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Moral issues and dilemmas in intensive care unit. The impact of pandemic: A scoping review

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Abstract

Introduction: In hospitals, and especially in the Intensive Care Units (ICU), there are constant ethical issues and dilemmas that may concern the patient, the family and the health professionals. These issues increased and intensified during the Covid-19 pandemic, further complicating the work of health workers and affecting treatment processes.

Aim: The purpose of this scoping review is to investigate and highlight the most important and common ethical issues and clinical dilemmas identified in ICUs and to investigate and clarify the role of nurses in managing such issues.

Method: The electronic databases "Pubmed", "Scopus", "Google scholar" and others were searched, as well as books and other sources, utilizing mainly articles that mentioned and related to the existence of ethical issues and dilemmas in the ICU. The articles had to concern adult population only were limited to the period 2007–2022.

Results: Ethical issues and dilemmas worldwide are mainly related to staff conflicts, disease diagnosis, level of knowledge, 'Burnout Syndrome', the application of clinostatic restrictions to patients, their movement to and from the ICU, the length of hospital stay, the patient's final life stage, patient's privacy, access to health services, staff and family cooperation, the refusal of intubation and hospitalization, and finally death within the ICU and related communication with the family.

Conclusions: The ethical problems and dilemmas in the ICU are mainly related to the relationships and cooperation among patients, family and health professionals, and also the relationships in between the ICU staff. Early identification of these problems, education, information, cooperation and the development of action protocols, are considered necessary to resolve and clarify such issues and dilemmas.

Keywords: Intensive Care Unit; Covid –19; Pandemic; Ethics; Dilemmas; Moral Issues

1 Introduction

"Ethics" is one of the branches of philosophy, which includes systematization, protection of human rights and the existence of recommendations and proposals regarding right and wrong behavior patterns [1]. 'Ethics', as a branch of philosophy, aims to find solutions concerning issues of human morality. The resolution of these problems and issues occurs by defining concepts such as "good and evil", "right and wrong", "evil and virtue" and finally "crime and justice" [2]. Thus, it is understood that there are constantly moral problems and dilemmas in daily clinical practice, and especially in intensive care units (ICUs). In addition, patients' rights, whether they can make a decision on their medical care or not, are protected along with human dignity, in relation to the applications of biology and medical sciences with the 'Oviedo Convention' [3].

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From January 2020 until today, the planet has been in an emergency due to the pandemic exacerbation of the SARS-COV-2 Pandemic (or Covid-19 pandemic). The Sars-Covid-2 virus was first found in 2019 and mainly causes the infection of the lower respiratory system. As complications, in some cases, patients may develop pneumonia or even respiratory failure, thrombosis, myocardium complications, nervous system damage, renal failure or even death [4].

Moral issues and dilemmas have always been in common inside the international scientific community and especially in the field of health sector. One of the areas of health care, which seems to be flooded with a multitude of such moral issues and dilemmas, is ICU. Some of these issues and dilemmas are linked to the risk of losing a patient's life, the ability of the medical staff to make the best possible decisions and the patient's family environment [5, 6]. The existence of ethical issues and dilemmas in the field of ICU can sometimes lead to conflicts among health staff, which have a negative effect on patients and their families and thereby leads to reducing the quality of ICU care. In addition, nowadays health professionals, and especially ICU staff, have to deal with the immediate clinical effects of the COVID-19 pandemic and also the increasingly intense ethical issues and dilemmas that are emerging and concerning the management of patients imported into ICU.

During the pandemic, from the beginning to the present day, health systems and especially hospitals have been called upon to manage a fairly large number of patients who needed intensive monitoring and treatment [7]. A typical example of a country where a multitude of ethical issues and dilemmas was observed is Italy, which was affected by the pandemic more than other countries. There were a few cases where doctors had to decide who would be introduced into an ICU, and therefore more likely to survive and whom not, a dilemma that seems to be slightly resembling those that emerge during wars. In many cases it is clear that providing mechanical respiratory support to a patient who has little chance of survival automatically deprives the opportunity from a patient with a higher chance of survival [8].

Finally, ethical issues related to the death of a patient inside the ICU can be managed by increasing communication with his family and psychological support by staff. Although patient hospitalization in ICU is itself an aggravating emotional factor for the patient's family, further parameters that affect the family are found in severe clinical conditions affecting the patient's survival. Limited communication, inadequate family support by staff, patient's limited meetings with family, prospect of supporting life care at the end of life and prohibition of visits can have indirectly negative impact on the prognosis and progression of the disease of the patient [9].

Aim

This scoping review will investigate international literature in order to highlight the most important and common ethical issues and clinical dilemmas that health professionals face nowadays working in an intensive care unit. The investigation will focus on both already pre-existing issues and those who first appeared for the first time or intensified during the development of the pandemic. In addition, the role of nurses in managing such moral problems and dilemmas will be explored and clarified.

2 Methodology

A scoping review has been performed to investigate and identify the vital and most common moral issues and clinical dilemmas that nurses and physicians face in intensive care units. The research was conducted independently by three researchers in three databases: Pub Med, Scopus, Google Scholar with full-text throughout the period from 07/03/2022 to 12/05/2022. For the research, the following key words were used: Intensive Care Unit, Covid –19, Pandemic, Ethics, Dilemmas, Moral Issues. The inclusion criteria for the article selection concerned literature reviews, quality and quantitative studies full-text articles (free or not) and other scientific sources that were published during the period 2007-2022, focused on clinical moral issues and dilemmas in ICUs and concerned only adult patients.

Applying the inclusion criteria and using the keyword, a total of 1102 articles identified, all of the 3 selected data bases. In particular, 925 articles were published between 2007 - 2022 and 177 excluded. From 925 articles, 132 open access articles were excluded, remaining 793 articles, of which 500 involved only adult patients. In the second phase, 380 of 500 articles detached under title and were excluded, having 120 selected articles. From 120 articles and studies, 98 articles did not satisfy the purpose and aim of this scoping review, including 22 studies. Finally, 30 articles and studies included and used in this scoping review [see flow chart subsequently, Figure 1].

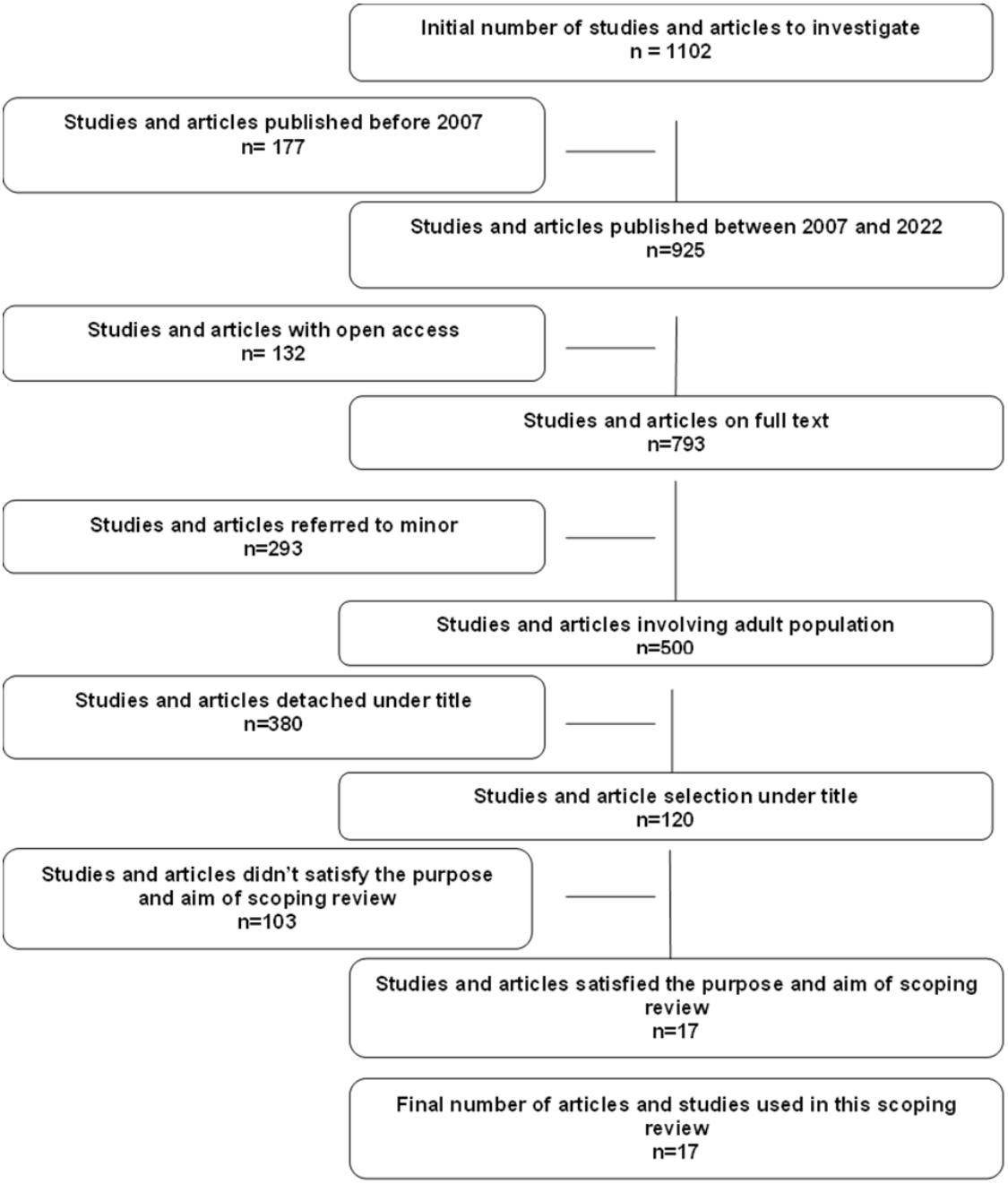

Figure 1 Flow chart according to the method-proposal PRISMA 2009

3 Results

3.1 Moral conflicts between medical and nursing staff

Azoulay et al searched in 2009 397 ICUs from 29 countries worldwide, making it known that 71.6% of respondents located the existence of moral disagreements, mainly between nursing and medical staff. The disagreements found are mainly related to work behavior and decisions about the dying patient [10]. These moral conflicts and disagreements are the cause of the occurrence of inappropriate verbal discourses, which may have a negative impact on patient safety. [11] It is for this reason that it was considered necessary to develop and adopt common patterns of behavior for staff within the ICUs (Table 1) [12].

Table 1 JCI recommendations for no proper behavior patterns management [12]

1.	Staff educations on common accepted behavior patterns, as an organization set
2.	Applying and observing staff's behavior patterns
3.	Developing and applying policies in order to: • Eliminate tolerance about inappropriate behavior • Develop completed policies for doctors and nurses • Eliminate revenge behaviors
4.	Protect and advocate patients and their families who face inappropriate behaviors Staff's discipline
5.	Battle the incorrect behavior patterns with contribution of doctors, nurses, administrative and all other staff Education
6.	Assessment of staff's awareness about inappropriate behavior patterns and patients' safety
7.	Develop observation and recording systems for bad behavior patterns in order to be detected on time
8.	Support observation systems with strategies, focusing on staff's discipline
9.	Bring in interventions that will satisfy all the staff
10.	Develop and conduct cross – disciplinary conversations
11.	Record all efforts that aim to behavior changes

3.2 Moral issues and Knowledge

Hawley G., in a book published in 2007 in London UK, says that one of the most common causes that contributes to the emergence of moral dilemmas is the absence of appropriate cognitive background by the health staff of ICC [13]. The knowledge deficit can be significantly reduced by the benefit of proper training of staff in order to recognize and deal in time WITH the moral concerns that occur [14]. In addition, other causes are clarified that appear to lead to the disturbance of moral balances within the ICUs (Table 2) [13].

Table 2 Factors and problems that can evoke moral issues [13]

1.	Problems that down to knowledge deficiency
2.	Problems that down to authority
3.	Problems that emerged from 'Ethics' principles and standards
4.	Problems that down to lack of sensitization about moral issues
5.	Problems because of incorrect behavior patterns
6.	Problems because diversity of opinions
7.	Problems that come up from verbiage of different believes and opinions

3.3 Moral issues and 'Burnout Syndrome'

In ICUs one of the most common problems medical and nursing staff face is the 'Burnout Syndrome'. Burnout Syndrome, according to a study in France in 2007, amounts to 46.5% of health staff. This has an impact on the psychological and emotional state of the ICU staff, which brings inappropriate health care in combination with the absence of adequate rest and depression symptoms [15]. Positive correlation also arose in the research of Teixeira et al in Portugal in 2013 and decision-making in patients in the final stage of their lives, was the main cause (end-of-life issue) [16].

3.4 Moral reflections on the application of restrictions to patients

ICU nursing staff faces ethical dilemmas related to measures and decisions on the natural restrictions of hospitalized patients17. The qualitative study conducted by Yont et al involved 55 ICU nurses from two hospitals in Turkey. The restrictions on patients were mostly applied following decisions taken by the nurses of the unit, as they undertake most of their provided care [17]. The purpose of the application of natural restrictions on patients was to prevent injuries due to bed fall (25.4%) and to prevent possible self-injury (25.4%). The goal of the two purposes above was the maintenance of calm mental health (13.9%), the avoidance of patients to remove medical equipment (18.5%), ensuring correct posture (3.8%) and finally the smooth administration of drugs (13%). However, as shown in Table 3, nurses sometimes had difficulty in implementing physical restrictions on patients (36.4%), facing moral dilemmas that are part of the basic principles of 'ethics'. More specifically, these moral dilemmas are mostly related to the principle of not hurting (76.4%), maintaining a patient's well-being and comfort (45.5%), respecting the uniqueness of the patient's personality (18.2%) and finally maintaining patient freedom (9.1%) (Table 3) [17].

Table 3 Moral issues that nurses face during applying physical restrictions on patients [17]

	n	**%**
Difficulty in making decision		
Yes	20	36.4
No	35	63.6
Moral Issues during applying physical restrictions$^{\alpha}$		
Applying bad and harmful measures	42	76.4
Effectiveness and Comfort / Convenience	25	45.5
Respect of patient's personality	10	18.2
Assurance patient's autonomy principals	5	9.1

α More than one answers were recorded

3.5 Moral issues in relation to the duration of hospitalization and the time of exit from ICU

Ethical issues were also highlighted by the qualitative study of Oerlemans et al that took place in Germany in 2015 and concerned the time in which the patient should be introduced into the ICU, time of hospitalization and finally the time that the patient is discharged from the Unit. During hospitalization, the problems concerned interruption of treatment, patients' access to specific treatments, as well as the management of patients who were in the final stage or were in stable condition and received life support treatment. In addition, concerning exit from the ICU, the main problem was found in whether the patient had actually fulfilled all the exit criteria and was not a rushed decision [18].

3.6 Moral issues during patients End–of Life

Major clinical dilemmas should also be regarded as those concerning the patient's final stage before dying ('End-of-Life Issues') [19-21]. With the implementation and utilization of new technological achievements in ICUs, the life expectancy of patients has been significantly extended. However, medical and nursing staff is called upon to eliminate problems such as patient prognosis, inadequate or inappropriate relief, application of non -beneficial interventions, etc. An important factor that also causes moral doubts to the nursing staff is the existence of septic conditions in patients, thus making it even more difficult to provide sufficient care. At the same time, more medical issues emerge, including the confidence of the nursing staff, the disagreements about the therapeutic plan, the inability to cooperate and the absence of sufficient support for the patients by the nursing stuff [21]. It should be considered an unchanging prerequisite to defend the degree of autonomy, personal rights and independence of both the patient and the family as concerning their wish to continue treatment and care, even if it is considered clinically unnecessary [19, 20].

3.7 Privacy, Communication Ties, Cooperation and Access to Health Services

In a qualitative study conducted by Fernandes and Moreira in Portugal in 2012, it appeared that some of the moral dilemmas in ICUs are closely linked to the decisions taken regarding the patient ending up. In addition, deficiency of group spirit among staff, patient autonomy, patient/family communication, and difficulty accessing all health services are factors that can cause ethical issues in ICU [19, 21]. Especially in ICUs, patients' autonomy is limited below the greatest possible extent, concerning mainly nurses that do not adequately respect their privacy. In general, in an ideal

anthropocentric model of health services, the patient and family's rights to participate as much as possible in the care planning and having access in objective information and direct communication with staff, must be respected by all means. However, quite commonly, these communication channels are disturbed in ICUs, as the conscious patient and his family are not substantially involved in the decision-making process and adequately informed, concluding in increasing moral problems and conflicts [21].

3.8 Death in ICU and communication with the family

Another common problem found worldwide in ICUs concerns the communication and meetings of patients with their families [22]. A study conducted by Piscitello et al in Orlando Florida, THAT INCLUDED 131 ICU patients, highlighted the varied and significant fluctuations in time from the first day of admission to the patient-family first meeting day. The average time for family meetings with the patients, who were finally discharged, was 4 days from the day of admission. In addition, out of the 43 patients who had to be hospitalized for more than 7 days, 17 (40%) of them had not recorded any family meeting although they had a burdensome and critical state of health [22]. Regarding patients who ended up during their ICU hospitalization, out of 55 patients, 39 of them (71%) had a timely meeting with their family, while 54, almost all of them (98%) had a meeting with the family at some time, focusing in two cases in their upcoming death. Out of the 76 patients who survived, it appeared that 53% (40 patients) who had no communication and meetings with their family had a triple risk of dying than the patients who hadn't come into contact with their families during the first 72 hours of their hospitalization [22]. However, the survival and prognosis of hospitalized patients in ICUs can be significantly affected by the degree of satisfaction of the patient's family regarding the quality of provided care. In a German survey of Schwarzkopf et al in 2013, it appeared that family satisfaction is negatively affected by the configuration, structure and environment of ICU [23]. Sticker et al in Switzerland in 2009 showed that the absence of support and integrated family information contributes negatively to equally [24]. At the same time, in the Fumis et al survey in Portugal in 2008, it was also shown that the family has a negative impact on the potential of the disease, the limited ability to approach doctors and the conflicts emerging among the associates [25]. Another study by Fridh et al in Sweden in 2009, stresses that both the prevalence and deprivation of the family from standing next to their loved one dying, have a remarkable impact [26].

3.9 Family and patients' refusal to intubation

Refusal of intubation and hospitalization by patients and their families is not a frequent and familiar phenomenon in ICU. Although the incidence of such cases remains low, in recent days and especially in the era of the Covid-19 pandemic, such incidents have been observed although haven't been formulated yet in official investigations. Indicative examples appeared in Great Britain, where patients have argued that intubation would provoke potential adverse reactions or even cause their death. Focusing on the Greek data as of 2021, there were equally individual cases of denial of hospitalization and intubation, as an incident of a 54-years old female patient, who due to personal perceptions of the pandemic, refused to be intubated and subsequently lost her life because of the complications she had from covid-19 [27, 28].

3.10 Moral issues that intensified or arose during covid-19 pandemic

A qualitative survey of Seino et al in Japan published in 2021, included 189 health professionals with zero up to 21 years of experience in ICU [29]. Health professionals had to deal with the moral problems concerning patients hospitalized in ICUs that arose increasingly intense than the past. The problems consisted mainly of collective and mutual decision-making issues between family and health professionals (37.7%), restrictions on care (34.6%), absence or limited psychological support to the family (31,9%), inadequate psychological support to the staff (28.8%), lack of relief care for the patients (27.7%), limited decision-making within the scientific team (26.2%) and finally making decisions along with the patient himself (22.5%) [29]. Another major factor that causes moral problems and occurred mainly in the past but is still present, is the significantly limited availability of hospital resources and health materials (availability of beds, intubation accessories etc.) [30]. Moreover, a frequent problem in the era of the pandemic is the fact that many hospitalized patients died without having a relative or family person next to them at their final hours. Finally, regarding front-line health professionals, reflections were found in their social and family contacts, as the combination of social/personal life and simultaneous work in hospital can lead to further spread of the covid-19 virus [30].

Table 4 (Pivot) Aggregated results presentation

Author Country Year	**Method Participants**	**Aim**	**Results**
Embriaco et al, 2007, France	Quality Study 189 ICUs in France	Record the frequency of factors which foster the appearance of Burnout Syndrome	ICU stuff face higher Burnout Syndrome percentages, with organization issues being associated with the Syndrome
Fumis et al, 2008, Brazil	Perspective Quality Study 164 patient families in ICU	Investigate correlation between family's satisfaction and briefing	Providing non -clear information on possible complications of the disease, inappropriate information from the doctors and the reduced possibility of meeting with the doctors are factors that cause frustration to families
Fridh et al, 2009, Sweden	Quality Study concerning 17 close relatives of 15 patients in ICU	To estimate relatives' experience about ICU care and environment, especially when the patient dies in the ICU	There were 7 categories that referred to the fear of human loss, confidence in care, vigilance, adaptation and effort to understand, address death, privacy and teamwork and finally reconciliation
Stricker et al, 2009, Switzerland	Quality Study 1.132 family members, friends and comrades	Assess family's satisfaction and detect factors that can make it better	Analyzing 996 questionnaires, aroused that care, given information and decision making had positive impact to satisfaction. Nevertheless, lack of care cooperation and limited communication had negatively association with satisfaction
Romano et al, 2009, N.Y.-U.S.A.	Quality Study Adult patients in ICU at Columbia University Medical Center in N.York	Describe the meaning of obligated moral councils	168 councils were conducted, and 108 of them were mandatory
Saxtom et al, 2009, Missouri-U.S.A.	Systematic literature review	Review knowledge about the impact of nurses and doctors abuse behavior to patient safety	All articles featured the frequency of verbal behavior
Azoulay et al, 2009, France	Cross Sectional Study 7.498 healthcare workers, 323 ICU from 24 countries	Record the frequency, characteristics and risk factors that arise conflicts	Most common conflicts were between nurses and doctors and among nurses themselves. Lack of correct communication, distrust, aggressive and work strain were the main causes
Ulrich et al, 2010, U.S.A.	Quality Study 1000 ICU nurses from 4 different cities in U.S.A.	Describe type, frequency and stress levels in nurses who faced moral dilemmas	Protection of patients' rights, autonomy and information about care plan, care design and making decision are vital stress factors
Teixeira et al, 2013, Portugal	Quality Study 218 ICU nurses and 82 ICU doctors	Define the levels of Burnout Syndrome and factors that provoke its appearance	Decision making, work and activities beyond work contribute to the development of Burnout Syndrome

Fernandes et al, 2013, Portugal	Quality Study 15 ICU nurses from 4 hospitals	Detect of every day clinical moral dilemmas and issues that nurses face	End of life decisions, privacy, interaction, team work and health system access are responsible for moral dilemmas and issues
Schwarzkopf et al, 2013, Germany	Perspective Cohort Study 218 families participated, who had meetings with their hospitalized relatives in ICU	Assess ICU patients' family satisfaction and find measures to improve it	Patients' concern, quality of given information, mental support, respect, limited visiting and ICU environment are negative factors for families' satisfaction level
Yont et al, 2014, Turkey	Quality Study 55 ICU nurses	Detect attitudes about moral issues that nurses faced as physical and bed restrictions to patients	Nurses mentioned that 36,4% had difficulty in applying physical restrictions, as they feared it opposed to 'Ethics' principles
Oerlemans et al, 2015, Germany	Descriptive – Quality Study Nurses and Doctors from 10 German hospitals	Transcribing of moral issues regarding to patient acceptance in ICU and their exit	Problems are mainly detected to capacity problems in ICU and care planning decisions
Salins et al, 2016, India	Literature review Patients hospitalized in ICU	Investigate the factors that have negative impact to family satisfaction	Communication, family meetings, care at the final stage of life and the ICU environment spill over into family's satisfaction
Rainer et al, 2018, USA	Literature Review	Record the obstacles that do not allow correct strategy development for making decision, from the nursing staff	Dilemmas concern patients' end of life, conflicts between doctors and families and patients' privacy
Piscitello et al, 2019, U.S.A.	Cohort Study Adult patients in ICU at Academic urban medical center	Listing communication time between patients and families from patient acceptance's time in ICU	The mean time of family and patient communication was 4 days. 46% of them had meetings that happened within 73 hours from ICU acceptance
Seino et al, 2021, Japan	Quality Study 10.767 registered members in Japan ICU Association	Understood ICU moral issues and dilemmas during covid 19 pandemic	189 questionnaires were analyzed by members involved in the care of patients with COVID - 19. The dilemmas and issues that appeared concerned decision -making along with families, restrictions on supporting care, lack of relief and absence of mental support for patients and families

4 Discussion

This scoping review included all kinds of studies and scientific books searched for clinical dilemmas and ethical issues in Intensive Care Units. It is proven that the fields of 'ethics' and 'bioethics' have had a significant impact on health services for many years. Worldwide health crises, however, could be considered one of the release factors for rising or increasing moral problems in ICU.

The cooperation of nursing and medical staff is considered an integral part of holistic care to the patients. Furthermore, the preservation of noble competition and harmony within the group is considered necessary for the promotion of the services provided. However, the percentage of health professionals who do not apply mitigation measures, such as the acquisition of common lines and professional behavior standards, is quite high. The deficit of knowledge, as one of the

main etiological factors, is equally linked to this issue, which is an important stimulus for holistic education of health professionals and especially on moral issues [12-14].

'Burnout syndrome' concerns the highest proportion of nursing staff, and in particular ICU nursing staff. All studies recorded a positive correlation between the syndrome and the onset of moral issues, and therefore between the inappropriate and proper care of patients. In addition to psychological and physical fatigue, decisions on the final stage of life act cumulatively with 'Burnout syndrome' by cultivating ethical issues and dilemmas in ICU [15, 16].

Applying bed restrictions on patients is one of the most difficult decisions that nurses are called upon to make. As it became known, the difficulty of applying restrictions is mainly linked to the principle of ensuring the patient's well-being and comfort. However, it has been shown that the most common and important reasons for such decisions are preventing bed decline, self-injury, clinical complications and insufficient compliance with the medical components that have been placed [17].

Regarding the duration of patients' hospitalization, the most common issues observed are linked to the duration of treatment, the final stage of life and the personal rights of patients, especially for equal access to health services and specialized departments such as ICUs. Basically, although there are specific conditions to be met, it has been shown that the reflection on whether patients meet all exit criteria causes remarkable ethical issues in ICU [18]. The moral reflections associated with the final stage of patients' lives have appeared to be usually arising from the lack of adequate relief and application of medical and nursing unnecessary interventions to patients. However, the moral dilemmas also concern the health professionals themselves, such as the absence of cooperation, personal skills and best possible decisions for the patient himself and his family [19-21].

An integral and irrevocable right of all patients, including those hospitalized in ICUs, is their privacy, but the organization and structure of ICUs cannot fully guarantee this right. Difficulties are also observed in the involvement of the family and the patient himself in the design of treatment and care, access to valid and objective information and the encouragement of the family through essential communication between relatives and ICU staff [21].

Communication between hospitalized patients and their families is a critical factor in prognosis and course of disease and duration of hospitalization. Patients who had direct communication and contact with their families presented shorter hospitalization and subsequently better overall health condition, as opposed to patients who had no contact with their family and had to be hospitalized for longer. The absence of adequate communication within the first 72 hours of introduction appeared to increase the risk of poorly evolving the patient's health and poor prognosis. On the contrary, on patients who ended up during their hospitalization, the largest proportion had maintained satisfactory ties of communication with their families, focusing on the debate concerning the upcoming death[26].As a matter of fact, death inside the ICU appeared to be affected by the degree of the family satisfaction, which has proven to be plagued by a variety of medical and non-medical agents. In addition, although not common and regular, the refusal of accepting medical services by patients or their families has created strong ethical concerns to the scientific community. Finally, the absence of objective and integrated information may further exacerbate this issue [22, 24-28].

Furthermore, it was shown, during the pandemic, that the main ethical issues were linked to lack of health materials, joint decisions either within the scientific team or the family, restrictions on care, psychological support of the family, staff communication and complications concerning the social/personal life of nurses and doctors. Issues that pre-existed the pandemic but yet intensified because of it, most of all revealed, in this regard, the need for prospect of analysis and timely resolution with the ultimate goal of preserving patients' interests and well-being as well as the improvement of Health systems in general [29, 30].

In the present bibliographic review, there are some limitations which concern its results. The first limitation is found in empirical surveys that met the selection criteria. Studies published in a language other than English and Greek were not included and the literature search period was from 2007 to 2022. Moreover, the researchers had to limit the databases to the minimum suggested number of three. Additionally, as this was a scoping review no meta-analysis of the review took place, resulting in several potential biases emerging in terms of deriving and generalizing the conclusions.

5 Conclusion

'Ethics' and 'Bioethics' are an important and integral part of medical and nursing science. In ICUs, staff is responsible not only for the clinical treatment of the diseases, but also for resolving serious and sometimes inevitable ethical issues that are most commonly associated with, conflicts between medical and nursing staff, level of knowledge, 'Burnout Syndrome', application of restrictions on patients, duration of hospitalization, communication with the family, access to

health services, refusal of intubation and hospitalization, patient's ending-of-life and final stage and others that existed equally or furthermore intensified because of the pandemic.

All health professionals must act collectively in collaboration with patients and their families and at the same time cover the potential deficits of knowledge on 'moral' issues in order to achieve fast recognition and subsequently faster reduction of these moral issues and dilemmas. Finally, the contribution of research sector is considered of major importance because it will enable further exploration of the moral issues and dilemmas occurring in ICUs and lead to developing universally accepted protocols and instructions to identify, prevent, manage and restrict these phenomena and situations for the benefit of the patients and the National Health systems worldwide.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest.

References

[1] Fieser J. Ethics. Internet Encyclopedia of Philosophy. [Available at: https://iep.utm.edu/ethics/. Last access at: 12/12/2021]

[2] Root Martinez V. More Meaningful Ethics. Social Science Research Network 2019; [Available at: https://dx.doi.org/10.2139/ssrn.3474344. Last access at: 12/12/2021]

[3] Ratification of the Council of Europe Convention on the Protection of Human Rights and Dignity in relation to Biology and Medicine Applications: Convention on Human Rights and Biomedical. June; 1902-1903.

[4] What is Coronavirus? Johns Hopkins Medicine 2021; [Available at: https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus. Last access at: 13/12/2021]

[5] Moon JY. Kim JO. Ethics in the Intensive Care Unit. Tuberc Respir Dis (Seoul). 2015;78(3): 175-179.

[6] Thompson DR, Kaufman D. Critical care ethics: a practice guide. 3d ed. Mount Prospect: Society of Critical Care Medicine 2014.

[7] Karampelias V. Spanidis Y. Roussakou E. Ethical issues in Intensive Care Unit during the COVID–19 Pandemic. Indian J Crit Care Med.2020;24(9): 855-856.

[8] Rosenbaum L. Facing COVID-19 in Italy -ethics, logistics, and therapeutics on the epidemic's front line. N Engl J Med. 2020;382(20): 1873–1875.

[9] Salins N. Deodhar J. Muckaden MA. Intensive Care Unit death and factors influencing family satisfaction of intensive care unit care. Indian J Crit Care Med.2016;20(2): 97-103.

[10] Azoulay E, Timsit JF, Sprung CL, Soares M, Rusinova K, Lafabrie A, et al. Prevalence and factors of intensive care unit conflicts: the conflicus study. Am J Respir Crit Care Med. 2009;180: 853–860.

[11] Saxton R, Hines T, Enriquez M. The negative impact of nurse-physician disruptive behavior on patient safety: a review of the literature. J Patient Saf. 2009;5: 180–183.

[12] The Joint Commission. Behaviors that undermine a culture of safety. The Joint Commission, 2008. [Available from: http://www.jointcommission.org/SentinelEvents/SentinelEventAlert/sea_40.htm. Last access at: 03/01/2022]

[13] Hawley G.(2007). Ethics in clinical practice: An interprofessional approach. Edinburgh: Pearson Education; 45–49. [Available from: https://books.google.gr/books?id=RglfBxhfx14C&printsec=frontcover&hl=el#v=onepage&q&f=false. Last access at: 29/01/2022]

[14] Romano ME, Wahlander SB, Lang BH, Li G, Prager KM. Mandatory ethics consultation policy. Mayo Clin Proc. 2009;84: 581–585.

[15] Embriaco N, Azoulay E, Barrau K, Kentish N, Pochard F, Loundou A, et al. High level of burnout in intensivists: prevalence and associated factors. Am J Respir Crit Care Med. 2007;175: 686–692.

[16] Teixeira C. Ribeiro O. Fonseca AM. Carvalho AS. Burnout in intensive care units – a consideration of the possible prevalence and frequency of new risk factors: a descriptive correlational multicentre study. BMC Anesthiology.2013;13(38)

[17] Yont GH. Korhan EA. Dizer B. Gumus F. Koyuncu R. Examination of Ethical Dilemmas Experienced by Adult Intensive Care Unit Nurses in Physical Restraint Practices. Holistic Nursing Practice.2014;28(2): 85-90.

[18] Oerlemans AJM. Leeuwen ESJ. Wollersheim H. Dekkers WJM. Zegers M. Ethical problems in intensive care unit admission and discharge decisions: a qualitative study among physicians and nurses in the Netherlands. BMC Med Ethics. 2015;16(9).

[19] Rainer J. Kraenzle Scheider J. Lorenz RA. Ethical Dilemmas in nursing: An integrative review. Journal of Clinical Nursing.2018; 27(19-20): 3446-3461.

[20] Ulrich MC. Taylor C. Soeken K. O'Donnell P. Farrar A. Danis M. Grandy C. Everyday Ethics: Ethical Issues and Stress in Nursing Practice. J Adv Nurs.2010;66(11).

[21] Fernandes MID. Moreira IMPB. Ethical issues experienced by intensive care unit nurses in every day practice. Nursing Ethics.2012;20(1): 72-82.

[22] Piscitello GM, Parham WM, Huber MT, Siegler M, Parker WF. The timing of family meetings in the Medical Intensive care unit. Am J Hosp Palliat Care.2019;36(12): 1049-1056.

[23] Schwarzkopf D, Behrend S, Skupin H, Westermann I, Riedemann NC, Pfeifer R, et al. Family satisfaction in the intensive care unit: A quantitative and qualitative analysis. Intensive Care Med. 2013;39: 1071–9.

[24] Stricker KH, Kimberger O, Schmidlin K, Zwahlen M, Mohr U, Rothen HU. Family satisfaction in the intensive care unit: What makes the difference? Intensive Care Med. 2009;35: 2051–9.

[25] Fumis RR, Nishimoto IN, Deheinzelin D. Families' interactions with physicians in the intensive care unit: The impact on family's satisfaction. J Crit Care. 2008;23: 281–6.

[26] Fridh I, Forsberg A, Bergbom I. Close relatives' experiences of caring and of the physical environment when a loved one dies in an ICU. Intensive Crit Care Nurs. 2009;25: 111–9.

[27] The Washington Post. Ventilators were embraced as pandemic lifesavers. Now, some covid patients wrongly fear the machines will kill them.2021;[Available at: https://www.washingtonpost.com/world/europe/ventilators-killing-covid-patients/2021/03/15/7115e4e8-7611-11eb-9489-8f7dacd51e75_story.html. Last access at: 01/02/2022].

[28] "The Daily". District attorney for intubation refusal.2021; [Available at: https://www.kathimerini.gr/society/561485899/eisaggeleas-gia-tin-arnisi-diasolinosis/. Last access at: 01/02/2022].

[29] Seino Y. Aizawa Y. Kogetsu A. Kato K. Ethical and Social Issues for Health Care Providers in the ICU during the Early Stages of the COVID-19 Pandemic in Japan: a Questionnaire Survey. Asian Bioeth Rev.2021;1-17.

[30] Nelson SE. COVID – 19 and Ethics in ICU. Crit Care.2020;24: 519.