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Improving psychological security and empowerment: New model for nurses toward the care of potential organ donors

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Abstract:

BACKGROUND: Caring for brain dead patients is the heaviest of duties for nurses, and despite tremendous stress, there are no theories/models to support nurses in this situation. This study designed a supportive model for nurses to provide care for potential organ donors.

MATERIALS AND METHODS: This qualitative study was conducted in two stages. In the first stage, semi-structured interviews with 31 nurses and other stakeholders, observation and field notes continued until data saturation, (on 2018), were analyzed using continuous and comparative analysis through Corbin–Strauss method. In the second stage, theory synthesis of Walker and Avant's strategies for theory construction (2011) was used to design a supportive model/theory. The theory synthesis includes three stages: (i) selection of focal concept (the concept of "moral obligation to provide holistic care until the last minute" was selected); (ii) review of studies to identify the factors related to focal concept relevant studies (42 articles were reviewed, statements and concepts related to focal concept were then extracted and classified, and their relations were specified); and (iii) organization of concepts and statements within a relevant general and effective manifestation of the phenomenon under study which led to developing of a model.

RESULTS: In this supportive model/theory, "improving psychological security and empowerment" was conceptualized within the conceptual framework. This supportive model entails three main components, including (i) informational and educational support, (ii) systematically support, and (iii) management support.

CONCLUSIONS: According to the results, nurses with moral obligation to provide holistic care were faced with several challenges. Therefore, it is recommended that the healthcare system take supportive proceedings for nurses in various fields of the care for brain dead patients to resolve educational, moral, and legal challenges. This supportive model is essential for maintaining the nurses' health, increasing the quality of nursing care and the health of potential transplant organs.

Keywords:

Empowerment, potential organ donors, psychological security, model

Introduction

Caring for brain dead patients is one of the hardest duties for nurses, particularly in intensive care units (ICUs).[1] The care process of brain dead patients involves several challenges, which often encompass its latent dimensions, urging researchers to conduct extensive research studies in this regard. Numerous qualitative and quantitative studies have been focused on the challenges and ambiguities of nurses in caring for brain dead patients and reporting issues, such as doubt of the brain

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death diagnosis,[2,3] ambiguity in understanding the concept of brain death,[4-6] challenges in caring for and communicating with the patients' family,[7-9] religious, ethical, and cultural challenges regarding the acceptance of brain death and organ donation,[10,11] inadequate knowledge,[12,13] and lack of mental preparation for the care of potential organ donors.[5,14]

In the ICU, where death, grief, and loss are among the expected outcomes in patient care, providing nursing care for brain dead patients can be one of the most valuable nursing experiences.[2] Nurses' concern, coping with brain death, exposure with family members' concerns, and organ donation are exhausting issues causing a lot of stress for nurses.[14] Therefore, nurses need to deal with these stressful situations to care for brain dead patients and support the patients' families.

Given that time plays a vital role in the organ donation process, many of the challenges that nurses face in caring for brain dead patients and their families are related to maintain the organ and communicate with the patients' families to consent them to organ donation.[1] Therefore, paying attention and supporting nurses play a vital role in caring process since they are exposed to a lot of emotional tension and physical exhaustion.

Accordingly, special attention must be paid to the nurses' actual experience under such challenging circumstances. In fact, there is no supportive model for decision-making regarding the care for brain dead patients and increasing organ donation rates. It is of utmost importance to identify various aspects of nursing experiences in this regard.[7] Although there are models for the patients' families or for the organ donation process, there is no supportive model based on the actual experiences of nurses caring for brain dead patients.

However, a published review study in the present study showed that no organized theory/model has yet been conducted to clearly theorize the role of nurses regarding the caring process of patients diagnosed with brain death. Care system has not been designed in a way to support nurses. However, they need to be specifically educated to care for potential organ donors and the patients' families and also to communicate with other members of the treatment and care team.[15] The nature of nursing sciences requires a close relationship between theory, practice, and research. Basic application of a theory is to provide insight on practical situations of nursing and research guide.

Given the stresses that nurses endure in the process of caring for brain dead patients, they need to be supported in care process, and since the best and most appropriate model is a model that is based on social and cultural contexts of the society, grounded theory is an effective method to identify these components.[16] This study aimed to provide a supportive model based on grounded theory study "moral obligation to provide holistic care until the last minute"[15] to assist nurses and to increase the quality of nursing care to patients diagnosed with brain death so that the transplanted organs remain healthy and the organ donation process is successful.

Materials and Methods

The objective of this study was to provide a supportive model for nurses to do their professional role toward the care of potential organ donors. This study was conducted in two stages. In the first stage, the grounded theory was adopted to fully examine the care process of brain dead patients.

In the second stage, the findings were employed through Walker and Avant's strategy (2011) for theory construction.[17] Therefore, a supportive model was designed for nursing support in providing holistic and effective care of potential organ donors.

The study was carried out at hospitals affiliated to Universities of Medical Sciences in Mashhad, Neyshabur, and Sabzevar, Khorasan Razavi, Iran. The total sample consisted of 31 participants and two complementary interviews.

The sampling was initially purposeful and then theoretically based on emerging concepts and continued until data saturation. The data were collected through semi-structured interviews, field notes, and literature review. A total of 33 interviews were administered with a duration of 45–90 min. Each interview was recorded by a digital device and then implemented on the same day after listening for several times. The data were analyzed through Corbin and Strauss method involving the analysis of the concepts, context, process and consequences, and finally integration of categories to build theoretical frame work.[16] "Analytical techniques included comparisons and asking questions. The comparisons constantly evaluated concepts and events in terms of similarities and differences. The questions were continuously asked about the essence of the data covering topics, such as who, what, when, where, how, and with consequences."

This study started with a grounded theory called "moral obligation to provide holistic care until the last minute" theory[15] and adopted an independent research method (published work-based), resulting in an independent model/theory. Along with this aim, Walker and Avant proposed that the theory synthesis strategy is more applicable than the theory derivation strategy.

They stated that when a researcher or theorist has initial concepts and statements for a theory development, it is better to begin the theory development from a theory synthesis approach rather than concept and statement synthesis.[17] They have suggested three stages in the synthesis of a theory, based on which the researcher carries out the theory synthesis.

Specifying focal concept(s) to serve as anchors for the synthesized theory

The theorist may do this by specifying (i) one focal concept or variable and (ii) a framework of several focal concepts.[17] The focal concept of this theory was chosen based on the main findings of the grounded theory study.[15] Grounded theory study led to the emergence of a middle-level theory, "moral obligation to provide holistic care until the last minute." The findings of the authors' grounded theory showed that the "challenges right and duty requirement" is the main concern of nurses caring for donation organ to maintain the health of the organs for donation. Deep data analysis showed that the consequence of care tensions for nurses leads to their gradual mental and physical exhaustion.[15] Therefore, the focal concept for the supportive model in the care process of potential organ donors is determined by "the improving psychological security and empowerment (IPSE) model." Psychological security is a state in which a person perceives that his/her environment is safe and threat-free. Empowerment in care includes informational and educational supports in both patient and family care, along with overcoming doubts and conflicts felt by nurses in caring process.[15] The main hypothesis/statement was derived from the study grounded theory.

Since the world view in nursing has positively shaped the practice of nursing according to the four basic meta-paradigm concepts in nursing, namely, "person," "environment," "nursing," and "health," the focal concept of security given in care process alongside meta-paradigm concepts has been considered as the primary conceptual framework of this model. It also represents the perspective of the supportive model process.

Reviewing the published work to identify the factors related to focal concepts and specifying the nature of relationships

The second stage in theory synthesis strategy is to search exactly and to review the published work with focal concept(s) framework guidance.[17] In this study, the literature was reviewed. Before reviewing the studies, it is necessary to focus on the research question. The research question in brief was "how nurses provide care for potential organ donors?" The researcher accurately and extensively reviewed the existing published work related to the focal concept "the IPSE" and its related factors. In the published work review, there were also studies related to the caring process of potential organ donors. The searches included:

Models for improving psychological security, patient care at the end of life, empowerment models, coping model, internal conflict adjustment, stress reduction model, the role of the nurse in the process of caring for a brain dead patient, holistic care, effective care, and other relevant Persian and English texts. Available search engines containing multiple databases in Mashhad University of Medical Sciences, including PubMed, Google Scholar, EBSCO, Scopus, OVID (containing CINAHL and Cochrane Database), and also e-Journals, including Science Direct, Iran Medex, and SID, were searched without time limitation. Regarding the research question, the mentioned keywords finally 42 articles, were excluded at baseline. After screening the papers in English and Persian were reviewed which were relevant to the research question. The studies that were not in English or Persian were also selected, which were related to the aim of the study.

All documents were reviewed, related statements were recorded, and concepts were extracted by the first researcher. After determining each concept, similar concepts were classified and named in a more comprehensive and concise form since Walker and Avant proposed that interpreting data in theory synthesis into logical statements is helpful.[17]

Organizing concepts and statements into an integrated and efficient representation of the phenomena of interest

Finally, when a theorist has collected a fairly representative listing of relational statements pertinent to one or more focal concepts, the listing may then be organized in terms of an overall pattern of relationships among variables and then presented in the form of an explanation or diagram.[17] In the Results section, an organized supportive model with its structural components, including assumptions, concepts, and goals, are described in detail.

Data reliability

The quality of the current study was assessed based on the criteria of Corbin and Strauss.[16] To this end, the researcher used long-term follow-up, continuous observation, member check, search for negative items, integration, and peer debriefing. For this purpose, the transcripts, interviews, and extracted codes were presented to the participants to obtain their confirmation and complementary comments. In addition, the interviews, initial codes, and categories were reviewed

by a co-researcher and two professors in the field of qualitative research.

Maximum variation sampling (i.e., interviews with different individuals in terms of age, gender, employment status, work experience, and workplace) verified the data transferability. Moreover, the duration of the study (3 years) was also adequate. At all the stages, the researcher attempted to present the findings to the healthcare providers of various educational and clinical positions (especially nurses) in the most meaningful manner.

Ethics

The study was approved by the ethical committee of our institution (Mashhad University of Medical Sciences, Iran, with code: IR.MUMS.REC.1394.58).

Results

This study consisted of 31 participants, including 18 nurses, three family members of the patients, three physicians, and seven involved stakeholders (head nurse, shift supervisor, organ donation committee coordinator, and head of the donation committee in Khorasan Razavi province). There were 14 males and 17 females aged 26–63 years with a mean age of 37.96. The qualitative analysis of the interview data, observations, and field notes led to the extraction of 1270 initial codes, 12 subcategories, and 6 main categories.

The core concepts included "facing increased tensions and conflicts," "organ donation; a distinct care element," "inconsistency and incompatibility of care management," "effective care requirements," "challenges in patients' rights and duty requirements," and "moral obligation to provide holistic care until the last minute." "Challenges in patients' rights and duty requirements" was the main issue of the participants, while "moral obligation to provide holistic care until the last minute" was the core concept extracted from the data. Hence, the grounded theory of effort for "moral commitment to holistic care until the last moment" was developed [Table 1].

The ultimate objective of the study was achieved through analyzing the first-stage findings by Walker and Avant's method. Since the core category and grounded theory in the first stage involved effort for "moral commitment to holistic care until the last moment," the second stage adopted "the IPSE" model for nurses as the core concept.

The results were presented based on the reviewed studies relevant to the conceptual framework and their organization in the context of an overall integrated caring model/theory. Overall, in the "IPSE" model, the following theories were used and related statements and concepts were extracted:

There are four theories resulting from the comprehensive search:

- Pondy organizational conflict model: Pondy identified five stages called "conflict episode" including latent conflict, perceived conflict, felt conflict, manifest conflict, and conflict aftermath. Pondy tried to integrate the relationships between organizational and personal variables since it affects conflict, conflict process, and conflict outcomes[18]
- Psychological empowerment in the workplace: In this model, organizational empowerment and psychological empowerment were combined to analyze the role of mediators on job satisfaction and organizational commitment.[19] This ability has led to organizational commitment and job satisfaction so that employees are encouraged to perform their job duties[20]
- Empowering education model: Chaghari *et al*. designed a new model for in-service training of nurses with two main parts, including self-directed and practical. Owing to its practical nature, the empowering education could facilitate occupational tasks and provide greater mastery of professional skills among the nurses[21]
- Dynamism and continuous improvement in seeking assurance and getting approve nursing model: This contextual model was designed by Manzari *et al*. for nurses with the aim of helping the families of brain dead patients when faced with the news of brain death and requesting for organ donation, and it advocates the family-oriented approach.[22]

Before dealing with the final model, in accordance with the principles of every theory development, initially, the dimensions and the structural components of the model are explained and clarified in the following order: (i) explaining the context of the theory; (ii) defining the assumptions and concepts; (iii) explaining the goals; and (iv) describing the organization and relationship between theory components (concepts, statements, and goals).

Moreover, the paradigmatic concepts of human, nursing, environment, and health were taken into account. The literature review revolved mainly around the supportive model, where the conceptual framework was composed of other concepts. The researcher extensively and systematically reviewed the entire available literature concerning the core concept and the relevant paradigmatic concepts. The correlations and contributing factors were identified based on the results obtained from the grounded theory research. In this regard, English and Persian literature was searched for several key model concepts and elements as follows.

Table 1: The major themes and main categories derived from the data

Major themes	Category
Challenges in patients' rights and duty requirements (main issue)	The tension of keeping the organ donor alive until donation
	Fear of punishment and failure
Moral commitment to holistic care until the last moment (core variable)	Care based on ethical and conscientious values
	Care provision while adhering to the human and emotional dimensions
Inconsistency and incompatibility of care management (context)	Perceived conflicts in the acceptance of the situation
	Defects in the efficient and targeted healthcare system
Success and tranquility despite physical and mental health exhaustion (consequence)	Internal satisfaction and spiritual self-control following proper care
	Threat to physical and mental health

Structural components of improving psychological security and empowerment model

Assumptions

The main presuppositions/assumptions of IPSE model include:

- Nurses face stressful factors and various stresses in the process of caring for the brain dead patient, which requires the management of nurses in terms of psychological and educational empowerment to solve these factors[15]
- Nursing educating causes recognition and quick detection of potential donors to members' banks and increasing the quality and health of potential vital organs for donation[10]
- Nurses need psychological security to provide holistic care to the potential organ donors[15]
  Nurses found that they need to be educated and supported in all aspects of brain dead patient care, organ donation, and patient family support[7]
- Nurses need emotional, spiritual, and supportive care to care for the brain dead patient.[15]

The main concepts of the model which were explained in the IPSE model included (i) paradigmatic concept and (ii) meta-paradigmatic concepts.

Paradigmatic concept of improving psychological security and empowerment model

IPSE of nurses in caring is essential. Psychological security is a state in which a person perceives that his/her environment is safe and threat-free. Empowerment in caring, including informational and educational support in both patient and family care, along with overcoming the doubts and conflicts felt by nurses in care process resulting from their empowerment and tranquility, can provide holistic and effective care to the potential organ donors.

Meta-paradigmatic concepts of improving psychological security and empowerment model

Human

In this model, the human is a nurse who cares for the brain dead patient and has unique characteristics to pay attention to human beings as a whole and understand them. Further, in this supportive model, the brain dead patient, as a nurse's client, is a human who limits his/her health and is unable to continue to take care of himself/herself or even his/her life.

Nursing

It empowers the patient's family to use their potential abilities to evaluate conditions accurately to make the right decision. It also helps them to have a favorable interaction with their close families to prepare them to perform their optimized role. The nursing in this model adopts a holistic approach to caring. In this regard, nursing is a team process providing care of organ donors to maintain transplanted organs.

Environment

In this model, the environment includes internal and external environments.

External environment is related to the structure of the care system in the ICU, which affects the nurse's ability to provide holistic care to the potential organ donors. The internal environment is human perceptions, which are formed from his/her thoughts, beliefs, and interpretations. The internal environment refers to the nurse's beliefs, feelings, and interaction with the patient. The nurse's interaction with the brain dead patient is transpersonal and emotional. This empathetic relationship with the patient creates tranquility for nurses and makes them more eager to provide holistic care.

Health

In this model, health is the physical and mental health of the nurse to provide accurate and holistic care to the brain death patient. The mental health of the nurse represents the sense of tranquility following careful care, internal satisfaction, and spiritual self-control following proper care.

Model objectives

Generally, goals of a model/theory are the desired outcomes that the theorist wants to achieve.

- Ultimate objective of the model: IPSE for nurses is providing holistic and effective care
- Specific objectives of this model: It

includes (i) increasing the ability of nurses in the educational dimension to provide comprehensive and effective care for the potential organ donors; (ii) reducing conflict of the nurse in the caring process; (iii) improving the psychological security of nurses to provide holistic care; and (iv) increasing job satisfaction for nurses to care for the potential organ donors.

Conceptual and operational framework of improving psychological security and empowerment model

The purpose of this theory was to answer the question, "what type of supports is needed for nurses to provide care for the potential organ donors for maintaining the health of the potential transplant organs and also the health of the nurse?" Thus, the conceptual framework of the model should be directed to answer to this question. Initially, the conditions to implement the model are presented; then, the roles of this dimension in the model, type of supports, and expected outcomes will be provided.

Conditions for implementation of improving psychological security and empowerment model

There are three important requirements for the implementation of this model. First, nurses in the ICU should be trained about skills in caring process of patients, their families, and even self-care (self-guidance/self-regulation). Taking specific educational courses are needed for these nurses to acquire care empowerment, as well as gaining technical, educational, communicational, counseling, legal, and ethical "knowledge and skills" to provide care for the potential organ donors. Communicational skill is one of the most important and most necessary skills, needed to communicate with the patient's family. Nurses are responsible to regularly update their information and to participate at educational courses since one of the main problems of nurses is the lack of adequate support resources in the care process of these patients.[15]

Expected outcomes of implementing improving psychological security and empowerment model

IPSE was obtained from the combination of grounded theory and the results of the comprehensive search. It entails three main components, including informational and educational support, systematically support, and management support [Figure 1].

Figure 1 reveals that, in IPSE model, informational and educational support refers to skills in the caring process of patient, family, and self-care (self-guidance/self-regulation). Following this support, nurses acquired care empowerment, which is an effective factor in providing holistic and effective care to the potential organ donors. Management support is created through purposeful division of labor and supervision (encouragement and punishment) of the caring process, which creates an effective structure. Systematically support includes legal support, conflict resolution, and psychological counseling.

In addition to these topics, conflict is one of influential factors affecting the acceptance of organ donation from various spiritual, religious, and emotional dimensions and making patient care difficult and stressful for some nurses. Providing systematically support improves psychological security and gives nurses a sense of tranquility and success by providing holistic care to the potential organ donors.

Contributory factor in this supportive model is important in caring processes, including "moral obligation to provide holistic care until the last minute" and satisfaction with the life-giving care. It, along with other components of the model, increases job satisfaction of nurses in the care of the potential organ donors.

Discussion

The IPSE model is a supportive model based on findings of the grounded theory and other existing studies and determines the ways the nurses use their knowledge and skills to provide holistic and effective care for the potential organ donors.

This model identifies professional and unique role of nurses to care for the potential organ donors. Nurses face many ambiguities and challenges in the caring process of brain dead patient since this process has dimensions, such as patient and family care, and communication with other members of the treatment and care team. In the present study, the goal of supportive model design is to create tranquility and psychological security for nurses, resulting in their ability to provide holistic care for brain death patients. IPSE model refers to informational and educational support, systematically support, and management support.

Nurses need support because one of the challenges for nurses is the perceived conflict in accepting the concept of brain death. For systematically support in conflict resolution, Pondy conflict model considered the concept of conflict as one of the main concepts. In this model, if the conflict is resolved, all participants will satisfy. Therefore, it tried to integrate the relationships between organizational and personal variables, since it affects the conflict, conflict process, and conflict outcomes.[23] This model does not provide any intervention to improve the psychological security and empowerment of

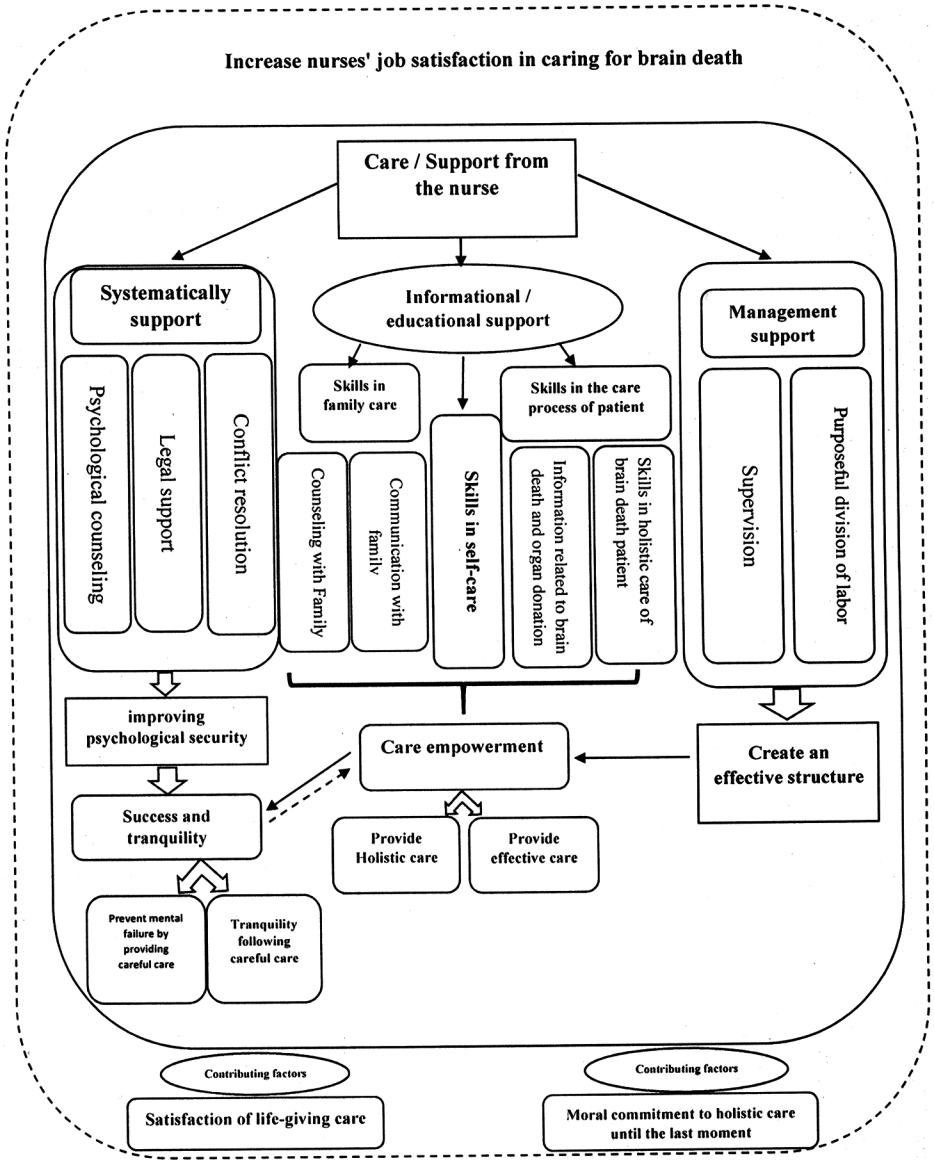

Figure 1: "Improving psychological security and empowerment model"

nurses in providing holistic care for the potential organ donors. The caring process for a brain death patient is multidimensional, and nurses face other challenges in this field, such as educational and managerial deficiencies, which have not been addressed in this model.

For conflict resolution, dimension transactional model of stress and coping, referred to strategies for achieve coping and adaptation. Stressful events are considered as challenging situations and the individual's mind perceive and will analyze and evaluate special situations. The best way deal with this situation is based on his/her ability and make sure that he gets the best results by coping with stress.[24] Nurses in caring for a brain dead patient face tensions and challenges that require a coping mechanism to overcome these tensions, and this model can be helpful in this regard. However, this model no practical solutions have been proposed to improve the psychological security of nurses and therefore will not meet the goals of the present study model.

For management support in supervision dimension and informational and educational support, the Virginia Henderson model introduced to focus on the process of organ donation and transplantation. Henderson's concepts are used to care and manage the potential organ donors, their families, and in some cases care providers. Since the nurse's performance in process care can affect the health of the organ for patients on the waiting list for a transplant.[25] According to various studies, nurses have emotional, psychological, and supportive needs to

care for the brain dead patient,[1] which should be taken into account which was not addressed in this model.

For systematically support in psychological counseling dimension, Watson's theory of caring focuses on human care is widely used in nursing practices. Caring space is important when mental or emotional care is provided to both the care provider and the care recipient.[26] Nurses need to be well prepared to provide holistic care to achieve a deeper level of humanity and universality.[27] One of the concepts of this model is transpersonal caring relationship that occurs in the care process of brain death patient between the nurse and the patient. This communication is a nonverbal communication with a focus on the spiritual dimension that the nurse communicates with the patient emotionally and spiritually without receiving feedback from the patient. Following empathetic communication with the patient, a pleasant feeling of care is formed in the nurse to care for the potential organ donors so that the healthy vital organs reach the stage of donation.

The humanitarian process is another concept of the model that nurses have identified as a consequence of caring process for brain death patients. Accordingly, after caring for these patients, they, despite enduring many stresses of care, satisfies with the life-giving care. This kind of care promises life for transplant recipients. However, this model, despite attention to communication and humanistic care and psychological dimensions of care, does not provide practical strategies for nurses to provide physiological care for the potential organ donors for the survival of potentially vital organs for donation.

For informational and educational support in skills in family care dimension, family-centered care model for critical care after pediatric traumatic brain injury was presented by Moore *et al*. Communicating with empathy as main components of the model helps reduce family anxiety on diagnostic methods, prognosis, and awareness of their child's needs so that they can ensure and trust the treatment team.[27] This model will cover part of the goals of the current study model in family care dimension. Since in this caring process, the patient's family plays a very important role, and the family's decision to donate will change care approach of brain dead patient to the potential donor. It also highlights the role of the nurse in providing holistic and effective care to maintain organ for donation.

By examining different models, it could be concluded that each of the proposed models covers only a part of the goals of the model "IPSE for nurses." "The strategies mentioned in each of the models were proposed generally to overcome the care challenges of the brain death patient to increase the quality of care of the donated organs along with maintaining the health of the nurse. This study sought to find IPSE of nurses, resulting in their empowerment and tranquility to provide holistic and effective care to the potential organ donors.

This study is the first of its kind presenting a supportive model in nursing care for brain death patient. It is a starting point for action planning in the future qualitative and quantitative studies, due to its broad context and originality, as well as the nurses' needs while doing a contextual research in this field. As Walker and Avant proposed, it is necessary that the synthesized theories be tested or otherwise cross-validated to confirm their experimental validity.

Conclusions

The results of the grounded theory demonstrated how nurses cared for these patients despite all tensions so that holistic care could be provided until the last moment. This study focused on IPSE, based on the findings of the grounded theory and extensive review of the existing published work. The results showed that the important role of nurses in the caring process of the brain dead patient is conceptualized in the framework of conceptual framework, coordination, collaboration, and IPSE. Moreover, it has to be achieved within the framework of nursing care.

The authors emphasized that IPSE requires multidisciplinary and team work and good communication between members of the treatment and care team in systematically and management support. One of the important applications of this model increase quality of care for potential organ donors. These findings are necessary to maintain the nurses' health, increase the quality and safety of nursing care, and increase the health of potential members on brain death donors and enhancing the rate of transplantation.

The limitations of this study are: the participants were nurses from the hospitals affiliated to the universities of medical sciences in Great Khorasan Razavi province, Iran. Replication of the same study either in other regions might provide further insight into exploring of the phenomenon in perspective. The strengths of this study is: this model itself is new and innovative; since there is no specific supportive model/theory for nurses to handle their care of brain dead patients to help them with this phenomenon.

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Conflicts of interest

There are no conflicts of interest.

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