The Perspective of Palestinian Physicians and Nurses about the Do-Not-Resuscitate Order for Terminally Ill Patients

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Abstract

Background: Different methods have evolved to improve health outcomes over the decades, one of the most critical of which is cardiopulmonary resuscitation. Recently, the utility of this method has been debated for terminally ill patients, leading to the patient classification of do-not-resuscitate (DNR) for some terminally ill patients. Research about this ethically sensitive topic is lacking worldwide, particularly in the Middle East due to cultural and religious concerns.

Objectives: To explore whether Palestinian physicians and nurses agree with legalizing DNR order in Palestine, and if their religion, culture or both affect their decision regarding the DNR order.

Methods: A cross-sectional study was conducted with 123 participants (48 physicians and 75 nurses). Data were collected from five major hospitals in Palestine using a 24-item self-reported Likert scale questionnaire.

Results: The majority of the participants were nurses (61.0%), and males (66.7%). More than two-thirds of the sample were in favour of legalizing the DNR order in Palestine. More than two-thirds of nurses and approximately two-thirds of physicians felt that religious beliefs greatly influence their view of DNR, and made it difficult for them to deal with the DNR issues.

Conclusion: Palestinian professionals expressed that their attitudes toward DNR were greatly influenced by their religious and cultural background. Moreover, they want this order to be legalized in Palestine.

Keywords: DNR order; Nurses; Physicians; Terminally ill patients; Palestine

Introduction

Over the decades, there have been many methods to improve health and standards of living worldwide, resulting in increased average age of human life and the reduction of mortality rates [1]. One of the important methods that helped in achieving these goals was the implementation of cardiopulmonary resuscitation (CPR) [2]. CPR is in fact a chain of actions that increase the probability of survival after a person suffers cardiac arrest [3].

The first CPR method was the mouth-to-mouth method, first devised in the year 1740 [4]. Methods of CPR evolved thereafter, and in 1891 the first certified chest compression was performed by Dr. Friedrich Maass, with its first successful implementation in 1903 by Dr. George Crile [3]. In the 1920s development of practical defibrillators began [5], and in 1979 advanced cardiac life support (ACLS) was developed [3]. Nowadays, ACLS has evolved to the use of chest compressions, ventilation, defibrillation and medications all in one ACLS management [3].

There is a high percentage of survival after the administration of CPR for the witnessed and not-witnessed arrest cases [6]. Despite these results, the survival rate for terminally ill patients even with the performance of CPR was only 42.2%, but all of them died shortly after the resuscitation [7].

Terminal ill patients’ are persons with an incurable or irreversible illness at the end stage, which will result in death within a short time; care for such patients is thus termed palliative or end of life care (EoLC) [8]. Because of the low survival rate among terminally ill patients after the administration of CPR, a new term was found, which is do-not-resuscitate (DNR), first legalized during the mid-1970s [9]. DNR is an order written by a doctor, approved by the patients or their surrogates. This order instructs health care providers not to perform CPR when cardiac or respiratory arrest occurs, although normal treatment regimes such as medication administration continue as normal [10].

The DNR order is routinely practiced in many Western countries, including the USA, the UK, Brazil, Spain and France [9]. In the Middle East, there is no consensus about how to practice DNR order; this study explores attitudes of ICU physicians and nurses in Palestine about the DNR order for terminally ill patients.

Literature Review

EoLC has been widely discussed over the years. The decision-making process regarding patients with terminal diseases is very difficult, thus specialised models have
emerged from the literature, the most common of which is the Shared Decision Making (SDM) model, in which decision making is ultimately up to the patient [11]. The EoL decision-making process to limit or withdraw therapy in the ICU is affected by many factors, such as chances of curability, overall patient performance status, quality of life (QoL), local practice variations of the attending intensivists, and socioeconomic support. Other factors that might affect the decision-making process are particular to individual patients, such as cultural beliefs, perceived curability of illness and QoL, age, ethnicity, family support, number of children, education level, and knowledge about the results of CPR [12]. One of the most important factors that might affect this decision is religion. Regardless of negative prognosis, many Muslim patients choose CPR because they have hope that God will ultimately save them from their illness [12].

The main reason the DNR order has not been legalized in the Middle Eastern countries is due to religious and ethical beliefs within society [13]. These beliefs can be changed by means of religious counselling and looking for answers about the DNR order. Many Muslims believe that the DNR order is forbidden in Islam because it is analogous to suicidal ideation and losing faith in cure. However, scholars of Islamic jurisprudence in Saudi Arabia declared that abstaining from a potential remedy is allowed in certain cases [14], based on the principle that the therapy is unlikely to be beneficial for the patient and when the treatment may cause more harm than benefit. Some jurists believe that abstaining from treatment is best in terminal cases [14].

The DNR order is usually discussed and issued when the patient is suffering from an irreversible disease, and their life no doubt will come to an end soon due to their disease. Some physicians do not like to discuss EoL options with terminally ill patients themselves, until the signs and symptoms begin to arise [15]. If the patient is incapable of making their own decision due to coma, low GCS or other similar reason, then the patient’s surrogate (generally next of kin) will make the decision for them. The DNR order only excludes CPR in the case of cardiac and pulmonary arrest, but does not exclude other medical interventions [16].

Communication with the patient is an important factor in making the DNR decision. Until the 1960s, it was commonly accepted (in the biomedical paradigm) that a fatal diagnosis should not be discussed with the patient to avoid causing distress and exacerbating illness symptoms. However, nowadays this situation has changed and discussion with the patient has progressed, and it is generally encouraged for patients to be actively involved in their care plan, including for EoLC [11]. However, in some situations, the patient may not be able to decide for him/herself, so the patient advocate will choose instead [15].

Discussion on the DNR order is best conducted when the patient is in a healthy and stable state. A study entitled “Factors associated with decision-making about end-of-life care by hemodialysis patients” [12] showed that: a) half of the haemodialysis patients felt moderate to severe pain within the last three days of their life; b) most of the DNR orders were written two days before death; and c) less than 50% of the physicians discussed CPR with their patients. In order for patients to completely understand their conditions when the DNR order is discussed with them, they should be in a relaxed state of mind, conscious and oriented; thus it is highly recommended that this should begin in primary care settings, such as with the family doctor [17]. In this way, the patient and the family can have a clear concept of what the DNR order is, and when the patient becomes terminally ill, the DNR decision can be easily made.

The DNR decision should be based on agreement that it is the optimal choice in the interests of the patient. This decision has many ethical dilemmas, such as: a) the inability to consider whether resuscitation is appropriate or not, b) the involvement of patients and their families in decision making, and c) barriers to communication between doctors, nurses, patients and their families [18,19].

Physicians tend to interpret cases in favour of DNR more than nurses [20,21]. However, among physicians there are different perspectives. For instance, pulmonary critical care medicine physicians strongly recommend DNR orders in comparison to cardiologists [22], and men were more confident in discussing the DNR order than women. These results may be related to different levels of knowledge on the subject, religion, ethnicity and gender [23]; therefore, the purpose of this study was to investigate the attitudes of ICU physicians’ and nurses’ on the DNR order in Palestine.

Research questions

Are the Palestinian physicians and nurses for or against legalizing the DNR order in Palestine?

Does their religion, culture or both affect their decision regarding the DNR order?

Methodology

Research design, sample and setting

A descriptive correlational cross-sectional design was used to meet the objective of this study. A convenience sample of the ICU physicians and nurses with a diploma degree or higher from different governmental hospitals (Palestinian Medical Complex (PMC) in Ramallah, Rafidy Hospital in Nablus and Alia Hospital in Hebron) as well as one charitable hospital (Al-Makassed Hospital in Jerusalem) were included in the study. A total of 123 participants (48 physicians and 75 nurses) enrolled in the study.

Ethical considerations

The study was approved by the IRB Committee in Birzeit University, as well as the hospitals in which data collection was conducted. Trained research assistants explained the study and its purposes to the participants and answered their questions. After that, each participant who agreed to participate signed an informed consent form and confidentiality was ensured.
throughout. All data were kept in a password-protected computer accessible only to the principle investigator and the research team.

Data collection

The data collection instrument consisted of two parts. The first of which concerned socio-demographic questions, and the second of which was a 24-item questionnaire answerable by five-point Likert scale responses ranging from strongly agree (score 1) to strongly disagree (score 5). It was obtained from a similar study of the attitudes of Iranian nurses toward DNR order; the reliability of this questionnaire was supported by a Cronbach’s alpha of 0.82 [24].

Data analysis

Statistical Package for Social Sciences (SPSS) software version 20.0 was used to analyse the data (SPSS Inc., Chicago, IL, USA). Descriptive statistics with numbers and frequencies were used to answer the research questions. To test if the religion and/or occupation have an effect on the decision regarding DNR, bi-variant spearman rho test between religion/occupation and religious beliefs, cultural background, and legalizing the DNR order was performed.

Results

The general demographic characteristics of the subjects (N = 123) are presented in Table 1. The highest representation was from the PMC (37.4%). The majority were nurses (61.0%), and males (66.7%). More than half of the sample (52.0%) was young (in their 20s). The years of experience vary in nursing and in ICU. The vast majority (96.0%) were Muslims, and approximately two-thirds (62.6%) of the sample had a bachelors degree.

Table 1 Demographic characteristics (N=123).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>20-29</td>
<td>64 (52.0)</td>
</tr>
<tr>
<td>30-39</td>
<td>37 (30.1)</td>
</tr>
<tr>
<td>40-49</td>
<td>15 (12.2)</td>
</tr>
<tr>
<td>50-59</td>
<td>7 (5.7)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>82 (66.7)</td>
</tr>
<tr>
<td>Female</td>
<td>41 (33.3)</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
</tr>
<tr>
<td>Physician</td>
<td>48 (39)</td>
</tr>
<tr>
<td>Nurse</td>
<td>75 (61)</td>
</tr>
<tr>
<td>Hospital</td>
<td></td>
</tr>
<tr>
<td>PMC</td>
<td>46 (37.4)</td>
</tr>
</tbody>
</table>

Table 2 represents the responses of the samples about major research questions. As for the religion, none of the Christians were in favour of legalizing the DNR order in Palestine, and they all said that religion and culture influences their decision regarding the DNR order. As for the Muslims, 65.3% want the DNR order to be legalized in Palestine, 73.7% said that religion influences their decision.

Table 2 Answers of the participants to the main research questions; numbers are percentages of the sample (%).

<table>
<thead>
<tr>
<th>Question</th>
<th>Physicians</th>
<th>Nurses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I want the DNR order to be legalized in Palestine</td>
<td>64.6</td>
<td>16.7</td>
</tr>
<tr>
<td>My religious beliefs greatly influence my view of DNR</td>
<td>64.6</td>
<td>25</td>
</tr>
<tr>
<td>My cultural background makes it difficult for me to deal</td>
<td>64.5</td>
<td>12.5</td>
</tr>
</tbody>
</table>
There was no significant relationship between the occupation and religious beliefs, cultural background, and legalizing the DNR order. However, these were significant regarding religion (Table 3).

Table 3 Bi-variant spearman rho correlations between religion and other factors.

<table>
<thead>
<tr>
<th>Religion</th>
<th>Religious beliefs (q21)</th>
<th>Cultural background (q22)</th>
<th>Legalizing DNR order (q24)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a 0.24</td>
<td>0.23</td>
<td>-0.19</td>
</tr>
<tr>
<td></td>
<td>b &lt; .01</td>
<td>&lt; .01</td>
<td>&lt; .05</td>
</tr>
</tbody>
</table>

Q: question number, a: Correlation coefficient, b: P value.

Based on Table 4, approximately two-thirds of the physicians and nurses want DNR order to be legalized, and they feel that it simplifies the treatment in case the patient is terminal. However, when it comes to the relatives, they felt that this order is not appropriate. Slightly above half of the sample felt that the physicians are the ones who should make all the decisions about terminally ill patients. The item of “feeling futile to prolong the life of frail, elderly patients” has the lowest agreement rate, and the item "I would like to know more about patients’ rights” has the highest agreement rate.

Table 4 Physician and nurse attitudes about all questions regarding DNR order.

<table>
<thead>
<tr>
<th>Attitudes towards DNR</th>
<th>Responses n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td># Items</td>
<td>Agree</td>
</tr>
<tr>
<td>1 DNR orders helps clarify the treatment plan for terminally ill patients</td>
<td>85 (69.1)</td>
</tr>
<tr>
<td>2 I think a patient should be kept alive as long as possible, even if they are terminally ill</td>
<td>73 (59.4)</td>
</tr>
<tr>
<td>3 Prolonging life should always be the goal of the healthcare team, regardless of the patients' or family wishes</td>
<td>73 (59.4)</td>
</tr>
<tr>
<td>4 I think how long you live is more important than the quality of life</td>
<td>30 (24.4)</td>
</tr>
<tr>
<td>5 I think that the quality of life is more important how long you live</td>
<td>81 (65.9)</td>
</tr>
<tr>
<td>6 DNR orders help keep patients from suffering unnecessarily</td>
<td>77 (62.6)</td>
</tr>
<tr>
<td>7 I feel that the physician should make all the decisions regarding the patient's treatment</td>
<td>66 (53.7)</td>
</tr>
<tr>
<td>8 I feel all patients that are permanently brain impaired should automatically have DNR orders</td>
<td>47 (38.3)</td>
</tr>
<tr>
<td>9 I feel that the patient or the patient's family should be in control of all medical decisions</td>
<td>65 (52.6)</td>
</tr>
<tr>
<td>10 It is futile to prolong the life of frail, elderly patients</td>
<td>21 (17)</td>
</tr>
<tr>
<td>11 It is difficult for me to talk to my patients about death</td>
<td>95 (77.3)</td>
</tr>
<tr>
<td>12 I feel the healthcare team must always provide hope to patients even when death is imminent</td>
<td>91 (74)</td>
</tr>
<tr>
<td>13 I feel I must conform to my peers' wishes regarding DNR orders</td>
<td>95 (77.2)</td>
</tr>
<tr>
<td>14 Lifeprolonging equipment can undermine the natural process of death</td>
<td>69 (56.1)</td>
</tr>
<tr>
<td>15 The monetary factor of keeping a terminally ill patients alive is difficult to justify</td>
<td>52 (42.3)</td>
</tr>
<tr>
<td>16 I am afraid the family will file a lawsuit if their family member is not resuscitated</td>
<td>78 (63.4)</td>
</tr>
<tr>
<td>17 I wish I had a better understanding of the legal ramifications of the DNR order</td>
<td>98 (79.7)</td>
</tr>
<tr>
<td>18 I would like to know more about patients' rights</td>
<td>108 (87.8)</td>
</tr>
<tr>
<td>19 If my mother was end-stage terminally ill, I would not want DNR orders written</td>
<td>71 (57.8)</td>
</tr>
<tr>
<td>20 If I was end-stage terminally ill, I would want DNR orders written</td>
<td>80 (65.1)</td>
</tr>
<tr>
<td>21 My religious beliefs greatly influence my view of DNR</td>
<td>90 (73.1)</td>
</tr>
<tr>
<td>22 My cultural background makes it difficult for me to deal with the DNR issue</td>
<td>86 (69.9)</td>
</tr>
<tr>
<td>23 The patient or the patient's family must give written permission in orders for the physician to initiate DNR orders</td>
<td>98 (79.7)</td>
</tr>
</tbody>
</table>
Discussion

This is the first study conducted in Palestine to examine healthcare professionals’ attitudes toward DNR. The present study adopted a quantitative design and was conducted in four major hospitals in different regions in Palestine. Due to the nature and sensitivity of discussing issues about DNR, doing research on such topic is challenging. The DNR policies began to become mainstream from the 1980s [25], since when many health institutions worldwide adopted policies to discuss the DNR issue with patients and/or relatives [25,26]. However, it was clear in the current study that there are no DNR policies in Palestinian hospitals. This was unsurprising, as in many countries around the world DNR is faced by different factors such as religion, culture and ethics [9].

Interestingly, the majority of both physicians and nurses wanted to legalize DNR policies. Most of them were agreed that DNR orders help clarify the treatment plan for terminally ill patients. However, approximately 58% of the participants would not want DNR orders to be written in case of having their mothers in this situation. Moreover, more than half of the study sample believed that the physician should make all the decisions regarding the patient’s treatment. In other words, the findings of this study show that Palestinian healthcare professionals usually adopt a paternalistic perspective when dealing with patients and family members, with physicians assuming that they know what is best for the patient [27]; in the case of nurses believing that physicians should handle DNR orders, this could indicate a wish to abdicate their own responsibility for such a sensitive issue.

The literature showed that healthcare professionals usually adopt paternalistic perspectives in case of dealing with terminally ill patients [18], or when dealing with resuscitation status [28]. This approach seems to be present in the Palestinian hospitals. However, due to the paucity of research in Palestine about these issues, it was difficult to prove this. Jordan is very close to Palestine and both have similar geo-demographical characteristics. The paternalistic approach was clearly indicated in four Jordanian studies [29-32]. All of these researchers explained that communication in clinical settings is not sufficiently implemented in practice. They also indicated that healthcare professionals in these units customarily take control (and authority) over patients’ needs.

Several ethical aspects were raised by the European Resuscitation Councils related to the DNR decision and breaking the bad news to family members [33-35]. Healthcare professionals should be aware about these guidelines. The findings of the current study are in agreement with the findings of several studies affirming that healthcare professionals find it difficult to talk to patients or their relatives about death and the DNR option [9,36].

In critical situations, Fontana [37] stressed the importance of taking care of the family members as well as the patient, as the family is thought to suffer more than the patient during these situations; this is a duty of health professionals, particularly nurses in the provision of holistic care tailored not only to the patient, but to other stakeholders such as their families. Therefore, specific training and education for nurses and physicians would improve their abilities to deal with these incidents. The educational dimension is an essential factor in the development of any new practice. The nurses and the physicians should be supported by making the DNR decision-making process a systematic one [38]. Formal courses and education about how to discuss DNR orders with patients and their relatives is needed to improve the frequency, quality and timing of discussions concerning DNR orders [9].

The current study found that more than two-thirds of the participants’ views regarding DNR were greatly influenced by their religious beliefs. These findings are in agreement with the findings of several studies in this field [39-41]. Heeren et al. [42] explained that religion plays a significant role in the lives of many people, and spiritual and religious issues are usually awakened or intensified as patients near EoL [43].

Many authors and researchers discussed the role of religion and culture to provide appropriate EoLC [44,45]. The influence of cultural and religious background on the attitudes of healthcare professionals are considered as an essential part of any EoL approach [46]. These backgrounds furthermore fundamentally influence the hopes and aspirations of patients and their relatives [46]. Therefore, it seems essential to take into consideration the impact of religious and cultural background on the attitudes of healthcare professionals and patients relatives towards DNR.

Andrews [47] explained that religion may become more effective in case of serious illness, as it may become a source of support for patients and family members, and it may influence the course of action believed to be appropriate. Leininger and McFarland [48] and Halligan [49] were aware of the role of religion in shaping the worldviews of Arab Muslim people. Religion has a significant effect on Palestinian culture, especially at times of dealing with life and death. Muslims believe that God is the origin of everything’s presence. Therefore, they believe that death will not happen unless by God’s permission. There is an important Islamic rule stated in the Holy Qur’an, that whoever killed a person will be as the one who killed all people, and whoever saved a person will be as the one who saved all people [50].

In the healthcare psychology of Arab-Islamic countries, death is conventionally regarded as an acceptable and ordained outcome after every effort has been made to save the patient’s life. This makes statements like “do not resuscitate” problematic for most Muslims. This may also explain the findings of the current study that around 74% of the study sample felt that healthcare team must always provide hope to patients, even when death is imminent. These principles may explain the findings of the current study, that health professional attitudes toward DNR are greatly influenced by their religious and cultural beliefs.

Significantly, this study shows that Palestinian patients and family members have no rights to make autonomous EoL
decisions and they have no contributions in DNR orders. Most of the professionals viewed themselves as advocates for patients at this stage. This paternalistic view was adopted by several healthcare professionals, as they thought that they know what is good for patients and their relatives and they can manage better than family members during these incidents. This was clear in answering many items of the study tool.

More than 60% of the participants reported that DNR orders help keep patients from suffering unnecessarily. The same percentage suggested that patients should be alive as long as possible even if they are terminally ill. More significantly, 60% of the participants reported that prolonging life should always be the goal of the healthcare team regardless of the patients or family wishes. As mentioned previously, this includes hiding the true status of patients from their families and even the patients themselves, representing the accrual of unquestioned power and authority by healthcare providers, particularly physicians [51]. Clearly this denies patients and their family members their rights to be informed about what is happening during EoL and concerning CPR [52,53].

However, around 64% of participants expressed their fear that families would prosecute them if their family member was not resuscitated; this reflects the absence of effective medical law in Palestine [53-55], reflected in the majority of participants (80%) wishing that they had a better understanding of the legal ramifications on the DNR order. Moreover, around 88% of participants would like to know more about patients’ rights. This suggests that laws might be present, but health professionals either do not have awareness of these laws or these laws are not effective. Ineffective medical law may explain the diversity in the professionals’ behaviour towards DNR.

**Conclusion**

Despite the absence of DNR policies in the Palestinian hospitals, most of the respondents in this study wanted to legalize the DNR order. A unique finding from a global perspective is that Palestinian professionals expressed that their attitudes toward DNR were greatly influenced by their religious and cultural background. Health professionals explained that they need education and training about the legal ramifications, and they would like to know about patients’ rights. Most of the health professionals wanted to legalize the DNR order. However, around 58% of them would not like to write DNR for their mothers if they were terminally ill. Selecting Palestine as a non-Western country has added valuable knowledge to the international body of research regarding this specific topic. Several religious and cultural issues have been raised in this study. Further research on the influence of cultural and religious issues on professionals’ attitudes towards DNR is recommended. It is recommended to conduct more qualitative studies in this field to provide deep and rich data about the subject.

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