ORIGINAL ARTICLE

Family Members' Satisfaction Levels : Impact Of An Intensive Care Unit Information Leaflet With Verbal Information Compared To Conventional Verbal Information

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ABSTRACT

Introduction: Patients admitted to the Intensive Care Unit (ICU) experience intense physical stress. Family members of these patients also experience stress during the admission. Therefore, it is an important task of the ICU staff to provide the family members with appropriate and clear information. There are many methods to do this. This study aimed to compare the impact of two methods of information sharing on the satisfaction levels among families of ICU patients. The novel method being introduced and investigated was a locally designed information leaflet in combination with verbal explanation. This new method was compared with the traditional method of verbal explanation only. **Methods:** This was a randomized controlled study, conducted at the ICU of Teluk Intan Hospital. A total of 60 participants were enrolled, with 30 participants each in the intervention and control group. The Malay version of the Validated Critical Care Family Satisfaction Survey (CCFSS) was used to measure family satisfaction with the care received during their ICU admission. **Results:** The intervention group reported significantly higher level of satisfaction in all of the components (Assurance, Proximity, Information, Support and Comfort). Upon further examination of the results of the intervention group, the scores in the Assurance, Proximity and Comfort component were significantly higher compared to the scores in the Information and Support component. **Conclusion:** Integrating an information leaflet with the traditional verbal method of delivering information has proven to provide a significant difference in satisfaction levels to the family members of patients who were admitted to the ICU.

Keywords: Leaflet, Family satisfaction, Emotional stress, CCFSS, ICU

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INTRODUCTION

The Intensive Care Unit (ICU) is an integral part of almost every general hospital around the world. The intensive therapy consists of the care of patients who are deemed to have a relatively good prognosis regarding their underlying or causative pathology (1).

It is undeniable that apart from the physical stress faced by the patient, family members experienced similar amount of emotional and physical stress. In most circumstances, medical practitioners who are in the process of saving the life of the patient in danger may inadvertently neglect the needs of the patients' families. This will create much dissatisfaction and reduce the trust and confidence in ICU care and management . Therefore, it is an important task of the ICU staff to provide appropriate, clear and compassionate information to the family members (2). To do this, understanding the family needs is of utmost importance.

It is interesting to note that after more than four decades of research, understanding family needs still receives a significant interest among researchers (3). Numerous studies have shown that quality relationships with healthcare staff, access to information about patient's medical conditions and familiarity of facilities are high priority needs for family members (4-9). Although the issues have been identified, there are limited documented methods to improve the situation. Currently, traditional verbal explanations are made by nurses to the family members upon the patient's arrival to the ICU.

Our study aimed to measure the overall family satisfaction among family members of patients who were admitted to the ICU based on two methods of information dissemination; the traditional verbal method by nurses, and the impact of a locally designed information leaflet in combination with the verbal method.

MATERIALS AND METHODS

Design

This study was a randomized controlled study. The study was conducted at the ICU in Hospital Teluk Intan, Perak. The inclusion criteria for this study were family members of patients who were admitted to the ICU during the study period, which was from January 2019 to June 2019. The exclusion criteria were patients who died within 24 hours of admission, patients who did not comprehend the Malay language, or when the family members refused to participate in this study.

Participants

Randomization was done to recruit patients for the control and intervention groups at the same time. Randomization was done using a computer software. The control group received information verbally from the nurses, and the intervention group received the same information in the form of a leaflet in combination with verbal information from the nurses. Sample size calculation was done using a computer software, based on a previous study (10). A total of 60 participants were enrolled, with 30 in each control and intervention group respectively.

Ethical Clearance

The Medical Research Ethics Committee (MREC) of the Ministry of Health of Malaysia (MOH) has given approval for this study (NMRR-19-319-46769). A copy of the information sheet was given to all participants. A consent for this study was obtained from all participants.

Instruments

The Critical Care Family Satisfaction Survey (CCFSS) to measure family satisfaction with care was used. The CCFSS is a useful tool to measure family satisfaction in the ICU (11). The CCFSS is divided into five subscales; comfort (2 items), proximity (3 items), information (4 items), and assurance (5 items) and support (6 items). Each item on the scale is ranked by the family member on a scale of one to five (1= very much dissatisfied and 5= very much satisfied).

The Malay version of this instrument was used in this study to enable ease of understanding among the participants. It was translated and validated as CCFSS-Malay version in 2015 (12). Permission was taken from the authors to use the CCFSS-Malay version.

Intervention

In the intervention group, family members received an information leaflet in addition to the routine verbal information from ICU nurses. The Information leaflet comprised of patient's basic care and need, ICU visiting hours, infection control techniques, counselling and welfare services, and family member's accommodation and related facilities. For both groups, the questionnaire was done within 24 hours after admission.

Data Analysis

Data was analysed using the Social Package Statistical Software (SPSS) version 22 (IBM Corp). Normality test was done, and descriptive with inferential statistics were used. The T-student Test is used to find significance. A P value of less than 0.05 is considered significant, and a P value of less than 0.001 is considered very significant.

RESULTS

From the total of 60 participants who consented to the study, the demographic profile included 33 female and 27 male. The demographic data of the participants are presented in Table I. There were no significant difference in terms of gender, relationship, education and history of ICU admission, among the intervention and control group. The majority of participants were children of the patient admitted to the ICU. All the participants who received the questionnaire had some form of education, ranging from primary education to degrees. More than 3/4th of the patients from the intervention and control group had never experienced an ICU admission.

Table I : Demographic profile of the family members (N=60)

Variables		Intervention group (N=30) N (%)	Control group (N=30) N (%)	P value
Gender	Male	14 (46.7)	13 (43.3)	0.08
	Female	16 (53.3)	17 (56.7)	
Relationship	Children	13 (43.3)	12 (40)	0.91
	Parents	6 (20)	5 (167)	
	Siblings	5 (16.7)	8 (26.7)	
	Spouse	3 (10)	3 (10)	
	Relatives	3 (10)	2 (6.7)	
Education	Primary	4 (13.3)	6 (20)	0.94
	Secondary	10 (33.3)	9 (30)	
	Diploma	8 (26.7)	6 (20)	
	Degree	8 (26.7)	9 (30)	
History of ICU admission	Yes	4 (13.3)	7 (23.3)	0.25
	No	26 (86.7)	23 (76.7)	

Table II shows the scores for both intervention and control groups. The intervention group was significantly higher in all of the components (Assurance, Proximity, Information, Support and Comfort). Upon further examination of the results of the intervention group, the Assurance, Proximity and Comfort component were significantly higher in the intervention group compared to the Information and Support component.

Table III is the whole questionnaire analysed based on each question. The questions were randomly numbered but have been categorized into the five components for analysis purposes. Eleven of the 17 questions had a significant difference between the intervention group and the control group.

DISCUSSION

Psychological crisis, stress and depression among

Table II : Independent t-test between intervention and control group mean values for each subscale

Subscale	Intervention Group Mean (SD)	Control Group Mean (SD)	df	t	p-value
Assurance Q3,4,7,19,20	4.52 (0.47)	3.95 (0.55)	58	-4.30	0.00**
Proximity Q5,15,18	4.52 (0.43)	3.66 (0.71)	58	-5.71	0.00**
Information Q2,6,10,12	4.58 (0.44)	4.25 (0.45)	58	-2.84	0.01*
Support Q1,9,11,13,14,16	4.55 (0.45)	4.21 (0.47)	58	-2.90	0.01*
Comfort Q8,17	4.53 (0.51)	3.82 (0.75)	58	-4.34	0.00**

**P<0.001, *p<0.05

family members of patients admitted to the ICU is an acknowledged problem (13,14). This is because family members have to deal with the unfamiliarity of the ICU environment with an uncertainty of the patient's outcome (15). In addition to that, in a new environment where the patient has a severe illness, comprehension and communication can be severely affected (16). The uncertainty during the ICU admission also adds to the distress and worries. This could create a complicated relationship between the healthcare providers and the family members.

The top ten needs of family members are to feel there is hope, have a waiting room nearby feel the staff cares

Table III : Independent t-test of each item between intervention and control group for each question

Item	Intervention Group (SD)	Control Group (SD)	df	t	p-value
Assurance					
Q3. Waiting time for results of tests and X rays.	4.57 (0.50)	4.33 (0.61)	58	-1.62	0.11
Q4. Peace of mind in knowing my family member's nurse.	4.60 (0.50)	4.43 (0.50)	58	-1.29	0.20
Q7. Promptness of the staff in responding to alarms and request for assistance.	4.50 (0.57)	3.77 (1.04)	58	-3.38	0.00**
Q19. Noise level in the critical care unit	4.50 (0.51)	4.13 (0.82)	58	-2.08	0.04*
Q20. Sharing in discussion regarding my family member's recovery.	4.60 (0.50)	4.10 (0.84)	58	-2.79	0.01*
Proximity					
Q5. Ability to share in the care of my family member	4.57 (0.50)	3.97 (0.72)	58	-3.75	0.00**
Q15. Privacy provided for me and my family member during visits.	4.53 (0.51)	4.20 (0.71)	58	-2.08	0.04*
Q18. Flexibility of visiting hours	4.63 (0.49)	3.90 (0.88)	58	-3.97	0.00**
Information					
Q2. Availability of the doctor to speak with me on a regular basis.	4.57 (0.50)	4.30 (0.60)	58	-1.87	0.07
Q6. Clear explanation of tests, procedures, and treatments.	4.57 (0.50)	4.17 (0.70)	58	-2.54	0.01*
Q10. Clear answers to my questions.	4.57 (0.50)	4.23 (0.68)	58	-2.16	0.04*
Q12. Sharing in decisions regarding my family member's care on a regular basis.	4.57 (0.50)	4.43 (0.57)	58	-0.95	0.34
Support					
Q1. Honesty of the staff about my family member's condition.	4.47 (0.63)	4.20 (0.76)	58	-1.48	0.14
Q9. Support and encouragement given to me during my family member's stay in the critical care unit.	4.60 (0.50)	4.37 (0.56)	58	-1.71	0.09
Q11. Quality of care given to my family member.	4.53 (0.63)	3.70 (0.95)	58	-4.00	0.00**
Q13. Nurses' availability to speak with me every day about my family member's care.	4.53 (0.63)	3.80 (0.81)	58	-3.93	0.00**
Q14. Sensitivity of the doctor(s) to my family member's needs.	4.43 (0.68)	3.73 (0.94)	58	-3.30	0.00**
Q16. Preparation for my family member's transfer from critical care	4.43 (0.57)	3.17 (1.21)	58	-5.20	0.00**
Comfort					
Q8. Cleanliness and appearance of the waiting room.	4.50 (0.51)	3.30 (1.11)	58	-5.35	0.00**
Q17. Peacefulness of the waiting room.	4.57 (0.50)	4.37 (0.56)	58	-1.46	0.15

** p<0.001, *p<0.05

about the patient, know the prognosis, be communicated with the changes in the patient, honestly answering the questions, know specific facts about the prognosis, daily updates on the patient, easily understood information, and be allowed to see patient frequently (17). These needs are not easy to fulfil. However, adequate information and effective communication has been proven to be effective to increase satisfaction and reduce anxiety of family members of patients admitted to the ICU (18,19).

At the moment, there are many methods to provide adequate information to family members. It can range from verbal explanation, video presentation and information leaflets. Our control group was given verbal explanation by qualified nurses. During this study, the family members were briefed in detail regarding the ICU facilities and information. This has been done for many years.

The principal needs of families of critical care patients are related to the necessity for information. This information implies the communication with the care givers regarding the patient's condition and facilities provided for the patient and the family members. There have been many attempts to develop information interventions for family members (20). It was found that the implementation of information leaflets had significant satisfaction among family members (21). However, most of these were studies done outside of Malaysia. Our information leaflet was designed based on local needs and requirements. This leaflet has proven to provide a significant difference to the family members of patients admitted to the ICU, with better satisfaction in all 5 domains; assurance, proximity, information, support and comfort.

Since the completion of this study, our team has prepared a comprehensive leaflet for families, which is now in circulation. However, our leaflet should be used in combination with verbal information from the nurses.

This study has some limitations. This study was from a single centre in Malaysia, and therefore its conclusions need to be interpreted with caution. We also did not assess the participants of the study if they had a history of anxiety or depression prior to this event.

CONCLUSION

This study suggests by using a specially designed information leaflet with combination of the traditional verbal method, the satisfaction of family members of patients admitted to the ICU can be improved. However, this leaflet must be individually designed to suit the needs of the local requirement.

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