

# Health Care Providers' Attitudes Toward Do-Not-Resuscitate Order in COVID-19 Patients: An Ethical Dilemma in Iran

OMEGA-Journal of Death and Dying  
2021, Vol. 0(0) 1–11

© The Author(s) 2021

Article reuse guidelines:

[sagepub.com/journals-permissions](https://sagepub.com/journals-permissions)

DOI: 10.1177/00302228211057992

[journals.sagepub.com/home/ome](https://journals.sagepub.com/home/ome)



Seyedmohammad Mirhosseini<sup>1,2</sup> , Seyed Shahrokh Aghayan<sup>3</sup>,  
Mohammad Hasan Basirinezhad<sup>4</sup>, and Hossein Ebrahimi<sup>5</sup>

## Abstract

This study aimed to investigate the health care providers' attitudes toward the Do-Not-Resuscitate order (DNR) in COVID-19 patients. This study was conducted on 332 health care providers (HCPs) at the COVID-19 referral hospital in Shahroud, Iran by convenience sampling method. The study tools included a demographic information form and the DNR attitude questionnaire. Significance level was considered 0.05 for all tests. The mean scores of attitudes toward DNR order, the procedure of DNR, some aspects of passive euthanasia, and religious and cultural factors were  $25.27 \pm 2.78$ ,  $40.61 \pm 5.99$ ,  $11.26 \pm 2.51$ , and  $6.12 \pm 1.27$ , respectively. The death of relatives due to COVID-19 and female gender were associated with high and low scores of attitudes toward DNR order, respectively. Extended working hours and more work experience

---

<sup>1</sup>Nursing and Midwifery Care Research Center, Mashhad University of Medical Sciences, Mashhad, Iran

<sup>2</sup>Department of Psychiatric Nursing, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran

<sup>3</sup>Department of Clinical Sciences, School of Medicine, Shahroud University of Medical Sciences, Shahroud, Iran

<sup>4</sup>Department of Epidemiology and Biostatistics, School of Public Health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

<sup>5</sup>Center for Health Related Social and Behavioral Sciences Research, Shahroud University of Medical Sciences, Shahroud, Iran

## Corresponding Author:

Hossein Ebrahimi, Center for Health Related Social and Behavioral Sciences Research, Shahroud University of Medical Sciences, 7th Sq, Shahroud 9137913199, Iran.

Email: [ebrahimi@shmu.ac.ir](mailto:ebrahimi@shmu.ac.ir)

were correlated with high scores of DNR procedure. The history of COVID-19 increased the mean score of attitudes toward some aspects of passive euthanasia. In addition, an increase in following COVID-19 news decreased the score of religious and cultural factors affecting DNR order. Despite the legal ban on implementation of the DNR in Iran, the attitude of Iranian HCPs toward this was positive in COVID-19 patients.

### Keywords

cardiopulmonary resuscitation, COVID-19, CPR, DNR, do not resuscitate

### Introduction

The high prevalence of coronavirus-related acute respiratory syndrome and the resulting high fatality rate necessitate the adoption of advanced care planning (ACP) in coronavirus disease 2019 (COVID-19) patients who have sudden cardiac arrest and require cardiopulmonary resuscitation (CPR) (DeFilippis et al., 2020). In-hospital cardiac arrest is prevalent in COVID-19 patients, and it frequently results in unsatisfactory outcomes. According to a study conducted in the United States, 14% of patients with acute COVID-19 suffered in-hospital cardiac arrest, of whom only 7% with normal or mild neurological state survived and were discharged (Hayek et al., 2020). Due to concerns about the transmission of the disease *via* aerosols to health care staff during intubation and CPR, the management of cardiac arrest in patients with COVID-19 is really complicated (Perkins et al., 2020). Before discussing the conditions during this pandemic, it is crucial to understand the patient's values and objectives. However, preventing inappropriate CPR is critical for two reasons. One reason is that not only undesired or ineffective CPR can cause psychological distress in patients' families, but also it is highly stressful and potentially dangerous for health care providers (Ornstein et al., 2017). Another reason is that ineffective or undesirable advanced cardiovascular life support (ACLS) puts pressure on health systems to use available resources to supply personal protective equipment (PPE), as successful ACLS necessitates the utilization of expert health care providers. As a result of the COVID-19 pandemic, the DNR order for appropriate inpatients has become even more critical. In three scenarios, the DNR order may be used. First, patients or their substitute decision makers (SDM) may understand and agree that if the patient's heart stops beating, s/he will not need CPR, even if the physician is directed to perform CPR. In the second scenario, patients or their SDM may choose to reject CPR by consciously following the physician's recommendation. Third, in critical cases where CPR may not be helpful, clinicians at some hospitals may issue a DNR order unilaterally (Bosslet et al., 2016; Curtis & Burt, 2007).

According to the related literature, treating patients in their final days of life has always been a conundrum for medical staff, including physicians and nurses, and

deciding whether to continue treatment in these patients is one of the most basic needs of health professionals (Peimani et al., 2012). This moral issue is viewed in a variety of ways due to the country's Islamic culture (Assarroudi et al., 2017). According to Islamic beliefs, Muslims must take the appropriate precautions to avoid premature death. However, treatments that prolong the lives of patients with low probability of survival may be terminated or not initiated (Hatzinikolaou, 2003). On the other hand, treatment procedures should not hasten death. As a result, feeding should not be discontinued because it hastens the patient's death, which is considered a sin in Islam. The decision to stop unsuccessful treatment should have no impact on the natural course of death. Additionally, the treating physician should make this decision based on informed consent, conversation with the patient and his/her family, and the medical team (Daar & Khitamy, 2001). It should also be noted that euthanasia is completely prohibited (Ahaddour et al., 2018). Since people's beliefs influence their behavior, the medical staff's attitudes toward DNR may have an impact on their caring activities (Petty & Krosnick, 2014). Some previous research performed in Iran revealed an unfavorable view about the DNR order (Fallahi et al., 2016; Mogadasian et al., 2014).

Due to the high mortality rate of COVID-19 in Iran and the urgent need to resuscitate COVID-19 patients, treatment professionals may be more concerned with the moral problems of the DNR order compared to pre-pandemic era. Implementation of the DNR order in Iran is prohibited under legal and religious principles. On the other hand, the observance of religious and legal principles in the implementation of the DNR order in Iran is in conflict with the observance of ethical principles in this field (Cheraghi et al., 2016). As a result, due to a lack of relevant studies in Iran, the current study aimed to explore the attitudes of medical staff toward the DNR order in COVID-19 patients.

## Method

The current cross-sectional study included 332 health care staff (treatment staff and clinical medical science students) from Shahroud University of Medical Sciences, Iran in 2021. Inclusion criteria were as follows: at least 1 year of work experience in hospital, no history of addiction or mental illnesses, working or interning in hospitals during the study, and having access to the Internet and social media to complete the online surveys and exclusion criterion was repeated and unauthorized response entry. The eligible subjects were selected using the convenience sample method. Participants were notified about the study aims and procedures through WhatsApp Messenger. The participants then completed the online questionnaires generated by the porsline.ir website. Data collection was completed from February 21 to March 7, 2021. Following the participants' permission, the attitudes toward the DNR were measured using the demographic information form and a questionnaire designed by Dunn (2000) to assess attitudes towards DNR. Also, 18 responses were excluded due to repeated and unauthorized entry.

The participants completed a self-reported demographic information form including age, sex, job, working hours per month, level of education, work experience, history of

COVID-19 in individuals or their relatives, history of death among relatives due to COVID-19, and history of performing unsuccessful CPR during the COVID-19 pandemic. The information was collected using online questionnaires so as to improve access to participants and reduce disease spread.

Dunn (2000) developed a questionnaire to evaluate the attitudes toward DNR order. This questionnaire has 25 items as follows: the attitudes of medical staff toward the DNR order (8 items), the DNR procedure (12 items), the attitudes toward some aspects of passive euthanasia (3 items), and the impact of religious and cultural factors (2 items). It investigates how individuals feel about the DNR order. The response to each item is graded on a five-point Likert scale ranging from strongly disagree to strongly agree, with scores ranging from 1 to 5. The items are interpreted separately, and there is no summary of scores or a cut-off point for the tool. A higher score indicates a more positive attitude toward that item (Dunn, 2000). According to (Moghadasian et al., 2013), the reliability of the Persian version of the questionnaire was 84% after the pilot study using Cronbach's alpha method (Moghadasian et al., 2013). The internal consistency method based on Cronbach's alpha coefficient was used to assess the reliability of dimensions of attitudes on DNR order ( $\alpha = 0.70$ ), DNR procedure ( $\alpha = 0.79$ ), attitude to some aspects of passive euthanasia ( $\alpha = 0.60$ ), the effect of religious and cultural factors ( $\alpha = 0.64$ ), and the entire questionnaire ( $\alpha = 0.85$ ). According to Shojaei et al. (2016), the sample size for the current study was estimated to be 350 individuals, with a 10% error rate, a power of 85%, and a 10% probability of participants' exclusion (Shojaei et al., 2016). The following standard formula was used to calculate the sample size in current study.

$$n = \frac{z^2 * (p * 1 - p)}{d^2}$$

The data were analyzed using descriptive and inferential statistics (multivariate linear regression analysis). Significance level was considered 0.05 for all tests. The study was approved by the Ethics Council of Shahrood University of Medical Sciences (code: IR.SHMU.REC.1399.141). An online informed consent was obtained from all participants before completing the questionnaire.

## Results

In our study, 51.2% of the participants were female and 50% of them were married. The average age of participants was  $32.06 \pm 9.76$  years. Half (50%) of the participants had a bachelor's degree, with 113 (34%) reporting a COVID-19 history and 192 (57.8%) reporting an unsuccessful CPR on a COVID-19 patient during the pandemic. The participants' average working time was  $179.78 \pm 62.86$  h per month (for detailed info, see Table 1).

According to the results of this study, the mean scores for attitudes toward DNR order (range: 8–40), DNR procedures (range: 12–60), attitudes toward some aspects of

**Table 1.** Distribution of Demographic Characteristics of Participants.

Variables		Frequency	Percent
Gender	Female	170	51.2
	Male	162	48.8
Marital status	Single	166	50.0
	Married	166	50.0
Educational status	Associate	16	4.8
	Bachelor	166	50.0
	Master	50	15.1
	Ph.D. or M.D	100	30.1
History of COVID-19 infection	Yes	113	34.0
	No	219	66.0
History of COVID-19 infection in relatives	Yes	66	19.9
	No	266	80.1
Death of relatives due to COVID-19	Yes	147	44.3
	No	185	55.7
Experience of unsuccessful resuscitation of a patient with COVID-19	Yes	192	57.8
	No	140	42.2
Professional status	Surgical technologist	12	3.6
	Practical nurse	13	3.9
	Expert nurse	127	38.3
	Anesthetic	12	3.6
	Physician	90	27.1
	EMS	17	5.1
	Midwife	9	2.7
	Medical science student (medicine, nursing)	52	15.5
		Mean	SD
Age (years)		32.06	9.76
Work experience (years)		43.44	12.05
working hours (per month)		179.78	62.86
Follow about COVID-19 news (hours/day)		1.73	1.37

SD, Standard deviation; EMS, emergency medical Services

passive euthanasia (range: 3–15), and the effect of religious and cultural factors (range: 2–6) were  $25.27 \pm 2.78$ ,  $40.61 \pm 5.99$ ,  $11.26 \pm 2.51$ , and  $6.12 \pm 1.27$ , respectively (Table 2).

According to the results of the multivariate linear regression (Backward method), death of relatives due to COVID-19 and female gender increased and decreased the mean score of attitudes on DNR order by 0.879 and 0.631 units, respectively. Additionally, the average DNR procedure score increased by 0.014 and 0.019 units for each month of working hours and each year of work experience, respectively. Whereas

**Table 2.** DNR Domain Scores in the Subjects.

Domains	Range	Mean (SD)	Median (IQR)
Attitudes about the DNR order	8–40	25.27 (2.78)	25 (23–27)
Implement the DNR procedure	12–60	40.61 (5.99)	41 (37–44.75)
Attitudes toward aspects of passive euthanasia	3–15	11.26 (2.51)	12 (10–13)
Religious and cultural factors involved in DNR	2–10	6.12 (1.27)	6 (6–7)

DNR, do-not-resuscitate; SD, Standard deviation; IQR, interquartile range

**Table 3.** The Role of Independent Variables on All Domains of DNR in Multivariate Linear Regression Model by Backward Method.

Domain	Variables	$\beta$	SE	t	p value
Attitudes about the DNR order	Constant value	28.98	0.254	102.15	<0.001
	Gender				
	Male	–0.631	0.301	–2.09	0.037
	Female				
Implement the DNR procedure	Death of relatives due to COVID-19				
	No				
	Yes	0.879	0.303	2.89	0.004
Attitudes toward aspects of passive euthanasia	Constant value	38.01	1.137	33.44	<0.001
	Work experience	0.019	0.008	2.201	0.029
	Work hours	0.014	0.006	2.350	0.019
Religious and cultural factors involved in DNR	Constant value	11.49	0.169	68.08	<0.001
	History of COVID-19 infection	0.670	0.289	2.31	0.021
Religious and cultural factors involved in DNR	Constant value	6.39	0.112	57.23	<0.001
	Follow about COVID-19 news	–0.153	0.051	–3.02	0.003

DNR, do-not-resuscitate; SE, Standard error

DNR, do-not-resuscitate; SE, Standard error

having a history of COVID-19 raised the mean score of attitudes toward some aspects of passive euthanasia by 0.670 units, following COVID-19-related news lowered the mean score of religious and cultural factors by 0.153 units (Table 3).

## Discussion

According to the findings of the current study, females had a more negative attitude toward DNR than males. In this context, Jure et al. (2019) found that gender is one of the elements impacting decisions about autonomy, patient rights, and resuscitation commencement or prevention (Jure et al., 2019). In addition, Fayyazi Bordbar et al. (2019) found that gender is a significant factor in deciding on a DNR order, with male caregivers and family members of cancer patients having a more favorable attitude

toward the DNR order (Bordbar et al., 2019). In contrast to the current findings, Fallahi et al., 2016 investigated Iranian physicians' perceptions toward the DNR order and discovered that gender was not a key factor in deciding on a DNR order, and there was no association between gender and attitudes toward a DNR order (Fallahi et al., 2016). This inconsistency might be due to differences in the conditions of assessing resuscitation in patients. Furthermore, in contrast to some previous research, the current study investigated the people's attitudes toward resuscitation of COVID-19 patients.

The results of the present study showed that the history of COVID-19-related death among the relatives of health care staff was associated with a more positive attitude towards the DNR order in patients with COVID-19. In this regard, it should be noted that personal attitudes toward death and non-resuscitation may influence attitudes toward caring for critical patients. In line with this finding, a study conducted by Shi et al. (2019) in China among the health care staff revealed that the experience of caring for dying relatives and friends was one of the predictors of attitudes toward end-of-life care (EOLC), so that it had a positive impact on increasing knowledge and attitudes toward EOLC (Shi et al., 2019).

Our findings also revealed a significant and direct relationship between work experience and attitudes about the DNR order. In contrast to this finding, Naghshbandi et al. (2019) found that intensive care unit (ICU) nurses with less than 15 years of work experience had a more positive attitude toward applying the DNR order than other nurses (Naghshbandi et al., 2019). This inconsistency might be due to differences in methods used to measure attitudes toward a DNR order, a full evaluation of all opinions of the health care professionals in our study, and differences in sample size. Accordingly, experience of medical professions should be considered when making ethical clinic judgments (Borhani et al., 2017) because people with more training and experience can make better judgments in critical situations (Ebrahimiyan et al., 2014). According to Kulju et al. (2016), professional experience is a requirement for moral competence (Kulju et al., 2016).

Our results showed that working hours was a determinant factor in health care staff's attitudes toward the DNR order. In other words, higher working hours increased the likelihood of a positive attitude toward the DNR order. The low survival rate of CPR on COVID-19 patients could increase the tendency to follow a DNR in these patients (Girotra et al., 2020). The fatigue and exhaustion of health care staff due to the increase in their working hours during COVID-19 peaks may be another reason for this issue (Alsulimani et al., 2021; Khasne et al., 2020).

Based on the findings of the present study, a history of COVID-19 in health care staff was a contributing factor to a more positive attitude toward passive euthanasia. Since a significant number of participants in the present study reported a history of COVID-19, a possible reason for this finding could be the severe physical disability and weak cardiopulmonary function in the later stages of life in COVID-19 patients. Intercultural studies indicated that the unique characteristics of each culture play an important role in shaping attitudes toward euthanasia (Karumathil & Tripathi, 2020). It should be noted that, from an Islamic point of view, euthanasia and DNR order have significant

differences. All Islamic schools of thought consider all forms of euthanasia illegal and firmly prohibit them. Some Islamic scholars prohibit passive euthanasia even when the patient is not expected to recover and willingly chooses to die. Islamic countries, like Iran, do not have laws permitting euthanasia. Hence, performing any kind of euthanasia by the physician, even after getting the patient's consent, is considered a murder (Madadin et al., 2020). As a result, to avoid future legal and criminal issues, comprehensive interventions are needed to change medical staff's attitudes toward passive euthanasia in Iran during the COVID-19 pandemic.

Our findings also revealed that following COVID-19 news was an effective barrier to DNR attitudes based on cultural and religious considerations. Onwe et al. (2020) found that how online news sources handle key public topics like COVID-19 influences the audience's level of knowledge and comprehension (Onwe et al., 2020). According to the findings of a study conducted in Iran, the media is one of the most powerful means of portraying and directing societal beliefs and legislation in favor of or against euthanasia (Zahedsamimi & Aknarzadeh Jahromi, 2020).

The current research was a cross-sectional study. Further longitudinal studies exploring COVID-19 in wider dimensions are recommended. Moreover, we only evaluated the attitudes of health care staff. In future studies, it is suggested that the participants' understanding of DNR be tested using appropriate techniques. Furthermore, we only investigated the history of death among the participants' relatives due to COVID-19 and ignored assessing the provision or non-provision of EOLC to them. This issue must be investigated in future studies.

## **Conclusion**

According to the findings of this study, despite the legal ban on the implementation of DNR order in Iran, health care staff have a positive attitude toward the order. Hence, due to the existing conflict between health care staff's attitudes and religious teachings, fatwas, and laws on DNR order in Iran, measures such as educational interventions on DNR and its ethical problems during the COVID-19 pandemic should be carried out with the cooperation of a team consisting of medical ethicists, jurists, and Islamic scholars.

## **Acknowledgments**

The present study was a result of a research project approved by the research deputy of Shahroud University of Medical Sciences with the referral code of 99101. We would like to express our thankfulness and gratitude to the Health care providers and deputy of Research and Technology of Shahroud University of Medical Sciences for their contributions for conducting the study.

## **Declaration of Conflicting Interests**

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.



## Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

## ORCID iD

Seyedmohammad Mirhosseini  <https://orcid.org/0000-0002-2087-0164>

## References

- Ahaddour, C., Van den Branden, S., & Broeckeaert, B. (2018). "God is the giver and taker of life:" Muslim beliefs and attitudes regarding assisted suicide and euthanasia. *AJOB Empirical Bioethics*, 9(1), 1–11. <https://doi.org/10.1080/23294515.2017.1420708>
- Alsulimani, L. K., Farhat, A. M., Borah, R. A., AlKhalifah, J. A., Alyaseen, S. M., Alghamdi, S. M., & Bajnaid, M. J. (2021). Health care worker burnout during the COVID-19 pandemic. *Saudi Medical Journal*, 42(3), 306–314. <https://doi.org/10.15537/smj.2021.42.3.20200812>
- Assaroudi, A., Nabavi, F. H., Ebadi, A., & Esmaily, H. (2017). Do-not-resuscitate order: The experiences of Iranian cardiopulmonary resuscitation team members. *Indian Journal of Palliative Care*, 23(1), 88–92. <https://doi.org/10.4103%2F0973-1075.197946>
- Bordbar, M. R. F., Tavakkoli, K., Nahidi, M., & Bordbar, A. F. (2019). Investigating the attitude of healthcare providers, patients, and their families toward "do not resuscitate" orders in an Iranian oncology hospital. *Indian Journal of Palliative Care*, 25(3), 440–444. [https://doi.org/10.4103%2FIJPC.IJPC\\_29\\_19](https://doi.org/10.4103%2FIJPC.IJPC_29_19)
- Borhani, F., Abbaszadeh, A., Mohamadi, E., Ghasemi, E., & Hoseinabad-Farahani, M. J. (2017). Moral sensitivity and moral distress in Iranian critical care nurses. *Nursing Ethics*, 24(4), 474–482. <https://doi.org/10.1177%2F0969733015604700>
- Bosslet, G. T., Kesecioglu, J., & White, D. B. (2016). How should clinicians respond to requests for potentially inappropriate treatment? *Intensive Care Medicine*, 42(3), 422–425. <https://doi.org/10.1007/s00134-015-4192-4>
- Cheraghi, M., Bahramnezhad, F., & Mehrdad, N. (2016). Experiences of Iranian physicians regarding do not resuscitate: A directed-content analysis. *Journal of Medical Ethics and History of Medicine*, 9(9), 9.
- Curtis, J. R., & Burt, R. A. (2007). Point: The ethics of unilateral "do not resuscitate" orders: The role of "informed assent". *Chest*, 132(3), 748–751. <https://doi.org/10.1378/chest.07-0745>
- Daar, A. S., & Khitamy, A. (2001). Bioethics for clinicians: 21. Islamic bioethics. *Canadian Medical Association Journal*, 164(1), 60–63.
- DeFilippis, E. M., Ranard, L. S., & Berg, D. D. (2020). Cardiopulmonary resuscitation during the COVID-19 pandemic. *Circulation*, 141(23), 1833–1835. <https://doi.org/10.1161/CIRCULATIONAHA.120.047260>
- Dunn, M. C. (2000). *Attitudes of medical personnel toward do-not-resuscitate orders*: California State University.
- Ebrahimian, A., Seyedin, H., Jamshidi-Orak, R., & Masoumi, G. (2014). Exploring factors affecting emergency medical services staffs' decision about transporting medical patients to

- medical facilities. *Emergency medicine international*, 2014, 215329. <https://doi.org/10.1155/2014/215329>.
- Fallahi, M., Banaderakhshan, H., Abdi, A., Borhani, F., Kaviannezhad, R., & Karimpour, H. A. (2016). The Iranian physicians attitude toward the do not resuscitate order. *Journal of Multidisciplinary Healthcare*, 9, 279-284. <https://doi.org/10.2147%2FJMDH.S105002>.
- Girotra, S., Tang, Y., Chan, P. S., & Nallamothu, B. K., American Heart Association Get With The Guidelines–Resuscitation Investigators (2020). Survival after in-hospital cardiac arrest in critically ill patients: Implications for COVID-19 outbreak? *Circulation: Cardiovascular Quality and Outcomes*, 13(7), e006837. <https://doi.org/10.1161/CIRCOUTCOMES.120.006837>
- Hatzinikolaou, N (2003). Prolonging life or hindering death? An orthodox perspective on death, dying and euthanasia. *Christian Bioethics*, 9(2–3), 187–201. <https://doi.org/10.1076/chbi.9.2.187.30284>
- Hayek, S. S., Brenner, S. K., Azam, T. U., Shadid, H. R., Anderson, E., Berlin, H., Pan, M., Meloche, C., Feroz, R., & O’Hayer, P. (2020). In-hospital cardiac arrest in critically ill patients with covid-19: multicenter cohort study. *BMJ*, 371, m3513. <https://doi.org/10.1136/bmj.m3513>.
- Jure, P., Obadić, P., Erčulj, V., Borovečki, A., & Grosek, Š. (2019). A cross-sectional study among healthcare and non-healthcare students in Slovenia and Croatia about do-not resuscitate decision-making. *Slovenian Journal of Public Health*, 58(3), 139. <https://doi.org/10.2478%2Fsjph-2019-0018>
- Karumathil, A. A., & Tripathi, R. (2020). Culture and attitudes towards euthanasia: An integrative review. *OMEGA-journal of Death and Dying*, 58(3), 0030222820984655. <https://doi.org/10.1177%2F0030222820984655>
- Khasne, R. W., Dhakulkar, B. S., Mahajan, H. C., & Kulkarni, A. P. (2020). Burnout among healthcare workers during COVID-19 pandemic in India: Results of a questionnaire-based survey. *Indian Journal of Critical Care Medicine*, 24(8), 664-671. <https://doi.org/10.5005%2Fjcp-journals-10071-23518>
- Kulju, K., Stolt, M., Suhonen, R., & Leino-Kilpi, H. (2016). Ethical competence: a concept analysis. *Nursing Ethics*, 23(4), 401–412. <https://doi.org/10.1177%2F0969733014567025>
- Madadin, M., Al Sahwan, H. S., Altarouti, K. K., Altarouti, S. A., Al Eswaikt, Z. S., & Menezes, R. G. (2020). The islamic perspective on physician-assisted suicide and euthanasia. *Medicine, Science and the Law*, 60(4), 278–286. <https://doi.org/10.1177%2F0025802420934241>
- Mogadasiyan, S., Abdollahzadeh, F., Rahmani, A., Ferguson, C., Pakanzad, F., Pakpour, V., & Heidarzadeh, H. (2014). The attitude of Iranian nurses about do not resuscitate orders. *Indian Journal of Palliative Care*, 20(1), 21–25. <https://doi.org/10.4103%2F0973-1075.125550>
- Moghadasiyan, S., Abdollahzadeh, F., Rahmani, A., Paknejad, F., & Heidarzadeh, H. (2013). Do not resuscitate order: attitude of nursing Students of Tabriz and Kurdistan Universities of Medical Sciences. *Iranian Journal of Microbiology*, 6(1), 45–56

- Naghshbandi, S., Salmasi, S., Parsian, Z., & Rahmani, F. (2019). Attitude of nurses in intensive care units towards do not resuscitate order. *Journal of Analytical Research in Clinical Medicine*, 7(4), 122–128. <https://doi.org/10.15171/jarcm.2019.023>
- Onwe, E. C., Chukwu, J., Nwamini, S. C., Nwankwo, S. U., Elem, S., Ogbaeja, N. I., Nwasum, C. J., Nwakpu, E. S., & Ogbodo, J. N. (2020). Analysis of online newspapers' framing patterns of COVID-19 in Nigeria. *European Scientific Journal*, 16(22), 1857–7881. <https://doi.org/10.19044/esj.2020.v16n22p217>
- Ornstein, K. A., Aldridge, M. D., Garrido, M. M., Gorges, R., Bollens-Lund, E., Siu, A. L., Langa, K. M., & Kelley, A. S. (2017). The use of life-sustaining procedures in the last month of life is associated with more depressive symptoms in surviving spouses. *Journal of Pain and Symptom Management*, 53(2), 178-187.e171. <https://doi.org/10.1016/j.jpainsymman.2016.08.023>
- Peimani, M., Zahedi, F., & Larijani, B. (2012). Do-not-resuscitate order across societies and the necessity of a national ethical guideline. *Iranian Journal of Medical Ethics and History of Medicine*, 5(5), 19–35
- Perkins, G. D., Morley, P. T., Nolan, J. P., Soar, J., Berg, K., Olasveengen, T., Wyckoff, M., Greif, R., Singletary, N., & Castren, M. (2020). International liaison committee on resuscitation: COVID-19 consensus on science, treatment recommendations and task force insights. *Resuscitation*, 151, 145-147. <https://doi.org/10.1016/j.resuscitation.2020.04.035>.
- Petty, R. E., & Krosnick, J. A. (2014). *Attitude strength: Antecedents and consequences*. Psychology Press. <https://doi.org/10.4324/9781315807041>
- Shi, H., Shan, B., Zheng, J., Peng, W., Zhang, Y., Zhou, X., Miao, X., & Hu, X. (2019). Knowledge and attitudes toward end-of-life care among community health care providers and its influencing factors in China: A cross-sectional study. *Medicine*, 98(45), e17683. <https://doi.org/10.1097%2FMD.00000000000017683>
- SHojaei, M., Kkornegah, F., Khoramkish, M., & Kalani, N. (2016). Nurses' attitude toward DNR order: A descriptive cross-sectional study. *Education & Ethic In Nursing*, 5(4), 1–8. <https://doi.org/10.29252/ethicnurs.5.4.1>
- Zahedsamimi, M., & Aknarzadeh Jahromi, S. J. (2020). Semiotics of the euthanasia in Iranian and international cinema a comparative study of the Four movies. *Quarterly of Cultural Studies & Communication*, 16(60), 297–330. <https://doi.org/10.22034/jcsc.2020.119225.2059>