Moral intelligence in nursing: An evolutionary concept analysis

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ABSTRACT

Background & Aim: Moral intelligence is a foundation and cornerstone of ethics in nursing. However, it is a vague concept which needs to develop. So, this study aimed to analyze the concept of moral intelligence in nursing to help its development and apply it in the context.

Methods & Materials: Rodgers’s evolutionary concept analysis method was used. Databases of Google Scholar, Science Direct, PubMed/Medline, Scopus, CINAHL, and IranMedex were searched from 2001 to 2020 with moral, ethics, intelligence, and nursing keywords. After considering the inclusion and exclusion criteria and removing irrelevant and duplicate articles, 46 texts were reviewed. The method of analysis was inductive content analysis.

Results: The attributes of moral intelligence were identified as considering "individual-social value", "the integrity of feeling, thinking, and action", and "semantic purposefulness". The antecedents included "prepared person", "purposeful selection and upbringing", and "supportive context", and the consequences were "personal and professional development of the nurse", "facilitating holistic care", and "organizational promotion". Based on the attributes of the concept, moral intelligence was defined as: "The cognitive and value-oriented capability of a nurse in managing the problem and conflict resolution process through self-sacrifice and conscious involvement into intra-and interpersonal relationships to achieve desirable moral and spiritual goals during comprehensive care of the client."

Conclusion: In ethical challenges, moral intelligence may function as a cognitive ability by considering individual-social values. It uses a purposeful problem-solving process that is purposeful, seeks meaning, and guides nurses to improve the quality of health services.

Introduction

We live in a dynamic and changing world where knowledge and skills gained from past experiences are not enough to meet new daily challenges (1). One of the significant challenges facing organizations today, especially health care systems, is ethical dilemmas (2, 3). Most nurses confront different aspects of ethical issues in their daily lives. Ethical practice in professional nursing requires that nurses recognize ethical problems and apply ethical principles in all nurse-patient communication and interventions (3, 4). However, knowing and applying ethical principles is directly related to human intelligence (5).

Intelligence generally means thinking, learning, and adapting to a new situation and has multiple types, including cognitive, emotional, spiritual, and moral (6). Of these, moral intelligence is the only intelligence that needs learning the rules and science of ethics. It refers to the ability of an individual to process and manage ethical problems (5, 7).

For the first time in psychology, Borba defined moral intelligence as the capacity and ability to understand right from wrong, have strong moral beliefs, apply them, and behave in the right direction (8). Moral intelligence is a new area of research. Due to its impact on other types of intelligence and its effect on healthcare professionals' performance,
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including nursing, it has been considered more recently (1, 6, 9).

Moral intelligence is not inheritable; instead, it is an acquired and evolving ability (10). Moral intelligence is a predictor of behavior and helps actions to be performed intelligently and efficiently. People with moral intelligence always apply ethical principles in practice that will increase their commitment and responsibilities and thus improves individual and group performances (9, 11).

Moral intelligence is a foundation and cornerstone of ethics in nursing (5, 12). Identifying and acquiring moral intelligence skills can lead to professional developments through fundamental changes in the nurse's attitudes towards the patient, self, and profession. Therefore, acquiring moral knowledge and the ability to cultivate moral intelligence in nurses is one of the necessities of this profession in today's world (6). Nursing ethics is a field overgrowing in terms of research and debate. But many concepts still need to be clarified (13, 14).

In nursing, the relationship between moral intelligence and some basic concepts has been examined. For example, a positive correlation was found between moral intelligence and nurses' organizational commitment (2). In another study, nurses' moral intelligence was positively correlated with patient satisfaction. Between integrity, responsibility, compassion, and forgiveness as dimensions of moral intelligence, the two concepts of integrity and responsibility predicted 71% of patients' satisfaction (15).

The relationship between nurses' mental health and moral intelligence was also examined. It was confirmed that the dimensions of compassion and responsibility in moral intelligence have the power to predict mental health. As an internal supportive factor, results showed that moral intelligence improves nurses' mental health and reduces job-related damages (16). Khajavi et al. (2020) showed a positive relationship between moral intelligence and nurses' professional behavior. They stated that increasing nurses' knowledge of moral intelligence could improve the ethical aspects of patient care and may lead to patient satisfaction with health care services (17).

As ethical issues play a significant role in today's modern society, researchers in the field of nursing need to consider the concept of moral intelligence. Furthermore, moral intelligence is a boundary between altruism and egoism and is regarded as one of the most fundamental issues in the nursing profession (6, 18). In the field of nursing, very little research has been performed on the concept of moral intelligence (19). For example, some studies have just assessed its relationship with some variables such as patient care, the nurse's ability to provide spiritual care to the patient, patient satisfaction, nurses' mental health, and so on. However, for application of the concept in a context, it should be analyzed (20), and in the authors' literature review, it was not found such evidence.

The development of concepts, which includes concept analysis, is necessary to expand nursing knowledge and to solve many of the conceptual problems of this profession. There are different methods of concept analysis. Rodgers's evolutionary concept analysis is an inductive concept analysis method. According to Rodgers, concepts evolve gradually and are influenced by the context in which they are used (20). Therefore, by considering this point that the concept of moral intelligence has entered nursing from psychology and the analysis of this concept has not been done in the field of nursing itself, and also for applying the concepts in a clinical environment, it is necessary to analyze it with Rodgers's evolutionary approach. Therefore, the purpose of this study was to analyze the concept of moral intelligence in nursing with Rodgers's evolutionary approach.

Methods

In this study, the analysis of the concept of moral intelligence in nursing was done with Rodgers inductive approach in three phases:
**The initial phase**

It was started with selecting a concept for analysis. The concept of moral intelligence in nursing was selected based on the authors' opinions, the importance of the concept in nursing, and the researchers' emphasis on the need to re-evaluate the concept. After that, the context of the concept was determined (21). The concept of moral intelligence was first entered from the field of psychology. But today, nursing researchers emphasize the need to use this concept in their discipline. Because the concept can be influenced by the context in which it is used, it needs to be analyzed (20). This concept has not been analyzed in the field of nursing since its appearance in 2001. Then, the materials for concept analysis were gathered. Inclusion and exclusion criteria had been set to ensure that a credible sample was selected.

The inclusion criteria in this study included the use of scientific resources in nursing, psychology, and management, such as articles, books, and theses in both Persian and English languages. The exclusion criteria included published articles in non-scientific journals in letters to the editor, and commentary. Finally, the texts were selected. The databases of Google Scholar, Science Direct, PubMed/Medline, Scopus, CINAHL, and IranMedex were reviewed from 2001 till 2020. The keywords were moral, intelligence, and ethics in nursing, psychology, and management in both Persian and English languages. First, 791 texts were found. After reviewing the title and abstract of the texts, 324 irrelevant and 232 duplicate texts were removed. Then, according to Rodgers's approach, 20% of the texts were selected through a stratified random sampling method (20). Finally, 46 texts, including 43 articles, two books, and one thesis, were chosen. All in all, 24 texts in nursing, six texts in psychology, and 16 texts in management were reviewed.

**The core analysis phase**

Each text was read entirely by focusing on the context (nursing, psychology, and management disciplines), surrogate (consideration of the concept with other words or expressions) and related terms (concepts which have only some attributes of the concept), antecedents (events before occurring the concept), consequences (events after occurring the concept), and attributes (the essences of the concept). This process continued until the data was saturated. A three-stage inductive content analysis, including open coding, categorization, and abstraction, was used in this study. In this way, each text was read to find out the attributes, antecedents, consequences, surrogate and related concepts of moral intelligence, and open coding. The open codes were read over and over, and similar items were placed in the same categories. Then, the categories were merged into larger ones as much as possible with a continuous comparison. Finally, abstracting was performed, and the results were presented as a general description of the concept analysis. The MaxQDA software version 10 was used for data analysis.

**The further analysis phases**

According to Rodgers, important key aspects may not reach a conclusion, and some questions and hypotheses may be raised at the end for further research (21). In this study, researchers suggested another survey by a hybrid method for better development of the concept and increasing its transparency, especially in nursing.

**Ethical consideration**

The Vice-Chancellor of Research of Shiraz University of Medical Sciences approved the study and the National Code of Ethics No. IR.SUMS.REC.1399.189 was received. Researchers also adhered to the ethical principles of mentioning the sources used in this study.
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Results

The results of this study include the attributes, antecedents, and consequences of the concept of moral intelligence in nursing as well as surrogate and related concepts. Table 1 shows a summary of the literature review. Table 2 summarizes the results of the content analysis. The concept of moral intelligence consists of two words; moral and intellectual. Also, ethical intelligence is used in texts.

Intelligence is generally defined as the ability to understand and reason, which manifests itself in various ways and is sometimes referred to as initiation and the ability to adapt to new situations (22). Morality is considered as behavioral standards guiding the actions of individuals or social groups and are used in decision-making situations about right and wrong. Ethics is based on searching for a set of right and wrong behaviors and explaining good and bad in certain circumstances (3, 6). As intelligence is defined as the capacity to adapt to a new situation, then ethics is defined as the capacity to organize the value of that situation (23). Although Borba first defined moral intelligence (8), several definitions have been used, including Lennik and Kiel's definition: "the mental capacity to determine how human principles should be applied to individual values, goals, and actions" (24).

| Table 1. Determining the attributes, definition, antecedents, and consequences of moral intelligence based on a review of the texts |

| Authors | Attributes | Definition | Antecedent | Consequences |
|---------|------------|------------|------------|--------------|
| Beheshtifar & et al. 2011 | Invitation to follow principles, practical plan for real situations, the combination of knowledge-desire and will, sensitivity and response to change, commitment, capacity to learn from others, application of moral justice, humility, desire to pursue interests | Recognize the problem, set goals, and decide what is right to do, act, and persevere, which is created through a continuous innovation process | Creating and encouraging the application of norms, roles, and rules to perform tasks, applying strategies to develop sensitivity to decision making and problem-solving | Achieving ethical goals, influencing organizational performance, making life purposeful, creating meaning in life, increasing the chances of survival and individual well-being |
| Golmohammaddian et al. 1394 | integrity, responsibility, compassion, forgiveness, service, humility and respect for others, gratitude, peace, and tranquility | The capacity and ability to understand right from wrong, to have strong moral beliefs, and to practice them | Familiarizing the child with moral laws and good and bad deeds, social interactions, situations that need to be judged on the rightness and wrongness of an action, smoothness of spiritual principles | Healthy and ethical society, improving individual and group efficiency |
| Tanner et al., 2014 | Moral commitment, moral sensitivity, moral problem solving, moral assertiveness | Ability to process ethical information and self-regulatory management so that the desired ethical end can be achieved | Ethical tools of compass of individual life (values, convictions, religious principles and beliefs, personal goals, self-related beliefs, and behavioral scripts) | -- |
| Nouhi Bezanjani, et al. 2019 | Conscience, moral courage, kindness, self-control, honesty, trust, sacrifice, responsibility, fairness | A system of principles and rules that guide people in deciding what is right and wrong | -- | Improving the quality of hospital care |
| Kruger, 2012 | Awareness, reasoning, and moral competence | A complex network of human intellectual activities that requires | Having a common sense of right and wrong, culture and personality (being inherently more | Corporate governance |
understanding, reasoning, problem-solving, decision making, and exploratory behavior.

Conscientious and having a caring personality.

Fundamental changes in the nurse's view and attitude towards the patient, self, and profession, acquisition of moral knowledge, ability to nurture, development of moral experiences, teaching ethics and moral intelligence to nurses, strengthening moral intelligence and spiritual intelligence.

Improving the profession, improving the services provided to patients, improving empathy and compliance with the patient, improving job performance, improving organizational performance, providing better educational and medical services to patients, improving interprofessional communication, and reducing costs of staff performance control.

Table 2. Results of the analysis of the concept of moral intelligence in nursing

| Attributes                          | Definition                                                                 | Antecedent                  | Consequences                      |
|-------------------------------------|---------------------------------------------------------------------------|-----------------------------|-----------------------------------|
| Considering individual-social values| The cognitive and value-oriented capability of the nurse in managing the ethical problem and conflict resolution process through self-sacrifice and conscious involvement into intra-interpersonal relationships to achieve desirable moral and spiritual goals during comprehensive care of the client | Prepared person             | Personal and professional development |
| The integrity of feeling, thinking, and action | Purposeful selection and upbringing | Facilitating holistic care of the patient |
| Semantic purposefulness             | Supportive context                                                        | Organization promotion      |

**Attributes**

In our analysis, the attributes of moral intelligence in nursing were "considering individual-social values" (self-control and altruism), "integrity of feeling-thinking and action," and "semantic purposefulness."

Considering individual-social values: This attribute was created from the two subcategories of "self-control" and "altruism." It has been considered since the emergence of this concept in psychology.

**Self-control**

Borba defined the main attributes of moral intelligence as conscience, self-control, kindness, tolerance, justice, empathy, and respect, five of which indicate the characteristic of "self-control" (18). Also, Lennick and Kiel listed the essential components of moral intelligence as integrity, responsibility, compassion, and forgiveness that all of them are fundamental to the success of an individual and organization (24). Of these components, integrity (doing what is right, including telling the truth), responsibility (taking responsibility for one's actions and decisions, accepting mistakes), and forgiveness (forgiving one's mistakes) evoke "self-control" (1).

**Altruism**

The golden moral law that is common and accepted in all religions and cultures has been stated by Imam Ali (AS): "Treat others as you want to be treated" (25). Empathy and respect, which are considered as the two characteristics of moral intelligence by Borba, make more sense concerning others (18). Lennick and Kiel see forgiveness as a vital principle that, without tolerating mistakes, could increase the possibility of inflexibility in interpersonal relationships. They also define compassion as caring for others, not just respectful communication, which requires the ability to see the world through the eyes of others (24). Furthermore,
beneficence and non-maleficence are two other ethical principles of nursing that show the "altruism" of nurses (3).

**Integrity of feeling, thinking, and action**

Moral intelligence is a fundamental tool for a person attempting to have the best performance in the assigned activities (24). Therefore, it requires an intelligent entry into a process that results in choosing between right and wrong based on moral principles (9). Moral intelligence, the primary talent for moral thinking and action (24), is rooted in emotion and reasoning (26). The human mind implements a decision-making mechanism before it becomes actively involved in an activity. Different parts of the brain are activated in this process (27). Clarken considers moral intelligence as a combination of knowledge, desire, and willpower, and the way we think, feel, and act. In his view, knowledge may not create feelings, skills, and the will to do things. Therefore, the integrity of the components is essential (8).

**Semantic purposefulness**

One of the main goals of ethics is to determine the best end for human beings and humanity. In the texts, having meaning in life, continuous behavior towards values, perseverance, and application of moral justice, and having the belief in the supervision of a strong force are also mentioned as characteristics of moral intelligence (25). A significant part of moral intelligence has meaning in human life, preventing human beings from doing things that are far from human nature and moral values. A person with moral intelligence lives in alignment with the behavior and goals of a moral compass. He/she always considers himself/herself obliged to live morally in any situation and tries to use moral justice to achieve moral goals. The reason may be a belief in the existence of a supernatural force as a supervisor (1, 24, 25).

**Definition**

Based on the attributes that emerged in this concept analysis, moral intelligence can be defined as follows: "The cognitive and value-oriented capability of a nurse in managing the ethical problem and conflict resolution process through self-sacrifice and conscious involvement into intra-and-interpersonal relationships to achieve desirable moral and spiritual goals during comprehensive care of the client."

**Antecedents**

The antecedents of the concept of moral intelligence in nursing include "prepared person," "purposeful selection and upbringing," and "supportive context."

**Prepared person**

Moral intelligence is a complex network of intellectual activities that requires understanding, reasoning, problem-solving, decision making, and exploratory behavior, which needs internal and interpersonal intelligence (8, 19). Besides, it is acquired and learned through communication and social interactions that occur at home and school environment, where the child becomes acquainted with the moral laws and good and bad practices. The primary sources of learning ethics are family, religion, life experiences, historical perspective, and individual education (18, 28, 29). So, the person should have the capacity to reach moral intelligence.

**Purposeful selection and upbringing**

Moral intelligence is an acquired ability that can be developed and evolved (10). The texts emphasize the provision of teaching moral values and the problem-solving processes to receive and promote moral intelligence in the nursing programs (30). Creating a situation to distinguish between right and wrong, having the opportunity to experience, and having a role model (31) is also necessary to learn moral intelligence (3, 32). In addition, moral intelligence is one of...
the essential capabilities of nurses. The texts emphasize the selection of students with individual qualifications (prepared person) and their purposeful development in the nursing programs (6, 33, 34). Furthermore, continuous education, holding debate sessions, providing case studies to familiarize students with the actions used in decision making are recommended. Also, creating an opportunity to train students with situations that exemplify ethical problems in interacting with patients or other professionals should be considered (32).

Supportive context

The emergence of moral intelligence in nursing requires an appropriate context in which positive inter- and-intra-professional relationships, suitable work conditions, and environment are provided (1, 23, 34, 35). To solve a moral problem that requires moral intelligence, nurses are needed to negotiate with inter-and intra-professional colleagues and respect differences (33). It is also useful to provide continuous education and opportunities for debate (32). Organizational support has been emphasized as an antecedent to decision-making and ethical behavior (36).

Consequences

Consequences include the "personal-professional development of the nurse," "facilitation of holistic care," and "organizational promotion." Identifying and acquiring moral intelligence can make fundamental changes in the nurse's views and attitudes towards the patient, self, and profession that may lead to the improvement in the performance of the nurse and his/her profession (6). It can also guarantee his/her personal and mental health (16, 24). Having moral intelligence leads to correct diagnosis, reducing patient anxiety, reducing hospital stay, reducing referrals to other centers, preventing negligence, saving time, and achieving better planning in nursing (27). Also, the role of moral intelligence has been identified in improving interpersonal and social relationships and organizational commitment, especially in health-related professionals such as nursing (2, 6).

Related concepts

Concepts related to moral intelligence include moral sensitivity, moral reasoning, moral courage, moral judgment, moral behavior, moral reflection, and moral competence.

Surrogate terms

In this study, ethical intelligence was identified as a substitute term before analysis.

Model case

In this analysis, despite a comprehensive search, no actual case model was found that had all the attributes of the concept.

Discussion

This study was conducted to analyze the concept of moral intelligence in nursing through the Rodgers approach. Our analysis showed that nursing researchers used the definitions of Borba or Lennick and Kile, but the definition of this concept has not been done in the nursing context. Also, despite the development of the moral intelligence tool in the nursing context, most studies still use the Lennick and Kile tool (24). In this study, after identifying the attributes of the concept, its definition was performed in the nursing context. Then, the antecedents, consequences, related, and surrogate terms for better clarifying the concept were determined.

Although confrontation with moral challenges is inevitable in today's society, people are less likely to discuss this challenge. They believe that they can find solutions to moral challenges through common sense and intuition. Although the managers and employees of any organization must follow ethical principles and moral intelligence in confronting and solving ethical challenges, moral intelligence has been neglected (2, 18, 33).
Among the health care professions, the nursing profession has a clear indication of moral action (37). The American Nursing Association (ANA) named 2015 "the year of ethics" to reflect the nursing profession's emphasis on ethical care preferences (38). Health care providers, including nurses, must act in such a way that requires moral intelligence, awareness of it, and application of its parameters in their professional life (27). Therefore, the concept of moral intelligence should be given more attention to nursing researchers to facilitate its application in their context.

In this study, the attributes of the concept of moral intelligence in nursing were determined as "considering individual-social values" (self-control and altruism), "integrity of feeling, thinking, and action," and "semantic purposefulness." In practical nursing, there is a potential for conflict between individual values and ethical standards. The nurse must be able to reflect on her values and ethics and anticipate conflict-causing situations and make decisions that prioritize patients' needs while maintaining their integrity (3).

Moral intelligence determines the degree of moral behavior of individuals and the degree of willingness to pay the bio-ethical costs. A person with moral intelligence does not think only of himself/herself but also determines the appropriate and inappropriate action in social relations, understands the feelings of others, empathizes with them, and takes responsibility for his/her actions (25). These attributes confirm the "self-control" and "altruism" that emerged in our study. On the other hand, moral intelligence is not only the ability to consider individual-social values but also requires the ability to make decisions and the desire to perform moral action that evokes the cognitive and behavioral component of moral intelligence (19).

Moral intelligence is the ability to process ethical information and self-regulate management in a way that achieves the desired right end (39). A person with moral intelligence as a human being has the mission of actualizing unique talent and reaching perfection and has a meaningful and purposeful life (25). Therefore, while using the process of feeling, thinking, and acting, it seeks meaning and purpose in individual and professional lives. Based on the attributes of the concept, moral intelligence in this study was defined as "The cognitive and value-oriented capability of a nurse in managing the problem and conflict resolution process through self-sacrifice and conscious involvement into intra-and-interpersonal relationships to achieve desirable moral and spiritual goals during comprehensive care of the client."

According to our review, the concept of moral intelligence has not been analyzed, especially in the field of nursing, which can be considered as one of the strengths of this study. In this study, only 20% of the available scientific texts were analyzed, so a comprehensive analysis was not performed. Also, there is a language limitation in the study. It is recommended that this concept be analyzed by a hybrid method to explore the experiences of nurses to clarify the concept further.

**Conclusion**

Nowadays, nurses face ethical challenges related to the patient, the environment, and the difficulty of working and interacting with colleagues within and between professions, which need to be addressed for personal and professional health and achieving the set goals. Moral intelligence, with its valuable attributes, is among the cognitive abilities that can guide the nurse. According to our study, moral intelligence can be defined as the cognitive and value-oriented capability of a nurse in managing the ethical problem and conflict resolution process through self-sacrifice and conscious involvement into intra-and-interpersonal relationships to achieve desirable moral and spiritual goals during comprehensive care of the client. Moral intelligence helps the involvement of the nurse in an intelligent scientific process and guides her/him to determine and achieve the meaning and goals of personal and
professional life. As a result, a healthy environment, the best quality of care, and excellence in the profession and the organization will be acquired.

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Conflict of interest:

There is no conflict of interest in this study.

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