



Sociodemographic Characteristics on Family Satisfaction with Care in Adult Critical Care Public Hospital Terengganu, Malaysia

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Abstract

Background family satisfaction care and decision making as important indicator to evaluate the quality of care in intensive care unit. The family satisfaction in the ICU questionnaire (FS-ICU 33 Malay languages) is a well-established tool to assess satisfaction in such settings. ICU admission has many implications, for example, the effects on critically ill patients, the ICU setting, the role of health care staff and family members, communication, psychology of families and physical health. Thus, this study we tested the hypothesis that examined effects of gender, age, relationship, marital status, education level, race and occupation can attribute on family satisfaction care and decision making. Two hundred and eight respondents selected from the Public Hospital Terengganu completed the Family satisfaction ICU Malay languages questionnaire (FS-ICU-M). A quantitative, cross-sectional study and purposive sampling was conducted from 10 October 2018 to January 2020. In this study conclude that the ICU-Care satisfaction score was significantly associated with age, education level, occupation, and the relationship of the respondents ($p < 0.05$), but not associated with the gender, race, and marital status of the respondents. Moreover, the ICU-DM satisfaction score was significantly associated with age, marital status, occupation, and the relationship of the respondents ($p < 0.05$), but not associated with the gender, race, and education level of the respondents.

Keyword: sociodemographic, family satisfaction, adult, critical care



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INTRODUCTION

Over the last few decades, studies regarding patient and family satisfaction on health care services have increased because the studies act as quality indicators to improve the quality of nursing intervention and assess the outcomes of care provided by health care professionals (Pajnkhar et al., 2017). Patient and family satisfaction with ICU is usually measured either using the Critical Care Family Needs Inventory (CCFNI), Critical Care Family Satisfaction Survey (CCFSS), or Family Satisfaction with Intensive Care Unit (FS-ICU) questionnaires. Numerous research has reported the family surveys that covered different aspects of patients to care, especially in intensive care settings were used as an indicator for initiating quality improvement management among family members in total care satisfaction (Abdul Hamid & Mat Nor, 2020; Maxim et al., 2019).

ICU admission is a stressful situation for both patients and their family members because it may trigger a variety of negative psychological symptoms (Schmidt & Azoulay, 2012) and experiencing acute stressors (Abdul Hamid & Mat Nor, 2020; Chang et al., 2018; Lewis & Taylor, 2017). In the past,

critical care management primarily focused on inpatient treatment, while family members were often overlooked (Geok et al., 2012). Therefore, family involvement in the care of critically ill patients implicates nurses and healthcare providers to deliver good quality care and reduce anxiety among family members (Al-Mutair et al., 2013; Haywood et al., 2015; Wiering et al., 2017). Many studies have proven that family-centred care is beneficial (Shamloo, 2012) to the family experience in waiting rooms (Kutash & Northrop, 2007) and vulnerability in adult critical care (Baumhover & May 2013). The introduction of family-centred care in intensive care settings is now relevant because health professionals are aware of the role of family's inpatient care; however, the implementation of critical care in adults has not been extensively studied (Mitchell et al., 2009). Therefore, the needs for information, proximity, assurance, comfort, and support were identified by family members as important throughout their stay in ICU (Zainah et al., 2016).

However effective communication between family members and health care providers would improve satisfaction and

quality care of patients (Kodali et al., 2015). When admitted to the ICU, critical patients are often unable to make their own decisions due to the severity of their illness or delirium, and family members need to play an essential role in the decision-making process (Rusinova et al., 2014). Accordingly, family members' viewpoints are particularly relevant, and the measurement of family members' satisfaction with care has become an important predictor of ICU service quality (Maxim et al., 2019; Jensen et al., 2017). In addition, family support (Carlson et al., 2015; Lewis & Taylor, 2017) and communications are essential elements of family-centred care in ICU (Davidson & Zisook, 2017). Furthermore, effective communications and support for families with loved ones in the ICU can significantly reduce the signs of depression, anxiety and post-traumatic stress disorder among family members (Kynoch et al., 2016; Su et al., 2020).

Therefore the population of many countries has become increasingly diverse, there is an urgent need for the healthcare provider to recognize of background and the particular needs of minority groups, culture develops the method we view our environment and influences the relationship among patients and clinicians (Ali et al., 2019; Dodek et al., 2012). Over the last few decades, studies on patient and families satisfaction of health care services had been increased since those studies act as the quality indicators to better the quality of nursing intervention as well as to assess the outcomes of care provided by health care professionals. From the literature, several demographic variables have been found to influence whether family needs are met (Siddiqui et al., 2011; Lee & Lau, 2003). Background variables such as age, gender, education, family relationship, marital status, and occupation status are mentioned in the literature as starting point factors that may be associated with family satisfaction in the ICU (Stricker et al., 2007, 2009).

In the context related to demographic variables and family satisfaction care study found that score for agitation management, the atmosphere in the ICU, emotional support and overall satisfaction of FS-ICU care increased as the age of the respondents increased (Jensen et al., 2017).

Despite the fact that the literature rarely indicated a relationship between demographic characteristics and family satisfaction, we included these background variables in our study to assess their impact on family satisfaction among our respondents. In this context of varying conclusion, we expected that this study would serve to further some previous findings. Impact of family satisfaction on care and decision-making insufficient emphasis given and potential area to be explored accordingly. We felt that these factors have influenced the possible difference in satisfaction score of ICU care and ICU decision making between different demographic characteristics of the family members.

MATERIALS AND METHODS

Study design and sample size

A quantitative, cross-sectional validation study (preliminary) in phase one was conducted in the medical and surgical ICU Hospital Sultanah Nur Zahirah, Terengganu from November 1, 2017 among 196 respondents with 34 items questionnaire. In phase 1, the developing FS-ICU questionnaire had undergone three processes before it can be used in this study: (1) step ward and backward translation, (2) questionnaire validation by expert's person, and (3) face validation. Finally, the construct validation of the FS-ICU-Malay language questionnaire with 33 items were used. In section, a satisfaction of care is 18 items and satisfaction for decision-making and decision-making process is 15 items.

This study involved closed family members of patients such as spouse, son or daughter, siblings or parents who stayed together with the patient and who accompanied the patient in the ICU for at least 48 hours of admission and exclusion criteria are under age 18 years, hospital staff (health care provider), unable to read and foreigner family patient. All family members attended the Intensive Care Unit at Hospital Sultanah Nur Zahirah, Terengganu was recruited in this study by using Roasoft sample size such as population size, confident interval and margin error. Sample size obtained for this study was 292 with 95% confident interval, margin error and population size 1200 patients who were admitted in adult ICU Hospital Sultanah Nur Zahirah, Terengganu. From the calculation, about 292 participants in the ICU were chosen. However, only 208 respondents were managed to gather for data collection. This is because, time was limited and the respondents' follow-up rate was poor due to strict standard of practice in ICU since the COVID-19 strikes.

Sampling frame and data collection

Purposive sampling was performed in this study. The purposive sampling is a type of non-probability sampling in which researchers use their own autonomy in selecting family members to take part in the study in the Intensive Care Unit. The purpose of choosing this method is because the researcher wants to avoid bias information given by among health care provider family during data collection according to exclusion criteria. Data were collected using a questionnaire form which consists of a dual language in Malay version. To protect the rights of the individuals participating in the research study, the participants were given the patient information sheet and consent form to be signed. The briefing was given to family members on the purpose of the study at awaiting room ICU. They also were explained in the data collection procedure. Before conducted this study, a pre-test questionnaire was administered to all respondents upon consent to participate was signed. The questionnaire was collected by the researcher once the respondents have completed it. The objective of the research was also explained. The questionnaires later were distributed personally by the researcher to the participant. As been said earlier code of numbering system was used to make the process of distribution and collecting back the questionnaire more organize.

Data analysis

Data were processed and analyses using SPSS version 23. Method of analysis was used descriptive statistics. Independent-Sample T-Test, One-way Anova and correlation data analysis indicates the nature of a relationship between two variables and the magnitude of that relationship.

RESULTS

Table 1 showed the descriptive analysis total of 208 respondents participated and answered the questionnaires. Overall, 71.9% of them were between 17 to 45 years of age, with 190 (96.9%) respondents were Malays, and 132 (76%) respondents had secondary level education. Among the respondents, 95 (48.5%) were government servants and 84 (42.9%) were the patients' spouses. In this section, the demographic data that were focused on characteristics of the respondents by age, gender, race, marital status, education level, occupation and the relationship with the patient was presented in Table 1. These data had been analyzed by using a descriptive statistic that is through total score, mean, standard deviation, frequency, and percentage.

Table 1: The demographic data

Variables	Frequency (n)	Percentage (%)	Mean (SD)
Age (Years)			41.21 (11.10)
20-41	86	41.3	
42-63	122	58.7	
Gender			
Male	74	35.6	
Female	134	64.4	
Race			
Malay	193	92.8	
Chinese	2	1.0	
Indian	9	4.3	
Others	4	1.9	
Marital Status			
Single	58	27.9	
Married	142	68.3	
Widow	8	3.8	
Education Level			
None	5	2.4	
Primary School	11	5.3	
Secondary School	103	49.5	
College	25	12.0	
University	64	30.8	
Occupation			
Government	55	26.4	
Private	27	13.0	
Self-employed	45	21.6	
Retired	8	3.8	
Housewife	38	18.3	
Unemployed	35	16.8	
Relationship			
Spouse	36	17.3	
Children	70	33.7	
Parents	59	28.4	
Sibling	43	20.7	

The result between ICU-CS satisfaction score and socio-demographic data (age, gender, race, marital status, education level, occupation, and relationship) were presented in Table 2 below. Independent t-test and one-

way ANOVA were used to find the significant difference between ICU-CS satisfaction score and the socio-demographic data

was significantly higher in the older family members compared to younger family members (75.52 ± 8.95 vs. 70.56 ± 9.61 ; $p < 0.001$).

Independent Sample T -Test for ICU-CS Construct

Table 2: Age

Variables	Mean (SD)	t-stats (df) *	p-value
20-41	70.56 (9.61)	-3.816 (206)	<0.001**
(Younger)			
42-63	75.52 (8.95)		
(Older)			

t-stats= t-statistics; df=degree of freedom

*p-value<0.05; **p-value<0.00

The independent sample t-test is utilized to compare the mean of age and ICU-CS constructs. The result was significant, indicating that there are significant differences between the younger and older person in the ICU-CS constructs. In additions, it also revealed that the satisfaction score of ICU-CS

Table 3: Gender

Variables	Mean (SD)	t-stats (df) *	p-value
Male	73.36 (10.16)	-0.128 (206)	0.899
Female	73.53 (9.19)		

t-stats= t-statistics; df=degree of freedom

*p-value<0.05; **p-value<0.00

The independent sample t-test is utilized to compare the mean of gender and ICU-CS constructs. The result was not significant indicating that there are no differences between male and female in the ICU-CS construct.

One-Way Anova for ICU-CS construct

Table 4: Race

Variables	Mean (SD)	F-stats (df)	p-value
Malay	73.45 (9.58)	0.823 (3,204)	0.483
Chinese	79.72 (0.39)		
Indian	75.06 (9.10)		
Others	67.92 (9.45)		

F-stats= t-statistics; **df**=degree of freedom
*p-value<0.05; **p-value<0.00

The one-way ANOVA is utilized to compare the mean of race and ICU-CS constructs. The result was not significant indicating that there are no differences between Malay, Chinese, Indian, and others in ICU-CS construct.

Table 5: Marital Status

Variables	Mean (SD)	F-stats (df)	p-value
Single	71.32 (10.04)	2.303 (2, 205)	0.103
Married	74.42 (9.23)		
Widow	72.08 (9.32)		

F-stats= t-statistics; **df**=degree of freedom
*p-value<0.05; **p-value<0.00

The one-way ANOVA is utilized to compare the mean of marital status and ICU-CS constructs. The result was not significant indicating that there are no differences between single, married and widow in the ICU-CS constructs.

Table 6: Education Level

Variables	Mean (SD)	F-stats (df)	p-value
None	73.44 (3.46)	5.331 (4, 203)	<0.001**a
Primary School	80.76 (8.59)		

Secondary School	72.66 (10.26)
College	67.80 (9.16)
University	75.74 (7.40)

F-stats= t-statistics; **df**=degree of freedom
*p-value<0.05; **p-value<0.00

^aScheffe post-hoc analysis: There was a significant difference in ICU-CS satisfaction score between primary school and college, as well as between college and university, but there was no significant difference found between other education levels.

There was a significant difference found between the satisfaction score and the education level of the respondents ($p < 0.001$). Scheffe post-hoc analysis was used to determine which pairs of groups were significant and the analysis showed that primary school graduated had significantly higher satisfaction score than college graduated (80.76 ± 8.59 vs. 67.80 ± 9.16) and university graduated had significantly higher satisfaction score than that college graduated (75.74 ± 7.40 vs. 67.80 ± 9.16). The satisfaction score between other education levels was similar.

Table 7: Occupation

Variables	Mean (SD)	F-stats (df)	p-value
Government	70.20 (10.03)	3.657 (5, 202)	0.003* ^b
Private	74.01 (8.37)		
Self-employed	72.84 (10.01)		
Retired	76.18 (10.36)		
Housewife	78.29 (7.99)		
Unemployed	73.14 (8.47)		

F-stats= t-statistics; **df**=degree of freedom
*p-value<0.05; **p-value<0.00

^bPost-hoc analysis: There was a significant difference in mean ICU-CS satisfaction score between the government and housewife, but there was no significant difference in mean ICU-CS satisfaction score between other occupations.

There was also a significant difference found between the occupation of the respondents with the satisfaction score

($p < 0.05$). Therefore, post-hoc analysis was performed and found that the satisfaction score was only significantly different between a housewife and government employee, but there was no significant difference in satisfaction score between other occupations. In other words, the housewife had a significantly higher ICU-CS satisfaction score than the government employee (78.29 ± 7.99 vs. 70.20 ± 10.03), while the satisfaction score between other occupations was similar.

Table 8: Relationships

Variables	Mean (SD)	F-stats (df)	p-value
Spouse	69.34 (9.20)	9.117 (3, 204)	<0.001**c
Children	72.40 (10.07)		
Parents	78.38 (7.85)		
Sibling	71.93 (8.49)		

F-stats= t-statistics; **df**=degree of freedom

*p-value<0.05; **p-value<0.00

cScheffe post-hoc analysis: There was a significant difference in mean ICU-CS satisfaction score between spouse and parents, children, and parent, as well as between parents and sibling. There was no significant difference in mean ICU-CS satisfaction score between spouse and children, spouse, and sibling as well as between children and parent.

The respondent's relationship with the patients is also significantly different from the ICU-CS satisfaction score ($p < 0.001$). Scheffe post-hoc analysis found that parents' satisfaction score was significantly higher than a spouse (78.38 ± 7.85 vs. 69.34 ± 9.20), parents' satisfaction score was significantly higher than children (78.38 ± 7.85 vs. 72.40 ± 10.07) as well as parents' satisfaction score was significantly higher than the siblings (78.38 ± 7.85 vs. 71.93 ± 8.49), while significant difference was found between other relationships. Overall, the ICU-Care satisfaction score was significantly associated with age, education level, occupation, and the relationship of the respondents ($p < 0.05$), but not associated with the gender, race, and marital status of the respondents.

ICU-Satisfaction DM score and socio-demographic data

Independent sample t-test for ICU-DM constructs

Table 9: Age

Variables	Mean (SD)	t-stats (df) *	p-value
20-41 (Younger)	61.81 (8.66)	-3.072 (206)	0.002*
42-63 (Older)	65.45 (8.31)		

t-stats= t-statistics; **df**=degree of freedom

*p-value<0.05; **p-value<0.00

The data showed that the satisfaction score of ICU-DM was significantly higher in older respondents (42-63 years old) than the younger respondents (20-41 years old) (65.45 ± 8.31 vs. 61.81 ± 8.66 ; $p < 0.05$).

Table 10: Gender

Variables	Mean (SD)	t-stats (df) *	p-value
Male	63.62 (8.97)	-0.410 (206)	0.683
Female	64.13 (8.46)		

t-stats= t-statistics; **df**=degree of freedom

*p-value<0.05; **p-value<0.00

The independent sample t-test is utilized to compare the mean of gender and ICU-CS constructs. The result was not significant indicating that there are no differences between male and female in the ICU-DM construct.

One-Way Anova for ICU-DM constructs

Table 11: Race

Variables	Mean (SD)	F-stats (df)	p-value
Malay	63.87 (8.73)	1.125 (3, 204)	0.340
Chinese	67.67 (3.30)		
Indian	67.33 (7.30)		
Others	58.50 (5.37)		

F-stats= t-statistics; **df**=degree of freedom

*p-value<0.05; **p-value<0.00

The One-way ANOVA is utilized to compare the mean of race and ICU-DM constructs. The result was not significant indicating that there are no differences between race in the ICU-DM constructs.

Table 12: Marital status

Variables	Mean (SD)	F-stats (df)	p-value
Single	64.90 (8.31)	5.642 (2, 205)	0.004 ^a
Married	61.00 (8.23)		
Widow	68.58 (12.03)		

F-stats= t-statistics; **df**=degree of freedom

*p-value<0.05; **p-value<0.00

Marital status was found to be significantly associated with the satisfaction score ($p < 0.05$). Scheffe post-hoc analysis showed that single respondents had significantly higher satisfaction score than married respondents (64.90 ± 8.31 vs. 61.00 ± 8.23) and widow respondents had a significantly higher satisfaction score than single respondents (68.58 ± 12.03 vs. 64.90 ± 8.31). No association was found between married and widow respondents.

Table 13: Education Level

Variables	Mean (SD)	F-stats (df)	p-value
None	59.60 (4.63)	2.480 (4, 203)	0.054
Primary School	69.33 (10.22)		
Secondary School	64.41 (9.13)		
College	60.59 (9.36)		
University	63.95 (6.84)		

F-stats= t-statistics; **df**=degree of freedom

*p-value<0.05; **p-value<0.00

In terms of the education level variable, there is no significant difference between all groups within the ICU-DM constructs as the p-value is higher than 0.05. Given their importance, the respondent from primary school is higher than other qualification.

Table 14: Occupation

Variables	Mean (SD)	F-stats (df)	p-value
Government	60.88 (8.10)	4.296 (5,202)	0.001 ^{ab}
Private	62.32 (6.48)		
Self-employed	63.54 (8.82)		
Retired	67.33 (10.57)		
Housewife	68.42 (7.77)		
Unemployed	64.93 (9.16)		

F-stats= t-statistics; **df**=degree of freedom

*p-value<0.05; **p-value<0.00

As for occupation, the result showed that there was a significant difference between the ICU-DM satisfaction score with the occupation of the respondents ($p < 0.001$). The post-hoc test revealed that the only housewife had a significantly

higher ICU-DM satisfaction score than the government employee (68.42 ± 7.77 vs. 60.88 ± 8.10). However, there was no significant difference in satisfaction score between other occupations.

Table 15: Relationships

Variables	Mean (SD)	F-stats (df)	p-value
Spouse	59.81 (7.32)	9.049 (3, 204)	<0.001**c
Children	62.97 (8.55)		
Parent	68.26 (9.10)		
Sibling	63.10 (6.68)		

F-stats= t-statistics; **df=**degree of freedom

*p-value<0.05; **p-value<0.00

A relationship of the respondents with the patient also significantly associated with the ICU-DM satisfaction score ($p<0.001$). Post-hoc analysis revealed that the parent had a higher ICU-DM score than the spouse (68.26 ± 9.10 vs. 59.81 ± 7.32), the parent had a higher score than the children (68.26 ± 9.10 vs. 62.97 ± 8.55) and the parent had a higher score than the sibling (68.26 ± 9.10 vs. 63.10 ± 6.68). However, no difference in satisfaction score was found between other relationships. Overall, the ICU-DM satisfaction score was significantly associated with age, marital status, occupation, and the relationship of the respondents ($p<0.05$), but not associated with the gender, race, and education level of the respondents.

ICU-CS with Socio-Demographic of the Respondents

The present study found a significant association between age and ICU care score in which the ICU care satisfaction scores increased when the age increased. The previous study found that score for agitation management, the atmosphere in the ICU, emotional support and overall satisfaction of FS-ICU care increased as the age of the respondents increased (Jensen et al., 2017). Contradict to the present study, a study in India found no significant association between the age of the family members by the score of the ICU-care satisfaction, which means that the satisfaction care score remains the same regardless of the age of the family members (Thimmapur et al., 2018). Another study in Pennsylvania also found no significant difference in the mean score for ICU-care across gender and age of the family members (Kodali et al., 2014). This study found no association between ICU care services with the gender or race of the family members, (Newey et al., 2020) though females showed higher satisfaction with care

service compared to males. A study in the United Arab Emirates (UAE) also found no significant association between gender with the ICU care service, although male members of the family, such as brother, father, son and husband had higher satisfaction with care ($>80\%$) compared to their female counterparts such as daughter, mother, sister and wife ($<80\%$) (Ali et al., 2019). In contrast, a recent study found that females had higher scores in the management of pain and dyspnoea than their male counterparts (Jensen et al., 2017). Family members with the education levels of our respondents were found to be significantly associated with ICU care. It was believed that family members with lower education backgrounds may have less knowledge about the health care system and had lower expectations on the quality of ICU management resulting in higher satisfaction levels (Hajj et al., 2015).

Meanwhile, families with a higher educational background had lower satisfaction with care as they were more aware of their rights as healthcare services, consumer, and therefore more demanding on their rights for information and support (Khalaila, 2013). Moreover, the present study also found a significant difference in the mean score for the level of satisfaction with care between relationships with the patients as parents had significantly higher scores for care satisfaction than other relationships (sibling, spouse and children). However, contradict to the present study, the previous study had demonstrated no significant difference in the mean score for care satisfaction between relationships, although children (son and daughter) reported having the highest level of satisfaction compared to other relationships (brothers, wives, husbands, and sisters)(Ali et al., 2019). However, a study by Newey et al. (2020) respondent in caregivers in relationship stated that other caregivers claimed low satisfaction with care compare to children caregiver Meanwhile, another study also found a significant difference in ICU-care scores between relationships with the patients as spouses were more satisfied with the ICU-care than parents (Kodali et al., 2014b; Sottile et al., 2016). In contrast, a study in Jordan found no significant association between age, gender and relationship of the family members with the FS-ICU care service (Mosleh et al., 2015). The previous study also found no association between respondent's relationship to the patient with the FS-ICU care (Jensen et al., 2017).

ICU-DM with Socio-Demographic of the Respondents

The present study found that the mean score for decision making was similar across gender. Similarly, a previous study also showed no difference in the decision making score between male and female family members, although females had a higher satisfaction score than males (Ali et al., 2019). Another study also reported no significant difference between decision-making scores with gender, (Newey et al., 2020) but male family members had higher satisfaction in decision making than female family members (Kodali et al., 2014). Furthermore, Kodali et al. (2014) also reported that the satisfaction decision making score was similar across the age of the family members which was contradicted the present study as we found that older family members had significantly higher satisfaction in decision-making than the younger family members. Similarly, a study in Hong Kong also found that older respondents were more satisfied in the decision-making

than younger respondents (Lam et al., 2015). This might be because younger people had higher expectations and knowledge on the quality of ICU care as well as because they wanted to be more involved in the decision-making process compared to older people. Meanwhile, the present study found no significant association between the education levels of the respondents with the decision-making.

This result was consistent with the previous study in Israel as they also found no association between education and decision making (Khalaila, 2013). Compare to the present study found that parents of the admitted patient were more likely to be satisfied with the decision making compared to other relationships (spouse, sibling, and children) (Newey et al., 2020). The previous study explored the parents of the ICU patients were very satisfied as they felt supported and included during the decision-making process compared to other relationships (Hwang et al., 2014). However, another study found no association between relationships to the patients with the satisfaction with decision making, although children (sons and daughters) had the highest satisfaction and parents (fathers and mothers) had the lowest satisfaction with involvement in the decision making (Ali et al., 2019). Another study also found no significant difference in the ICU decision-making score with the relationship, although spouses had the highest decision-making scores than parents, siblings and children of the patients (Kodali et al., 2014). In contrast, we report a study in Jordan found no association between age, gender, and relationships of the family members with FS-ICU decision-making (Mosleh et al., 2015). Similarly, a previous study also found that the respondent's relationship to the patient was not associated with decision making (Jensen et al., 2017).

Conclusions and future recommendation

Our research will be based on family satisfaction in the intensive care unit. Only a few limitations that influence background of family satisfaction could be identified. In conclusion future recommendations for this study. Interaction by the same staff was crucial when evaluating an ICU's ability to address the needs of families. Physicians must take into account the findings of this study on family needs and satisfaction with care and incorporate them into any interventions aimed at improving the quality of care in the ICU. The future research may examine other mediating mechanism in this relationship, such as with partnering or collaboration with family members (Dechand et al., 2016). Furthermore, to increase the quality of treatment in the ICU, physicians and nurses should take a holistic approach by focusing on the patient's family as well as the patient. These suggestions would improve the chances of patient- and family-centred care.

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