Do-Not-Resuscitate; Knowledge, Attitude and Practices of the Doctors in Shaikh Khalifa Medical City, Abu Dhabi.

Alnaqbi A, Almarzooqi S, Alzubaidi K, Alameri E, AlAmeri K

Department of Family Medicine, Sheikh Khalifa Medical City. United Arab Emirates

Background and Aims: Do-Not-Resuscitate (DNR) or Allowing Natural Death (AND) orders are utilized in various situations worldwide and are now considered standard medical practice. However, there are many misconceptions surrounding DNR orders and how they work. This study aims to assess the knowledge, attitude, and practice of doctors working at Shaikh Khalifa Medical City, Abu Dhabi, regarding DNR orders.
Methodology: A cross-sectional, questionnaire-based study was conducted including 237 physicians, residents, and interns practicing at Shaikh Khalifa Medical City (SKMC) using stratified random sampling. A self-administered questionnaire containing questions about knowledge, attitude, and practices was employed. The questionnaire was previously used, later modified, and content validated. The statistical analysis was performed using SPSS. The independent sample t-test, ANOVA, and Pearson's correlation test were executed.
Results: Of the 237 participants, 51.9% (123 participants) had good knowledge about DNR orders. 59.9% had a neutral attitude towards DNR orders, while 21.5% had a positive attitude. Males demonstrated a significantly positive attitude towards DNR (M=4.44, t=2.829, P<0.005). A significant majority of physicians 82.4% (195 participants) believed that DNR is a crucial practice. 25.7% (61 participants) of the research participants had performed a DNR outside of SKMC, while 32.9% (78 participants) had performed a DNR inside SKMC. 59.5% (141 participants) of the doctors were uncomfortable discussing DNR with patients/families. There was a moderately positive relationship between knowledge and attitude (R2=0.269, P<0.001). There was a weak but significant positive connection between knowledge and practice (R2=0.141, P<0.05).
Conclusion: Despite having knowledge about DNR orders, clinicians struggle to discuss and practice them.

Introduction

- CPR is an essential life-saving skill for healthcare professionals working in emergency departments and other healthcare settings.
- Due to low survival rates and poor neurological outcomes, the use of CPR for all patients was questioned, and the concept of do-not-resuscitate (DNR) orders for terminally ill patients became part of medical practice. However, it remains a challenging decision for physicians to make.
- DNR orders are now considered a part of medical practice globally, and they are used under specific circumstances. These orders are made by the medical team to not attempt CPR on a patient with respiratory and cardiac arrest. DNR orders do not include therapeutic instructions.
- DNR decisions have successfully avoided unnecessary and intrusive interventions at the end of life. The assessment of ethical capabilities is crucial in identifying and analyzing the factors that impact DNR decision-making to reach a conclusion.
- The practice of DNR or AND is a recent addition in the UAE, which follows the 2016 Federal Law Article 11 that allows for natural death by not administering CPR in certain conditions. It is important for the medical team to be transparent when discussing DNR with the patient and their family, as it can be a highly emotional topic that may cause mental distress for everyone involved in the patient's care.
- To the best of our knowledge, there have been no studies conducted on DNR in the UAE. However, a study in Saudi Arabia showed that physicians faced obstacles in initiating and discussing DNR orders due to cultural differences and lack of understanding among patients, but religion was not a barrier.

Objective

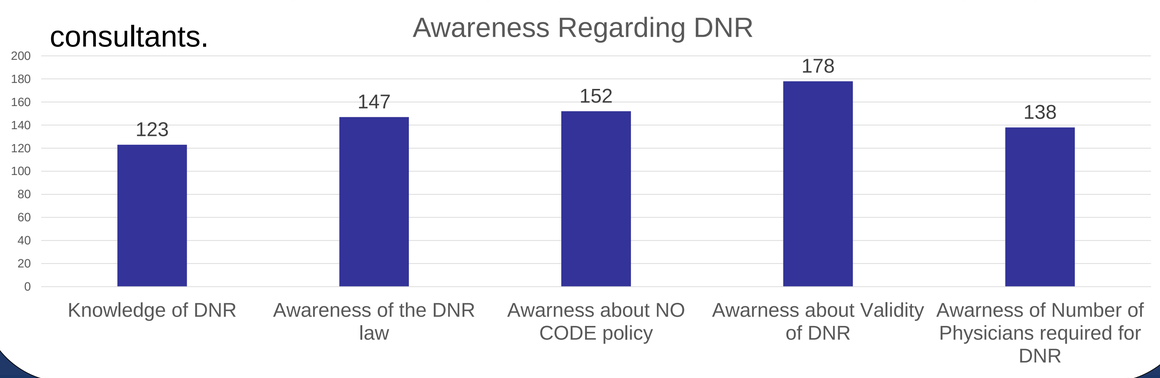
The study aims to assess DNR's knowledge, attitude, and practice in Sheikh Khalifa Medical City physicians.

Methodology

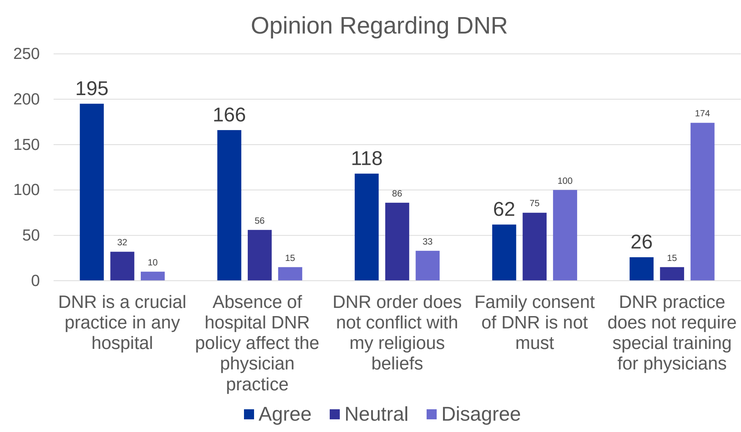
The study is a cross-sectional questionnaire-based study conducted at Shaikh Khalifa Medical City in Abu Dhabi between September 2019 and August 2021. All physicians, residents, and interns practicing at the hospital were included in the study, except for those in certain specializations. The sample size was determined using stratified random sampling and a total of 237 participants were included in the study. The questionnaire included four sections and assessed the physician's socio-demographics, knowledge, attitude, and practice of DNR. Data was collected intermittently due to COVID-19 restrictions and analyzed using SPSS version 21. Ethical clearance was granted by the hospital's Institutional Review Board/ Research Ethics Committee, and confidentiality was maintained through a coding system.

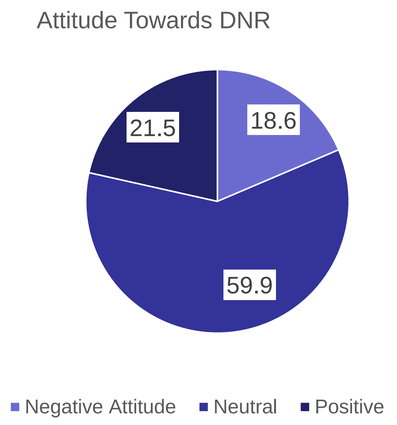
Results and Discussion

- Out of 237 participants,56.5% (n=134) were females, 42.2% (n=100) were between 21-30 years,28.7% (n=68) were residents & 28.3 (n=62) were consultants.



- In the current study, doctors posses good knowledge regarding DNR.
- Physicians from Europe, USA, or Canada possess superior knowledge compared to those from Asia, the Middle East, or UAE





- Other than knowledge and awareness, various other factors also influence the implication of DNR. Religious affiliation of the physician, social factors, condition of the patient, law, environmental factors
- Physicians' attitudes about DNR were predicted by their knowledge, mindfulness, self-efficacy, resilience, and religious views.

Demographic Characteristics	Knowledge			Attitude			Practices		
	Mean Score	T Ω / F ¥ value	P Value	Mean Score	T Ω / F ¥ value	P Value	Mean Score	T Ω / F ¥ value	P Value
Gender Ω									
Male	16.39	0.283	0.77	4.44	2.829	**0.005***	2.14	0.882	0.379
Female	16.28			3.84			2.03		
Age Group ¥									
21-30	16.41	0.765	0.515	3.69	6.365	**<0.001***	1.95	2.662	**0.049 ***
31-40	16.41			4.09			2.25		
41-50	16.58			4.93			2.29		
51 and above	15.64			4.19			1.89		
Profession Status ¥									
Consultant	17.07	1.47	0.211	4.84	6.20	<**0.001***	2.27	1.77	0.136
Senior specialist	15.95			4.05			2.29		
Specialist	15.97			3.98			2.02		
Resident	16.10			3.50			1.94		
Intern	16.05			4.05			1.85		
Undergraduate training ¥									

- Majority of the physicians are NOT comfortable in discussing DNR with the patient/family and DNR is practiced by a quarter of the participants.
- Factors such as patient's condition, prognosis, life quality, care expenses, burden on others, and family's wishes affect the DNR decision.

	Knowledge	Attitude	Practice
Correlation	1	0.269	0.141
P-Value		<0.001	0.03

- There is a moderately positive correlation (R2=0.269, P < 0.001) between knowledge and attitude, while a weak but significant correlation (R2=0.141, P < 0.05) exists between knowledge and practice.

Conclusions

Although physicians have good knowledge about DNR, they still encounter challenges in discussing and implementing it. The present study aims to raise awareness about DNR and its associated concerns. Our research marks the beginning of a new era in DNR-related research that emphasizes patients, their families, and healthcare professionals who regularly deal with DNR.

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