

ORIGINAL ARTICLE

Bridging the Gap: ICU Nurses' Knowledge and Perceived Practices in Meeting Family Needs

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ABSTRACT

Introduction: The admission of a relative to the Intensive Care Unit (ICU) is highly stressful for family members. Hence, accurately assessing and responding to the family needs of critically ill patients may increase family satisfaction with care, as well as promote trust and confidence to the nurses. **Aim:** To assess nurses' knowledge of family needs and examine their present practices in meeting those needs. **Methods:** A cross-sectional study was conducted using convenience sampling to select 187 participants from an ICU in a government hospital in Malaysia. The Critical Care Family Needs Inventory (CCFNI) was used to assess nurses' knowledge and practices. Data were analyzed using SPSS version 25.0. **Results:** Out of 187 participants, 64.7% (121) had good knowledge, and 60.96% (114) demonstrated good practices in addressing family needs. Family needs were prioritized as follows: information (44.9%), support (29.4%), proximity (10.2%), comfort (9.6%), and assurance (5.9%). Significant correlations were found between socio-demographic factors and knowledge scores, specifically years of ICU experience and completion of ICU post-basic. Practice scores were also significantly correlated with years of ICU experience (p -value < 0.05). However, Spearman's correlation test showed no significant relationship between high knowledge scores and practice scores ($r = -0.098$, $p = 0.183$). **Conclusion:** This result suggests that while nurses may possess good knowledge regarding family needs, this knowledge does not always translate into consistent and effective practices, highlighting the importance of continuous training and support to bridge this gap and ensure optimal care for family members of patients in ICU.

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INTRODUCTION

The hospitalization of critically ill patients in the ICU is a challenging experience for both patients and their families, often leading to significant distress and psychological health disorders (1). As the family members are the patient's, they are concerned with their relative on the life-threatening event that may lead them to lose their relative (1). Based on previous study 59% of ICU survivors suffered from psychological impairments such as anxiety, depression, and post-traumatic stress disorder after ICU treatment (2) and its increasing rates ranging from 55% to 72.5% the prevalence of psychological illness among family members of ICU

patients (3). Nurses play a vital role in providing support to both patients and their family members in the ICU. Accurately assessing and responding to the needs of families with critically ill loved ones is crucial, as it can help reduce stress, improve coping, and increase satisfaction with care (4). However, studies suggest that ICU nurses may not always have adequate knowledge or consistently translate their understanding into effective practices to address family needs (5).

The existing literature on the needs of ICU families have been studied extensively using the Critical Care Family Needs Inventory (CCFNI), an instrument developed by Molter and Leske to measure the needs of ICU families (6,7,8). Family members of patients in intensive care units (ICUs) are seeking information, comfort, assurance, support, and proximity or intimacy (9,10). Based on previous study done in Malaysia, assurance and information are the high ranking of family needs

in the ICU (11, 12, 13, 14, 15, 16) whereas (6) finding identify support and proximity as priority needs of the family. Nurses tend to overestimate the need for comfort and support while underestimating the value of being close to the patient (14). Unmet needs in critical care services and physical spaces were found in the current study. and monitoring technology highlight the complex requirements of an ICU. (17). Apart from managing ICU patients, nurses are expected to offer care to the anxious family members. As nurses frequently contact the family members, the former can meet the needs of the latter due to their position to provide support. Despite sharing similar views on most needs sought by the family of patients, nurses often dismiss these needs as unimportant, hence neglecting them (1,3,9). Consequently, families tend to feel distressed, side-lined, and dissatisfied with the healthcare staff provider care quality (18). Family members' dissatisfaction with ICU care is mainly related to nursing competency, which is followed by satisfaction of information and the ICU staff's care, patient-caregiving and when they felt the ICU staff did not demonstrate enough concern, compassion, and caring towards the patient and the family (19,20). This may adversely affect recovery of patients, while nurses face litigation risk when the family members become dissatisfied or reject the patient's outcome. Factors such as the severity of the patient's condition, the use of invasive mechanical ventilation, restrictive visiting policies, and the lack of emotion-focused coping strategies can contribute to the psychological impact on family members (21,22).

Nurses' knowledge and practice in addressing family needs in the ICU is crucial for providing holistic care. Typically, nurses in close contact with patients are more likely to meet the needs of family members in dealing with the stressful event. Nurses provide resources to meet these family needs such as information intervention, family meeting, good communication, developing a rapport and a trusting relationship. Additionally, nurses should offer empathy and emotional support to help them cope. Creating an environment where families feel heard, understood, and cared for is essential. A study by Buckley and Andrew at the University Hospital in Ireland revealed that nurses displayed exceptional knowledge of family needs, which was reflected into good practice by providing effective nursing interventions to support the needs of families with relatives admitted to ICU (23). This is further complicated by the lack of consensus on family-centered care among ICU nurses, with limited collaboration with families in care planning and provision. Satisfied family members whose needs are met would promote the nurses' capability in providing excellent patient care, thus facilitating recovery of patients (24).

This present study is essential to provide baseline information regarding nurses' knowledge and practice of family needs. The study outcomes may serve as a guideline to the authorities in devising effective policies

that give importance to the welfare of family members and to enhance critical care training of nurses, to improve the quality of care provided to both patients and family members. Family members will be beneficial from this finding whereas when nurses understanding and effectively addressing the needs of family members it may reduce symptoms of anxiety and depression, hence can increase family satisfaction and improve the patients' recovery (3, 25,26).

MATERIALS AND METHODS

Study Design

This study used a cross-sectional research design. Data were collected using a self-administered questionnaire to determine the level of knowledge of ICU nurses in meeting the needs of patients' family and to evaluate the current practices of ICU nurses in meeting the needs of patients' family.

Sample and participants

The study population consisted of critical care nurses from two government hospitals located in the Klang Valley, Malaysia. A government hospital is a hospital which is owned by a government and receives government funding. This type of hospital provides medical care with minimum charges or free of charge, the cost of which is covered by the funding the hospital receives from government. These hospitals serve as referral centres for patients in Malaysia. Thus, it plays an important role in providing healthcare services to the community include critically ill patients. The three ICUs selected for this study were the General Intensive Care Unit (GICU) ward, the Coronary Care Unit (CCU) ward, and the Cardiac Intensive Care Unit (CICU) ward. The number of ICU beds in the selected hospitals was 42 with nearly 2000 admissions annually. Registered nurses working in the ICU, CCU, and CICU wards for more than three months were selected as participants in this study. In Malaysia, registered nurses are who has formally trained and passed an exam by Nursing Board Malaysia and is officially qualified to perform all nursing duties and they can undergo post basic courses for a period of 1 year to gain advanced nursing knowledge and evidence-based clinical skills to competently provide high-quality holistic care to patients with critical conditions. The sampling method used in this study is the non-probability sampling method which is convenience sampling. The sample size representative of the nurses in this study is 195 including the 20 percent attrition rate. It is determine based on the Krejcie dan Morgan (1970) sample size calculation was based on $p = 0.05$ with a 95% confidence interval.

Data collection

After notifying the participants about the aim of this study, the questionnaire, an information sheet, and a consent form were distributed to them. Participation was voluntary with no direct benefit to the participants was

explained. The participants had about 15-20 minutes to answer the questionnaire. They were allowed to ask any question regarding the questionnaires and their rights as a participant. The questionnaire was checked by the researcher to ensure complete responses were obtained prior to data analysis.

Research Instrument

This study had adopted a structured, self-administered questionnaire from Buckley and Andrew (2011). The permission for using this instrument had been obtained from the author. The questionnaire was composed of three sections. Section 1 collected the demographic profile of the participants, such as academic background, post-registration experience, and experience working in ICU. In Section II, 15 knowledge-based items assessed the ICU nurses' knowledge of family needs in the critical care area. Every correct response gets 1 score, while 0 for incorrect answer. The outcomes are reported in percentage. The items with five dimensions of need (information, assurance, proximity, support, and comfort) were retrieved from a validated and reliable tool; the Critical Care Family Needs Inventory (CCFNI) (Leske, 1991). The CCFNI was first developed by Molter in 1979 and revised by Leske in 1986 and widely used tool to assess the needs of a family with a relative in ICU (Auerbach et al., 2005). Section III explored the ICU nurses' self-reported working practices and their perception of education in enabling them to identify and meet family needs. A Likert scale was utilised, which assigned a score to each category (0 = never, 1 = seldom, 2 = often, and 3 = always) with a maximum score of 27 points (100%). The reliability of the questionnaire was determined by piloting the questionnaire with Cronbach's alpha value of 0.7. Its content validity was verified by a panel of experts that performed content analysis and reviewed the responses.

Data Analysis

Statistical Package for Social Science (SPSS) version 25 will be used to analyse the data. Descriptive analysis will be used to analyse the data in order to determine data distribution normality, frequencies, means and standard deviation. Inferential statistics employed analysis of variance (ANOVA) to test the relationship between knowledge of best practice and nurses' self-reported practices. The result considered as statistically significant if the value of p is equal to or less than 0.05 ($p \leq 0.05$).

ETHICAL CONSIDERATION

Ethical clearance was obtained from the Medical Research Ethics Committee at the Ministry of Health (NMRR-17-3251-36178), Malaysia, written permission from the Director of the selected hospitals. The participants were required to fill in consent form and information sheet before completing the questionnaire.

RESULTS

Of the 200 questionnaire forms distributed, 187 were returned by the participant, yielding 93.5% nurses in GICU, CICU or CCU who met the inclusion criteria and agreed to participate in this study as a respondent. No missing data were found in this study. Data distribution was checked for normality using the Kolmogorov-Smirnov test, $p > 0.05$ which showed that all followed a normal distribution. From the total of 187 participants with median age of 30 (IQR=26-34), most of them were females ($n=169$, 90.4%), Islam ($n=176$, 94.1%), with diploma level of education ($n=173$, 92.5%), median 7 years (IQR=3-10) of nursing experience with most of them having less than 10 years of nursing experience ($n=146$, 78.1%), median 5 years (IQR=2-9) working experience in ICU with a majority of them having 1-3 years of experience ($n=74$, 39.6%), and not completed ICU post-basic ($n=127$, 67.9%). Table I presents the distribution of socio-demographic.

Table I: Demographic characteristics of intensive care nurses (n=187)

| Variable | n (%) | Knowledge | | Practice | |
|---|------------|-------------|-------------|-------------|-------------|
| | | Mean±SD | P value | Mean±SD | P value |
| Age, median (IQR) | 30 (26-34) | 68.27±10.97 | 0.097 c | 20.36±4.29 | 0.633 c |
| Gender | | | 0.210 a | | 0.344 a |
| Male | 18 (9.6) | 65.18±9.85 | | 78.80±17.45 | |
| Female | 169 (90.4) | 68.59±11.06 | | 75.06±15.74 | |
| Religion | | | 0.368 b | | 0.521 b |
| Islam | 176 (94.1) | 68.25±10.71 | | 75.27±16.15 | |
| Christian | 5 (2.7) | 65.33±12.82 | | 84.44±8.44 | |
| Buddha | 1 (0.5) | 86.66± - | | 81.48± - | |
| Hindu | 5 (2.7) | 68.00±17.88 | | 70.37±11.71 | |
| Level of education | | | 0.215 a | | 0.944 a |
| Diploma | 173 (92.5) | 68.55±11.05 | | 75.44±15.92 | |
| Degree | 14 (7.5) | 64.76±9.58 | | 75.13±16.26 | |
| Nursing experience, median years (IQR) | 7 (3-10) | | 0.075 b | | 0.222 b |
| <10 | 146 (78.1) | 67.30±10.94 | | 20.52±4.16 | |
| 10-20 | 35 (18.7) | 71.61±10.88 | | 19.40±4.87 | |
| >20 | 6 (3.2) | 72.22±8.86 | | 22.17±3.06 | |
| Working in ICU, median years (IQR) | 5 (2-9) | | 0.009 b* | | 0.048 b* |
| <1 years | 3 (1.6) | 73.33±11.54 | | 53.08±11.31 | |
| 1- 3 years | 74 (39.6) | 65.76±9.70 | | 77.17±14.94 | |
| 4 – 6 years | 31 (16.6) | 66.88±12.35 | | 75.86±15.02 | |
| 7 – 9 years | 38 (20.3) | 68.59±12.29 | | 77.29±15.38 | |
| >10 years | 41 (21.9) | 73.17±9.36 | | 71.81±17.74 | |
| Completed ICU post basic | | | 0.008 a* | | 0.407 a |
| Yes | 60 (32.1) | 71.33±9.91 | | 74.01±17.77 | |
| No | 127 (67.9) | 66.82±11.18 | | 76.08±14.97 | |

Notes: IQR = interquartile range, ICU = Intensive care unit
 aIndependent sample t-test significant, $p>0.05^*$
 b ANOVA significant, $p>0.05^*$
 c Chi-square significant, $p>0.05^*$

Nurses' knowledge on family needs in the ICU

Table II tabulates the result of ICU nurses who correctly answered the 15 items (Q1-Q15) regarding knowledge on family needs. Each correct answer was assigned a score of 1 and an incorrect answer assigned a zero score and is reported as a percentage.

Table II: Number of intensive care nurses correctly answering each knowledge on critical care family needs

| Items | n (%) |
|--|---|
| Q1. Hospitalization of a family member in an intensive care unit result in a number of psychological and social problems for the patient only | 114 (61.0) |
| Q2. The admission of a loved one to ICU can seriously disrupt family functioning and dynamics | 173 (92.5) |
| Q3. Accurately assessing and responding to family needs during the early crisis period can lessen the negative impact of family stress by: | 122 (65.2) |
| Q4. Families report that physicians are the most important member of the multidisciplinary team to meet their needs | 134 (71.7) |
| Q5. ICU nurses because of their 24-hour continuous interaction and close relationship with the patient in the high technological environment should not have to care for the needs of the family also. | 127 (67.9) |
| Q7. Seeing their sick relative frequently often provides the family with information about their loved one's progress | 172 (92.0) |
| Q8. The most important information for family members is? | 80 (42.8) |
| Q9. Family members like to have their questions answered honestly | 186 (99.5) |
| Q10. A family's participation in the physical care (mouth care, bathing or feeding) of a sick relative is not of any emotional benefit to them. | 141 (75.4) |
| Q11. Reasons for ICU nurses not accurately assessing family needs | 94 (50.3) |
| Q12. Families prioritize the needs of their sick relative in preference to their own needs for comfort and support | 177 (94.7) |
| Q13. Families need to be reassured that hospital personnel actually care about their sick relative | 174 (93.0) |
| Q14. Caring and empathetic ICU nurses are of little reassurance to family members amidst the high technological environment of ICU | 29 (15.5) |
| Q15. Families need to feel there is hope for their sick relative | 174 (93.0) |
| Q6. Rank the needs of families in order of importance | |
| Rating | 1 2 3 4 5 |
| | n (%) |
| Assurance (Reassurance) | 11 (5.9) 51 (27.3) 37 (19.8) 36 (19.3) 52 (27.8) |
| Support (Psychosocial) | 55 (29.4) 29 (15.5) 42 (22.5) 38 (20.3) 23 (12.3) |
| Information (Verbal and written) | 84 (44.9) 68 (36.4) 16 (8.6) 9 (4.8) 10 (5.3) |
| Comfort (Physical and psychological) | 18 (9.6) 22 (11.8) 44 (23.5) 50 (26.7) 53 (28.3) |
| Proximity (To be near the patient) | 19 (10.2) 17 (9.1) 48 (25.7) 54 (28.9) 49 (26.2) |

Here, higher score reflected good knowledge. The mean value of knowledge was 68.27±SD10.97, with median IQR of 66.66 (60 – 73.3). Most respondents (n = 121) scored above 70% indicating good knowledge of those needs. 17.11% (n=32) respondents score more than 90% indicating an excellent knowledge. Thirty nine percent of respondents (n = 66) scored less than 60%, 8 (4.28%) respondents scored less than 40%. (Fig. 1).

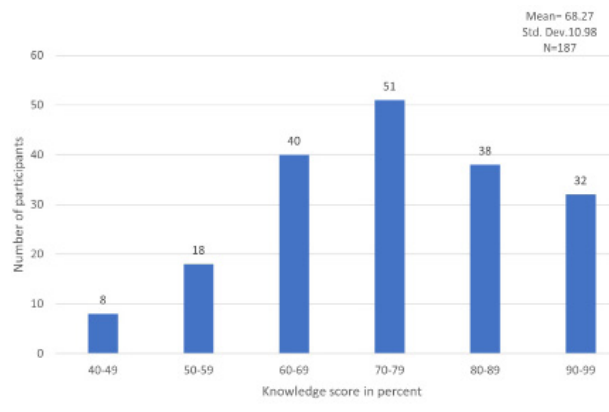


Figure 1: Range of self reported knowledge score

In response to Q6, which asked respondents to rank family needs in order of importance, 44.9% (n=84) of the nurses prioritized providing information to the family. This was followed by support (29.4%, n=55), proximity (10.2%, n=19), comfort (9.6%, n=18), and assurance (5.9%, n=11). Almost all participants (n=186, 99.5%) had answered correctly on 'family members like to have their questions answered honestly' (Q9) and 94.7% (n=177) on 'families prioritise the needs of their sick relative in preference to their own needs for comfort and support' (Q12). Next, (Q6) showed that the main need of families was information (n=84, 44.9%), followed by support (n=55, 29.4%). Comfort (n=53, 28.3%) need was less important need the family members in the ICU. Most of the participants scored 84.5% (n=158) for 'caring and empathetic ICU nurses are of little reassurance to family members amidst the high technological environment of ICU' (Q14).

Items Q16-Q24 in Table III show the results of ICU nurses' practice in meeting family needs. Every correct response gets 1 score, while 0 for incorrect answer. The outcomes are reported in percentage.

Most respondents (n = 70) scored above 90% indicating an excellent good practice score. 18.09% respondents score 70-89 and 11.88% (n=44) scored 51-69 and six respondent score less than 50 percents (Fig. 2). From the practice-based questions, the mean was 20.36±SD4.29 with median and IQR of 21 (17.5-24.0).

Most participants (n=129, 69%) claimed that they always gave clear explanation about the treatment given to the patients (Q21), while 60.4% (n=113) always called the family members at home to inform the transfer of patients out of ICU (Q22). Next, 48.7% (n=91) of the participants often enquired the family if they are interested to give physical care to patient (Q19), while 21.9% (n=41) seldom rang to the family members at home to inform the condition of the patients (Q18), and 7.5% (n=14) neither facilitated nor supported visiting hours that are flexible (Q20).

Table III: Level of family centred interventions in practice relation to critical care family needs among intensive care nurses

| Items | Always | Often | Sel- dom | Never |
|--|---------------|--------------|--------------|-------------|
| | n (%) | | | |
| Q16. Provide family members with the unit information leaflet when a sick relative is admitted | 88 (47.1) | 67 (35.8) | 30 (16.0) | 2 (1.1) |
| Q17. Give an explanation to family members on "what they will see" on entering the ICU for the first time | 99 (52.9) | 62 (33.2) | 25 (13.4) | 1 (0.5) |
| Q18. Ring a family member at home about changes in the patient's condition | 73 (39.0) | 55 (29.4) | 41 (21.9) | 18 (9.6) |
| Q19. Enquire from the family if they wish to participate in the physical care giving of their sick relative i.e. assist with mouth care, bathing or meal times | 47 (25.1) | 91 (48.7) | 42 (22.5) | 7 (3.7) |
| Q20. Facilitate and support flexible visiting times for the family member | 74 (39.6) | 60 (32.1) | 39 (20.9) | 14 (7.5) |
| Q21. Give clear explanations of why things were done for the patient | 129 (69.0) | 57 (30.5) | 1 (0.5) | 0 (0.0) |
| Q22. Call family members at home when the patient is being transferred out of ICU | 113 (60.4) | 59 (31.6) | 13 (7.0) | 2 (1.1) |
| Q23. Enquire if families require any additional support e.g. clergy or social work | 77 (41.2) | 61 (32.6) | 37 (19.8) | 12 (6.4) |
| Q24. Assess a family's understanding/comprehension of any information they are given on the condition of their sick relative | 98 (8.6) | 73 (39.0) | 16 (8.6) | 0 (0.0) |

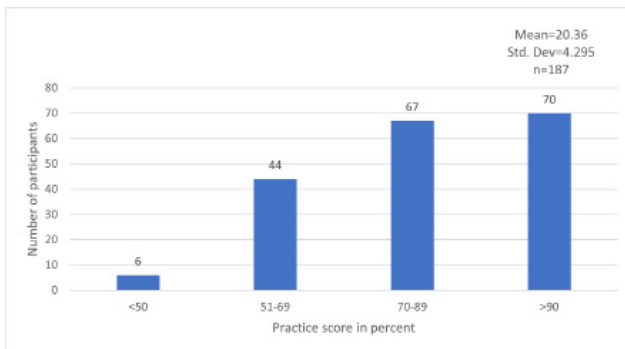


Figure 2: Distribution of practice score relation to critical care family needs among intensive care nurse

Association between socio-demographics, knowledge and practice relation to critical care family needs.

In Table I, the participant's socio-demographics and knowledge score shows significant correlation only between years working in ICU ($p=0.009$) and whether they have completed the ICU post basic ($p= 0.008$). The association between socio-demographics and practice score, also shows significant correlation only between years working in ICU ($p=0.048$). In Figure 3, the participant's knowledge and practice scores shows no significant relationship. Based on spearman's correlation test, high score in knowledge question is not significantly correlated with practice score ($r= -0.098$, $p= 0.183$).

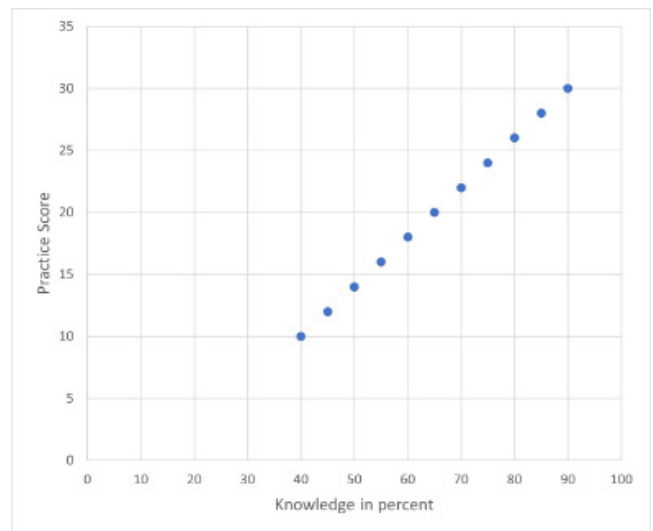


Figure 3: Scatter plot correlation between knowledge and practice among intensive care nurses

DISCUSSION

Out of 100 participants, 66.7% (124) had good knowledge, while 60.96% (114) had good practice of fulfilling the needs of family members. This study identified a notable gap between ICU nurses' knowledge of family needs and their practical application in meeting those needs. While most of the nurses displayed good knowledge, this did not consistently translate into practice. In total, 80 (42.8%) of them knew that information was mostly sought by family. It is vital for nurses to have adequate knowledge about the infirmity of the ICU patients and the needs of the anxious family. Identifying and prioritising the needs of family enable ICU nurses to offer not only accurate information, but also support to the family in despair. Collecting data from the family on their experience of gaining information and support from the medical team is integral to better meet their needs in such distress event. Nurses can use principles of effective communication to ensure understanding, such as straightforward words to explain patient care procedures, and rephrase, repeat and avoid medical jargon for better comprehension (26). Again, nurses must share complete and unbiased information about patients' care with family members in a supportive manner. previous a structured literature review pertaining to involvement and needs of family in critical care, discovered that families perceive the need for information on patient's condition and plan of care as significant (27). A satisfied family member who offers support to patient's care intervention can result in rapid recovery. When family members are satisfied with the patient's condition, their mental state improves and enables them to provide better support to the patient.

Families need assurance that their ill relative is given the best care possible by the medical team. This enhances confidence and a sense of security amongst the family members. Assurance appears to be the most essential need sought by family (12, 28). Families always demand comprehensible and honest information about the

condition of their ill relatives (29,30). In fact, a range of studies revealed that providing support and information to the family can help them to adapt to the stressful event as they understand the actual prognosis of the patient. Thus, critical care nurses seem to be in the best position to cater to the family needs, so that the patients can recover quickly with the support given by the family. The prominence of information and assurance as top family needs aligns with earlier studies, indicating a universal demand for clear communication in stressful ICU environments. However, the disconnect between knowledge and practice observed in this study suggests that practical barriers, such as workload and emotional fatigue, may hinder nurses' ability to consistently meet these needs.

Another important finding was that 47 (25.1%) of the participants had enquired if the family members were interested to offer physical care to their loved one, such as feeding, providing mouth care, and bathing. Family caregivers regularly feel incompetent and unready to deliver effective care to ill family members due to inadequate knowledge. Bandari et al. (31) emphasized the significance of addressing family members' needs, allowing nurses to provide suitable information and support for them. Therefore, family caregivers need both knowledge and skills to provide care for their ill family members. This also helps to reduce their own distress. A previous study has shown that providing information about the ICU and nursing interventions can significantly improve family satisfaction with the care provided in the ICU (32). Here, nurses should involve family caregivers when providing care to patients. It is part of the duty of a nurse to empower both patient and family members. Provision of information on how to perform suction or Ryle's tube feeding is sufficient to make caregivers feel involved and competent. Nurses can also explain and teach family caregivers about the equipment surrounding the patient, such as blood pressure cuff and ventilator. When family caregivers are equipped with knowledge, they would be more involved in shared decision-making, thus resulting in better outcomes (32).

The literature review depicts that CCFNI-driven studies have outlined the five essential needs: assurance, support, proximity, comfort, and information (33). Similarly, this present study found that the priority needs of family members with critically ill patient admitted to the ICU were information, assurance, proximity, support, and comfort. The highest priority needs of family members with critically ill patients admitted to the ICU were information and assurance (34). Meanwhile, other study found the need for assurance as to the highest needs' category among family members of ICU patients 24–72 hours after the patient's admission (35). Patients' relatives show high anxiety and depression symptoms, and they strongly need proximity and assurance (25).

This highlights the significance of reassuring the family needs by the medical team regarding the patients' condition, whereas information is sought by the family to comprehend the stressful event.

Comfort was ranked the lowest family need by family members of ICU patients most likely because it is considered as a personal need (36). Family members may experience burnout and emotional turbulence, which could eventually affect their health, particularly amongst the elderly (32). The other family members would have to go through a lot of stress when one is admitted to the ICU. With low coping mechanism and high stress level, burnout and emotional breakdown are more likely to happen. Healthcare providers need to treat family members just like anyone else by considering their emotional, spiritual and psychological aspects for them to cope with the stressful situation (36).

This study found that most of the nurses did support and facilitate flexible visiting time. Visiting loved one in limited time generates tension and pressure as they cannot spend ample of time to care for the patient. Open visitation may increase the patient's psychological stress, interfere with nurses' care, and cause emotional exhaustion for family (37). To date, visiting patients in ICU seems essential due to its positive effect on both patients and family. Nonetheless, it is a norm to have restricted visiting hours at ICUs. The concept of 'open visiting', meanwhile, has no restricted visiting hours, duration, and/or number of visitors, thus catering to the demands of patients and family. Evidence shows that unrestricted presence and participation of a support person can enhance patient and family satisfaction, as it improves the safety of care (9).

Interestingly, the study found significant correlations between socio-demographic factors and both knowledge and practice scores. Specifically, years working in the ICU ($p = 0.009$) and completion of ICU post-basic training ($p = 0.008$) were positively associated with higher knowledge scores, while years of ICU experience ($p = 0.048$) were linked to better practice scores. The lack of a significant correlation between nurses' knowledge and their ability to implement that knowledge in practice ($r = -0.098$, $p = 0.183$) raises important questions about the effectiveness of traditional educational models in nursing. This disconnect may indicate that simply possessing theoretical knowledge is insufficient for navigating the emotionally charged, high-pressure environment of the ICU (38). It calls for a reevaluation of how we train and support nurses, emphasizing experiential learning and resilience-building strategies.

CONCLUSION AND IMPLICATIONS

This study contributes to the growing body of evidence highlighting the complexities of family-centered care in

ICUs. While it reinforces the importance of knowledge in meeting family needs, it also exposes the challenges of translating that knowledge into practice. Addressing these challenges requires a multi-faceted approach that includes policy changes, enhanced training, and further research into the systemic barriers that hinder effective family-centered care. The results highlight that a significant portion of nurses have a solid understanding and implement good practices, particularly emphasizing the need for information as the top priority. Furthermore, the correlations between socio-demographic factors, years of ICU experience, and completion of ICU post-basic with knowledge and practice scores suggest that these elements are crucial for improving family care. To bridge the gap between knowledge and practice, it is essential to integrate more hands-on training and real-time support in ICU settings. This could involve mentorship programs and continuous professional development focusing on effective communication and emotional support for family members.

The implications of these findings are far-reaching. Nursing education and training programs should focus not only on imparting knowledge but also on developing practical skills and strategies for effectively engaging with family members in the ICU setting. Additionally, ongoing professional development and mentorship programs for ICU nurses should emphasize the translation of knowledge into practice, providing opportunities for skill-building, role-playing, and feedback. Hospitals could implement structured support systems, such as debriefing sessions and emotional support programs, to help nurses manage the emotional demands of ICU work. Furthermore, integrating family-centered care protocols into standard practice could ensure that nurses are equipped to meet both informational and emotional needs. Finally, future research should explore the specific barriers and facilitators that influence the relationship between nurses' knowledge and their practices in meeting family needs, to inform the development of more effective interventions and support systems.

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