The Development and Validation Tools of a Caring Dimension Inventory for Measuring Caring in Indonesia

Mestiana Br Karo
STIKes Santa Elisabeth Medan

**ABSTRACT**

Nursing is a human science of persons and human health-illness experiences that are mediated by professional, personal, scientific, aesthetic, and ethical human care transactions. Caring is one of the most important aspects of nursing. Caring is much more than the performance of tasks; caring is a transpersonal relationship that the nurse enters into with the patient. The purpose of this study was to systematically review to provide a coherent description of relationships, conditions, and practices that foster a caring in the environment, experience from the patients and to describe the caring behaviors of nurses who practice. Researchers have conducted systematic integrated literature reviews to effectively retrieve and integrate existing information and provide directions for their research. This study used a systematic literature review. It is a method to "recover, sort and analyze the literatures from [peer-reviewed journals] comprehensively and reproducible by peers" and this process was adopted from the guidelines proposed by utilizing multiple database of literatures published from refereed journals were recovered databases Google Scholar and ProQuest, that seemed in the period of 2011 to 2016. From the key search words using Caring, Nursing, Patient, Practice. These keywords were chosen because we aimed to identify essential components of currently existing systematic integrated literature reviews in nursing. This systematic shows same experiences in caring measurements. Six caring measurement tools were presented in the systematic review, with suggestions that the validity, reliability and comparability of available tools remain to be established. This tool was developed by Lea and Watson, (6) it consists of 25 core items of nursing practice to be caring. The items were categorized into the following 3 subscales. Such as psychosocial aspects of care which includes 12 items, technical aspects of care which includes 7 items to be caring, professional aspects of care which includes 6 items to be caring. This systematic review identified the usage of the Caring Dimension Inventory (and the Nursing Dimension Inventory) are tools that can produce data and provide indicators that are valuable in the growth of person-centred practice like nurses’ perceptions of caring, patient in care, getting to know the patient and the incongruence between nurses’ and patients’ perceptions of caring.

**INTRODUCTION**

Caring

Nursing is a human science of persons and human health-illness experiences that are mediated by professional, personal, scientific, aesthetic, and ethical human care transactions. Caring is one of the most important aspects of nursing. As nurses, we care by performing tasks, holding a hand, intently listening, or by truly being present. Nurses care by meeting the needs of the patients, family members, and other health care providers. Caring is much more than the performance of tasks; caring is a transpersonal relationship that the nurse enters into with the patient. Nursing is concerned with promoting health, preventing illness, caring for the sick, and restoring health (Watson 1979)”. Recently there have been hospital mergers, cut backs, and lay-offs, which have led to increased stress in the health care delivery.
system. Nurses are dealing with increased demands and decreased time to truly care for their patients. Caring may be perceived by patients and by families as lacking. (Watson, 2008).

Nurse theoretical definition: a person educated to act as a co participant in a process in which the ideal of caring is the human-to-human, subject-to-subject transaction. Operational definition: In this study, any individual who has completed a formal course of study and has passed an Indonesia license examination and is registered as either a licensed practical nurse. This individual must be practising fulltime in the hospital practice. Points out that healing is a term that evokes a sense of familiarity even though the range of meanings for the term is highly diverse. From a review of the literature, this investigator confirmed Kritek’s observation. The terms healing and healing environment were rarely defined; however, the terms were commonly used as though their meanings were well understood. (Watson, 2008).

Akansel, et al (2013), to validate a Turkish version of the Caring Dimensions Inventory in a group of Turkish nursing students. There are no studies about how nurses or nursing students perceive caring in nursing in Turkey. There is also no valid and reliable instrument in Turkey forevaluating caring in nursing. Descriptive study design. Using a convenience sample of nursing students (n = 266), standard forward-back translation techniques were used with the Caring Dimensions Inventory. An expert panel considered the translations and provided content validation. A final version of the Caring Dimensions Inventory was tested with 10 nursing students, and we found no difficulties with the items in the instrument. Mokken Scaling analysis of the Caring Dimensions Inventory was used. A range of psychosocial and professional/technical items was included in the Mokken scale with ‘Providing privacy, information and attention’ the most endorsed (mean = 4-6) item and ‘Being with a patient during a clinical procedure’ being the least endorsed (mean = 3-87). There is a tendency for the most endorsed items to be psychosocial with the professional/technical items being less endorsed, with the exception of the least endorsed item ’Being with a patient during a clinical procedure’ which is a psychosocial item. The Turkish version of the Caring Dimensions Inventory is a reliable instrument for measuring nurses’ perceptions about caring.

The significance of environment on the professional is reproduced by its recognition as a defining model in Nursing’s meta paradigm, which is the foundation of contemporary nursing concepts. The meta paradigm model (person, health, environment, and nursing) and the schemes that describe the interactions among these concepts define the domain of nursing and differentiate it from other science. Nursing’s meta paradigm is recognized as a key framework that signifies a unique perspective for inquiry and practice” (Fawcett 2000, p. 4).

**Human caring**

Nursing theory provides a systematic way of looking at professional practice, describes what nursing is, guides what nurses do, and helps generate knowledge to direct the future of nursing. Human caring as the foundation for our professional nursing practice environment. “Caring begins with being present, open to compassion, mercy, gentleness, loving kindness, and equanimity toward and with self before one can offer compassionate care to others” (Watson, 2008s).

The following Caritas Processes are the guiding framework of this theory: practising loving-kindness toward self and others, being authentically present, cultivating one’s own spiritual practices; deepening self-awareness, developing and sustaining a helping-trusting, authentic caring relationship, being supportive of the expression of positive and negative feelings, creative use of self and all ways of knowing as part of the caring process, engaging in genuine teaching-learning experiences within context of caring relationship - attend to whole person, creating healing environment at all levels, reverentially and respectfully assisting with basic needs and attending to spiritual, mysterious, unknown dimensions of life-death-suffering; “allowing for a miracle” “Caritas comes from the Greek word meaning “to cherish, to appreciate, to give special attention, if not loving, attention to.” Human caring orientation differs from conventional science and invites qualitatively different aspects to be honoured as legitimate and necessary when working with human experiences and human caring-healing, health, and life phenomena. Human being is a valued person to be cared for, respected, nurtured, understood, and assisted; in general a philosophical view of a person as a fully functional integrated self. Human is viewed as greater than and different from the sum of his or her parts. (Watson, 2008).

**Caring Dimension Inventory**

The Caring Dimensions Inventory (CDI) is a quantitative tool to measure caring that was developed at the University of Edinburgh, Scotland. The conceptual theoretical basis for the tool was guided by an empirical rather than theoretical approach to caring that acknowledges some of the general caring theory literature. The theoretical approaches used were those that supported the operationalization of caring through specific taxonomies and measurements. Several studies using this instrument have been reported in the literature, although the authors indicate that they have not systematically gathered information on the extent of its use. (Watson, 2009,p.179)

In the development of the CDI, general categories of care were developed from the literature review. The four most popular themes were used to classify the CDI questions, as they were believed to describe general categories of care. A total of 25 core items was included on the CDI. The CDI questionnaire was administered to nurses and student nurses in a local health trust and to a student sample in a neighboring health trust. From a distribution of 3,024 questionnaires, 1,452 were returned, representing a 47% rate of return. Cronbach’s alpha was used to establish reliability and internal consistency of the 25 core items at .91. Additional construct analysis was conducted to determine if there was a significant relationship between age and sex and CDI. The Mokken scale and SPSSPC+along with a Spearman’s correlation of age were used to conduct sophisticated analysis. Kruskal-Wallis one-way ANOVA of CDI Mokken scale scores for male and female subjects was carried out, yielding statistically significant results (p < .05) suggesting a relationship between age and CDI Mokken scale score, and differences between males and females. An interesting finding was that older nurses perceive more technical aspects of nursing work, in addition to psychosocial aspects, as being caring. Males tend to perceive of nursing (caring) in more psychosocial terms than females (Watson & Lea, 1997). Content validity was demonstrated through the content findings of previous quantitative research on caring, as well as presentation of caring in popular nursing journals.

**Statements of Problems:**

Caring is one of the most important aspects of nursing. As nurses, we care by performing tasks, holding a hand, intently listening, or by truly being present. Nurses care by meeting
the needs of the patients, family members, and other health care providers. Caring is much more than the performance of tasks; caring is a trans personal relationship that the nurse enters into with the patient. Therefore, it is better to be caring become a concern in the practice of nursing and caring need their measurements tools. Caring measurement tools is needed to move the body of knowledge further especially in Indonesia. The Caring Dimensions Inventory (CDI) is a quantitative tool to measure caring that was developed at the University of Edinburgh, Scotland. The conceptual theoretical basis for the tool was guided by an empirical rather than theoretical approach to caring that acknowledges some of the general caring theory literature. The objectives of this a systematic review are:

- To development and validate a caring dimension inventory to assess development of professional values in nursing.
- To create nursing practice from the professional nurses tim in the hospital.
- To provide a coherent description of relationships, conditions, and practices that foster a caring in the environment, experience from the patients and to describe the caring behaviors of nurses who practice.

METHOD

Protocol and registration

The American Journal of Occupational Therapy (AJOT) was planned and conducted using the preferred reporting items for systematic review and meta-Analysis (PRISMA) guidelines.

Eligibility criteria

Type of studies are quantitative (descriptive, independent sample t test, paired t test, etc.) and qualitative studies to explore the experience caring dimension inventory and to identify tools or methods that used.

This study used a systematic literature review. It is a method to “recover, sort and analyze the literatures from [peer-reviewed journals] comprehensively and reproducible by peers” and this process was adopted from the guidelines proposed by and this process was adopted from the guidelines proposed by Im & Chang (2012 p. 632–6). (Im, E. O., & Chang, S. J. (2012). A systematic integrated literature review of systematic integrated literature reviews in nursing. Journal of Nursing Education, 51(11), 632–6.)

Researchers have conducted systematic integrated literature reviews to effectively retrieve and integrate existing information and provide directions for their research. Systematic integrated literature reviews have been used by researchers to (a) set, rati -onalize, and revise hypotheses, (b) understand and minimize pitfalls of previous work, (c) obtain an estimated sample size, and (d) identify important confounding effects and covariates that need to be considered in future studies (Mulrow, 1994). Health care providers also conduct systematic integrated literature reviews to keep informed with the primary literature in a specific health care field (Mulrow, 1994).

Utilizing multiple database of literatures published from refereed journals were recovered were databases Google Scholar and ProQuest, that seemed in the period of 2011 to 2016. From the key search words using Caring, Nursing, Patient, Practice. These keywords were chosen because we aimed to identify essential components of currently existing systematic integrated literature reviews in nursing. When integrated or in -tegration was added to the keywords, the retrieval of the articles was limited, and all of the retrieved articles from this search were overlapped with those retrieved using the three keywords above.

A total of 953 articles that were written in English and contained the keywords in the text or abstracts were retrieved through the database searches. Then, abstracts of the retrieved articles were reviewed to determine whether they met the inclusion criteria of this review. Through this process, 287 articles were selected based on the abstracts. Then, the full text of all 30 articles was reviewed to determine whether the articles met the inclusion criteria. Finally, a total of 10 articles were selected and included in this systematic integrated literature review.

Search

Utilizing the electronic of the evidence published between 2011 and 2016 was undertaken using the following databases Google Scholar, and ProQuest. From the key search words using Caring, Nursing, Patient, Practice. These keywords were chosen because we aimed to identify essential components of currently existing systematic integrated literature reviews in nursing.

Study selection

First, titles and abstracts were assessed to exclude clearly irrelevant record. Second, full texts were assessed for eligibility. Third, all search results if duplicates were removed. Fourth, all The articles following inclusion criteria: Fifth, the classify studies into qualitative and quantitative studies following the authors description (table 1).

Criteria inclusion:

- Used and described systematic search methods,
- Were relevant to nursing practice or discipline,
- Only those originally published in English,
- Peer reviewed in international journals of nursing,
- Focused on the caring dimension inventory

RESULTS AND DISCUSSION

Utilizing multiple database of literatures published from refereed journals were recovered databases Google Scholar and ProQuest, that seemed in the period of 2011 to 2016. There were 150 articles initially reviewed and 10 articles were retained that met the inclusion and exclusion criteria. The inclusion criteria were the systematic integrated literature reviews that (a) used and described systematic search methods, (b) were relevant to nursing practice or discipline, and (c) only those originally published in English, (d) peer reviewed in international journals of nursing, (e) focused on the caring dimension inventory.

Caring

Caring and nursing are so intertwined that nursing always appeared on the same page in a google search for the definition of caring (Lachman, 2012). Caring is “a sensitivity and exhibiting concern and empathy for others; showing or having compassion” (The Free Dictionary, 2002). As these meanings show, caring is a sensitivity that also requires an action. Dr. Jean Watson’s caring theory is well known in nursing. The three major elements of her theory are the...
Caring is the moral ideal of nursing, a value and an attitude that has to become a will, an intention, or a commitment, that manifests itself in concrete acts (Watson, 1998). Caring is the “heart of nursing,” an ontology that is the ethical and philosophical foundation of the art of nursing, and it involves a deep commitment to the patients, families, and communities that nurses encounter. Students learn caring behaviors through faculty modeling and values in the traditional classroom setting (Watson); however, these behaviors are difficult to portray in the online environment. (Plante, K., & Asselin, M. E. 2014). Caring is another key concept integral to professional nursing (Duffy, 2005; Mayeroff, 1971)—a quality valued by recipients of nursing care and one that has been linked is helping the other to grow, with major dimensions of knowing, patience, honesty, trust, humility, hope, courage, and alternating rhythms. In her review, Duffy (2005) referred to caring as “the core or essence of nursing and the basis for nursing interventions” (Benson, G., Martin, L., Ploeg, J., & Wessel, J. 2012).

Edvardsson, et al. (2015). The concept of caring, its definition and importance for nursing have been debated in scholarly forums for decades and caring is still receiving empirical interest in contemporary nursing research (Palese et al. 2011, Papastavrou et al. 2012a,b). Notwithstanding its elusive clinical appearance and complex conceptual construction, there seems to be a consensus in the literature that caring represents the moral aspect or ethical dimension of nursing practice (FinfgeldConnett 2008a, Papastavrou et al. 2012a,b). Watson (1985) together with Benner and Wrubel (1989) are among those acknowledged as being pioneers in nurse caring. Watson has continued to advocate that nursing is the philosophy and science of caring and that caring brings meaning, dignity and altruism to nursing and patient care (Watson 2008).

Edvardsson, et al. (2015). The conceptual properties and dimensions of caring have been described somewhat differently in the literature and a consensus conceptual definition is yet to be established (Sargent 2012). Morse et al. (1990) highlighted the complex conceptualisations of caring in four dimensions: caring as a moral trait, as an interpersonal relationship, as a therapeutic intervention and caring as an affect. Later, FinfgeldConnett (2008a) outlined prerequisites for caring in terms of being open for caring, being in a supportive working environment, being professionally mature and having a strong moral foundation. Furthermore, she described caring as being context-specific, interpersonal and process oriented, and facilitated by expert nursing provision, sensitivity to others and the creation of intimate relationships (Finfgeld-Connnett 2008a).

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**Figure 1. Flow diagram of reviewing process according to PRISMA**

- **Records identified through Database searching Scholar (n= 245)**
- **Records after duplicates removed (n= 433)**
- **Records screener (n=287)**
- **No tool or strategies reported: 35**
- **Disertation abstracts: 15**
- **Full text articles assessed (n=30)**
- **Studies include in Total Quantitative (2) Total Qualitative (8)**
- **Studies excluded due to selection criteria (n=10)**
McCormack and McCance (2006) presented a mid-range theory that suggested conceptual links and common elements between caring and person-centredness. In this theoretical framework, caring emerges through attributes of nurses, from the environment of care and from a range of person-centred care processes and is postulated to result in outcomes such as satisfaction, involvement and subjective. Furthermore, the caring and uncaring potential in the physical and psychosocial care environment and how this can impact relationships, experiences and interactions have also been described previously (Edvardsson et al. 2006). With a specific focus on the caring potential in relationships, Nolan et al. (2004) highlighted the significance of relationships that promotes experiences of security, belonging, purpose and achievement for caring to be realised in nursing practice. More recently, it has been suggested that caring may benefit from being reframed as a discursive practice rather than a conceptual entity, due to its ongoing conceptual elusiveness and debate (Sargent 2012). Sargent (2012) In addition, it was also suggested that the time is ripe to move away from debating a definition of caring towards acknowledging the complex and subjective nature of caring as unfolding through care processes, behaviours and interactions. (Edvardsson, et al. 2015).

Caring Dimension Inventory (CDI): This tool was developed by Lea and Watson, it consists of 25 core items of nursing practice to be caring. The items were categorized into the following three subscales: psychosocial aspects of care which includes 12 items to be caring (making a nursing record about the patient, explaining a clinical procedure, reporting a patient's condition to a senior nurse, being with a patient during a clinical procedure, being honest with a patient, listening to a patient, instructing a patient about self-care, measuring of vital signs, being technically competent
with a clinical procedure, giving reassurance, providing privacy, observing the effects of a medication on a patient); Technical aspects of care which includes 7 items to be caring (feeling sorry for a patient, sitting with a patient, exploring patients life style, consulting with a the doctor about a patient, putting the needs of a patient first, involving a patient with his care, being cheerful with a patient), and professional aspects of care which includes 6 items to be caring (assisting a patient with activity of living, getting to know the patient as a person, organizing the work of others for a patient, sharing your personal problems with a patient, keeping relatives informed about a patient ). Acceptance of oncology nurses on the aspects of care, indicate their agreement to items about their nursing practice as constituting caring. (Shehata, A. G.(2013).

The study refines understanding of the relationship between aspects of nursing practice to be caring and degree of depression. The study revealed that aspects of nursing practice to be caring were affected conversely by degree of depression and oncology nurses not aware of outcomes. In the light of the above findings, it is obvious that working in oncology care setting has its negative impact on nurse’s psychological state. Consequently, have negative implications upon the different caring dimensions in oncology setting. (Shehata, A. G.(2013).

Caring behaviors:

Caring represents an essential human need and a fundamental component of the nursing profession.1 Since defining of caring is difficult, due to its complex nature, some nursing researchers have tried to define “caring behaviors” instead of “caring”. Caring behaviors are actions concerned with the well-being of a patient, such as sensitivity, comforting, attentive listening, honesty, and nonjudgmental acceptance. Salimi, S., & Azimpour, A. (2013). The results demonstrated that there are more similarities than differences between the perceptions of nurses and relatives with 6 of the most important items common to both groups and in the ranking order of the subscales. Both groups placed a higher value on caring behaviors which demonstrate technical competence, altruistic and emotional aspects of caring. Papastavrou, E., Efstatiou, G., & Charalambous, A. (2011).

An additional challenge in the online environment involves identifying ways to display the caring behaviors typically displayed in the traditional classroom setting, (Gallagher-Lepak et al., 2009) through behaviors, interactions, and role-modeling by faculty. In an online class, these behaviors are difficult to portray. (Plante, K., & Asselin, M. E. (2014). An additional challenge in the online environment involves identifying ways to display the caring behaviors typically displayed in the traditional classroom setting, through behaviors, interactions, and role-modeling by faculty (Gallagher-Lepak et al., 2009). In an online class, these behaviors are difficult to portray. All studies had a clear statement of research question(s) and almost all researchers used an operational definition of caring, that is of caring behaviors. The scientific background and explanation of the rationale was reported in all the documents except two. (Plante, K., & Asselin, M. E. (2014).

Human Caring, There is a pervasive emphasis in nursing literature regarding the importance of human caring is to the development of transpersonal relationships, which is quintessential to the conception and sustainment of a caring and healing environment. However, the nursing home administrator is not specifically addressed in these relationships. Thus, it is important to investigate the following research question: “What is the association between human caring and nursing home administrator turnover? Data discovered through this study will assist with addressing the gap in literature regarding this critical focus area. Secondly, research in this area could revolutionize the way health care is being delivered in contemporary nursing homes today. It is hypothesized that having nursing home administrators who manifest high caring levels, as evidenced by scoring high levels on the Caring Dimension Inventory (Watson and Lea, 1997), will contribute to improved patient satisfaction, decreased staff and nursing home administrator turnover, reduction in quality of care deficiencies (falls, pressure ulcers, dehydration, significant weight loss), and decreased incidents of abuse and neglect of nursing home residents. Additionally, the proliferation of the nursing shortage in nursing homes makes this focus on caring more crucial than ever, as it could have negative implications on quality of care. (Norton, L. P. (2016).

Furthermore, since administrators are accountable for every component of nursing home operations and care, it is important to investigate if there is a correlation between caring and administrator turnover. If research indicates that nursing home administrators who manifest high caring levels have lower turnover rates, leaders of nursing home organizations could begin to use this information in the screening and hiring process of administrators; provide training for administrators on caring; develop, implement, and apply programs focused on “caring practice” and utilize these programs as an innovative standardized level of practice for nursing home care. Future research could also benefit from the application of a caring conceptual framework, such as Jean Watson’s Human Caring Theory, that focuses on opportunities for offering compassionate care to elderly individuals residing in nursing homes. The application of a “caring practice” framework may prove to help in the diffusion, stabilization, and creation of an atmosphere integrated with love, caring, kindness, and support for both staff and residents; and ultimately a “healing environment”. Norton, L. P. (2016).

Human Caring in Nursing and Healthcare, indicated that compassion is currently at the frontline of national and international policy, practice and educational debates in healthcare (Dewar (2013)). The emphasis on compassionate care is set in a progressively complex healthcare context, often dominated by concerns regarding outcomes, efficiency, productivity, and competence. However, there is consensus that care and compassion remain essential to health and social care. Although increasing value and focus is being emphasized on compassion and caring in some healthcare settings, there remains little understanding regarding how it can be promoted in others, especially nursing homes. (Norton, L. P. (2016).

Nursing homes could benefit from research studies examining the effects of human caring on nursing home administrator turnover. Nursing has a distinguished history of caring for individuals who are sick, disabled, and vulnerable. Caring has been historically viewed by nursing as the core foundation of it’s existence. The delivery of nursing care requires an interpersonal process between the nurse as “caregiver” and the patient as the “care recipient” (Carter et al., 2008). This interpersonal process necessitates that the nurse both cares for and about the patient. However, the rapid expansion in technology and specialization has contributed to the negative perception that the healthcare delivery system has become depersonalized, especially in nursing (Carter et al., 2008). “Getting the work done remains a predominate underpinning of work culture in many settings and this may or not include the work of caring about the patient” (Carter et al., 2008). Although the literature has much information on the concept of human caring and its relationship to nursing practice, there is a dearth of
information regarding human caring practice in the nursing home setting. A study conducted to examine the effects of human caring and nursing home administrator turnover will assist with correcting this gap in scientific knowledge. (Norton, L. P. (2016).

Adams, L. Y., & Maykut, C. A. (2015). A moment of caring is the “heart-centered encounters with another person when two people each with their own “phenomenal field” background come together in a human-to-human transaction that is meaningful, authentic, intentional, honoring the person, and sharing human experience that expands each person’s worldview and spirit leading to new discovery of self and other and new life possibilities” (Watson, 2008, p.34). Caring reflects supportive-comfort measures and of the timeless ways of instilling faith and hope in one who is already experiencing vulnerability and suffering (Watson, 1979).

Caring, as a moral ideal of nursing, is defined as an attitude, an intention, and a commitment that manifests itself in the nurse’s approach and encounter when directly involved with their patient (Tanking, 2010). As the expression of caring occurs in relationship, it is the nurse’s responsibility to develop moral maturity through critical self-reflection (Sumner, 2010) thereby, facilitating an opportunity for shared discovery of meaning. This co-creation of a caring relationship which embodies genuine presence, compassion, respect, and the essence of our humanity foster meaning and value for the patient and the nurse, as well as the nursing profession. (Adams, L. Y., & Maykut, C. A. (2015).

Discussion and Limitations:

There is an increasing emphasis on the provision of person-centred care within healthcare systems that is broadly interpreted as treating people as individuals. Existing evidence would suggest that to work effectively in this way requires the formation of therapeutic relationships between professionals, patients and others significant to them in their lives and that these relationships are built on mutual trust, understanding and a sharing of collective knowledge (Binnie & Titchen 1999, McCormack 2001, 2004, Dewing 2004, Nolan et al. 2004). This approach is also consistent with previous nursing literature on therapeutic caring, which similarly emphasises the importance of concepts such as relationships, values and caring processes underpinned by humanistic nursing theories (McCance et al. 1999, Dewing 2004). This paper reports findings from a large-scale quasiexperimental study investigating the feeling of caring person-centred nursing (PCN), illustrating how the two concepts can work together to provide greater insights into the development of person-centred care. (McCance, T., Slater, P., & McCormack, B. (2009).

Humanistic Caring and Person-Centredness

While a definitive definition for both caring and personcentredness remains illusive in the literature (Paley 2001, Nolan et al. 2004), there are underpinning principles that drive research, education and practice that focus on both these concepts. Many of the theories on caring are founded on underpinning principles that are consistent with a human science approach. These principles include: a philosophy of human freedom, choice and responsibility; the importance of human relationships; and a belief that persons are nonreducible and connected to others and the environment around them (McCance et al. 1999). The principles of personcenteredness advocated by the authors of this paper include: respect for persons; the rights of individuals as persons; the values and beliefs of individuals; mutual respect and understanding; and the development of therapeutic relationships (McCormack et al. 2008). Comparing these elements at a level of principle draws out important similarities that focus on the person and on the development of relationships. (McCance, T., Slater, P., & McCormack, B. (2009).

The concepts of person and personhood are central to both caring and person-centredness. The word ‘person’ captures those attributes that represent our humanness and the factors that we regard as the most important and most challenging in our lives. Persons should always be treated as ends in themselves and not as a means to another’s end—a principle that guides ethical, legal and moral frameworks in nursing and healthcare. McCormack (2001) undertook a philosophical analysis of the concept of person. McCormack concluded that it is the ability to engage in reflective evaluation of action that distinguishes persons from other creatures. Through reflection, an individual is able to derive a set of principles that guide decision-making throughout life and determine what one does in particular situations. In this way, persons are capable of making choices that are their own. The person’s perspective is built on their philosophy of living out what they believe to be the most important in their lives. Persons are capable of making choices that are their own. The person is not defined by their actions, but by their ability to engage in reflective evaluation of action that distinguishes persons from other species, i.e. our personhood. (McCance, T., Slater, P., & McCormack, B. (2009).

The idea of the reflective person can also be seen in the caring literature. Watson (1985), in her Theory of Human Caring, refers to person as ‘a “being-in-the-world” who possesses three spheres of being – mind, body and soul – that are influenced by the concept of self’. Theory of nursing as caring describes personhood as that which implies ‘living out who we are, demonstrating congruence between beliefs and behaviours and living the meaning of one’s life’ (p. 8). The patient-centred, client-centred, person-centred care literature also reflects this ideal, generally focusing on what it means to be a person and how that is taken into account in caring interactions (McCormack 2001, Nolan et al. 2004). Fundamental to this way of working is the value placed on the nurse–patient relationship. McCormack (2001) suggests that the nurse–patient relationship must take into account what the patient is as a person and how these impacts on the understandings and expectations within that particular relationship. Implicit in all of this is the importance of getting to know the person. This is a theme that has characterised the concept of caring and has been identified through concept analysis, as a critical attribute (McCance et al. 1997). The need to understand self and others was also from a concept analysis undertaken by Brilowski and Wendler (2005), but was identified as an antecedent (needs to be present for caring to occur), as opposed to a critical attribute. Similarly, McCormack (2004), who explored personcentredness and how this applies to gerontological nursing, suggests that knowing what the patient values about his/her life and how he/she makes sense of events (being with self) is one of the core concepts at the heart of PCN. (McCance, T., Slater, P., & McCormack, B. (2009).

The study described in this paper was underpinned by the PCN framework, which brought together previous empirical research focusing on person-centred practice with older people and the experience of caring in nursing (McCormack & McCance 2006). In summary, the framework comprises four
constructs. Prerequisites focus on the attributes of the nurses and include being professionally competent; having developed interpersonal skills; being committed to the job; being able to demonstrate clarity of beliefs and values; and knowing self. The care environment focuses on the context in which care is delivered and include appropriate skill mix; systems that facilitate shared decision making; effective staff relationships; organisational systems that are supportive; the sharing of power; and the potential for innovation and risk taking. Person-centred processes focus on delivering care through a range of activities and include working with patient’s beliefs and values; engagement; having sympathetic presence; sharing decision making; and providing for physical needs. Outcomes, the central component of the framework, are the results of effective PCN and include satisfaction with care; involvement in care; feeling of well-being; and creating a therapeutic environment. The relationship between the constructs suggests that to deliver positive outcomes for patients and staff account must be taken of the prerequisites and the care environment, which are necessary for providing effective care through person-centredness. Further, it indicates that the synergy between caring and person-centredness and to some extent demonstrates that the concept of caring is inherent within a philosophy of person-centredness. (McCance, T., Slater, P., & McCormack, B. (2009).

Evaluating person-centred practice

It has been recognised that while there is a lot of emphasis on providing care that is person-centred, translating the core concepts into professional practice is challenging, with few research studies reported that evaluate the caring outcomes that may arise from PCN (McCormack & McCance 2006). This has been further compounded by the lack of valid instruments within the literature that go some way to measuring elements of person-centred practice. The measurement of caring, however, has differed somewhat differently, with a proliferation of instruments reported in the literature that aim to measure caring in nursing. The Caring Dimensions Inventory (CDI) is one such instrument that has been developed within the UK by Watson and colleagues (1999, 2001). It comprises 35 operationalised statements of nursing actions designed to elicit the degree to which participants perceive these actions as representative of caring using a 5-point likert scale. The items included in the instrument have been categorised as ‘psychosocial’, ‘technical’ ‘professional’ ‘inappropriate’ and unnecessary activities. The CDI has been used to ascertain perceptions on caring from the perspective of a range of groups, including registered nurses, nursing students and non-nursing students (Watson et al. 1999, 2003a), between different clinical areas and specialities (Lea & Watson 1995, 1999, Walsh & Dolan 1999) and from an international perspective (Watson et al. 2003b). (McCance, T., Slater, P., & McCormack, B. (2009).

The person-centred nursing index (PCNI; Slater 2006) is an instrument designed to measure constructs related to PCN. It was developed as an integral part of the study described in this paper and was generated from an amalgamation of key findings from an extensive literature review, focus groups and a pilot study. The tool comprised several outcome measures, one of which was nurses’ and patients’ perceptions of caring. The PCNI incorporated the CDI as the measure that would provide data on nurses’ experience of caring. The patients’ experience of caring is measured using the Nursing Dimension Inventory (NDI). The NDI (Watson et al. 1999) was developed to assess non-nursing views on what constitutes caring. It was based on Watson’s initial work with the CDI and differed in the perspective from which caring was viewed. It has been used to effectively assess non-nursing populations’ perceptions of caring (Watson et al. 1999). (McCance, T., Slater, P., & McCormack, B. (2009).

Watson’s (1979) theory of human caring and adult learning theories supported the conceptual framework for this research. Theories of caring in nursing were situated within the science of caring. Adult learning theories evolved to distinguish adult learning from pedagogy (Brookfield, 1986; Knowles, Holton and Swanson, 1998; Mackeracher, 1996. Nelson, N. (2011). Watson’s Theory of Human Caring. Watson’s (2008) theory of human caring evolved in the late 1970s at the time that the field of nursing identified the need for a unique philosophical foundation in order to be established as a profession. Watson (1979) believed that in order for nursing to evolve as a profession it was necessary to develop nursing theory with its unique terminology, philosophy and domain. Through the lens of caring, Watson (2008) integrated her nursing theory within the context of the science of caring. A basic assumption of the science of caring was that “Caring Science is the essence of nursing and the foundational disciplinary core of the profession” (Watson, 1979). In the framework of the science of caring, nursing included the concept of holism from a humanistic dimension which identified nursing as unique from conventional science. Nelson, N. (2011).

Evolution of caring science in education. Another reason for the shift was to advance nursing theory on caring through quantitative measures which demonstrated the positive impact to patients and students as a result of nursing caring actions or behaviors. According to the National League for Nurses (2005b) in a position statement, “the primary drivers of transformation in nursing education are societal need, societal demand, and accountability for efficient and effective use of educational resources, including best teaching practices based on research evidence”. Watson (2002) recognized that to move caring forward in the changing milieu of outcomes and evidence-based practice trends, quantitative research was necessary.

Nelson, N. (2011). Caring is the essence of nursing. It is directly connecting patients’ overall fulfillment and sense of well-being [1,2]. It is reported that high level caring vitally enhances clients’ emotional as well as physical health which, corresponds with the ultimate goal of achieving good mental and physical health status [3]. Literature emphasized the importance of caring for patients’ wellbeing. For example, studies indicated that a therapeutic relationship is a caring relationship and considered an essential element of professional nursing [4,5]. In spite of a lack of consensus on caring as part of the meta-paradigms of nursing, caring has appeared during the past three decades as a dominant element in nursing profession [6]. Caring relies on situations, and nurses should consider the various emotions for the clients when providing the necessary care [7]. The patient must be the center of the health care focus. (Alhadi, M., & Ahmad, M. (2016).

The consistent scoring of 12 core statements over the five time points provides a strong indicator of nurses’ perception of caring. Figure 2 presents the Person Centred Nursing (PCN) framework, with these 12 core statements mapped onto the relevant constructs. All the core statements (items from the CDI) fall within either prerequisites or care processes and are bulleted under specific components within each of these two constructs. Mapping the core statements onto the PCN framework reaffirms the strong correlation between caring and PCN as perceived by nurses. It is interesting to note that in relation to personcentred processes, the statements that remained consistent over time spanned across the five components presented in the PCN framework, with none
emerging stronger than any others. This would appear to reinforce the validity of the range of person-centred processes presented within the PCN framework. The main focus, however, relating to prerequisites was on professional competence and developed interpersonal skills. This emphasises the need for good communication skills and their centrality in developing therapeutic relationships. This notion is reinforced through a concept analysis undertaken by Chambers (2005) who identified communication as an antecedent to the development of therapeutic relationships. (McCance, T., Slater, P., & McCormack, B. (2009).

The emergence of the item ‘getting to know the patient’ from time points 3–5 has particular relevance. This demonstrates the increasing awareness of nurses within the intervention sites of this fundamental premise for delivering PCN. Furthermore, it could be argued that the consistently topped ranked statement ‘listening to the patient’ is the skill through which nurses will get to know patients. This is reinforced by McCormack (2004) who, in his exploration of person-centredness, highlights the importance of developing a ‘clear picture of what the patient values about his/her life and where he/she makes sense of what is happening’ (p. 34). This finding also suggests that the development of PCN does impact on nurses’ perceptions of caring. (McCance, T., Slater, P., & McCormack, B. (2009).

In stark contrast, the perception of patients on their experience of caring was variable, with very few statements remaining consistent over time. This would suggest that promoting a culture of person-centredness does not translate into a difference in patients’ perceptions of caring. The inconsistence in the items ranked important over time could be due to many factors, not least the variation in how individual patients experienced their care episode. There were two statements, however, that did remain consistent over time, one of which was ‘involved in patient care’. This again reflects the underpinning philosophy of person-centredness and the importance of involving patients and clients in the decisions made regarding their care and treatment. There is, however, research evidence that identifies the challenges in achieving this goal in practice (Coyle & Williams 2001, Brown et al. 2006) and this brings us back to the rationale behind the design of this quasi-experimental study. (McCance, T., Slater, P., & McCormack, B. (2009).

The incongruence between patients’ and nurses’ perceptions of caring is evident from this data and is a finding that has consistently been reported in the literature. This was demonstrated in an early review of the caring literature by Kyle (1995) who concluded that nurses identified more expressive behaviours (care about dimension) as indicators of caring more frequently than patients, and patients identified the instrumental nursing behaviours (care for dimension) as care indicators more frequently than nurses. There are many possible reasons that could be presented as to why this disparity exists. For example, it may be interpreted as reflective of the idiosyncratic nature of patients’ views of what constitutes caring. One of the fundamental principles for person-centredness is getting to know the person and working from this basis in terms of meeting their needs. The difference between nurses’ and patients’ perceptions of caring and what each considers important has implications for PCN if the fundamental premise is a shared understanding of what is important in the nurse-patient relationship and hence what can maximise the therapeutic effect of that relationship. The goal, however, is not necessarily to align perspectives but to be cognisant that there might be differences in orientation that will impact on this relationship. (McCance, T., Slater, P., & McCormack, B. (2009).

The Tool In 1996, Lea and Watson performed an extensive review of the literature on the concept of caring. They concluded that a concise survey tool needed to be developed that would be less time consuming than a CARE-Q instrument but still incorporate similar concepts of caring. They developed their own tool, the Caring Dimensions Index (CDI), which could be applied to a large sample of nurses in order to gather their perceptions of caring. The CDI consists of 29 questions. The first four include demographic information about age, years of nursing experience in long-term care, license, and role. Twenty-five core questions are designed to gather perceptions of caring by asking nurses to indicate their agreement to statements about their caring practice (Watson & Lea, 1997). Responses are given on a 5-point Likert scale, strongly disagree = 1, disagree = 2, uncertain = 3, agree = 4, strongly agree = 5.

In 1997 when the CDI was originally utilized and tested, 3,024 questionnaires were administered and 1,452 were returned, a 47% rate of return (Watson & Lea, 1997). Chronbach’s alpha was used to measure the internal consistency of the 25 core items. This measure shows the extent to which each of the items in a questionnaire is measuring the same phenomenon. Values of greater than r = .8 indicate an acceptable level of reliability. The value obtained was r = .91 indicating a high degree of internal consistency. The aim of this study (Watson & Lea, 1997) was to “study the concept of caring in nursing, to apply the questionnaire to an adequate sample of subjects, and to analyze the data by means of a range of multivariate statistical techniques”. The data proved to be reliable in terms of internal consistency. Watson and Lea (1997) believed the “CDI may be useful in measuring perceptions of caring among nurses”. Lea, Watson, and Deary (1998) performed a factor analysis on the 25 core items of the CDI. The study described how nurses view caring, which is the focus of this study.

There are many things that can affect the level of patient satisfaction including the caring behavior of nurses. Caring is a dynamic approach, in which nurses work to increase their care for patients. Caring behaviors affect the quality of a nurse’s work, nurses behave humanely (humanity), dreams and hopes trust (instill trust), sensitivity (social) trust (self-confidence), (express feelings) problem solving (solve problems), teach (learn), support (support, human and existential needs) (Karo, 2019).

Caring behavior can help clients to participate, gain knowledge and improve health. Caring is the process of how the health care understand what is happening meaning in one’s life, to do a task or have a why that is the same as doing to yourself, inform and ease the way a person to live a life transition and to trust someone in life (Swanson in Karo, 2019).

DISCUSSION

The results showed that exclusive breastfeeding was not associated with the nutritional status of children aged 12–23 months. Factors related to the nutritional status of children aged 12–23 months are additional milk and feeding frequency. Mother’s Milk (ASI) is the best food that is recommended to be given to babies because it has various benefits for the baby’s health. The advantages and benefits of breastfeeding can be seen from several aspects, namely: nutritional aspects, immunological aspects, psychological aspects, practical, ecological, economic and immunological aspects (Allen, 2012; Bravi et al., 2016; Erik, 2018). However, after the baby is 6 months old, he needs additional food known as MP-ASI to support normal growth and optimal health. The role of MP-
ASI is not at all to replace breast milk, but only to complement breast milk. Complementary feeding to infants is given after the baby is 6 months old until the baby is 24 months old. Around 6% or 600 thousand deaths of children under five years old can be prevented by ensuring that these children are given optimal complementary foods (WHO, 2016).

The results of the study are also supported by the results of previous studies. There is a difference in weight and height of children who are exclusively breastfed and those who are given formula milk (Stettler et al, 2002). Infants who are given formula milk gain more weight faster than babies who are breastfed from 4 to 12 months of age. However, there was no difference in body length between formula-fed babies and breastfed babies.

Shinn (2017) concluded that children who were given formula milk and children who were given mixed feeding (breast milk and formula) had a higher weight percentile value for body length compared to children who were given breast milk and children who were given additional food. According to the results of an intervention study in India, supplemental feeding can increase the length of the child’s body (Bhandari et al, 2004).

Infants who are given formula milk have a higher energy intake than babies who are exclusively breastfed. The energy intake of formula-fed infants is higher than the estimated average recommended energy (Kavanagh-Prochaska, 2006). Infants who are given formula milk with a higher fat content have a higher body length compared to infants given formula milk that contains lower fat (Pleidermann et al, 2013).

Children need adequate nutrients to be able to optimize the entire process of growth and development. Although breast milk is the main food choice for infants, milk is the best alternative if the mother cannot provide breast milk or breast milk is insufficient (Alles et al, 2004). This encourages mothers to give milk as an addition or substitute for breast milk because the nutrient content in breast milk is no longer sufficient to meet the nutritional needs of babies. Other factors that also influence mothers not to breastfeed are husband and family support and mother’s employment status (Ong et al, 2005; Ryan et al, 2006; Wiegand, 2008).

Another factor that must also be considered is giving the right food to babies at a certain age. The food given to infants must be of the right type, amount, and nutritional content (More et al, 2010). Babies who are not given adequate nutritional intake can experience malnutrition, diarrhea, and other infectious diseases. Children’s disease history and food intake are factors that interact and influence the nutritional status of children.

The reality is that there are still mothers who give complementary foods to breast milk too soon or too early, so that their babies often get sick, such as fever and cold coughs because there are few protective factors for breastfeeding. So that in children it can cause allergic reactions and can lead to obesity and obesity. On the other hand, there are still mothers who are late (babies more than six months old) in giving complementary foods to breast milk. This causes the baby’s growth to be slow, tend to be thin and weigh less or not as normal and even malnourished. If the complementary feeding is not optimal and not in accordance with age, it is possible that the baby’s development is not optimal.

**CONCLUSIONS AND RECOMMENDATIONS**

Caring is one of the most important aspects of nursing. As nurses, we care by performing tasks, holding a hand, intently listening, or by truly being present. Nurses care by meeting the needs of the patients, family members, and other health care providers. Caring is much more than the performance of tasks; caring is a transpersonal relationship that the nurse enters into with the patient. In conclusion, the usage of the Caring Dimension Inventory (and the Nusing Dimension Inventory) are tools that can produce data and provide indicators that are valuable in the growth of person-centred practice, as verified from the main findings from this study, which are summarised below: 1) Nurses’ perceptions of caring were consistent over time, identifying a core set of indicators that were reflective of components within the Peson Centre Nursing framework; 2) Patients scored the item ‘involving a patient in care’ consistently over time, underpinning principle of person-centred practice; 3) The emergence of the item ‘getting to know the patient’ identified by nurses is a significant indicator for the development of person-centred practice; 4) The incongruence between nurses’ and patients’ perceptions of caring has significant implications for the development of person-centred practice.

Developing and using measures that can provide such insights into practice is important in demonstrating effectiveness and in identifying areas for improvement. Central to this is having access to valid and reliable instruments that can provide indicators relating to aspects of nursing practice that are traditionally hard to measure. Furthermore, obtaining data from the perspective of both patients and nurses in a comparable way, provides potential to bridge the gap between provision of nursing care and the patient experience, thus contributing towards a person-centred culture. It also provides the opportunity to explore in more detail why differences exist between nurses and patients and how nurses interpret a philosophy of person-centredness in practice, focusing on awareness of their own values and beliefs about person-centred care.

The implication for practice arising from the findings presented in this paper relates to three key areas. The first is the need for increased awareness and understanding of the synergy between the concepts of caring and person-centredness and how this relates to professional nursing practice. The second focuses on the use of tools that provide data that can be used to inform developments in practice and that provide evidence of positive outcomes for patients. Finally, there is a caution for nursing to avoid making assumptions about what is important in the experience of caring. The evidence would suggest that as nurses we need to recognize what the patient considers as caring and use this to influence changes in practice, where the prime goal is to promote person-centeredness.

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