RESEARCH ARTICLE

BACCN Nursing in Critical Care / WILEY

Relationship of intensive care unit nurses' attitudes towards futile treatment with compassion fatigue and turnover intention

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Abstract

Background: Intensive care units (ICUs) are high-stress environments where nurses frequently encounter futile treatments. These experiences can lead to compassion fatigue (CF) and increase turnover intention (TI) among ICU nurses.

Aim: To examine the levels of attitudes towards futile treatment (ATFT), CF and TI among ICU nurses, to explore their relationship and identify the factors influencing ATFT.

Study Design: This cross-sectional study involved 440 ICU nurses who were members of the Turkish Society of Critical Care Nurses. Data were collected via an online survey using the Attitudes Towards Futile Treatment Scale (ATFTS), Compassion Fatigue-Short Scale (CFS) and Turnover Intention Scale (TIS). Descriptive statistics, correlation analyses and hierarchical regression analyses were conducted to analyse the data.

Results: The findings of the study indicated that ICU nurses' ATFTS, CFS and TIS scores were 43.18 ± 6.44, 74.25 ± 23.33 and 8.39 ± 3.03, respectively. There was a significant negative correlation between ATFTS and CFS ($r = -0.428$, $p = .001$) as well as TIS ($r = -0.204$, $p = .029$). In the final hierarchical regression model, the significant predictors of ATFTS included participation in patient-related decisions ($\beta = -0.148$, $p = .001$), performing futile treatment practices ($\beta = 0.342$, $p = .001$), work burnout ($\beta = -0.165$, $p = .015$), secondary trauma ($\beta = -0.130$, $p = .011$) and TI ($\beta = -0.170$, $p = .039$).

Conclusion: This study found that ICU nurses' ATFTs are negatively correlated with compassion fatigue and turnover intention. Enhancing ICU nurses' involvement in decision-making and providing psychological and emotional support to manage compassion fatigue and turnover intention may help improve their attitudes towards futile treatment.

Relevance to Clinical Practice: The study highlights the critical need to address compassion fatigue and turnover intention among intensive care unit (ICU) nurses to

mitigate their negative attitudes towards futile treatments. By improving emotional resilience and involving nurses more actively in ethical decision-making processes, health care institutions can enhance the quality of care provided in ICUs, reduce turnover rates and ultimately support the well-being of the nursing staff.

1 | INTRODUCTION

The intensive care units (ICUs) serve as a critical environment for the treatment of severely ill patients, leveraging advanced medical technologies and high staffing levels to provide urgent care.[1] Despite these efforts, the ICU has the highest mortality rate among inpatient units, leading to challenging emotional transitions for both staff and families as they navigate the complexities of patient recovery and end-of-life decisions.[2,3] A significant aspect of ICU care involves the consideration of futile treatments.[4]

Futile care and treatments in ICUs refer to medical interventions that provide no meaningful benefit to patients, often prolonging suffering without improving quality of life.[5,6] A previous study reported that the incidence of futile care in ICUs ranged from approximately 40–60%.[7] The decision to withdraw life-sustaining treatment is particularly challenging, as it is often viewed through the lens of cultural values and familial obligations. In many cultures, there is a strong sense of filial duty that may compel family members to continue treatment despite its futility, framing the withdrawal as a failure to fulfil their responsibilities.[8,9] This situation can create a significant ethical dilemma for ICU nurses who must balance the need to respect patient autonomy and family wishes with their professional obligation to provide care that is in the best interest of the patient.[10,11] Furthermore, previous studies have demonstrated that futile care practices can precipitate a range of negative emotional states, including frustration, anger, sadness and guilt, as well as moral distress and burnout, among nurses.[12–15]

When ICU nurses observe their patients suffering and bear witness to the perpetuation of futile treatments, they may be susceptible to developing compassion fatigue (CF), a phenomenon defined by a diminished capacity to empathize as a consequence of emotional and physical exhaustion resulting from repeated exposure to the suffering of others. The ongoing experience of emotional distress may contribute to an increased risk of turnover intentions (TI) as a result of a reduction in job satisfaction. Therefore, understanding the relationship between futile treatments, CF and TI is critical in order to gain insight into the well-being of ICU nurses. Nevertheless, there is a gap in the existing literature with regard to studies that have specifically examined this relationship. A comprehension of this relationship is crucial for the development of interventions that can assist ICU nurses in navigating the emotional and ethical challenges inherent to their profession. Therefore, this study hypothesizes that there is a significant correlation between ICU nurses' attitudes towards futile treatment (ATFT) and their levels of CF and TI in the profession.

What is known about the topic

- Intensive care unit (ICU) nurses frequently encounter futile treatments, leading to ethical dilemmas and emotional distress.
- The nature of futile treatments can contribute to the development of compassion fatigue and increase turnover intention among ICU nurses.

What this paper adds

- This study establishes a negative correlation between ICU nurses' attitudes towards futile treatments and both compassion fatigue and turnover intention.
- The findings suggest that enhancing ICU nurses' involvement in decision-making and providing psychological and emotional support could reduce compassion fatigue and turnover intention, thereby fostering more positive attitudes towards futile treatments.

2 | AIM OF THE STUDY

This study was designed to examine: (1) the level of ICU nurses' ATFTs; (2) the relationship between CF and TI; and (3) their influences on ATFTs.

3 | METHODS

3.1 | Design

This study was a cross-sectional design implemented through a web-based survey. The Checklist for Reporting Results of Internet E-Surveys (CHERRIES) was used to report the data (see Supplementary File 1).

3.2 | Sample, setting and recruitment

An online survey invited nurses who were registered members of the Turkish Society of Critical Care Nurses, of which the principal investigator was a member, to participate in the study. Following ethical approval, the researcher contacted the relevant association and requested that it disseminate the electronic survey link via email to its members and share it on the association's social media account.

Prior to the commencement of data collection for the study, it was ascertained that there were 1600 registered members of the association from diverse geographical regions within Türkiye. A convenience sampling method was employed to ensure the inclusion of a maximum number of nurses. The inclusion criteria were as follows: (a) volunteering to complete the online data collection form; and (b) having worked in the ICU of any hospital for a minimum of 1 year.

As the percentage of participation could not be estimated at the outset of the study, the post hoc sample size was calculated using G*Power 3.1.9.7 software following the completion of the data collection process. A total of 440 ICU nurses participated in the study. The post hoc power analysis revealed that the study was powered at 99% with a two-sided α of 5%, an effect size of 0.30 and a sample size of 440.

3.3 | Data collection procedures and instruments

Following the acquisition of ethical approval for the study, a consent page was created on the Google Form platform and the data collection tools were transferred. The survey link was shared with the relevant association, and nurses were invited to participate in the study via email. The principal investigator did not engage in direct communication with the ICU nurses and ensured compliance with data confidentiality laws. In the first section of the online data collection instrument, participants were presented with a consent page that included a description of the purpose and importance of the study, the inclusion criteria, the names of the questionnaires, the estimated completion time, the principles governing the storage of data, information regarding confidentiality and the contact information of the principal investigator. Furthermore, the participants were informed that they could withdraw from the study at any time. Those who responded in the affirmative to the inquiry 'Do you voluntarily agree to participate in this study?' in this section were directed to the data collection instruments on the next page; those who responded in the negative were prevented from accessing the subsequent page. In order to ensure that respondents answer all questions completely, the 'mandatory' tab is enabled for each question on the Google Form survey. Furthermore, the 'Send another response' link is set to inactive in order to prevent respondents from entering the survey multiple times. The survey was accessible for a period of 8 weeks between 7 June 2024 and 31 July 2024. No supplementary strategies, such as financial incentives, sweepstakes, prizes or postcard reminders, were employed to facilitate survey completion. The Google Form timer indicated that the questionnaire required a minimum of 7 min and a maximum of 11 min to complete.

The following instruments were used to collect data: (a) the Nurse Information Form (NIF), (b) the Attitudes Towards Futile Treatment Scale (ATFTS), (c) the Compassion Fatigue-Short Scale (CFS) and (d) the Turnover Intention Scale (TIS).

3.3.1 | Nurse Information Form (NIF)

This form was designed to facilitate the collection of data pertaining to the socio-demographic characteristics of ICU nurses and the ICU in which they are employed. The form includes a series of basic information items, such as age, gender, educational level, type of hospital employed at, region of employment, work experience, type of ICU, weekly working hours and nurse–patient ratio. The form also includes specific questions such as participation in decision-making processes in the ICU, difficulty of working in the ICU, knowledge about futile treatment practices and whether such practices are practised in the ICU where they work.

3.3.2 | Attitudes Towards Futile Treatment Scale (ATFTS)

The scale, developed by Yıldırım et al., is designed to assess nurses' attitudes towards futile treatment.[16] The scale comprises a total of 18 items and four sub-dimensions (Identifying, Decision-Making, Ethical Principles and Law, Dilemma and Responsibilities) and is scored on a five-point Likert scale (ranging from 1: Strongly Agree to 5: Strongly Disagree). Two items on the scale are reverse scored, resulting in a total score range of 18 to 90. A low score indicates an attitude that futile interventions should not be performed, whereas a high score reflects an attitude that such interventions can be conducted in accordance with established rules and principles. The scale reported an internal consistency of 0.72.[16] The present study found the Cronbach's alpha coefficient to be 0.86.

3.3.3 | Compassion Fatigue-Short Scale (CFS)

CFS, developed by Adams et al.[17] and adapted into Turkish by Dinç and Ekinci,[18] is a 13-item scale comprising an eight-item burnout subscale and a five-item secondary trauma subscale. Each item is evaluated on a 10-point Likert-type scale, with responses ranging from 'Rarely/never' (1) to 'Very often' (10). The lowest possible score on the scale is 13, while the highest is 130. As the scores increase, so too does the level of compassion fatigue. The Cronbach's alpha reliability of the scale was previously reported to be 0.87,[18] and in this study, it was found to be 0.89.

3.3.4 | Turnover Intention Scale (TIS)

The three-item TIS, developed by Cammann et al.[19] and included in the Michigan Organizational Assessment Questionnaire, was utilized in the present study. The scale items are scored on a five-point Likert scale, with 1 indicating strong disagreement and 5 indicating strong agreement. The total score ranges between 5 and 15, with a higher score indicating a greater propensity for turnover. The scale demonstrated satisfactory reliability, with a coefficient of 0.79, as validated in Turkish by Gül et al.[20] In the present study, the Cronbach alpha value was determined to be 0.75.

3.4 | Data analysis

The study data were analysed on SPSS (Statistical Package for Social Sciences) for Windows 29.0 package. The data were tested for normality using skewness/kurtosis values and the Kolmogorov–Smirnov test. The results of the socio-demographic and other characteristics of the participants were summarized with descriptive statistics (mean, standard deviation, percentage and frequency). The Spearman's correlation coefficient, Mann–Whitney U and Kruskal–Wallis tests were employed to evaluate the relationship between the total ATFTS scores and the descriptive characteristics of the nurses. Additionally, the Spearman's correlation coefficient was utilized to examine the correlation between the total ATFTS overall and subscale scores with the CFS and TIS scores. Finally, hierarchical linear regression analysis was conducted to ascertain the predictive influence of compassion fatigue and turnover intention on ATFT. In the first step, the control variables were entered into the model as a result of the univariate analysis, which identified those variables that were significant for nurse demographic (age, gender, educational level, etc.) and other characteristic variables such as hospital type, ICU type, weekly working hours, nurse-to-patient ratio, participation in patient-related decision-making, perceived difficulty of working in the ICU, knowledge about futile treatment practices and whether such practices were performed in their ICU. In the second step, the scores for each dimension of the CFS were entered into the equation, and in the third step, the TIS total score was entered to determine their effects on ATFT among ICU nurses. The results of the linear regression analysis are presented with standardized beta coefficients (β) and their corresponding 95% confidence intervals (CI). The level of statistical significance was set at $p < .05$.

3.5 | Ethical considerations

Bursa Uludag University Health Sciences Research and Publication Ethics Committee (Decision No. 2024-03/06) granted approval for the study's conduct. The first section of the web-based survey tool explicitly states that participants may terminate their participation at any point and that it is free of charge, along with the study's purpose and specifics. The study deemed nurses who responded affirmatively to the inquiry about voluntary participation to have given their consent. Each participant completed the questionnaire anonymously, and no questions included any personal information, such as name, address, email address or phone number. The Google Form settings were configured to allow for anonymous responses, thereby preventing the recording of participants' IP addresses, location data and contact information during the data collection process. The data were stored in a password-protected file on a password-protected computer, accessible only by the principal investigator.

4 | RESULTS

4.1 | Characteristics of intensive care unit nurses

A total of 440 ICU nurses, 38% of whom were from the Marmara region of Türkiye, participated in the study. The average age of the participants was 30.07±5.96 years. Among the respondents, 85.9% were female, and 78.6% reported having a bachelor's degree (Table 1). The participants reported that they had been employed as ICU nurses for a mean of 4.59 ± 3.84 years. Approximately half (47.3%) of them were working in a university hospital, while 30.0% were employed in a general ICU. Among the nurses who participated in the study, 45.9% indicated that the nurse-to-patient ratio in ICUs was 1:2, 75.9% reported that the ICU bed capacity was between 10 and 20 and 59.3% stated that they worked more than 48 h per week.

Only 19.3% of ICU nurses reported participating in patient-related decisions in their ICU. Of the nurses, 77.5% reported that they were willing to work in the ICU, but almost all of them reported experiencing various difficulties (especially physical and mental) in this regard. Among the nurses, 75.2% reported having knowledge about futile care/treatment, and 73.0% reported that futile treatment practices were practised in their ICUs (Table 1).

4.2 | Correlations between attitudes towards futile treatment and compassion fatigue and turnover intention

The mean scores of ICU nurses according to ATFTS, CFS and TIS were 43.18 ± 6.44 (range 18–90), 74.25 ± 23.33 (range 13–130) and 8.39 ± 3.03 (range 3–15), respectively (Table 2). As shown in Table 3, the correlation analysis revealed that there was a statistically significant (ranging from low to moderate) negative correlation between the total scores of ATFTS overall and all subscales with the total scores of CFS overall and all subscales ($p < .05$, $p < .01$). Furthermore, a significant low-level negative correlation was found between ATFTS overall and the 'Dilemma and responsibilities' subscale total scores with TIS total score ($r = -0.204$, $p = .029$; $r = -0.207$, $p = .024$, respectively).

TABLE 1 Univariate analysis of nurses' socio-demographic and intensive care unit-related information with Attitudes Towards Futile Treatment Scale (*n* = 440).

Characteristics	*n* (%) or M ± SD	ATFTS score (M ± SD)	*p* value
Age (years)	30.07 ± 5.96		0.390[a]
Gender			
Female	378 (85.9)	43.35 ± 6.34	0.155[b]
Male	62 (14.1)	42.14 ± 6.97	
Education			
Associate degree	53 (12.0)	42.75 ± 5.77	0.546[c]
Bachelor's degree	346 (78.6)	43.13 ± 6.38	
Postgraduate degree	41 (9.3)	43.84 ± 7.34	
Type of hospital			
University	208 (47.3)	43.27 ± 6.57	0.846[c]
Public	130 (29.5)	42.86 ± 5.77	
City	90 (20.5)	43.40 ± 6.64	
Private	12 (2.7)	43.50 ± 7.19	
Region of employment			
Marmara	167 (38.0)	43.38 ± 6.68	0.971[c]
Aegean	64 (14.5)	42.73 ± 7.31	
Mediterranean	45 (10.2)	43.22 ± 6.59	
Black Sea	32 (7.3)	43.53 ± 5.44	
Central Anatolia	89 (20.2)	42.76 ± 5.93	
Eastern Anatolia	18 (4.1)	43.16 ± 5.50	
Southeastern Anatolia	25 (5.7)	44.00 ± 6.19	
Type of ICU ward			
Anaesthesiology and reanimation	106 (24.1)	43.56 ± 6.05	0.364[c]
General	132 (30.0)	43.03 ± 6.95	
Medical	41 (9.3)	41.00 ± 5.60	
General surgery	18 (4.1)	44.11 ± 6.41	
Cardiovascular/Cardiology	58 (13.2)	43.36 ± 7.31	
Paediatric/newborn	47 (10.7)	43.55 ± 5.92	
Others[d]	38 (8.6)	43.84 ± 5.60	
Work experience in ICU *(years)*	4.59 ± 3.84		0.609[a]
Work experience (categorical)			
1–5 years	287 (65.2)	43.19 ± 6.23	0.964[b]
>5 years	153 (34.8)	43.16 ± 6.84	
Nurse:patient ratio			
1:2	202 (45.9)	43.27 ± 6.22	0.605[c]
1:3	155 (35.2)	42.85 ± 6.08	
≥1:4	83 (18.9)	43.57 ± 7.57	
Working hours per week			
40–48 h	179 (41.7)	42.83 ± 6.57	0.149[b]
>48 h	261 (59.3)	43.69 ± 6.21	
ICU bed capacity			
10–20	334 (75.9)	42.89 ± 5.97	**0.015[b]**
>20	106 (24.1)	44.09 ± 7.69	
Participation in patient-related decisions in ICU			
Yes	85 (19.3)	40.82 ± 8.37	**0.003[b]**
No	355 (80.7)	43.74 ± 5.75	

(Continues)

TABLE 1 (Continued)

Characteristics	n (%) or M ± SD	ATFTS score (M ± SD)	p value
Having a willingness to work in ICU			
Yes	341 (77.5)	42.50 ± 6.30	0.200[b]
No	99 (22.5)	43.38 ± 6.47	
Having difficulty working in ICU			
Yes	420 (95.5)	43.04 ± 6.41	**0.043[b]**
No	20 (4.5)	46.20 ± 6.39	
If yes, kind of difficulty experienced[e]			
Physical	399 (95.0)	43.02 ± 6.41	0.831[b]
Mental	345 (82.1)	42.98 ± 6.48	0.477[b]
Emotional	316 (75.2)	43.15 ± 6.43	0.439[b]
Social	261 (62.1)	43.01 ± 6.64	0.834[b]
Having knowledge about futile care/treatment			
Yes	331 (75.2)	42.50 ± 6.45	**0.004[b]**
No	109 (24.8)	44.87 ± 5.43	
Performing futile care practices in your ICU			
Yes	321 (73.0)	46.03 ± 6.57	**0.001[b]**
No	119 (27.0)	42.12 ± 6.37	

Abbreviations: ICU, intensive care unit; M, mean; SD, standard deviation.
[a]Spearman's correlation coefficient.
[b]Mann–Whitney U test.
[c]Kruskal–Wallis test.
[d]Neurology, neurosurgery, burn, pulmonology ICUs.
[e]Multiple answers.

TABLE 2 Attitudes towards futile treatment, compassion fatigue and turnover intention among intensive care unit nurses (n = 440).

Scales	Range of scores	M ± SD
Attitudes towards futile treatment		
Identifying	7–35	15.67 ± 4.69
Decision-making	4–20	8.47 ± 2.11
Ethical principles and law	3–15	7.81 ± 1.04
Dilemma and responsibilities	4–20	11.20 ± 2.10
Total scale	18–90	43.18 ± 6.44
Compassion fatigue		
Work burnout	8–80	47.07 ± 15.10
Secondary trauma	5–50	27.18 ± 10.87
Total scale	13–130	74.25 ± 23.33
Turnover intention		
Total scale	3–15	8.39 ± 3.03

Abbreviations: M: mean, SD: standard deviation.

4.3 | Impact of compassion fatigue and turnover intention on ATFT

The univariate analysis of ICU nurses' socio-demographic and other descriptive characteristics with ATFT (Table 1) revealed that ICU bed capacity, participation in patient-related decisions, difficulty in working in the ICU, knowledge about futile treatment and performing futile treatment practices in the ICU were factors affecting ATFT (p < .05). These factors were included as control variables in the hierarchical regression analysis. As shown in Table 4, the first step of the analysis revealed that participation in patient-related decisions (β = −0.151, p = .001) and performing futile treatment practices in the ICU (β = 0.252, p = .001) were significant predictors of ATFT, collectively explaining 33.0% of the variance (F = 7.863, p < .001). In the second step, after introducing the scores obtained from the subscales of the CFS, participation in patient-related decisions (β = −0.162, p = .001) and performing futile treatment practices in the ICU (β = 0.290, p = .001) remained significant predictors of ATFT, and the subscales of the CFS were found to be other significant predictors of ATFT (β = −0.155, p = .032 for work burnout; β = −0.122, p = .024 for secondary trauma). The variance explained by the second model in ATFT increased to 43.6% (F = 10.562; p < .001). Finally, the TIF total score was introduced into the third model. The model retained the significant predictors of ATFT from the previous model and identified the TIF total score as one of them (β = −0.170, p = .039). The third model increased the variance in ATFT to 54.2% (F = 14.121, p < .001).

5 | DISCUSSION

This study offers significant insights into the relationship between ICU nurses' attitudes towards futile treatment, compassion fatigue and turnover intention. It provides a novel exploration within the critical care context, advancing the understanding of these complex

TABLE 3 The relationship of intensive care unit nurses' attitudes towards futile treatment with compassion fatigue and turnover intention ($n = 440$).

| Variable | CFS score | | | TIS score |
	Total	WB	ST	Total
Total ATFTS score	−0.428**	−0.394**	−0.337**	−0.204*
Identifying	−0.232**	−0.149**	−0.182**	−0.071
Decision-making	−0.188**	−0.131*	−0.127*	−0.044
Ethical principles and law	−0.247**	−0.158**	−0.134*	−0.062
Dilemma and responsibilities	−0.270**	−0.180**	−0.152**	−0.207*

Abbreviations: ATFTS, Attitudes Towards Futile Treatment Scale; CFS, Compassion Fatigue Scale; ST, secondary trauma; TIS, Turnover Intention Scale; WB, work burnout.
*p < .05; **p < .01.

TABLE 4 Hierarchical multiple linear regression analysis results predicting intensive care unit nurses' Attitudes Towards Futile Treatment Scale through compassion fatigue and turnover intention.

| Variables | Total ATFTS score | | | R^2 | F |
	β	95% CI	p-value		
Step 1 ICU bed capacity	0.057	−0.495, 2.198	0.214	0.330	7.863
Participating in patient-related decisions	−0.151	−3.929, −0.995	**0.001**		
Having difficulty working in ICU	−0.082	−5.283, 0.243	0.074		
Having knowledge about futile care	0.032	−0.734, 1.573	0.475		
Performing futile care practices	0.252	2.352, 4.945	**0.001**		
Step 2 ICU bed capacity	0.051	−0.460, 2.236	0.296	0.436	10.562
Participating in patient-related decisions	−0.162	−3.986, −1.083	**0.001**		
Having difficulty working in ICU	−0.062	−4.790, 0.984	0.196		
Having knowledge about futile care	0.028	−0.788, 1.523	0.532		
Performing futile care practices	0.290	2.168, 4.801	**0.001**		
Work burnout	−0.155	−1.773, 0.226	**0.032**		
Secondary trauma	−0.122	−1.562, 0.253	**0.024**		
Step 3 ICU bed capacity	0.048	−0.468, 2.226	0.317	0.542	14.121
Participating in patient-related decisions	−0.148	−3.997, −1.114	**0.001**		
Having difficulty working in ICU	−0.058	−4.693, 1.083	0.220		
Having knowledge about futile care	0.026	−0.819, 1.492	0.572		
Performing futile care practices	0.342	2.207, 4.840	**0.001**		
Work burnout	−0.165	−1.185, 0.349	**0.015**		
Secondary trauma	−0.130	−1.742, 0.352	**0.011**		
Turnover intention	−0.170	−0.393, −0.015	**0.039**		

Abbreviations: β, standardized regression coefficients beta; CI, confidence interval; ICU, intensive care unit.

issues. As the first study to examine these variables together, it elucidates the complex psychological and ethical challenges confronted by ICU nurses on a global scale.

The findings from the ATFTS in this study provide a detailed look into ICU nurses' perspectives on futile care. The overall mean score of 43.18 ± 6.44 reflects a moderate stance, indicating that nurses neither fully oppose nor fully endorse futile treatments. The subscale analysis reveals various challenges faced by the nurses. The score in the 'Identifying' subscale (15.67 ± 4.69) suggests that nurses may experience some uncertainty or difficulty in cognitively identifying and recognizing futile situations. The 'Decision-Making' subscale score (8.47 ± 2.11)

highlights potential uncertainty or constraints in making treatment decisions. The 'Ethical Principles and Law' subscale score (7.81 ± 1.04) indicates that while nurses understand ethical and legal frameworks, they may lack confidence in applying these principles in practice. Lastly, the 'Dilemma and Responsibilities' subscale (11.20 ± 2.10) underscores the frequent ethical conflicts and responsibilities nurses face as they balance patient advocacy with institutional demands. In a study employing the same scale and comprising ICU nurses and physicians, similar results were reported for the ATFTS total score (48.25 ± 9.23) and its constituent subscales: 19.86 ± 6.12 (Identifying subscale), 8.64 ± 2.67 (Decision-Making subscale), 8.02 ± 1.11 (Ethical

Principles and Law subscale) and 11.72 ± 2.48 (Dilemma and Responsibilities subscale).[21] These findings highlight the need for targeted interventions that enhance ethical decision-making, provide emotional support and empower nurses in their roles, ultimately improving both nurse well-being and patient outcomes in ICU settings. An ethical climate that promotes open communication, mutual respect and active involvement of nurses in end-of-life care decisions is crucial. In light of the moral distress experienced in ICUs related to futile care, it is essential that interdisciplinary collaboration and leadership that empowers nurses to voice their concerns and participate in ethical decision-making be regarded as fundamental elements of such a climate.[22,23] In discussing futile treatment in ICUs, it is important to emphasize the impact of nurses' participation in patient-related decision-making processes. Nurses are often at the forefront of patient care, and their ability to influence decisions regarding futile treatments can significantly impact the outcomes for both patients and their families.[24] This study also found that increased involvement in these decisions significantly influences nurses' attitudes towards futile care, generally leading to a more critical stance against such practices. However, in many ICU settings, decision-making is predominantly driven by physicians, often leaving nurses with limited influence.[12] This not only contributes to moral distress but also restricts nurses from fully engaging in ethical deliberations, which could otherwise enhance the quality of patient care.[25,26] Implementing multidisciplinary case conferences that include ethics consultations and promote collaborative decision-making among ICU nurses, physicians and other health care professionals (e.g., social services and clergy) may empower nurses by integrating their perspectives on futile treatments into critical care decisions. It is believed that such collaboration can foster an ethically balanced and supportive ICU environment, helping to clarify care goals and ensure that treatment plans involving potentially futile treatments align with ethical standards. Ultimately, this may enhance the quality of care and support the well-being of the entire health care team. Studies show that a positive ethical climate with multidisciplinary perspectives in the ICU can significantly reduce moral distress among nurses, leading to better job satisfaction and lower turnover intention.[27–29]

The study's findings revealed that there were significant negative correlations between ICU nurses' attitudes towards futile treatment and their levels of compassion fatigue and turnover intention, indicating that nurses who experienced higher levels of emotional exhaustion and stronger turnover intention were more likely to hold critical views regarding the continuation of futile treatments. This suggests that these nurses may be particularly distressed by the ethical complexities and emotional burden associated with such treatments. Furthermore, the hierarchical regression analysis reveals that both compassion fatigue, particularly its components of work burnout and secondary trauma, and turnover intention are significant predictors of nurses' attitudes towards futile treatment. In a study conducted by Sert Kasım and Oflaz, a significant negative correlation was identified between nurses' attitudes towards futile treatments and turnover intention. It was further determined that turnover intention represents a predictive factor affecting these attitudes.[30] Another study

found that among health care providers, including nurses, the perceived amount of futile care increased the possibility of thinking about quitting the job by 7.4 times and burnout by 3.8 times.[15] In addition, the performance of futile care practices in ICUs was identified as a significant predictor of nurses' attitudes towards futile treatment. This finding suggests that nurses who are frequently involved in the implementation of treatments they perceive as futile may develop a more critical stance towards such practices. This situation may have arisen as a result of nurses' direct involvement in futile care processes, which has led them to grapple with the ethical and emotional challenges associated with these practices. ICUs often grapple with end-of-life decisions, where the provision of treatments that prolong suffering without meaningful recovery can lead to significant moral distress for nurses.[31,32] This situation compromises the emotional well-being and job satisfaction of nursing staff, which has significant implications for the quality of care provided by these professionals.[33] Furthermore, the demanding nature of ICU work, insufficient patient–nurse ratios and the existence of systemic workplace challenges can intensify overwhelming feelings, leading to a heightened emotional burden.[34] This idea is supported by the fact that the majority of the nurses in the study reported experiencing difficulties related to working in the ICU.

5.1 | Implications for practice and further research

Given the significance of these findings, it is crucial for health care institutions to develop strategies that address the emotional and ethical challenges faced by ICU nurses. Interventions such as stress management programmes, support groups and greater inclusion in decision-making processes could help alleviate compassion fatigue and improve attitudes towards futile treatment. Future research should build on these findings by exploring the long-term effects of such interventions and by examining other factors that may influence nurses' ethical attitudes in critical care settings. Future research should explore the long-term impact of these interventions on nurses' attitudes towards futile treatments and their overall mental health. Longitudinal studies could provide valuable insights into how these measures influence nurse retention and job satisfaction over time. Moreover, qualitative studies focusing on nurses' experiences with futile treatment can deepen our understanding of the emotional and ethical challenges they face. Research examining the role of organizational culture and leadership in supporting ethical decision-making and reducing turnover intention in ICU settings is also recommended. Comparative studies across different health care settings and cultural contexts could identify universal and context-specific strategies for supporting ICU nurses effectively.

5.2 | Limitations

This study has some limitations. The study was conducted at a specific time with Turkish intensive care nurses who volunteered

to participate through the association, and the response rate was low (27.5%, 440/1600). Therefore, the results could not be generalized. The low response rate may be related to the online survey data collection method, including the inability to reach potential respondents individually, respondents' lack of attention to posts on the association's email or other communication groups, survey fatigue and time constraints. The self-report nature of the research questionnaires may increase the risk of bias. Due to social desirability, it is possible that nurses may have responded in a positive manner to some attitude questions. Finally, the lack of a longitudinal follow-up of participating nurses limited the ability to deeply examine the potential relationship between attitudes towards futile treatments, compassion fatigue and turnover intention levels.

6 | CONCLUSION

This study highlights the significant relationship between ICU nurses' ATFTs and the effects of CF and TI. The findings suggest that nurses who experience higher levels of emotional exhaustion and are more inclined to leave their jobs tend to hold more critical views on continuing futile treatments. These insights underscore the need for targeted interventions, such as ethical consultations, stress management programmes and improved working conditions, to support nurses in navigating the complex ethical challenges of ICU settings. By addressing these issues, health care institutions can enhance nurse well-being, improve job satisfaction and ultimately ensure better patient care.

AUTHOR CONTRIBUTIONS

Öznur Erbay Dalli: Conceptualization; Data curation; Formal analysis; Investigation; Methodology; Project administration; Supervision; Validation; Visualization; Roles/Writing—original draft; and Writing—review and editing.

CONFLICT OF INTEREST STATEMENT
The author declares no conflicts of interest.

DATA AVAILABILITY STATEMENT
The data that support the findings of this study are available from the corresponding author upon reasonable request.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.