline | | Final | | p-value |
	Mean	SD	Mean	SD		Mean	SD	Mean	SD	
13. Nurses' availability to speak with me everyday about my family member's care	4,424	0,936	4,606	0,899	0,012*	4,394	0,747	4,758	0,614	0,001***
14. Sensitivity of the doctor(s) to my family member's needs	4,455	0,833	4,667	0,777	0,006**	4,364	0,859	4,667	0,817	0,002**
15. Privacy provided for me and my family member during visits	4,545	0,506	4,697	0,529	0,057	4,364	0,549	4,727	0,517	0,000***
16. Preparation for my family member's transfer from critical care	3,909	0,980	4,333	1,021	0,001***	3,848	0,834	4,212	0,893	0,001***
17. Peacefulness of the waiting room	4,061	0,827	4,424	0,751	0,003**	4,091	0,765	4,333	0,957	0,187
18. Flexibility of the visiting hours	3,364	1,295	3,576	1,521	0,182	3,303	1,159	3,758	1,300	0,007**
19. Noise level in the critical care unit	4,364	0,653	4,636	0,549	0,002**	3,848	1,202	4,212	0,992	0,026*
20. Sharing in discussion regarding my family member's recovery	4,364	0,603	4,636	0,489	0,005**	4,455	0,666	4,667	0,645	0,032*
Total score	4,317	0,851	4,618	0,760	**0,002****	4,319	0,859	4,619	0,754	**0,001****

SD: standard deviation, scale used: 1. Very unsatisfied; 2. Unsatisfied; 3. Not sure; 4. Satisfied; 5. Very satisfied.
Source: authors.

Figure 1. Comparison of satisfaction level between the control group and intervention group with the Critical care family satisfaction survey
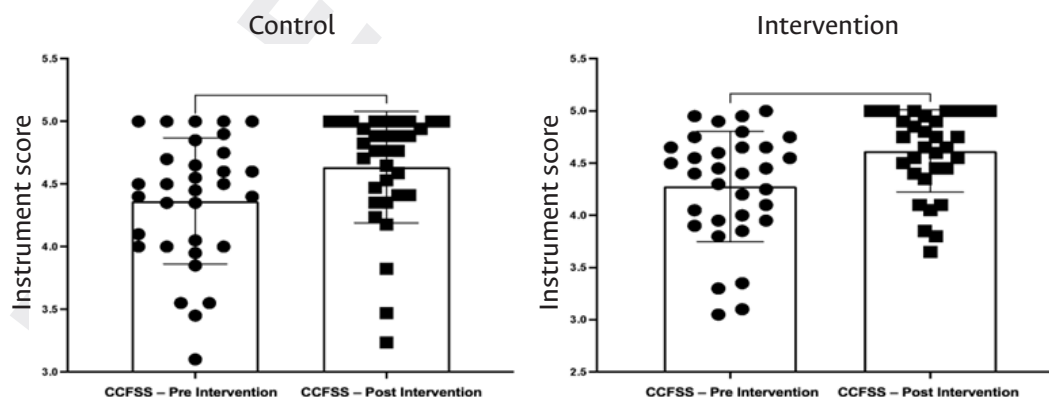
Source: authors.

Discussion

The sociodemographic data of the study participants align with findings from other studies conducted in ICUs, where caregivers' primary relationships typically involve spouses and children (14-17). These individuals are integral members of the nuclear family and share a first-degree consanguineous bond, fostering close relationships characterized by affection and intimacy (18). This aspect is crucial, considering the implications of ICU hospitalization for one of their family members and the resulting impact on family dynamics. Such situations often challenge family well-being and coping capacities due to the anxiety and uncertainty they generate (2).

In both the control and intervention groups, the identified needs of communication, security, and to a lesser extent, proximity, support, and comfort stand out as priorities for relatives of ICU patients. These findings are consistent with correlations found in other studies conducted in similar contexts. (16,19-21).

The studies differ in the specific informational needs that families require. Jacob (21) found that relatives want information about their patient's health status and the ability to be close to them. Velasco (22) identified that families need information regarding the prognosis or clinical condition of the patient, while Padilla-Fortunatti (16) reported that the effectiveness of treatment is of primary interest. These findings align with the results of the current investigation, where it was found to be a priority for family members to have daily communication with the doctor. Additionally, family members prioritize having access to a contact person who can provide honest answers and explain the reasons behind medical decisions for the patient. These aspects are associated with reduced stress related to ICU hospitalization (23) and contribute to the sense of security, empathy, and trust that family members feel towards the ICU multidisciplinary team (24, 25).

The intervention "Families informed ICU" was effective in improving the need for information of the family of patients in the ICU since there were significant changes in the dimension of communication, specifically in aspects such as knowing about the different officials who care for the patient and help in the physical care of their family member. These results can be explained because the designed intervention, in its structure, contemplates elements such as the creation of an affectionate nurse-family relationship and concrete actions to help the family member to participate in the care of the patient in a more active way, improving coping with a critical health situation. This aspect is crucial, as highlighted by other studies where family participation in care not only impacts the patient's health prognosis but also reduces psychosocial stress and family crises resulting from their loved ones' illness (26-28). Moreover, family involvement has been shown to increase satisfaction among families in critical care units (29, 30).

When reviewing various interventions aimed at meeting this need, it becomes evident that multiple strategies are often necessary (6). Many studies advocate for combining written and oral information, which equips medical and nursing staff with a critical tool to enhance satisfaction and reduce anxiety among families (31-33).

The "ICU Informed Families" intervention utilized in this study proved effective by integrating three simultaneous strategies. Firstly, face-to-face meetings were employed, followed by an informative pamphlet designed to alleviate anxiety and enhance understanding of the ICU environment (34). Additionally, providing notebooks for families to jot down their concerns helped clarify doubts and improve care, resulting in increased satisfaction with their grasp of information.

The measurement of family satisfaction with ICU care has been a critical issue in assessing quality, encompassing domains such as security, information, proximity, support, and comfort. In the current investigation, overall satisfaction ranged between satisfied and very satisfied. However, there was lower satisfaction reported in the domains of support, particularly related to preparation for the transfer of their family member, and comfort, specifically regarding tranquility in the waiting room. This finding resonates with studies such as that of Peterson (35), where family members highlight that noise interferes with comfort in visiting rooms, thereby diminishing their satisfaction with care.

Regarding satisfaction with information, studies have consistently shown that communication between the healthcare team and relatives of ICU patients significantly influences family satisfaction with the ICU (35, 36). In the present study, overall satisfaction increased in both the control and intervention groups following the "Families Informed" intervention. However, a more substantial increase was observed in the intervention group, indicated by a lower p-value, suggesting that the intervention is more effective compared to the control group.

This increase in satisfaction with the information domain can be attributed to clear explanations provided regarding tests, treatments, procedures, and addressing various concerns expressed by family members during the intervention. The emphasis on responding to these concerns at two different points during the intervention likely contributed to this improvement.

Conclusions

The intervention "Families Informed in the ICU" proved effective in enhancing the information needs of families with critically ill patients in the ICU. Elements such as understanding the roles of various healthcare professionals caring for their family member and assisting in their physical care had a notable impact on improving this dimension. This underscores the importance of fostering a strong nurse-family relationship, where the family's understanding of the situation is enhanced, and their participation in patient care is facilitated. This approach not only supports better communication and collaboration but also enhances overall satisfaction with ICU care.

This intervention highlights the critical role of ICU nurses in caring for patients' relatives and emphasizes the importance of establishing dedicated spaces for family care. Ensuring quality care and promoting family well-being involves providing tools that enhance family members' coping abilities.

Meeting the information needs of families in the ICU requires nurses to actively engage with them and employ various strategies, such as conducting face-to-face meetings, providing informational brochures, and offering notebooks for recording concerns. These efforts contribute to maintaining the quality of care, promoting family well-being, and supporting effective coping strategies.

The implementation of the intervention resulted in improved family satisfaction, particularly in domains related to information. This included factors such as the availability of doctors for discussions, clear explanations of tests, procedures, and treatments, providing clear answers to questions, and involving families in care decisions. These outcomes underscore the effectiveness of targeted interventions in enhancing communication and satisfaction among families in ICU settings.

Conflicts of interest

The authors declare that they have no conflict of interest in any aspect of the publication of this article.

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