

Ethical considerations of DNR orders from nursing perspective

LAHTI UNIVERSITY OF APPLIED SCIENCES
Bachelor' Degree Programme in Nursing
Degree Programme in Nursing
Spring 2019
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Abstract

Author(s) Vu, Bich	Type of publication Bachelor's thesis	Published Spring 2019
	Number of pages 32	
Title of publication Ethical considerations of DNR orders from nursing perspective		
Name of Degree Bachelor's Degree Programme in Nursing		
<p>Do not resuscitate (DNR) is an order from the responsible physician. This order stipulates that in the event of a cardiac arrest neither basic nor advanced cardiopulmonary resuscitation (CPR) be performed.</p> <p>The aim of the thesis was to conduct a descriptive literature review to develop professional understanding for nurses of DNR order. The purpose was to increase nurses' knowledge about this matter to strengthen their nursing skills in dealing with these ethical issues. A thorough understanding of DNR orders could assist nurses to achieve professional growth particularly in terms of patient care and ethical competence.</p> <p>With the method of literature review, data was collected from CINAHL, PubMed and Joanna Briggs Institute EBP. Articles were selected from predetermined inclusion and exclusion criteria. The selections were analyzed with the method of thematic content analysis. The main themes identified after content analysis include, 1) Nurses' attitudes and understanding about DNR and influential factors on nurses' attitudes, 2) Nurses' opinions toward policy, guidelines, documentation and legalization for DNR orders, 3) Nurses' views about patient role in DNR orders, 4) Nurses' views on their own role in DNR orders, 5) Nurses' views on family role in DNR orders.</p> <p>The results revealed that nurses' understanding of DNR varied and there were also existing negative attitudes of nurses in relation to DNR orders. However, nurses reflect their ethical competence in ethical matter by the respect for patient autonomy and family role in DNR decision making process and nurses' willingness to learn more about DNR and also their need for more education, guidelines, clear documentation and legalization of DNR as support.</p>		
Keywords ethics, nursing, DNR or Do-Not-Resuscitate, attitudes		

Tiivistelmä

Tekijä(t) Vu, Bich	Julkaisun laji Opinnäytetyö, AMK Sivumäärä 32	Valmistumisaika Kevät 2019
Työn nimi DNR-päätöksen eettiset näkökohdat hoitotyön näkökulmasta		
Tutkinto Sairaanhoitaja (AMK)		
<p>Elvyttämättäjäättämispäätös on tehty vastuulliselta lääkäriltä. Tämä päätös pannetaan ehdoksi sitä, että sydänpysähdyksen tapahtumassa ei yksinkertainen eikä edistyksellinen toimiteta painelu-puhalluselytytys.</p> <p>Tämä opinnäytetyö on tavoitteena kehittää ammattilaista ymmärrystä sairaanhoidon DNR-päätökselle kirjallisuuskatsauksesta. On tarkoituksena korottaa siitä sairaanhoitajien ymmärrystä vahvistamaan heidän sairaanhoidon taitoja eettillisten asioiden kautta. DNR-päätöksestä perinpohjaista tuntemusta auttaisi sairaanhoitajia aikaansaada ammattilaista kehitystä varsinkin potilaiden hoitoa ja eettistä kilpailua.</p> <p>Kirjallisuuskatsauksesta menetelmän kautta, tietoja ovat keräätyjä CINAHL:sta, PubMed:sta ja Joanna Briggs Institute EBP:sta. Artikkelit ovat valittuja etukäteestä inklusion ja eksklusion kriteereistä. Aiheenmukaista analyysia on käytetty analysoida valintoja. Valitut artikkelit ovat tarkistettuja ja luettuja yhdessä perusteellisesti ja varovaisesti, joten se voidaan luokitella. Pää aihe tietojen analyysien jälkeen on tunistettu tutkimuksesta kostuu 1) sairaanhoitajien katse perheen asemalla DNR-päätöksen prosessi, 2) sairaanhoitajien katse potilaiden asemalla DNR-päätöksen prosessi, 3) kulturien ja uskonon vaikutukset sairaanhoitajien asenteen, 4) sairaanhoitajien halukkuus DNR-päätöksen prosessin osallitumisessa, 5) sairaanhoitajien asenne, asema ja tuntemus DNR-päätöksestä.</p> <p>Tuloksen näyttää, että sitä sairaanhoitajien tuntemusta DNR-päätöksestä vaihtelee ja myöskin on siellä olemassa sairaanhoitajien negatiivisia asenteita DNR-päätöksen suhteessa. Kuitenkin sairaanhoitajat vastaavat heidän eettillistä kilpailua eettisessä asioissa kunnioittamalla potilaiden sisäistä itsenäisyyttä ja potilaiden perheen asemaa DNR-päätöksessä ja myöskin sairaanhoitajien tarveita enemmän koulutusta, oppaasta, selvää tietojenkäsittelyä ja lakia kuin tuena.</p>		
Asiasanat ethics, nursing, DNR or Do-Not-Resuscitate, attitudes		

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1 INTRODUCTION

Do not resuscitate (DNR), an order written by responsible physician, stipulates that in the event of a cardiac arrest neither basic nor advanced cardiopulmonary resuscitation (CPR) be performed (Pettersson, Hedström, & Höglund 2018.b, 903).

According to America Nurses Association (ANA, 2012, 1), there have been still difficulties and confusion about do not resuscitate (DNR) orders even though patients, families, and surrogate decision-makers have been facilitated to make informed choices. In addition, there have been unsatisfactory results of communication about DNR orders between physicians and patients despite Patient Self-Determination Act (PSDA) 's expectations. Morrell, Brown, Qi, Drabiak, & Helft (2008) added that DNR orders have been less affected by PSDA than other physician factors, such as physician specialty (ANA, 2012, 3). Furthermore, Ells (2010) also stated that terms of resuscitation, CPR, DNR, full code, and no code might be interpreted differently from person to person (ANA, 2012, 3).

ANA (2012, 1) affirmed that it is a must for nurses to advocate for and actively initiate discussions about DNR with patients, families, and health care team members. According to Provision 1.3 of the ANA Code of Ethics for Nurses (2001, 7), nursing care aims at meeting patients and their families' comprehensive needs through the continuity of care. This aim is of particular importance when providing end of life care for patients and families so as to prevent and mitigate symptoms and suffering commonly coupled with dying. Nurses lead and advocate attentively for the serving of dignified and humane care, and are involved actively in the assessment and assurance of the reasonable utilization of measures to achieve a minimally unjustified or unwanted treatments and patient suffering. (ANA, 2012, 1.)

In practice, not many nurses fully understand what DNR orders mean and how they are applied even though the term comes very often in most clinical settings. For example, at the beginning of the shift when nurses of the next shift go through the report, they always take notes whether their patients have DNR orders or not. DNR order is actually an importantly ethical topic in medicine, related to human dignity, patient rights, and furthermore, to death and life. When the nurses' work involves greatly patients' direct care and nurses' role is becoming more and more important to patients' outcomes, nurses take more participation in the discussions of DNR orders with patients and family members. Therefore, a thorough understanding of DNR assists nurses to achieve professional growth particularly in terms of patient care and ethical competence. As Lechasseur, Caux, Dollé & Legault (2018, 694) indicates ethics is a "fundamental component of nursing prac-

tice". From their review, terms of *Ethical sensitivity*, *Ethical knowledge*, *Ethical reflection*, *Ethical decision-making*, *Ethical action*, and *Ethical behavior* are most frequently used to relate ethical competence in nursing. It means knowledge, practice, education and supportive environment can strengthen and maintain ethical competence for nurses.

With the aim of conducting a descriptive literature review with the method of qualitative data collection and content analysis, this thesis was intended to develop nurses' understanding of DNR orders. The enhancement of knowledge can aid nurses in sharpening their skills to deal with ethical issues and to develop professional growth. The thesis focused on answering the question, which was *What kind of attitudes do nurses have towards DNR order?*

2 DNR ORDERS - AN ETHICAL AND COMPREHENSIVE APPROACH

2.1 History of CPR, DNR

Basic science for our existing practices of Cardiopulmonary Resuscitation (CPR) was formed from “a series of articles by Kouwenhoven, Jude, and Knickerbocker” in 1950s and 1960s (Jude et al. 1961a; 1961b; Kouwenhoven et al. 1960; Kouwenhoven and Kay 1951; as cited in Bishop, Brothers, Perry & Ahmad 2010, 1). CPR was originally applied greatly for intra- and postoperatively, when cardiovascular and circulatory problems were known to come from surgery stressors, blood loss, anaesthetics, and other medications. Patients were previously let to die but physicians now could resuscitate patients by following uncomplicated protocols and procedures. CPR technique was shortly applied throughout the hospital and beyond. (Wilderetal.1964; Zoch et al.2000, as cited in Bishop et al., 2010, 1.) It is advisable for all citizens to have certificate of basic life support (BLS), while it is compulsory for all healthcare personnel to attain certificate in advanced cardiac life support (ACLS) (Annas 1982a, as cited in Bishop et al. 2010, 1). Nowadays automatic defibrillators can be normally available all over American public places, for example, airports and municipal buildings, and CPR presumed consent with belief in medical optimism has become the social norm (Bishop et al. 2010, 1).

According to Boozang (1993), by early 1970s it was recognized that the omnipresent use of CPR/ACLS was not a technological miracle for many patients. At the final stages of lives, a cardiac arrest, the final common pathway for all death finally came about, then CPR/ACLS, a desperate and invasive intervention was performed by the code team with modest success (Bishop et al. 2010, 2). From Rabkin et al. (1976), argument of orders not to resuscitate as an option began when patients and doctors had awareness of the limitation of CPR's (Bishop et al. 2010, 2). Jonsen (1998) added that by the mid-1970s, medicine's technological optimism was growingly challenged by medical ethicists and doctor paternalism was displaced by patient rights movement to support patient self-determination (Bishop et al. 2010, 2). By the 1980s, for example in the United States, the patient's right started to include the DNR order to promote patient's self-determination against paternalistic doctors' implied pursuit for mechanically mediated immortality. Patients and relatives, and many doctors began to perceive CPR and its opposition not as a medical intervention but as another option to patients and patient surrogates. (Blackhall 1987; Carson and Siegler 1982, as cited in Bishop et al., 2010, 2.)

Due to its deep embedment in the patient choice concept, DNR could be perceived as “patient order” provided to the medical team not to resuscitate. In most U.S. health care

settings, the patient's wishes are interpreted as an implicit order to receive CPR/ACLS if he/she does not wish to provide the "order" of not resuscitating. (Bishop et al. 2010, 2.) Some jurisdictions, for instance, New York, have in fact put into law a presumption of an absent resuscitation favour as a not-to-resuscitate order (N.Y. Public Health Law 2009, as cited in Bishop et al. 2010, 2). In most institutions, this presumption is reflected by hospital policies that patient should receive CPR/ ACLS unless her/his DNR request because emergency situations are often conferred with CPR procedure (Smith 2000, as cited in Bishop et al. 2010, 2). In addition, even without detailed guidelines in those institutions and jurisdictions, it is culturally suggested that in the absence of a patient's or surrogate's DNR order, the treatment team must do CPR/ACLS even if there is no medical warranty in their belief (Muller 1992, as cited in Bishop et al. 2010, 2). CPR is often administered by physicians and other health care workers in situations of its contraindicated use probably because of fear of court cases, vague or inappropriate guidelines or patient or his family's "do everything" directive (Smith 2000, as cited in Bishop et al. 2010, 2).

According to Lindblad, Victorén, Axelsson, & Härdig (2015, 945), maintenance of airway patency, breathing support and chest compressions (CC), and possibly also use of automatic external defibrillator are components of BLS. ALS not only covers tasks done during BLS, it also facilitates the use of manual defibrillators, administration of intravenous drugs and advanced airway managements (Neumar, et al., 2010, Deakin, et al., 2010, as cited in Lindblad et al. 2015, 945) in order to improve cardiac arrest outcomes (Bhanji et al., 2010, as cited in Lindblad et al. 2015, 945).

2.2 DNR in nursing perspective

From the study of O'hanlon, O'Connor, Peters & O'Connor (2013), which was conducted "within one institution comprising three hospital areas across two sites with a diverse patient population" and without DNAR policy at that time, one third of respondents reported to be aware of one, implying the existence of informal policies. Their study also revealed that most DNAR orders were reported to be in written form by only (52%), both written and verbal by 45%. Medical notes (99%), nursing notes (62%) and verbal handover from nurses (56%) were used by nurses to remain informed of resuscitation status. Only 24% of the respondents reported DNAR orders to be clear. Furthermore, oxygen, IV fluids, antibiotics and nasogastric feeding were considered inappropriate in patients with DNAR orders by many respondents. There seems to still exist some "confusion over patients for whom a decision has been made not to offer further treatment because of palliation, and those who simply have a DNAR order (where all treatment options may be considered)".

According to a small number of respondents, intubation and defibrillation would be appropriate even in patients with a DNAR order. (O'hanlon et al. 2013, 47, 48.)

Without national policy on DNAR orders in UK, recent guidelines issued by the British Medical Association, the Royal College of Nursing and the Resuscitation Council encouraged nurses to be more involved in DNAR decisions. But "only 22% felt that the nurse should have a role" in this study. 45% of nurses reported that DNAR order should be informed to patients (O'hanlon et al. 2013, 48.)

To conclude the results from their study, nurses perceived DNAR orders as not sufficiently clear and there was lack of communication of DNAR status, especially from physicians. Most of nurses felt that DNAR decisions should be made by senior physicians, not nurses. Nearly half of the respondents thought that admitted patient to hospital should have a documented DNAR status. (O'hanlon et al. 2013, 49.)

Hilden, Louhiala, Honkasalo & Palo (2004, 165, 174) indicated that often several nurses interpreted Do-not-resuscitate (DNR) orders as part or total of palliative (symptom-orientated) care and this probably caused confusion. Originally a DNR order was intended to restrain from resuscitation, but there are different interpretations of this purpose among nurses and physicians. Half of the nurses in this study viewed this order as a shift from curative to palliative care. Patients were often provided with good basic care but not initiated with resuscitation by almost all of nurses. This means there is an alarming confusion about patient among health care professionals, which might lead to inadequate treatment of patients.

"Nurses working in different specialties had varying views on end-of-life decisions". Nurses reported to have more discussions with patients in primary health care than in surgery about these decisions. Nurses from paediatrics faced more anxiety about these decisions because it was more difficult accepting a child's death. Nurses in internal medicine understood DNR decisions as withholding resuscitation, whereas nurses in oncology viewed this as a palliative care policy decision. (Hilden et al., 2004, 176.)

According to Park, Kim, & Kim, (2011, 809), ICU nurses perceived DNR as an ethical decision-making matter which is applied to unrecoverable patients and should be referred to patients (where possible) and their family members. Several nurses thought that the decision should be based on individual case concerning patients' own family members, and his/her own unrecoverable condition.

In South Korea, patients are often excluded from most ethical decisions in relation to the medical treatments and those decisions are agreed between the patients' family members and their doctors (Lee et al. 2008, Lee 2007, as cited in Park et al. 2011, 809). Legislation should be implemented to maintain self-determination and autonomy in terms of life and death for patients in order to achieve ethically made decisions. In addition, the process of making these decisions should also fully reflect the patient's autonomy together with considering characteristics of South Korea and active involvement from nurses whose supportive role is important if there is a necessity for DNR decision. (Park et al., 2011, 809.)

Concerning implementation of the DNR directive, patients and their family members' wills are believed to be of highest importance by nurses and they should be explained clearly about the DNR directive. Furthermore, nurses respect patients' choices if patients refuse the treatment because of the patients' awareness of their hopeless condition. Nurses believe that DNR patients should also receive the best treatment with the exception of CPR initiation. Also, patients who have not been explained about DNR and those related treatments should receive emergent CPR. Nursing interventions to a patient with a DNR directive are "reduced passively to CVP monitoring, electrolyte monitoring, acid-base management and reporting on the patient's condition, but nursing activities such as active communication with the patient's family, tracheal suction and IV fluid monitoring are actively increased compared to before implementing DNR." (Park et al., 2011, 811-812.)

In a research by Assarroudi, Nabavi, Ebadi & Esmaily (2017), participants experienced that they faced "legal, ethical and operational challenge" due to the informality of DNR order. In Iranian health care system, the DNR order only exists as verbal order. CPR team members' experiences indicated that DNR order is affected by issues such as successful chances of CPR and problems for the patient and family during CPR and after revival. In terms of revival chances, physician issued a DNR order when there was low chances of recovery after performing CPR to the patient. Also, "patient's condition and the chances of long-term survival" received a DNR order. For example, a nurse in ICU stated that not performing CPR for a patient did not mean not caring for the patient, but patient would remain for a short period of time and died soon. The team also viewed death as a cause of comfort because CPR caused patients a lot of pain and suffering.

CPR team experienced that DNR order also disrupted CPR's quality and reduced their motivation for CPR performance. This quality disruption is due to the lack of hope for a successful CPR. A staff nurse said that her/ his performance was affected with a given DNR order because there was an interruption in the organization of CPR procedure for

example medication and massage, and there was a violation to team work's discipline. (Assarroudi et al. 2017.)

2.3 Legal aspects of DNR orders

According to New York State Department of Health (2010), Nonhospital Order Not to Resuscitate form has been approved (DOH-3474) as legally recognized for DNR requests from outside of Article 28 licensed facilities, and intended for patients from non-hospital or nursing home origination.

Patients with a valid Nonhospital DNR or MOLST (Medical Orders for Life-Sustaining Treatment) form with a DNR order are allowed to wear a standard metal bracelet including a caduceus and the words "DO NOT RESUSCITATE" by the Public Health Law. Valid DNR in place is assumed when a patient is identified with a DNR bracelet. (New York State Department of Health, 2010.)

Medical Orders for Life-Sustaining Treatment (MOLST), an alternative form for documenting patients' end-of-life care preferences and assuring that health care providers throughout the health care delivery system are aware of those preferences. DNI (Do Not Intubate) orders and orders regarding other life-sustaining treatment are documented in MOLST, in addition to DNR orders. "EMS agencies, hospitals, nursing homes, adult homes, hospices and other health care facilities and their health care provider staff" are to honor MOLST. By this time, "MOLST has **NOT** been approved by the Office of Mental Health or the Office of Mental Retardation and Developmental Disabilities for use as a nonhospital DNR/DNI form for persons with mental retardation or developmental disabilities, or persons with mental illness, who are incapable of making their own health care decisions or who have a guardian of the person appointed pursuant to Article 81 of the Mental Hygiene Law or Article 17-A of the Surrogate's Court Procedure Act". Only patients in full cardio or pulmonary arrest are applied with The Nonhospital Order Not to Resuscitate form. Both MOLST form and the Nonhospital Order Not to Resuscitate form must be authorized and signed by a physician. (New York State Department of Health, 2010.)

In Finland, every patient has his/her own rights in health care. According to the National Supervisory Authority for Welfare and Health in Finland (Valvira, 2016), in relation to the caring health at the end of life of a patient, also called "hoito elämän loppuvaiheessa" in Finnish language, the patient can require a DNR-order from doctors. If a patient who calls for a DNR-order, his/her own doctors will discuss with the patient this subject in case patient's health condition permits and also with the relatives of the patient in case the patient

allows to do so. If the health condition of the patient doesn't allow his/her to discuss with doctors, the doctors can discuss the DNR-order with the relatives of the patient. The discussion of DNR-order must be written in the medical record of the patient.

2.4 Ethics concerning DNR

According to Finnish nurses' association (2014), ethical guidelines aim at supporting all nurses in daily decision-making concerning questions of ethics. Guidelines expressed by nurses' missions in society as well as general nursing principles. The mission of nurses is health maintenance for population health, illness prevention and suffering alleviation. Nurses aid people of all ages including all individuals, families and communities under different circumstances, and facilitate individuals' personal resources and promote their quality of life.

Concerning nurses and patients, being responsible for her actions and to the patients in need of her help and care, the nurse treats patients as valuable human beings and ensures an environment with consideration of individuals' values, convictions and traditions. Patients' autonomy and self-determination are respected by encouraging patients in taking part in decisions for their own care. All the information provided by the patient is of great confidentiality but shared with others involved in patients' care with judgment. Nurses listen to and show empathy for patients based on relationship of mutual trust and open interaction. Every patient is treated equally without partiality according to the patients "individual needs regardless of their illness, sex, age, creed, language, traditions, race, colour, political opinion or social status". In terms of nurses and their colleagues, in the purpose of effective multidisciplinary cooperation and with respect to nursing and other professions 'expertise, nurses are supported by each other in making decisions concerning patients care, their work capacity and professional development. Nurses are aware that no unethical care act toward patients should occur among professionals. (Finnish nurses association, 2014.)

Concerning DNR orders, American Nurses Association (2012, 3) stated that the treatment goals should be included with discussion of DNR status. Examples of goals are treatment benefits versus burdens, comfort and alleviation of symptoms, and life sustaining aggressive attempts with the understanding that a withdrawal of life sustaining technology is ensured if goals agreed upon by health care team and patient side are not met (Kolarik, Arnold, Fischer, & Hanusa, 2002; Prendergast, 2001, as cited in ANA, 2012, 3.)

Patient rights for self-determination, consisting of the right to a natural death without resuscitation attempts are well supported by ANA. For example, as in ANA's Code of Ethics with Interpretive Statements (2001), Provision 1.4, nursing care should hold up for the right of patient self-determination. Nursing: Scope and Standards of Practice (2010) also clearly stated that nursing care concerns patient autonomy, rights, dignity and takes part in resolving ethical matters. It is nurses' ethical obligation to support patients or surrogate decision-makers on patient's behalf in their choices when there are no violations to principle of nonmalfeasance. In case of special ethical conflicts for a patient's nurse, mechanisms for the transfer of care to another competent nurse are in use. Nurses are also facilitated by ANA mechanisms to fully contribute "end-of-life discussions with patients and families" as well as conversations regarding DNR orders. (ANA, 2012, 11.)

3 PURPOSE, OBJECTIVES AND RESEARCH QUESTIONS

The aim of this thesis is to conduct a descriptive literature review to develop professional understanding for nurses in such an ethical topic in medicines as DNR. The purpose is to increase nurses' knowledge about DNR orders to strengthen their nursing skills in dealing with these ethical issues.

The thesis question was:

What kind of attitudes do nurses have towards DNR orders?

4 METHODOLOGY

4.1 Literature review and qualitative research

The thesis was conducted in a descriptive literature review format using methods of qualitative data collection. Coughlan & Cronin (2017, 1,5) described that literature review is used as an important tool together with other things in both updating and developing practice to answer questions on clinical problems or present discussion on academic work from using the literature. This process “involves systematically gathering, appraising and summarizing studies relevant to a problem or topic” with steps of deciding on a topic, searching and selecting the literature, evaluating and combining the findings, and lastly present results of the review. According to Polit & Cheryl (2018, 53-55), qualitative studies normally progress in a circle than a straight line because of qualitative researchers’ continually examining and interpreting data and making decisions how to proceed from discovered findings.

4.2 Data collection

Coughlan & Cronin (2017, 67) stipulated that after refining to a focused and manageable topic, researchers search for, identify and select literature in systematic manner by identifying also the databases and other sources, key words and search strategies. Researchers should have continuous evaluation of strategy to ensure that gathering data suits the review purpose. Coughlan & Cronin (2017, 57) recommended databases related to Nursing, Health and Social Care which are for example, Nursing and Allied Health Literature (CINAHL) (journals), Joanna Briggs Institute (evidence based research relating to nursing and allied health care), MEDLINE/PubMed (journals related to life sciences, particularly biomedicine). There is no full guarantee for truth worthy information from websites. The author uses these three databases in conducting the literature review. Based on supervisor’s comments and feedback, the topic and thesis question were modified to a manageable and suitable level. After identifying databases, key words and search strategies, the data were collected from one database to another. The whole procedure and also the number of articles were taken note of carefully.

4.3 Exclusion and inclusion criteria

To enhance the results of article search, predetermined inclusion and exclusion criteria were identified (Table 1).

Table 1 Exclusion and inclusion criteria for data collection

Exclusion criteria	Inclusion criteria
Review articles are excluded Editorial, articles without an abstract and available full texts are excluded Articles without peer review are excluded Practice guidelines are excluded Years of publication older than 2012 are excluded	Peer-reviewed articles Original articles Years of publications (2012-2018) Relevance to nursing and thesis question English as published language Available full texts and abstracts

For reading and organizing the literature, screening through examining the literature by title, abstract and full-text to select relevant publications concerning review topic/ question. The most commonly recommended strategy and technique for reading academic literature is the SQ3R (Survey, Question, Read, Recall and Review). (Coughlan & Cronin, 2017, 77.)

Boolean, truncation operators AND and OR are used and written in block capitals to “select or exclude articles that have particular keywords” (Coughlan, 2017, 63). Author intended to enrich the results by using OR because some texts might use *do not resuscitate* or *DNR* or *do-not-resuscitate*. In addition, author also explored for more results by using quotation mark for the term *do not resuscitate*. The purpose of quotation mark was to obtain the “exact hits” (Koppa Jyväskylä yliopisto, 2018).

Applying the method of data collection with exclusion and inclusion criteria and techniques of reading and screening techniques as mentioned earlier, the collection process and results was described in details (Table 2).

Table 2 Process of article collection and selection

CINAHL	Joanna Briggs Institute EBD Database (Ovid)	PUBMED
1. Multi field search: do not resuscitate OR DNR OR do-not-resuscitate AND nurs* (line 1) ethic* (line 2) Limit: year (2012-2018), abstract, peer review, full	Multi field search: nurs* (line 1) do not resuscitate OR dnr OR do-not-resuscitate (line 2) ethic* (line 3)	Advanced search: nurs* (line 1) do not resuscitate OR DNR OR do-not-resuscitate (line 2) n=611 After limiting search by

text. ->n=551 2. Multi field search: "do not resuscitate" OR "DNR" OR "do-not- resuscitate" (line 1) nurs* (line 2) experience OR perspec- tive OR view OR percep- tion OR attitude OR view- point OR feeling(line 3) Same limit as 1. ->n=6	Limit: year (2012-2018) There are no options to limit of peer review, ab- stract and full text -> n=170	abstract, free full text, year (2012-2018) ->n=61 There are no option to limit of peer review articles
n=4	n=0	n=1
Final results		total n= 5

For search using PubMed database, there is no tool to search for peer review articles only. The author checked for the peer review quality by herself using common criteria such as accessible information of authors and the names of publishers for those articles. There are peer review journals such as BMC Med Ethics, Indian J Palliat Care and Cancer Support Center.

Two months after the first data collection and selection, the author performed one more time the same procedure in order to increase validity of research as following (Table 3).

Table 3 The second time for data collection and selection

CINAHL	PUBMED
Multi field search: do not resuscitate OR DNR OR do-not- resuscitate AND nurs* (line 1) ethic* (line 2) Limit: year (2012-2018), abstract, peer re- view, full text ->n=566	Advanced search: nurs* (line 1) do not resuscitate OR DNR OR do-not- resuscitate (line 2) Limit: year (2012-2018), abstract, full text ->n=64

As a result of second data collection, one more relevant article was selected from Pubmed database. Finally the six selected articles include:

- Ethical competence in DNR decisions - a qualitative study of Swedish physicians and nurses working in hematology and oncology care

- Intensive care unit physician's attitudes on do not resuscitate order in Palestine
 - Jordanian critical care nurses' attitudes toward and experiences of do not resuscitate orders
 - Perspectives on the DNR decision process: A survey of nurses and physicians in hematology and oncology.
 - Should patients and family be involved in 'do not resuscitate' decisions? Views of oncology and palliative care doctors and nurses
 - The attitude of Iranian nurses about do not resuscitate orders
- The summary of selected articles was also presented as table of content in appendix 1.

4.4 Data analysis

Data analysis is progressed by grouping related information into rational scheme. Through researchers' inductive reasoning, themes and categories are identified to construct a rich description or hypothesis of the phenomenon (Polit & Cheryl, 2018, 55).

Particularly, after reading through selected articles several times to become immersed in the data (Burnard 1991, Polit & Beck 2004, as cited in Elo & Kyngäs 2008, 109), unit of analysis was selected as the preparation phase in the process of inductive analysis (McCain 1988, Cavanagh 1997, Guthrie et al. 2004, as cited in Elo & Kyngäs 2008, 109).

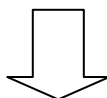
The next step was to organize the qualitative data by including open coding, creating categories and abstraction (Elo & Kyngäs 2008, 109). According to Burnad (1991, 1996) & Hsieh & Shannon (2005), open coding is headings and notes taken down from reading through the texts. Burnard (1991) added that researchers can generate categories freely at this stage. As McCain (1988) & Burnard (1991) indicated, after open coding, listed categories were grouped under higher headings. Robson (1993), Burnard (1996) & Polit & Beck (2004) defined that abstraction is generating categories in order to originate an overall description of the research topic. According to Dey (1993), Robson (1993) & Kyngäs & Vanhanen (1999), categories are used to group subcategories with similar events and incidents and main categories are used to group categories. (Elo & Kyngäs 2008, 111.)

In order to answer thesis question regarding nurses' attitudes towards DNR, author attempted to obtain definition of *attitude*. According to Chaiklin (2011, 31), there is not any universally accepted definition for the concept of attitude. More than 15,000 references resulted when one aspect of this matter was explored thoroughly (Scheider, 2004, as cited

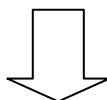
in Chaiklin, 2011). Therefore, definitions from Merriam-Webster online dictionary were centralized in this thesis to facilitate the author in investigating nurses' attitudes towards DNR orders. Attitude is defined as "a mental position with regard to a fact or state" or "a feeling or emotion toward a fact or state" which could be a negative attitude or an optimistic attitude (Merriam-Webster's online dictionary).

To present the analysis process, the author named level of categories as Elo & Kyngäs (2008) guided, which were *subcategories*, *generic categories* and *main categories*. An example utilized to demonstrate the process of analysis was presented in figure 1.

Open coding: *patient's family should be involved in DNR decision making, next of kin must play a part in DNR process, wider involvement of the family beyond simply the next of kin should be called for in such deliberations*



Subcategories: *family involvement, information to family members*



Generic category: *nurses' views on family role in DNR orders.*

Figure 1 Analysis process

In addition, the process of content analysis was also fully presented in appendix 2. This whole process aimed to find the answer to the thesis question which was what the nurses' attitudes towards DNR orders are. The identified themes from content analysis concerning the thesis question were presented in the next chapter, in which the subtitles present generic categories and bold texts present subcategories.

5 RESULTS

5.1 Nurses' attitudes and understanding of DNR and its influential factors on nurses' attitudes

Nurses' willingness to learn about DNR: Khaleileh (2014, 403) found out that Jordanian critical care nurses have willingness to take part in DNR discussions and decision-making processes. Mogadasian, Abdollahzadeh, Rahmani, Ferguson, Pakanzad, Pakpour & Heidarzadeh. (2014, 21) pointed out that nurses are willing to learn more about DNR orders, which indicated the respect for patients and their families in DNR orders.

Influences of culture and religion on attitudes: From the study of Mogadasian et al. (2014, 24), the negative attitude about DNR orders was influenced by Iranian nurses' Islamic religion both Sunni and Shiite. However, Abdallah, Radaeda, Gaghama & Salameh (2016, 38), indicated that no significant relationship between culture and opinion but religion regarding the DNR order was found in their study.

Nurses' understanding about DNR: From the study of Yang, Kwee & Krishna (2012, 53), most participants understood that therapies administered should be limited to measures available in general ward without any transfer to an intensive care unit.

Nurses' negative attitudes: In study of Mogadasian et al. (2014, 23), negative attitude was found in many key items regardless of religious sects reported by nursing participants. For example, nurses do not have willingness to discuss with patients, caregivers, or their families the DNR orders; they think health caregivers' duty is to extend life regardless of patients' or their families' wishes and inspire hope to terminally patients; all DNR orders decisions should rest on physicians; DNR orders do not discourage any unnecessary suffering; and DNR orders are legally problematic for them.

Nurses' need for more knowledge about ethics and more ethical discussion:

Pettersson et al. (2018. a, 5, 9) reported that both nurses and physicians identified several facets of ethical competence necessary for making or participating in DNR decisions. Participants emphasized the need of discussions on ethics regularly as development methods of ethical competence. In addition, "education and courses, experience, self-reflection and a good ethical climate as requisites for being able to learn and develop ethical competence" are reflected by participants.

5.2 Nurses' opinions about policy, guidelines, documentation and legalization for DNR orders

Policy, guidelines and documentation on DNR: From the result of the study by Khaleileh (2014, 403, 407), the participants suggest that every hospital in Jordan should have a written DNR policy to provide guidance for practice. Nurses preferred a coding system documenting DNR decisions in either the physician or nursing notes. "Fifty eight per cent agreed that a standard DNR form should be kept with the patient's medical notes".

Legalization of DNR: Mogadasian et al. (2014, 24) suggested that the lack of knowledge about DNR orders probably is the reason for Iranian nurses' negative attitudes. Authors concluded from the study that "Iranian healthcare providers are one of barriers to legalized DNR orders" and education might help to change negative attitudes of Iranian nurses towards DNR. Abdallah et al. (2016, 38) found out that 64.3% of physicians and nurses from study by supported legalization of the DNR order in Palestine. Authors suggest that society will be main issue in DNR legalization.

5.3 Nurses' views about patient role in DNR orders

Patient involvement: Yang et al. (2012, 52) found out that 50.7% of respondents had concerns that a DNR order could bring a substandard level of care to patients. From their viewpoints (78.8%), "patients should be involved at least in discussing if not in the determination of DNR orders, challenging the norm of familial determination in the Asian context".

Patient information: Pettersson et al. (2018. b, 1, 7, 10) identified that the majority of participants of nurses and physicians consider informing DNR decision to patients and relatives important. In addition, the right to a DNR decisions being taken after discussion with patients and relatives and decision being informed to patients and relatives were rated more important by nurses than physicians. Also, patient autonomy was nurses' forth selection after three most chosen attributes related to DNR decision. This could reflect nurses' confidence in the patient's decision-making capability, and also their wish for patient autonomy concerning these decisions.

Patient autonomy: Yang et al. (2012, 55) reported that small majority of participants had more favor for the patient in decision making than the family. Pettersson et al. (2018. b), 1, 10) found out that the three most important attributes related to DNR orders for both nurs-

es and physicians concerned more to medical than to ethical perspective. However, nurses chose patient autonomy in the fourth place related to DNR orders.

5.4 Nurses' views on their own role in DNR order

Nurse involvement in DNR decision: According to Khalailed (2014, 405, 407), nurses are thought that they should be involved in DNR decision making by 60% of participants. The majority of participants believed that nurses' views were valuable to have influences on those decisions.

Healthcare professionals' role in DNR: According to Mogadasian et al. (2004, 23), positive attitude towards DNR orders of nurses included the willingness of learning more about DNR in the consideration of patient autonomy; caregivers, and their family members involvement and healthcare providers' role in initiating discussion with patients, caregivers, or their family members about DNR orders.

5.5 Nurses' views on family role in DNR order

Family involvement: According to Khaleileh (2014, 403), patient's family are thought by 67% from the study of fifty nine per cent of female participants (69% under 35 and 75% with a bachelor's degree) that they should be involved in DNR decision making. According to Yang at al. (2012, 54-55), majority of participants believed that next of kin must take a part in such a process. 24.7 % of respondents also suggested that such deliberations should involve wider family participation beyond the next of kin.

Family information: According to Pettersson et al. (2018. b, 10), DNR decisions being taken after discussion with patients and relatives and decision being informed to patients and relatives were rated more important by nurses than physicians.

6 DISCUSSION

6.1 Discussion of results

In terms of family and patient role in DNR decision, Petterson et al. (2014, 902, 911) found out that, nurses identified that not informing patients and relatives could lead to less acceptance of the end of life among family and patients and cause obstacle to good care in DNR decisions. In their opinion, besides attempting to reach understanding between health care team, involving the patient and the relatives in the decisions on DNR is also of importance. In the study of Wen, Lin, Cheng, Chou, Wei, Chen, & Sun (2013, 2593), there was 99.8 % of signed DNR, in which 22.6 % DNR orders were signed by patients (DNR-P) and 77.2% by surrogates (DNR-S). 78.4% of DNR forms were complete, with 81.7% completed DNR-S forms and 67.6% completed DNR-P forms. The majority of DNR forms were signed by a surrogate, which may be because of negative attitudes of discussing death between medical professionals and the family members of patients. In Taiwan clinical care, families often make decisions on behalf of patients creating an ethical dilemma.

The culture and religion influence on DNR orders was also reflected in the study of Wen et al. (2013, 2596, 2597). In Chinese society, “a patient may want to know about and discuss his condition, but family members or medical professionals may conceal such information from him”. End-of-life care discussions as well as DNR Signing is often considered a taboo especially in Chinese culture. In Chinese traditional culture, the informing of bad news is shocking or related to many familial issues. They don't want to let patients to deal with the terminally illnesses or family members themselves do not know how to deal with the situation. Even medical teams have difficulty dealing with those families, resulting that medical professionals always wait until a patient loses consciousness. After that decisions about DNR order can be made easier by the family. Especially when a son or daughter sign in DNR-S forms, they struggle with considering societal opinions because they are probably accused of lacking filial devotion to their parents by the society. Meanwhile, “filial duty is the first priority and a fundamental moral in Chinese culture”. According to Santonocito, Ristagno, Gullo & Weil (2013, 17), in South America, particularly Brazil, DNR oral orders were favoured. In physicians' view, decisions were highly impacted by a sharing process with patient and an understanding of cultural and religious values.

The need for more education, clear documentation, guidelines and law as support is also reflected in some other studies. According to Wen et al. (2013, 2597), “Medical professionals are important factors influencing, and sometimes impeding, the completion of DNR orders”. Attitudes can be improved by establishing and renewing established policy of DNR, promoting professionals' communication skills, and giving rewards. Petterson et al.

(2014, 902, 910-912) also reported that nurses claimed in place DNR order will not affect patients' nursing relationship or the way they behave toward the patients' families. However, nurses expressed that more time could be spent with patient and family when "treatment changed from curative to palliative" instead of nurses' having to deal with technical medical actions. Several interviewed nurses identified that patients might be at "risk of not having a dignified life after resuscitation" because without clear decision on DNR and inadequate reporting and documentation regarding this decision, unintended CPR could occur. Several nurses perceived ethical discussions as valuable "because of the increased understanding of different actions and reasons for decisions". However, they expected to have more ethical discussions to improve more mutual understanding.

Santonocito et al. (2013, 20) also highlights the significance of continued education on professionalism especially in terms of patient autonomy. "The education, scholarship, and ethical values of medical professionalism proclaims concepts such as maintenance of competence, ethical behaviour, integrity, honesty, relationship, responsibility, accountability, service to others, adherence to professional codes, justice, caring, compassion and altruism, but also include respect for others and self-regulation. From authors' perception, patients should be taken into consideration rather than physicians' belief on what is better.

According to Yuen, Reid & Fetters (2011), even with long history in use, currently implemented DNR orders fail to "adequately fulfil their two intended purposes to support patient autonomy and to prevent non-beneficial interventions" leading to serious consequences. Patients are not facilitated to make informed decisions about DNR and receive CPR contrasting to their wishes and are harmed by this procedure. Today persistent issues associated with the use of inpatient DNR orders include infrequent DNR discussions and late conversation in the patients' course of illnesses to allow their role in resuscitation decisions, inadequate information given to allow patients or surrogates' informed decision making and inappropriate extrapolation DNR orders to limit other treatments. Strategies suggested by the authors consist of "changing the hospital culture, reforming hospital policies on DNR discussions, mandating provider communication skills training, and using financial incentives".

Regarding difference in understanding DNR orders, Santonocito et al. (2013, 17) stated that inappropriate interpretation of DNR orders could lead to a limit of care aspects for example, ICU admission. If a patient with a DNR order happened to be in critical state but still not in a cardiac arrest, there should be a transfer patient to ICU as needed. However, evidence indicated a lack of consensus throughout different countries in this matter.

6.2 Ethical guidelines for research

According to the European code of conduct for research integrity revised edition (2017, 1), fundamental principles of research integrity guide researchers in their work and their concerns with the practical, ethical and intellectual challenges in research. These principles include reliability, honesty, respect and accountability. Reliability is presented by ensuring the quality of research in terms of design, methodology, analysis and use of resources. Honesty is carrying out and presenting research in a transparent, fair, full and unbiased way. Researchers respect “colleagues, research participants, society, ecosystems, cultural heritage and the environment”. Researchers are accountable for the research idea, publication, management and administration, for training, supervision and mentoring, as well as its wider impacts. The code (2017, 3) also includes that good research practices are described in the frameworks of research environment; training, supervision and mentoring; procedures; safeguard; data practices and management; collaborative working; publication and dissemination; reviewing, evaluating and editing.

The researchers are required to master knowledge, methodologies and ethical codes in their field. By failing to uphold good research practices, professional responsibilities are violated with breaking research processes, degrading relationships among researchers, undermining the credibility of research, wasting resources and probably causing unnecessary harm to society or environment. “Research Misconduct and other Unacceptable Practices Research misconduct is traditionally defined as fabrication, falsification, or plagiarism (the so-called FFP categorization) in proposing, performing, or reviewing research, or in reporting research results”. Research results are made up in fabrication, research materials are manipulated in falsification and other people’s work and ideas are used without proper citation or quotation in plagiarism. (The European Code of Conduct for Research Integrity, 2017, 8.)

The author followed ethical guidelines in terms of upholding principles for integrity of research and avoiding research misconduct. The author maintained scheduled individual appointments and group meetings and received feedback from supervisor in a positive manner. The author also strengthened knowledge in this DNR topic as well as in research methodology by reading several books and reliable articles.

6.3 Trustworthiness

For critiquing qualitative research, the author follows Coughlan & Cronin’ guidelines (2017, 151-157) of the credibility and integrity in a qualitative research. The credibil-

ity/believability include influencing factors such as clear title, comprehensive abstract, expertise of author and well-organized writing style. The influencing factors for the integrity/robustness can be presented as following:

- logical consistency by following the steps of the research process
- clear statement of the phenomenon of interest
- clearly identified purpose/significance
- review of the literature reflecting the philosophical underpinnings relating selected research method and achieving the purposes of the review
- theoretical framework (clearly identified and appropriate conceptual framework)
- method of philosophical underpinning (identified rationales for research method with philosophical underpinnings of the method)
- sample (selection method)
- ethical considerations (ethical approval granted for this study, confidentiality, protection from harm)
- data collection and analysis (discussed methods for gathering and data analysis)
- rigour (assured trustworthiness, discussed elements of credibility, auditability, transferability and confirmability)
- findings and discussion (clearly presented findings, appropriate quotations, clearly answered research questions)
- well-discussed conclusions, implications and recommendations; and accurate references.

According to GAO (1996), the analysis process and the results were presented in detail with clear description. Polit & Beck (2004) added that reliability of the study is increased by researchers' ability to demonstrate a connection between the results and the data. (Elo & Kyngäs 2008, 112.) Elo & Kyngäs (2008, 112) affirmed that it means analyzing process should be described in as much detail as possible when presenting the results. The author reported the analyzing process and results of the review in detailed information with a table and text of clear explanations.

The articles used for the review were full-text available, original, peer reviewed, from 2012-2018 and from reliable data bases. References and citing from all used materials are in line with LAMK thesis guidelines. As defined above, the credibility of the thesis was achieved by following guidelines for thesis, in which the whole process for conducting the thesis was described carefully and in details.

The validity had been more strengthened when author performed data collection with the same criteria and method two months after the first selection and the author could select one more article. In addition, the analysis process was performed with care and presented with detailed information.

6.4 Strengths and limitations of the literature review

The material used for this thesis was articles published in English only and retrieved from free- of- pay databases, which could have limited the results and the generalizability aspect of this literature review. During the data collection and selection process, relevant articles with only abstracts in English came up but the author could not manage to translate the whole articles into English due to the time limit of the thesis. Working as a single author of the thesis might have also increased biasness.

Being aware of biasness in working as a single author for the thesis, the author had read carefully information source and followed instructions and comments from guiding supervisor as well as upholding ethical guidelines for research.

6.5 Conclusion and recommendation

Given more than 40 years in use history, DNR orders have been existing as unclear, lacking proper documentation and without consensus throughout the world. The attitudes and perceptions of DNR have been influenced by culture and religion, which might explain the difference in practice for those orders. Without proper guidelines, nurses can face several ethical dilemmas related to DNR orders and suffer distress. In most of nurses' views, DNR orders should be informed to as well as discussions about DNR decisions should involve patients and patient's family members. With a thorough understanding of DNR orders, with proper guidelines for nurses and patients and family' information, nurses can assist patients and family members in having a dignified end-of- life care and preparing for a peaceful death for patients.

The results of this review have strengthened the importance of DNR orders in nursing care. This particularly ethical issue requires professional competence to perform the nursing tasks. It is recommended that institutions and work places should facilitate ethically sufficient climate for nurses to work in by enhancing ethical rounds, promoting peer support and guidance from experienced staff and implementing proper guidelines. Further research is also needed to explore nurses' experiences of DNR orders to understand

more of this complex ethical matter. Moreover, from the review results, a closer look at the implementation of guidelines concerning patient participation and patient information is needed. Without following guidelines to inform and involve patients and family in the decision, nursing care is challenged because nursing highlights patient autonomy as the foremost value. Also, this topic of DNR is complex in its nature and is embedded in not only end-of-life care but in different care settings such as neonatal care. The results of this literature review can benefit different sectors of nursing care, at the same time, this matter can be further explored in other health care sectors.

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APPENDICES

Appendix 1 Review of the chosen articles

Number	Author, Year, Country	Title	Aim and Purpose	Participants/ Research Method	Results
1	Pettersson, M., Hedström, M., Höglund, AT. 2018. Sweden	Ethical competence in DNR decisions -a qualitative study of physicians and nurses in hematology and oncology care	investigate nurses and physicians' understanding of ethical competence concepts concerning DNR decisions, their views on learning and developing such skills and on the role of guidelines concerning development of ethical competence in DNR decisions	individual interviews with fifteen nurses and sixteen physicians. Thematic content analysis used	Ethical competence concerning DNR were reflected by physicians and nurses in terms of its components and development. Respondents described ethical competence relating to the concepts being, doing and knowing.
2	Abdallah FS., Radaeda MS., Gaghama MK. & Salameh B. 2016. Palestine	Intensive Care Unit Physician's Attitudes on Do not Resuscitate Order in Palestine	first study conducted in Palestine about DNR order to investigate the attitudes of Intensive Care Unit physicians and nurses on DNR order	a non-experimental, quantitative, descriptive, and correlational method of 24 item-based questionnaire 123 males and females (75 nurses) in four different hospitals	No significant relationship between culture and opinion concerning DNR order was found. There is large difference but no correlation between the physicians' and nurses' religious beliefs concerning DNR. 64.3% of physicians and nurses supported legalization of the DNR order in Palestine.
3	Khaleileh, Ma. 2014. Jordan	Jordanian critical care nurses' attitudes toward and experiences of do not resuscitate orders	explore "Jordanian critical care nurses' attitudes towards and experiences of DNR decisions in clinical practice".	cross-sectional survey design with sample of 111 ICU nurses from three government hospitals in Jordan	Patient's family are thought by 67% from the study of fifty nine per cent of female participants (69% under 35 and 75% with a bachelor's degree) that they should be involved in DNR decision making. 63 % of nurses stated that responsible consultant should take the overall accountability for DNR decision. Nurses' views believed to be valuable in influencing DNR decisions by 63% of participants. Physicians are potentially authoritarian or paternalistic in making decisions with no respect for patient's au-

					<p>tonomy.</p> <p>81% preferred a coding system in which DNR decisions are documented in either the physician or nursing notes.</p>
4	<p>Pettersson, M., Hedström, M. & Höglund, AT. 2018. Sweden</p>	<p>Perspectives on the process of DNR decision: A survey of hematology and oncology nurses and physicians</p>	<p>to study how important and how likely to happen in nurses and physicians' perceptions on different facets of the DNR decision process, including participation, information and documentation, as well as the most important attributes concerning DNR decisions.</p>	<p>descriptive correlational study conducting web survey (presenting a vignette) on 132 nurses and 84 physicians from hematology and oncology care</p>	<p>Patient would not be likely to get involved in DNR decision on DNR (reported by nearly half of respondents), and informing patients of the DNR decision was unimportant (by 21%). 57% considered providing information to the patient important (by 57%), but this was likely to happen (only by 21%). Nurses and physicians differ especially in terms of participation by and information to patients and relatives. The most important attributes were from more medical viewpoints for both nurses and physicians than ethical values. However, patient autonomy was chosen as the most important value by nurse, while non-maleficence as the most important value regarding DNR decisions by physicians.</p>
5	<p>Yang, GM., Kwee, AK. & Krishna, L. 2012. Singapore</p>	<p>Should Patients and Family be Involved in 'Do Not Resuscitate' Decisions? Views of Oncology and Palliative Care Doctors and Nurses</p>	<p>investigate the views of oncology and palliative care doctors and nurses on DNR orders</p>	<p>a questionnaire survey of 146 doctors and nurses (109 nurses) in oncology and palliative care working within a tertiary specialist cancer center"</p>	<p>50.7% of respondents had concerns that a DNR order could bring a substandard level of care to patients.</p> <p>Patients (thought 78.8% of participants) and the next of kin (thought by 78.1% of participants) should be involved into discussions on DNR although participants' response differed on who would make final decision. Views on the most appropriate time to</p>

					have a DNR discussion also differed widely
6	Mogadasian, Abdollahzadeh, Rahmani, Ferguson, Pakanzad, Pakpour, Heidarzadeh. 2014. Iran	The attitude of Iranian nurses about do not resuscitate orders.	explore Iranian nurses' attitudes on DNR orders and determine religion's role on this matter	descriptive-comparative study with a survey design, 306 nurses from five hospitals affiliated to Tabriz University of Medical Sciences (TUOMS) in East Azerbaijan Province and three hospitals in Kurdistan province	Nurses are willing to learn more about DNR orders. Negative attitude was found in many key items reported by participants. The negative attitude about DNR orders were influenced by Iranian nurses' Islamic religion both Sunni and Shiite. Two statistically different items between Shiite and Sunni nurses.

Appendix 2 Process of content analysis

Open coding	Subcategories	Generic categories	Main categories
<p>1. nurses are willing to participate in DNR discussions and decision-making processes</p> <p>nurses' emphasis on the need to understand ethical theories and principles.</p> <p>nurses' ability to talk how to act on ethical considerations</p> <p>nurses' ability to describe needed virtues for nurses to make or participate in DNR decisions in oncology or hematology care</p> <p>most important attributes for both nurses and physicians pertained more to medical viewpoints than to ethical values related to DNR orders</p> <p>variance in nurses' understanding of the "do not resuscitate" label</p> <p>nurses' willingness to learn more about DNR orders</p> <p>nurses' negative attitudes towards DNR orders regardless of religious sects</p> <p>culture influences decision on the DNR order</p> <p>therapies administered should be limited to measures available in general ward without any transfer to an intensive care unit</p> <p>religious beliefs greatly influence nurses' view of DNR</p>	<p>1. nurses' willingness to learn about DNR</p> <p>influences of culture and religion on attitudes</p> <p>nurses' understanding about DNR</p> <p>nurses' negative attitudes</p> <p>nurses' need for more knowledge about ethics and more ethical discussion</p>	<p>1) Nurses' attitudes and understanding about DNR and influential factors on nurses' attitudes</p>	<p>Nurses' attitudes towards DNR</p>
<p>2. each hospital should have a written DNR policy</p> <p>several nurses viewed guidelines as support and safety</p> <p>clear documentation of the decision was less possible in nurses' thoughts than physicians' viewpoints</p> <p>nurses preferred a coding system documenting DNR decisions in either the physician or nursing notes</p> <p>standard DNR form should be kept with the patient's medical notes</p> <p>nurses consented with the legalization of DNR order in Palestine</p>	<p>2. policy, guidelines, documentation on DNR</p> <p>legalization of DNR</p>	<p>2) Nurses' opinions toward policy, guidelines, documentation and legalization for DNR orders</p>	
<p>3. nurses chose patient autonomy in the fourth place related to DNR orders</p> <p>patients should be involved at least in DNR discussions if not in DNR decisions</p> <p>importance of deciding DNR order after discussing with the patient and relatives, and the importance of informing</p>	<p>3. patient involvement</p> <p>patient information</p> <p>patient autonomy</p>	<p>3) Nurses' views about patient role in DNR orders</p>	

<p>the decision to the patient and relatives</p> <p>patients and family should take a more important role than healthcare members</p> <p>nurses' stress on the importance to respect patients and their families in DNR orders</p> <p>majority preferred the patient in decision making than the family</p> <p>providing information to the patient was important, but minority thought it would be possible</p>			
<p>4. nurses' opinions in DNR discussions were thought to be valuable by participants</p> <p>healthcare providers have a role in discussing with patients, caregivers, or their family members about DNR orders</p> <p>nurses should also be involved in DNR decision making process</p>	<p>4. valueness of nurses' opinions in DNR discussion</p> <p>nurse involvement in DNR decision</p> <p>healthcare professionals' role in DNR</p>	<p>4) Nurses' views on their own role in DNR orders</p>	
<p>5. patient's family should be involved in DNR decision making</p> <p>next of kin must participate in DNR process. Wider involvement of the family beyond simply the next of kin should be called for in such deliberations</p>	<p>5. family involvement</p> <p>Information to family members</p>	<p>5) Nurses' views on family role in DNR orders</p>	