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Turkish nurses' decision making in the distribution of intensive care beds

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Abstract
The aim of this study was to assess the opinions and role of intensive care unit (ICU) nurses regarding the distribution of ICU beds. We conducted this research among 30% of the attendees at two ICU congresses in Turkey. A self-administered questionnaire was used, which included 13 cases and allocation criteria. Of the total (136 nurses), 53.7% participated in admission/discharge decisions. The most important criterion was quality of life as viewed by the physician; the least important was the patient's social status. According to the findings, the nurses thought that medical benefit and avoiding discrimination were important. On the other hand their ignorance of patients' autonomous preferences arouses suspicions about these nurses' role in advocating for patients' rights. For this reason, nurses' role in allocation decisions should be clearly described and should also be the basis on which intensive care nurses' duties in allocation decisions should be determined.

Keywords
decision making, intensive care nursing, justice, nursing ethics, resource allocation

Introduction

The origin of modern intensive care may be seen in Florence Nightingale's 'monitoring unit' in Turkey. Known as a pioneer of nursing, Nightingale came to Istanbul because of the Crimean War at the beginning of the 1850s. Because of the lack of critical care and the high rate of infection, the mortality rate of hospitalized soldiers was high. On Nightingale's arrival and during her stay, the mortality rate fell to almost 2%, indicating that intensive care was at the time primarily a practice of nursing.[1-3] After 155 years, intensive care is no longer seen as primarily a function of nursing. With some significant exceptions, the role of nurses in resource allocation decisions in ICUs is limited, and so is the literature on this topic.[4-6]

Admission and discharge decisions in ICUs are also about resource allocation. Since ICU resources are scarce, the principle of justice is important in their distribution. In addition, in these settings distribution decisions may, at the same time, be life and death decisions. These complex situations are more complicated given the current cost-orientated focus on health care resources.[7,8]

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This cost-orientation inevitably affects patient care.[9] We can see such a focus in Turkey's health care system in association with the new social and health insurance act,[10] by which advanced critical care services can be restricted. Although nurses should be aware of the economic aspects of care,[7] their principal role necessitates that they must recognize the best interests of patients.[11] As patients' rights advocates,[12,13] it is the duty of nurses to ensure that 'patient[s are] entitled to a fair selection procedure which must be based on medical criteria and made objectively'[14] when resources are scarce, as well as to protect patients from futile treatment.[11]

Several national and international nursing declarations have already highlighted nurses' role in the just distribution of health care resources. Recently, the Turkish Nurses Association published a draft report containing the relevant ethical guidelines.[12] The Turkish Association of Critical Care Nurses has also mentioned among nurses' duties and responsibilities that they must take into account safety, efficiency and cost when caring for patients.[13] Last, but not least, the International Council of Nurses suggested that '[n]urses have an important contribution to make in health services planning and decision-making and in development of appropriate and effective health policy'.[15] Thus, for nurses, it is important to know about the just distribution of resources.

In addition, the Turkish Association of Critical Care Nurses has recently added to ICU responsible nurses' task definition that they must 'ensure intensive care admission and discharge decisions based on admission and discharge criteria',[16] which they were already doing implicitly. Similarly, a report from Canada noted the importance of the role of nursing personnel in ICU bed allocation.[17]

For this reason, nurses should be well educated about the just distribution of resources, especially those that are scarce, as in ICUs. Unfortunately, as reported by Görgülü and Dinç ethics education was included in only 46% of the nursing schools' curricula in Turkey, and the distribution of health care was included in only 61% of undergraduate nursing ethics education (although it must be noted that this study had a rather low response rate of 51%).[18]

However, the duty of just distribution is quite difficult to fulfil because allocation decisions are closely related to values that are linked to political views and beliefs. Personal values are motivational sources for an individual's actions[19] and, although professional values should take priority over personal values,[20] they can affect nurses' decisions, especially at the end of life.[21] It can be expected that, when making distribution decisions, political stances may have an affect because all decisions are based on a theory of justice, which can be egalitarian, liberal, utilitarian, etc. For this reason also it is important to address this issue in nursing ethics education.

Against this background information we aimed to determine the problems that ICU nurses may encounter in the distribution of intensive care resources while protecting patients' autonomy and advocating their rights in Turkey. The study was based on the following research questions: What is the role of nurses in bed distribution decisions in ICUs? What factors and criteria affect nurses' patient admission and discharge decisions? Do nurses' own values and beliefs affect their decisions or the criteria they consider? and Is the four quadrants model of ethical decision making a useful tool when making admission/discharge decisions in ICU nursing?

Method

Study design

We used a 50-item self-administered questionnaire developed by the researchers, which was mostly based on other research.[22] In the first part of the survey form we enquired about sociodemographic information and the professional qualifications of the nurses. In the second part, the nurses were asked to make admission decisions and choose between seven cases for one free bed in an ICU, and also to come to discharge decisions

about six cases to make space for a new patient requiring intensive care. In the final part of the questionnaire we asked the nurses which criteria they use to make allocation decisions and if they think they need institutional or national policies to support these decisions. The Questionnaire was reviewed by experts in intensive care and medical ethics, and Turkish language specialists. A pilot study was conducted with 32 ICU practitioners to enhance the clarity of the questionnaire.

(The questionnaire was also presented to Turkish intensive care physicians in different settings. This part of the study is in preparation.[23] It has taken 3 years to collect and evaluate the data for this wide-ranging project.)

The study was approved by Kocaeli University Human Research Ethics Committee on 21 January, 2004.

Setting

The study was conducted with nurse participants at two national intensive care congresses in Turkey:

- 5–8 May, 2004: 12th National Intensive Care Congress, Kuşadasi, İzmir;
- 26–28 September, 2005: 2nd National Intensive Care Nursing Congress, Çeşme, İzmir.

Selection of participants

A study advertisement poster was displayed at the entrance to each congress hall. After an oral presentation, the questionnaires were distributed to all the nurses present at these meetings who volunteered to participate. Since both oral and written information was given, this was accepted as informed consent. The nurses were asked to place the completed questionnaires in a prepared closed box. Eighteen percent (17/93) of the first congress members and 33% (119/360) of the second congress attendees participated in the study. (In Turkey, the total number of nurses working in intensive care is approximately 4000, 2168 of whom have been certificated by the Turkish Ministry of Health as intensive care nurses according to data obtained by the Turkish Association of Critical Care Nurses on 21 April, 2009.)

Data analysis

The personal and professional characteristics of intensive care nurses were used as independent variables. Attitudes towards resource allocation were used as dependent variables. The relationship between these variables was analysed using Pearson's chi-squared test and *P*-values less than 0.05 were considered to be significant.

The findings were examined according to the four quadrants model (or 'the four topics method'), in which cases are examined in order for: medical indications, patient preferences, quality of life, and contextual features.[24] As a practical approach, each topic represents one of the four quadrants, within which lie more specific questions. Although the method is intended to provide clinicians and ethicists with a structured framework to guide them towards an informed, morally justified decision, we have identified only one study published in the nursing literature that used this method.[25]

Limitations

The study had some limitations. First, we conducted it at two national congresses, which limited the total target group to the number of intensive care nurses who attended. The participants were those nurses who were willing to fill in the questionnaire.

The study was a tabletop exercise and real world preferences may therefore be different from those noted by these nurses. In addition we used a structured questionnaire and therefore do not known the reasons for their answers.

Table 1. Demographic characteristics of the intensive care nurses ($n = 136$)

Characteristic	No.	%
Sex		
Women	135	99.3
Men	1	0.7
Age (years)		
≤ 29	76	55.9
> 29	60	44.1
Children		
Yes	48	35.3
No	88	64.7
Religious belief		
Important in my life	101	74.3
Not important in my life	35	25.7
Political position		
Right wing	26	19.1
Left wing	53	39.0
Other	33	24.3
No answer	24	17.6
Duration of professional experience (years)		
≤ 8	59	43.4
> 8	77	56.6
Duration of ICU experience (years)		
< 5	51	37.5
5-8	45	33.1
> 8	40	29.4
Involved in decision-making process		
Yes	73	53.7
No	63	46.3
Making triage decisions		
Often	28	20.6
Sometimes	56	41.2
Rarely or never	52	38.2
Working at a training hospital		
Yes	94	69.1
No	42	30.9

Findings

Sociodemographic and professional characteristics (Table 1)

Thirty percent ($n = 136$) of the nurses attending two national congresses on intensive care nursing participated in this study. Of the 136 nurses, 135 (99.3%) were women, and the average age in the 22–49 age range was 29.8 $\pm$ 4.9 years. More than half (55.9%) of the nurses were aged under 30 years and more than a third (35.3%) had children.

When the nurses were asked about their spiritual beliefs, 74.3% reported that religion was an integral part of their lives and 25.7% said it was not. We asked their political position in a three-option question: left wing/right wing and other (open ended). Although 17.6% did not answer the question, more than one third described their political position as left wing and one fifth as right wing.

Of the intensive care nurses, 56.6% had professional experience of more than eight years. The average length of their intensive care experience was 6.7 $\pm$ 4.6 years and nearly one third had experience of more than eight years.

Nearly half the nurses (47.8%) worked in university hospitals, 36.8% in state hospitals, and 15.4% in private hospitals. Most (69.1%) of these hospitals were also research and education hospitals. The number of beds in the intensive care units ranged between three and 37.

Slightly more than half the nurses (53.7%) said they participated in the decision-making process for patient admission and discharge, although 46.3% did not. Participation depended on the nurses' professional experience and the organization's policy. Although a majority (67.5%) of the more experienced (>8 years) nurses participated in decision making, a majority (60.3%) of the less experienced nurses (<9 years) did not ($P < 0.001$). Furthermore, more than half of the nurses who were employed at private (76.2%) and state (56.0%) hospitals participated in decision making, but only 44.6% of those at university hospitals were involved ($P = 0.038$).

Thirty-eight percent of the nurses reported that they did not have to choose among patients because of scarce resources, although 41.2% reported that they 'sometimes had to choose and 20.6% said they often did so.

Admission decisions (Table 2)

Over half of the intensive care nurses said they would admit the patient with multiple sclerosis (patient 6), the patient with chronic obstructive pulmonary disease (patient 5), the patient with chronic obstructive pulmonary disease and acute respiratory distress syndrome (patient 7), and the patient in a persistent, chronic vegetative state (patient 1) to the single empty bed in the ICU. They were least likely to admit the two patients with metastatic cancer (29.5%; 44.8%). A statistically significant relationship was observed between the nurses' decisions about patient admission and their political views, length of professional service and triage experience.

A majority (61.5%) of the nurses who described themselves as right wing were more likely to admit the patient in a persistent vegetative state than those who described themselves as left wing (45.1%) ($P = 0.045$).

Although 58.6% of the nurses who were in the first eight years of their professional life preferred to admit the terminally ill patient with AIDS (patient 4), 59.2% of the more experienced nurses were reluctant to do so ($P = 0.041$). Sixty-three percent of the nurses who regularly made triage decisions were willing to admit the same patient, and 66.7% of those who did not make such decisions were unwilling to do so ($P = 0.018$).

Factors influencing decisions about admission (Table 3)

Most of the intensive care nurses ranked highly the following factors: quality of life viewed by the physician, low likelihood of reversing patient's illness, nature of a chronic illness, patient unlikely to survive hospitalization, and patient has not made progress during hospitalization.

One additional major factor was whether or not treatment contributed to obtaining scientific knowledge. A statistically significant relationship was observed between the ranking of this factor and the political opinion of the nurses ($P = 0.012$).The nurses who described themselves as left wing tended to have higher rankings than those who called themselves right wing or those of other political persuasions.

Less than half the nurses believed the following factors to be relevant: patient's dependents, patient's age, patient's previous mental or psychiatric history, quality of life as viewed by the patient, social and economic burden of the treatment on the family, cost–benefit analysis of treatment, and whether the patient had previously benefited from life-saving resources. Significant relationships were observed between the ranking of whether the patient had previously benefited from life-saving resources and political stance ($P = 0.025$) and also of the length of professional experience ($P = 0.032$). Of the nurses who had eight or less years' experience or those who described themselves as right wing, 41.1% and 33.3%, respectively,

Table 2. Nurses' affirmative decisions about patient admissions to the intensive care unit

Patient no.	Patient's condition	%	n/N	Significance
1	A 25-year-old woman in a persistent, chronic vegetative state with adult respiratory distress syndrome	53.0	71/134	Political position: $\chi^2 = 8.047$; df = 3; $P = 0.045$
2	A 50-year-old man with terminal metastatic lung carcinoma with massive haemoptysis	29.5	39/132	ns
3	A 50-year-old with terminal metastatic lung carcinoma with a myocardial infarction and premature ventricular contractions	44.8	60/134	ns
4	A 35-year-old man with acute immunodeficiency syndrome and pneumocystic carinii pneumonia, treated for 5 days with antibiotics, who subsequently develops respiratory failure (usually imminently terminal) and who requests admission	48.5	65/134	Professional experience: $\chi^2 = 4.187$; df = 1; $P = 0.041$ Triage experience: $\chi^2 = 8.012$; df = 2; $P = 0.018$
5	A 60-year-old man with mild obstructive pulmonary disease, acute respiratory failure (P_{Co2} acutely increasing to 80 torr (10.7 kPa) with decreased mental status) secondary to Guillian-Barré syndrome (a reversible disorder), and a living will stating that the patient refuses artificial ventilator support at any time	62.7	84/134	ns
6	A 50-year-old woman with multiple sclerosis for 20 years and quadriplegia for 10 years, who is believed to be terminal and who has just been intubated for an aspiration pneumonia caused by placement of a feeding tube in the right main bronchus	63.6	84/132	ns
7	A 80-year-old man with chronic obstructive pulmonary disease and adult respiratory distress syndrome	56.4	75/133	ns

n, number of nurses deciding to admit; N, total number of nurses answering this question; ns, not significant.

ranked this factor more highly than those with more than eight years' professional experience (21.9%) and who were left wing (19.2%).

The nurses tended to rank lower such factors as a patient's ability to pay, the effect of the patient's lifestyle on the illness, pressure from the patient's family or a physician, and the patient's social contribution. A greater percentage of the nurses with more than eight years' experience in health care and in ICUs (33.8% and 43.6%, respectively) tended to rank more highly the ability of the patient to pay than nurses with eight years' experience or less (21.8% and 22.2%, respectively) ($P = 0.027$; $P = 0.011$).

Only a few nurses ranked highly factors such as a patient's history of institutionalization and social status. A statistically significant relationship was observed between the ranking of this factor, which tended to have the overall lowest rating, and the frequency of making triage decisions ($P = 0.021$) (Table 3). A higher percentage of the nurses who made frequent triage decisions (29.2%) ranked this factor highly compared with those who sometimes (12.5%) or never (2.1%) made triage decisions.

Discharge decisions (Table 4)

In order to admit a 25-year-old asthmatic patient with acute respiratory failure requiring intensive care, the nurses chose most frequently to discharge a 60-year-old postoperative patient (patient 4) and a child with

Table 3. Factors found to be important in the nurses' decisions about patient admission

No.	Factor	%	n/N	Significance
1	Quality of life viewed by the physician	76.9	100/130	ns
2	Patient's illness is probably not reversible	64.7	77/119	ns
3	Nature of a chronic illness	58.2	71/122	ns
4	Treatment supports scientific development	55.0	66/120	Political position: $\chi^2 = 16.251$; $P = 0.012$
5	Patient unlikely to survive hospitalization	54.9	67/122	ns
6	Patient has not made progress during hospitalization	52.0	64/123	ns
7	Family dependency factor	45.7	59/129	ns
8	Patient's age	45.5	55/121	ns
9	Previous mental or psychiatric history	44.2	53/120	ns
10	Quality of life viewed by the patient	43.8	56/128	ns
11	Social and economic impact on family	39.0	46/118	ns
12	Costs to society	38.5	47/122	ns
13	Financial cost–benefit analysis	35.3	41/116	ns
14	Previous hospital admission	30.2	39/129	Professional experience: $\chi^2 = 6.855$; $P = 0.032$ Political position: $\chi^2 = 14.458$; $P = 0.025$
15	Patient's ability to pay	28.7	37/129	Professional experience: $\chi^2 = 7.203$; $P = 0.027$ Duration of ICU experience: $\chi^2 = 13.093$; $P = 0.011$
16	Effect of patient's life style on disease	24.0	31/129	ns
17	Pressure from the patient's family or another physician	23.5	28/119	ns
18	Patient's social contribution	21.6	25/116	ns
19	Patient institutionalized	17.6	21/129	ns
20	Patient's social status	11.7	14/120	Triage experience: $\chi^2 = 11.598$; $P = 0.021$

n, number of nurses who said the factor was important; N, total number of nurses answering the question; ns, not significant.

brain death (patient 5). Only 11% of the nurses stated they would discharge the comatose 20-year-old man with subarachnoid haemorrhage (patient 1).

No statistically significant relationships were observed between the nurses' decisions to discharge a patient from the ICU in order to admit a new patient and their characteristics and qualifications. However, triage experience and length of professional experience tended to make a significant difference in the case of patient 4 ($P = 0.026$; $P = 0.025$, respectively). A majority (61.1%) of the nurses who decided to discharge this patient were in the first eight years of their professional lives. On the other hand, 64.7% of the nurses who did not have to make triage decisions chose to not discharge this patient.

ICU policies

Roughly 61% ($n = 71$) of the nurses who completed the survey stated that they favoured hospital policies that would guide admission and discharge in ICUs. The high number of nurses ($n = 20$) who did not fill in this part of the questionnaire was noteworthy; however no statistically significant relationship was observed between this outcome and the nurses' qualifications.

There was a statistically significant relationship between support for intensive care policies and the nurses' political persuasion ($\chi^2 = 12.038$; df = 3; $P = 0.007$). Of the nurses who called themselves left wing,

Table 4. Nurses' affirmative decisions about patient discharges from the intensive care unit

Patient no.	Patient's condition	%	n/N	Significance
1	A 20-year-old man with a massive subarachnoid haemorrhage who remains in coma 2 weeks after admission and who breathes spontaneously but requires ventilatory support, which is not usually provided on the general ward	10.8	14/130	ns
2	A 45-year-old woman with multiple organ failure in the ICU for 8 weeks, who receives moderate doses of dopamine and moderate levels of positive end-expiratory pressure	29.0	38/131	ns
3	A 45-year-old woman with multiple organ failure in the ICU, who is in renal failure (no longer requiring dialysis) and whose adult respiratory distress syndrome has resolved but still requires ventilator support	13.5	17/126	ns
4	A 60-year-old man 16 hours status post-aortic aneurysm repair who had a myocardial infarction 3 months ago; he is haemodynamically stable and has a pulmonary artery catheter in place	49.6	63/127	Professional experience: $\chi^2 = 4.974$; df = 1; $P = 0.026$ Triage experience: $\chi^2 = 7.340$; df = 2; $P = 0.025$
5	A 6-year-old child who is brain dead. You are waiting for the family to arrive to discuss the possibility of an organ transplant	41.5	54/130	ns
6	A 40-year-old woman who tried to commit suicide by driving her car into a pole. She is postoperative after repair of her traumatic injuries, requires a ventilator, and requests that everything be removed so she can die in peace	25.2	32/127	ns

n, number of nurses deciding to discharge; N, total number of nurses answering this question; ns, not significant.

77.3% were keener to have the hospital regulate this issue compared with 56.5% of those who described themselves as right wing and 60.0% of those who were supporters of other political views.

Discussion

Our study sought to identify the attitudes of intensive care nurses towards the distribution of intensive care beds in Turkey. The data indicate that slightly more than half of the nurses participated in patient admission and discharge decisions in ICUs and that this increased with the length of their professional experience. Similarly, it has been reported that 'more experienced nurses may challenge what they've been told by the doctor' when making discharge decisions,[6] and that physicians pay more attention to more experienced nurses' views.[26] In addition, it has been noted that experienced nurses who have critical thinking ability expect to make good clinical decisions.[27]

Medical benefit ranked first in deciding if a patient should be admitted to the ICU. This finding suggests that the nurses were successful in fulfilling the duty of justice according to which the distribution of intensive care resources should be guided by the principle of medical benefit.[22,24,28] This ranking (Table 3) matched the first step of the four quadrants model of ethical decision making and contributed to the determination of medical indications.[24] (In the other part of this study we examined physicians' preferences and found that they sometimes rank social benefit higher than medical benefit.[23]) The present result showed the importance of the patient advocate role for Turkish nurses.

However, the nurses' decisions concerning patient admissions suggested that they did not implement these medical benefit criteria in their decision-making procedures, and also that quality of life (the third step in the four quadrants model) was not taken into account. The highest number of nurses said they would admit to the single empty bed in the ICU the terminally ill multiple sclerosis patient, who had the lowest quality of life, being bedbound and on a ventilator, and unable to meet her own physical needs, including nutrition (patient 6). Even though, in this case, one could argue that an iatrogenic event significantly influenced the admission decisions, the fact that nurses placed the patient who was in a chronic vegetative state (patient 1) and whose quality of life was below the minimum,[24] in fourth place, reinforces concerns that quality of life criteria were ignored (Table 2). This result was contradictory to Ferrand et al.'s study, in which nurses gave more weight to patients' quality of life.[29]

The published literature suggests that quality of life should not be the sole criterion guiding admission and discharge decisions because it may lead to discrimination. On the other hand, in the quality-of-life quadrant, the objective quality-of-life criteria defined by Jonsen et al. explain cases in which treatment is futile. In the four-quadrant model of ethical decision making, the futility of treatment is defined according to medical indications and quality of life, and this evaluation contributes to a fair distribution of resources per se.[24]

Nurses tend to rank medical benefit and quality of life highly, but ignore them when discussing cases. This finding suggests a weakness in the practical clinical ethics training delivered to nurses. If ICU nurses learned skills of clinical ethical decision making, they could better fulfil their commitment to justice in the distribution of resources in their workplace.

A further finding was the nurses' opinion that physicians' assessment of quality of life counted more than that of the patient (Table 3). This result suggests that the second step of the four quadrants model of decision making, namely, patient preferences, was not sufficiently considered. It is alarming that nurses put second on the admission list the patient who had a living will indicating refusal of life support (Table 2: patient 5). This choice contradicts the traditional role of nurses as patients' advocates and could violate patient autonomy. It suggests that patient choices are not given due consideration in allocation decisions and gives rise to concerns about distributive justice. Despite the ethical obligation of the medical staff to honour patients' living wills[30,31] and the definition of the right to refuse treatment in the national Bill of Patients' Rights,[14] the legislation on this issue still falls short. Here again, the solution may be to improve the training of ICU nurses on advance directives and their ethical duties in ICUs. (This necessity even improves the findings if the physicians' part of the study is taken into account. We found that the patient with the living will was the one most preferred by the Turkish physicians and, therefore, the patient advocate role of Turkish nurses becomes more important.[23])

The fourth and final step in the four quadrants decision-making process is about environmental factors. It is generally not accepted as fair to consider social and environmental aspects of patients as criteria in the distribution of scarce resources, other than in exceptional circumstances.[22,24,28] However, as shown in Table 3, the Turkish nurses took into account factors such as family dependency, patient's age, previous mental or psychiatric history, and the social and economic burden of treatment on the family, albeit at a limited level.

A welcome outcome of the study was that patients' lifestyle and social status, factors that could bias decision making and cause discrimination, were not ranked highly by the ICU nurses. A previous study had already indicated that nurses did not rank highly the social benefits of the distribution of scarce resources.[32] Nevertheless, the more frequently nurses made triage decisions, the more highly they ranked patients' social status. As it is unethical to consider social status as a criterion in triage decisions, except during wars and disasters,[28] it may be appropriate to include triage as part of nurses' ethics training.

Furthermore, the nurses stated that social benefits and burdens were relevant in admission decisions (Table 3) and more than half said that treatment should contribute to scientific research. This latter statement raises concerns that patient care could be compromised for the sake of scientific progress.[33] It also suggests a conflation of

professional ethics with personal values because nurses who called themselves left-wing tended to rank this factor significantly more highly. These results suggest that intensive care staff should also be informed about the principles of research ethics during their ethics training, which would help them to be aware of their own values.

ICU nurses with more than eight years' experience ranked highly whether the patient could afford intensive care services, although those employed for a shorter period of time ranked highly whether or not the patient had previously benefited from life-saving treatment. Nurses who described their political views as left wing ranked this factor less highly. Furthermore, only a few nurses (and physicians[23]) tended to rank highly whether the patient had been previously hospitalized, which may have caused discrimination against some patients.

Most of the nurses decided not to discharge existing patients to allow the young patient with acute respiratory failure to benefit from intensive care resources. This could mean that the nurses were inclined to apply the 'first come first served' rule in the distribution of intensive care resources, which is an acceptable criterion unless treatment is futile.[34] This result could also be interpreted as nurses being reluctant to stop treatment, as generally noted in health care professionals.[30,35]

The tendency of more than half of the intensive care nurses not to discharge the patient with brain death, whose parents intended to donate his organs, was interesting because they preferred to save prospective patients' lives. This result also suggested that the nurses applied the Regulation on Organ and Tissue Donation, which states that 'medical support can only be discontinued if relatives of the patient approve it after brain death of the patient is declared to them'.[36]

The fact that nurses would discharge the patient with multiple organ failure suggests that they did not evaluate this patient's expected quality of life in discharge as in admission decisions.

Lastly, the nurses' decisions were not affected by their religious beliefs, which were inevitably related to end-of life decisions. However, their political stances affected both admission decisions and criteria preferences. For instance, admission decisions concerning the patient in a vegetative state suggested that right-wing nurses considered sanctity of life more than left-wing nurses. For the factor concerning scientific development, the result suggested that left-wing nurses considered societal benefit more than right-wing nurses; however, previous hospitalization was considered more by right-wing nurses. Although there is insufficient information to generalize, the results suggested that nurses should be better educated about how their values and beliefs could affect their professional decisions.

Conclusion

To sum up, although the new recommendations of the Turkish Intensive Care Nursing Association defined the role of nurses in admission/discharge decisions, more than half of the experienced nurses in this study were already participating in those decisions in ICUs.

In admission/discharge decisions the nurses considered social as well as medical benefit factors as relevant to the first and fourth steps of the four-quadrant model. As hoped, they ignored criteria that cause discrimination. However, the results also suggest that the nurses could ignore patients' preferences (autonomous choices) and quality of life steps. As a useful and practical model, the four-quadrant decision-making process facilitates respecting the autonomous choices of patients and advocating their rights.

In nursing ethics education, students should become aware of their own values, beliefs and biases that could affect their preferences and decisions. In addition, ethical decision-making training would contribute to fulfilling the duty of being advocates for patients' rights and that of the just distribution of resources.

In addition, institutional and national ICU policies to guide nurses in ethical decision making should be established, as agreed by most nurses in Turkey.

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Conflict of interest statement

The authors declare that there is no conflict of interest.

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