



Family Treatment Strategies to Reduce Distress Among Family Members of Palliative Patients in the ICU

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Abstract

Psychological problem has been faced by family as a result of family member hospitalized in Intensive Care Unit (ICU). One of the most psychological problems often found in family members is psychological distress. An intervention applied to relief this problem is family treatment. This study aimed to identify family treatment strategies to reduce distress among family members of palliative patients in ICU. An experimental research approach with one group pre-test post-test 15 family members of intensive care unit (ICU) patients were selected. Samples were collected using purposive sampling based on inclusion criteria. The respondent received family treatment which focus on family involvement, education and communication in addition to standard treatment. Distress Thermometer were used to measure study parameters. Data was analyzed using Wilcoxon test. The statistic test showed that majority of respondents were women (93.3%) in the early adult age (26-35 years old) (33.3%), working (53.3%) then having a relationship with patients as nuclear family (73.3%). Most of the respondents reports problem in sleep (60%), anxiety (80%), depression (53.3%), grief and loss (53.3%) and also fear (53.3%). Family's treatment strategies were highly effective ($p < 0.001$) in reducing distress in family member of palliative patients. The family's treatment strategies were proven to be effective in reducing distress among family of palliative's patients in ICU. Study recommends the use of family's treatment strategies packages a means of strategies to reduce family's distress during their companion in ICU.

Keywords: Family member, Intensive Care Unit, family's treatment strategies, Palliative.

INTRODUCTION

Palliative care is a multidisciplinary approach to patients with serious and life-threatening illnesses that aims to optimize the patient's physical, psychological, and spiritual condition and improve their quality of life (Ito et al., 2022). According to data from the World Health Organization (WHO), an estimated 56.8 million people each year, including 25.7 million people in the last year of their lives, require palliative care, with 78% of these people living in low- to middle-income countries. The majority of adult patients who require palliative care have chronic diseases such as heart disease (38.5%), cancer (34%), chronic lung disease (10.3%), AIDS (5.7%), and diabetes (4.6%) (World Health Organization [WHO], 2020). Unfortunately, only 12% of them receive palliative care (World Health Organization [WHO], 2021).



Although the basic concept of palliative care has been widely disseminated among healthcare workers, there is still a lack of comprehensive understanding and implementation (Connor et al., 2020). In the last two decades, palliative care has transformed into an important skill for nurses working in the Intensive Care Unit (ICU) (National Consensus Project for Quality Palliative Care [NCP], 2018). Palliative care in the ICU has different characteristics from other wards, where a team-based approach focused on the patient and their family (patient-family-centered care) is prioritized (Connor et al., 2020; National Consensus Project for Quality Palliative Care [NCP], 2018). Palliative patients treated in the ICU have deteriorating and critical health conditions and require close monitoring.

Lack of knowledge about critical illnesses, how the healthcare team works, care decision-making, financial and housing needs, family dysfunction, and new responsibilities (Haji Assa et al., 2024; Blok et al., 2023), poor prognosis, unstable and life-threatening conditions, and the need to make decisions that may endanger the patient's life lead families to experience anxiety, depression, and an increased risk of post-traumatic stress (Chang et al., 2018) and uncertainty and somatic symptoms such as fatigue (Alfheim et al., 2019; Areia et al., 2019), anxiety, and depression (Peters et al., 2015; Shaffer et al., 2017; Wong et al., 2015). Families experience a significant increase in stress, anxiety, and depression within 3-5 days of a patient's admission to the ICU (Kanmani et al., 2019). Previous studies have found that when palliative patients begin treatment in the ICU, their families experience emotional distress, financial and social problems (Imanipour et al., 2019). These conditions are intensified by the ICU environment and the family's inability to provide the same level of intensive support as in a regular ward, leading to feelings of shock, uncertainty, helplessness, anger, guilt, denial, and depression (Alfheim et al., 2018).

In addition, families also report feeling prolonged sadness and worry, which disrupts their sleep patterns and concentration. These issues affect their quality of life (Alfheim et al., 2018; Minton et al., 2019). Previous studies have also consistently reported that between 60% and 69% of families of patients with critical illnesses experience moderate to severe symptoms in the short to long term due to distress (Dziadzko et al., 2017). A preliminary study conducted in the ICU of Tengku Rafian Regional General Hospital on May 19, 2025, involving five families of ICU patients screened using the Distress Thermometer, showed an average score of 9.4 (range 0-10), indicating that families of ICU patients experience severe distress.

Family treatment has been proven effective in helping families deal with physical and psychological problems that arise while caring for family members who are hospitalized (Halain et al., 2021). The intervention consists of family involvement, education, and communication (Naef et al., 2022). The education strategy is carried out by providing psychoeducation to families (Naef et al., 2022). Research has shown that providing psychoeducation helps families manage illness-related challenges (Naef, Massarotto, & Petry, 2020). Another influential strategy is communication, in which families are involved in interprofessional communication and discussions regarding patient decision-making through family meetings. Providing information to patients' families during family meetings in the ICU at the right time can reduce anxiety and psychological distress (Salins et al., 2016). Unfortunately, in ICU practice, nurses often focus on only one strategy, namely family involvement (Naef et al., 2020; Cahill et al., 2017). Although the education strategy is one of the most recommended and has been proven to help families reduce distress symptoms, this component is still rarely implemented (Schram et al., 2017). The same applies to the communication strategy. Previous research has found that the implementation of family meetings has not been optimal in the ICU because each profession provides education separately, resulting in a lack of professional collaboration that causes confusion among families (Bennardi et al., 2021) and triggers distress (Zali et al., 2024).

Based on this, researchers aim to examine the effect of family treatment strategies on distress among family members of palliative patients treated in the ICU.



METHODS

This study employed a quantitative research method with a quasi-experimental approach using a one-group pretest-posttest design. The study was conducted at Tengku Rafi'an Regional General Hospital, Siak Regency, Indonesia. Data were collected from January to October 2025. The population consisted of family members of palliative patients treated in the ICU. The inclusion criteria were first-degree family members (husband/wife, children, or parents) of patients diagnosed with a palliative disease who had been hospitalized for at least three days, were aged over 18 years, were willing to participate, and had accompanied or cared for the patient for three consecutive days. A total of 15 respondents were recruited using purposive sampling.

The instrument used in this study was the Indonesian version of the Distress Thermometer Scale developed by the National Comprehensive Cancer Network (NCCN), Version 2 (2022), which has demonstrated good validity and reliability (Iskandarsyah et al., 2013). The family treatment intervention was implemented for three days and consisted of family involvement, education, and communication strategies. The family involvement strategy included hand massage administered by family members to patients for five minutes twice daily for three days after receiving prior instruction. The education strategy consisted of stress management education and relaxation techniques. Stress management education was delivered once on the first day for approximately 30 minutes, while relaxation techniques were practiced by family members for 10 minutes twice daily over the following two days. The communication strategy involved family meetings, each lasting a maximum of 60 minutes per day for three consecutive days.

This study received ethical approval from the Nursing and Health Research Ethics Committee, Faculty of Nursing, Universitas Riau, with ethical clearance number 2725/UN19.5.1.8/KEPK.FKp/2025.

RESULTS

The results of this study will describe the frequency distribution of respondent characteristics, problems related to distress, and the effect of family's treatment strategies on distress in family member of palliative patients in the ICU.

1. Characteristics of Respondent

The characteristics of the respondents in this study are described in the following table.

Variable	Respondent (n=15)		Total (n=15)
	f	%	
Age			
Late Adolescent (17-25 y.o)	2	13.3	13.3
Early Adulthood (26-35 y.o)	5	33.3	33.3
Late adulthood (36-45 y.o)	3	20	20
Early old age (46 -55 y.o)	3	20	20
Late old age (56-65 y.o)	2	13.3	13.3
Sex			
Male	1	6.7	6.7
Female	14	93.3	93.3
Work Status			
Working	8	53.3	53.3
Not Working	7	46.7	46.7
Relationship with Patient			
Wife/Husband	4	26.7	26,7
Children	11	73.3	73,3



Table 1 above shows that of the 15 respondents, most were female with 14 respondents (93.3%), in the early adult age range (26-35 years) with 5 respondents (33.3%), the majority worked as much as 8 respondents (53.3%) and had a relationship with the patient as a child with amount of 11 respondents (73.3%).

2. Problems Related to Distress

This study also reveals information related to problems associated with distress in the family members of palliative patients in the ICU, as illustrated in Table II below.

Table 2. Distribution of Problems Related to Distress

List of Problems	Respondent (n=15)			
	Yes	%	No	%
Physical Concerns				
Pain	1	6,7	14	93,3
Sleep Problem	9	60	6	40
Fatigue	7	46,7	8	53,3
Substance use	1	6,7	14	93,3
Emotional Concerns				
Worry or anxiety	12	80	3	20
Sadness or depression	8	53,3	7	46,7
Loss of interest or enjoyment	1	6,7	14	93,3
Grief or loss	8	53,3	7	46,7
Fear	8	53,3	8	46,7
Loneliness	1	6,7	14	93,3
Social Concerns				
Relationship with friends or coworkers	2	13,3	13	86,7
Practical Concerns				
Work	3	20	12	80
Finance	1	6,7	14	93,3
Spiritual or Religious Concerns				
Sense of meaning or purpose	2	13,3	13	86,7

Based on Table 2 above, it can be concluded that the majority of respondents experienced sleep problems with a total of 9 people (60%), worry or anxiety with a total of 12 people (80%), sadness or depression as many as 8 people (53.3%), grief or loss as much as 8 people (53.3%), and fear with 8 people (53.3%).

3. Effect of Family's Treatment Strategies on distress among family member of palliative patients in Intensive Care Unit

The statistical analysis using the Wilcoxon test were used to examine the mean difference in the distress scores between the pretest and posttest in the family member of palliative patients treated in the ICU. The results can be seen in Table 3 below.

Tabel 3. Mean difference of distress pretest and posttest

Variable	N	Pretest		Posttest		P value
		Mean	SD	Mean	SD	
Psychological Distress	15	8.8	1.74	2.6	1.05	0.001

Based on the Wilcoxon statistical test in Table 3, the mean score of distress in pre-test was 8.8 with a standard deviation of 1.74 and the mean score of distress in post-test was 2.6 with a standard

deviation of 1.05. The p-value was 0.001, which is smaller than the alpha ($p < 0.05$). It can be concluded that there is a difference between the mean distress before and after giving the family's treatment strategies. It can be concluded that the family's treatment strategies is effective for distress in family member of palliative patients treated in the ICU.

DISCUSSION

The characteristics of respondents analyzed in this study were gender, age, employment status, and relationship with patients based on a previous study (Halain et al., 2021). In this study, the majority of respondents were in the early adulthood age range (26-35 years), comprising 5 respondents (33.3%). These results are supported by research stating that younger family members of patients are significantly associated with more severe distress (Köse et al., 2016). This condition may be explained by the fact that younger adults tend to have more responsibilities, resulting in greater stressors, while family members often experience difficulties in coping with these stressors (Gil-Juliá et al., 2018). Consequently, younger family members tend to experience higher levels of distress.

This study also revealed that the majority of respondents were female, with 14 respondents (93.3%). This finding is consistent with previous research showing that most family members of ICU patients were female, accounting for 65 individuals (73%) (Gil-Juliá et al., 2018). Most women care for their hospitalized family members because male family members are often working outside the home (Bureau of Labor Statistics, 2019). In addition, female family members are generally more willing to care for patients in the ICU than male family members (Trujillo et al., 2016), and traditionally women have more frequently assumed caregiving roles (National Alliance for Caregiving [NAC] & AARP Public Policy Institute, 2015). Furthermore, women exhibit significantly higher symptoms of depression than men due to differences in coping mechanisms. Hormonal factors may also contribute, as distress experienced by women can trigger inflammatory responses associated with depressive symptoms (Souza et al., 2022).

Another finding of this study was that most respondents were employed, totalling 8 individuals (53.3%). This result is supported by previous research reporting that 539 family members (50%) were actively employed (Souza et al., 2022), while another study found that 48.5% of ICU patients' family members worked as government employees (Aliza et al., 2021). This may be because most respondents were young adults within the productive working-age group. Previous studies have reported an association between psychological problems and employment status due to the increasing burden arising from work-related responsibilities (Fumis et al., 2019).

Another characteristic identified in this study was that most respondents were the patients' children (sons or daughters), accounting for 11 individuals (73.3%). This finding is supported by previous research reporting that the majority of family members accompanying patients in the ICU were their children, totalling 46 individuals (46.9%) (Kotfis et al., 2024). Patients tend to feel safer and more comfortable when accompanied by close family members such as their children because these individuals are more familiar with the patients' personalities and primary needs. However, family members with close emotional relationships, such as children or spouses, are also more vulnerable to distress because they are often involved in making important decisions regarding the care of their loved ones (Bond et al., 2016).

This study also discusses problems that may cause distress among families of patients in the ICU, including sleep problems, worry or anxiety, sadness or depression, grief or loss, and fear. The findings showed that the majority of respondents experienced sleep problems, with a total of 9 individuals (60%). These results are supported by previous research reporting that most family members of ICU patients experienced sleep disturbances, totaling 149 individuals (71%) (Pitoy et al., 2023). Several studies have suggested that sleep problems experienced by families of ICU patients are associated with the ICU environment (Frivold et al., 2015). Extreme environmental changes and surrounding



stressors may create discomfort and increase vulnerability to distress, which can directly disrupt sleep patterns. Another problem reported by family members was worry or anxiety.

The majority of families of palliative patients in the ICU reported feelings of worry or anxiety, with a total of 12 individuals (80%). This finding is consistent with previous research indicating that 192 family members (91%) of ICU patients experienced anxiety (Alfheim et al., 2018), while 63.3% experienced severe anxiety (Pitoy et al., 2023). The anxiety experienced by families may result from uncertainty regarding the patient's condition, treatment, and prognosis (Goldfarb et al., 2017), leading to psychological distress as family members continuously perceive threats to the well-being of their loved ones (Krewulak et al., 2022).

Family members in this study also reported sadness or depression, with a total of 8 individuals (53.3%). These findings are supported by previous research reporting that 12 individuals (32.43%) experienced depression (Assa, 2022). Studies have suggested that depression among families of ICU patients may arise from feelings of disorganization and emotional responses to the patient's critical condition (Poulin et al., 2021). In addition, uncertainty regarding a life-threatening illness may contribute to depressive symptoms (Chang et al., 2018).

In addition to the problems described above, respondents also reported grief or loss, with a total of 8 individuals (53.3%). This finding is supported by previous studies reporting that 88% of family members of ICU patients experienced grief (Alfheim et al., 2018), which had a significant impact on close relatives of the patients (Goldfarb et al., 2017). These results are consistent with research indicating that families of ICU patients experience sadness and grief due to being unable to communicate with their loved ones (Assa, 2022). Restrictions on visiting hours limit interaction and communication between families and patients in the ICU. Grief resulting from the inability to interact with loved ones causes families to experience distress, as visitation restrictions lead to a loss of contact that further exacerbates emotional suffering (Krewulak et al., 2022).

Another problem frequently reported by families in this study was fear, with a total of 8 individuals (53.3%). Previous studies have shown that 84% of family members fear that something bad may happen to the patient (Krewulak et al., 2022), particularly when the patient experiences impaired consciousness or delirium (Haji Assa et al., 2021). The patient's diminished consciousness and the family's inability to remain at the bedside may increase fears of losing a loved one. In addition, family members may experience fear due to insufficient information regarding the patient's condition, the medical devices attached to the patient, and the sounds and alarms produced by medical equipment (Asadi & Salmani, 2024). Such circumstances may impair rational thinking (Koçak et al., 2021), thereby reducing the family's ability to cope with psychological distress. Other studies also support these findings, reporting that families of ICU patients experience psychological distress, anxiety, depression, shock, and fear. The fear experienced by family members is often associated with the patient's decreased level of consciousness (delirium) (Haji Assa et al., 2021).

This study found that family treatment strategies were effective in reducing distress among family members of palliative patients treated in the ICU. Family treatment is one of the nursing interventions that has been shown to reduce distress among families of ICU patients (Halain et al., 2021). Family treatment strategies are implemented through three main components: family involvement, education/support, and communication (Naef et al., 2022). Family involvement is a key component of family-centered care, alongside communication and caring (Davidson et al., 2018). Qualitative studies have shown that family members of ICU patients wish to be actively involved in patient care, not only to support the patient but also to alleviate their own anxiety and stress (Wong et al., 2019).



Previous research has identified several interventions that can enhance family involvement in the ICU, including modifications to ICU design that facilitate family presence, web-based information and communication support, discussion-based support, multicomponent interventions involving communication and education, participation in medical rounds, and involvement in patient care through physical touch (Xyrichis et al., 2021). In the present study, family involvement was facilitated through hand massage administered by family members to patients. This approach is supported by previous research demonstrating that hand massage with essential oils provided by family members to ICU patients can positively affect anxiety experienced by family caregivers (Prichard & Newcomb, 2015). Physical touch may induce feelings of comfort and well-being, stimulating the opioid system in the brain and subsequently activating the serotonergic system. Both the opioid and serotonergic systems play important roles in regulating emotional responses and reducing anxiety (Gordon & Hen, 2004; McGlone et al., 2014).

The education strategy provided to family members of palliative patients in the ICU includes psychoeducation on stress management and stress reduction techniques through relaxation exercises. Psychoeducation, which consists of providing information and education, is considered one of the most important components needed by families during the palliative care period in the ICU (Salameh et al., 2020; Hasandoost et al., 2018). It is believed that providing education on stress management helps families improve their ability to cope with psychological distress by fulfilling their need for coping strategies, particularly information seeking. Information seeking is one of the coping strategies most frequently used by families while accompanying patients in the ICU (Harlan et al., 2020).

Providing information related to stress management can be achieved by teaching families simple and independent interventions that can be performed without professional assistance. One such intervention is deep-breathing exercises. Previous studies have suggested that deep-breathing relaxation techniques are among the independent interventions that should be taught by nurses to families of ICU patients (Chiaromonte, 2018). This intervention has been shown to reduce stress responses, anxiety, heart rate, and overall metabolic activity. Therefore, teaching relaxation techniques is considered an important intervention for reducing stress among family members of ICU patients (Chang et al., 2018). Research has also shown that relaxation techniques are among the interventions most needed by families of ICU patients because they not only reduce stress but also contribute positively to sleep quality (Chang et al., 2018).

One relaxation technique frequently used is the Benson Relaxation Technique. This technique was selected because it is easy to practice and incorporates spiritual elements that can be adapted to an individual's beliefs. The Benson Relaxation Technique has been shown to induce a state of relaxation. This relaxation response stimulates the hypothalamus to release corticotropin-releasing factor (CRF). CRF stimulation subsequently increases the production of proopiomelanocortin (POMC) by the pituitary gland, which stimulates the adrenal medulla to produce enkephalins. The pituitary gland also releases beta-endorphins, neurotransmitters that influence mood and promote feelings of relaxation (Agustiya et al., 2020). Previous studies have reported that regular practice of the Benson Relaxation Technique can reduce anxiety levels among family caregivers of cancer patients (Ebrahimi & Adib-Hajbaghery, 2022).

The final strategy is communication, which focuses on strengthening relationships between family members and healthcare professionals. The intervention involves conducting family meetings as a form of interprofessional collaboration in the care of palliative patients in the ICU. Through these meetings, positive relationships with families can be established, and early consensus regarding treatment decisions can be achieved. Family meetings may help reduce barriers associated with grief, decrease family distress, and facilitate the identification of family needs (Lee et al., 2019).

In addition, protocols centered on family meetings provide benefits for healthcare professionals by improving understanding of planned interventions, addressing problems arising from inadequate information, and enhancing collaboration in decision-making processes (Lautrette et al., 2007; Mosenthal et al., 2008; Hutchison et al., 2016). Previous studies have demonstrated that family meetings significantly improve the psychological well-being of family members (Fukui et al., 2013). These benefits arise because families perceive healthcare professionals as being responsive to their concerns and needs. Family meetings also help families feel better prepared to cope with the challenges they encounter. During these meetings, healthcare professionals reassure families regarding patient comfort and provide guidance on how to support and care for their loved ones.

A study conducted in 2022 reported that the presence of nurses during family meetings encourages family members to express their concerns and preferences, thereby contributing to reductions in depression and anxiety scores among family members (Rhoads et al., 2022). Furthermore, family meetings provide emotional support in various forms, including having concerns acknowledged, receiving reassurance that every possible effort has been made to help the patient, being actively involved in discussions, and obtaining support during the end-of-life process (Lincoln et al., 2025).

CONCLUSION

The Family's Treatment Strategies was proven to be effective in reducing distress among family members of palliative's patients in ICU. In addition, it recommends the use of music therapy for family members of palliative patients to stabilize their psychological and physiological parameter. For future research, controlled, multicenter trials are also needed to establish intervention effectiveness and to confirm that the differences in distress are truly attributable to the discrepancies in patient groups.

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