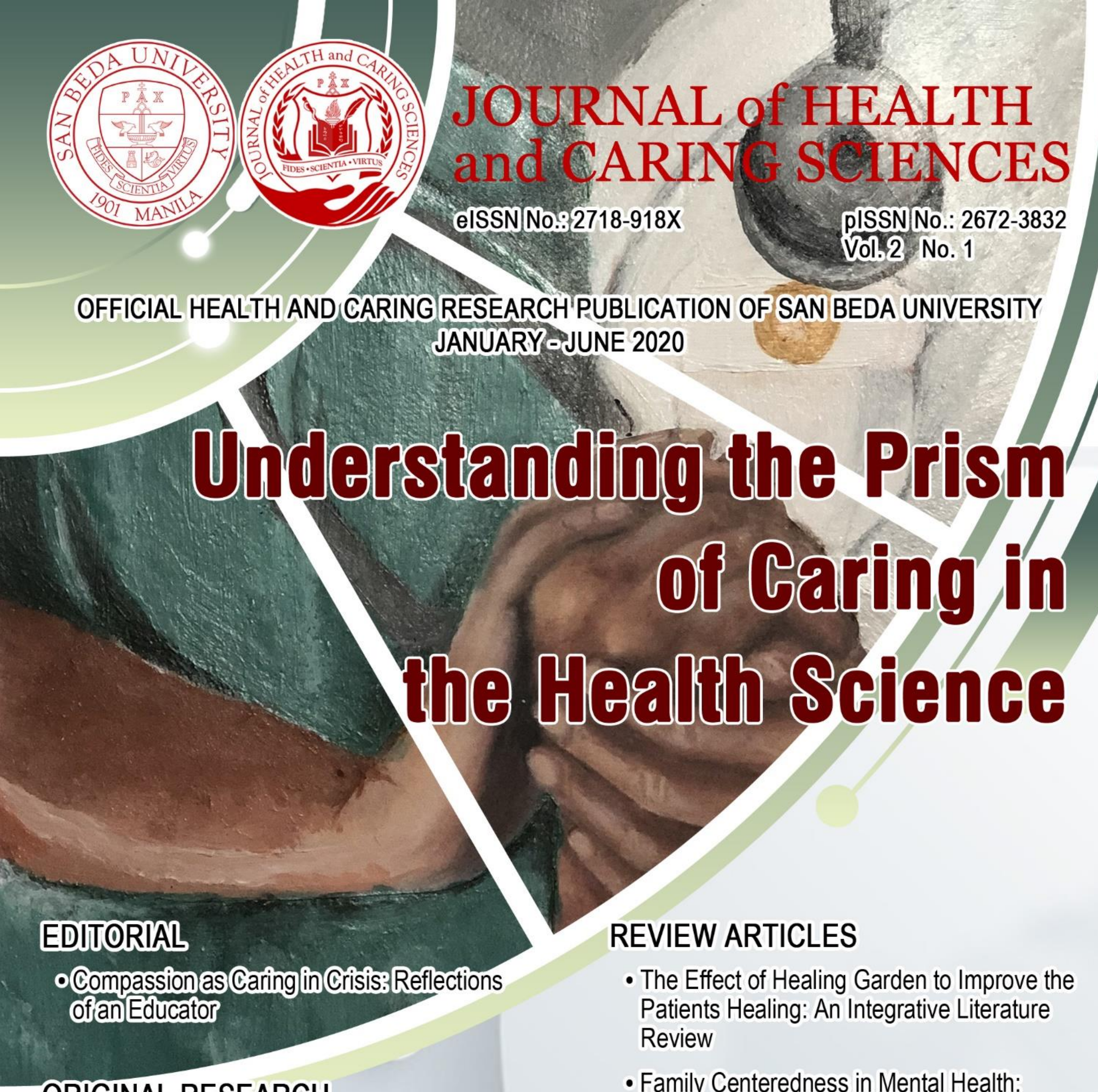

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and inculcate in them the Benedictine core values of prayer and work (ora et labora) that include:

Study
Community
Pursuit of Peace

## EDITORIAL

# Compassion as Caring in Crisis: Reflections of an Educator

*https://doi.org/10.37719/jhcs.2020.v2i1.e001*

The world is currently in crisis due to Covid-19 pandemic. People are anxious, most are grieving for the loss of a loved one or the loss of the freedom they once had. The unpredictable and chaotic nature of this pandemic is affecting not only the physical health of everyone but also their mental wellbeing. This is not at all a normal context or an ordinary time and this is the very same backdrop of our learners during a crisis situation.

The uncertainty of the current moment brings forth a surreal sense of existence as the people try to scout for meaning of what it is happening and what could happen in the near future. The Covid-19 virus cuts across racial, social, and economic boundaries. It knows no master. It respects no culture. Everyone is affected. Within this unpredictable and uncertain time, educators' expression of caring should reflect communal compassion rather than personal competence

The pandemic has exposed the many ills of societal inequalities, realities that many may have considered as normal. These further magnify the scarcity of resources and people's access to basic necessities. Because of these, some learners may find it difficult to make sense of the current situation. While others may show resilience, some may not. With these conditions from the ground, learners may find focusing on the task of learning burdensome and difficult. To require too much unnecessary demands from the learners at this time of chaos, whatever intent the educators may have, is totally uncalled for. For some people, the anxiety for a future that is unknown and unsure is as paralyzing as the thought of dying itself. To label learners as lazy because of the decline of their academic output within the crisis situation is gravely uncaring. Haphazard placing labels on learners only invalidate their personal pain and hidden suffering. Within the context of a crisis situation, educators must err on the safe side and assume that all learners are suffering regardless of their backgrounds.

It is not to say that learning should stop during this crisis but educators must be more reflective of the learners' circumstances. Their health and wellness are far more important than tasks that need to be accomplished. The submission of academic requirements is not an assurance that learning had indeed happen, more so during crisis situations. Compliance to the tasks does not necessarily translate to learning. In crisis moments, completion of academic requirements may at best be a reflection of forced obedience to rules rather than an evidence of achievement of any intended learning outcomes. This is what Roach described as competence without compassion; brutal and inhumane. Even with the best intention, educators may easily forget that in times of crisis, most learners are simply collecting information and not translating them into knowledge nor into wisdom.

During crisis like this, educators should be a living embodiment of caring. Knowing the person that is our learners and their unique context is the first step in this process. Embracing the sense of unknowingness is one of the bases of the process of knowing persons. The mastery of an educator in their field of expertise does not equate to the knowledge of their learners' personhood and context. Educators must be open to possibilities and be humble before opportunities of knowing. This is the path of empathy. To assume that all learners have the same context and to compare their experiences with ours is both insensitive and apathetic.

The educator's authentic presence with the learners during difficult situation is seen by most as caring. The genuine presence of another person during crisis moments is one of the most potent drugs of humanity. It instills hope in times where it seems to be lacking and meaning when there seems to be none. The professional boundaries some educators build around their interaction and presence with their learners needs to be modified. In a crisis situation, learners are seeking for the full presence of a person, not the academic guidance of an educator. The way towards this authentic presence is mindfulness. At times of crisis, educators must be mindful of the present moment and not fixated on an ambivalent future. Learners at this point are not focused on an unsure future but are enclosed within the chaotic present. Mindful educators will embrace the role of a companion and assist the learner make sense of the current situations rather than assume the role of a manger whose main aim is to keep the learner on track towards their educational goal. The prelude to fully living is basic existence.

In times of crisis, it is not enough that educators offer condolences and prayers then continue bombarding the learners with requirements. What learners need is not the assurance that things will be better soon but the certainty that another person will be with them when they feel uncertain. This is the sense of mediacy, of being authentically present when the other person needs us the most.

This pandemic and the series of crisis situations it brings reminds us that within these moments, the most appropriate and relevant expression of caring is the language of compassion. The sense of communal hope amidst the looming feeling of hopelessness during crisis moments can only be developed through the language of compassion. Empathy, authentic presence and mediacy are voices of this language. The best method to shape learners is to be the living example of the outcomes you want to achieve. In times like these, the best way to teach compassion is to live and speak its language.

Lest we forget, we are human beings first, educators second. At the end of this pandemic, educators will not be remembered by their competence but by their compassion. Educators are immortalized not only by fellow educators but by learners whose lives they have touched. Whenever there is doubt as to what course of action should be taken, it is wise to always choose the path laden with compassion. In times like these, educators need not be very brilliant, just compassionate.

As with all things, this crisis too shall come to pass. As Percy Shelley once said, "If winter comes, can spring be far behind?"

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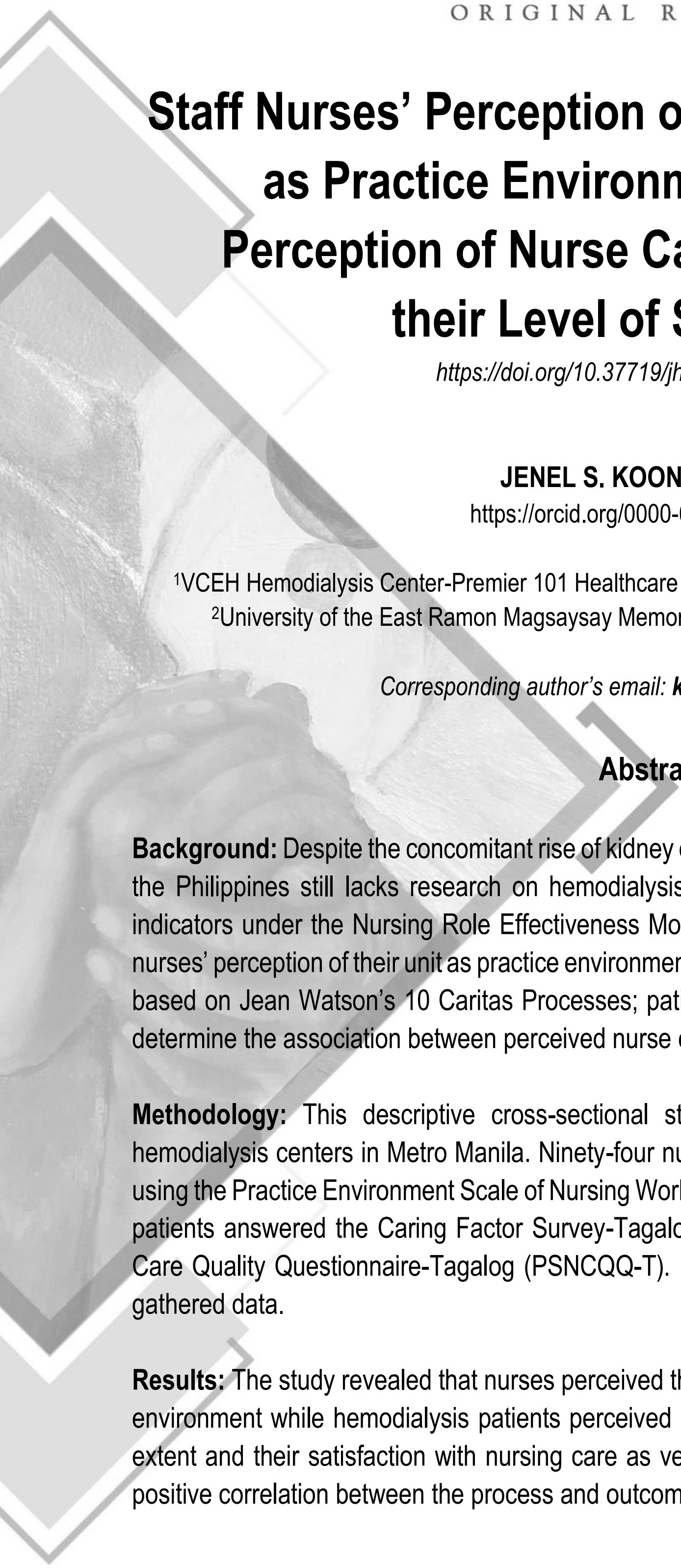
ORIGINAL RESEARCH



# Staff Nurses' Perception of the Hemodialysis Unit as Practice Environment and Patients' Perception of Nurse Caring Behaviors and their Level of Satisfaction

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## Abstract

**Background:** Despite the concomitant rise of kidney diseases and hemodialysis services nationwide, the Philippines still lacks research on hemodialysis nursing care quality. Using nursing-sensitive indicators under the Nursing Role Effectiveness Model, this study aimed to describe hemodialysis nurses' perception of their unit as practice environment; patients' perception of nurse caring behaviors based on Jean Watson's 10 Caritas Processes; patients' level of satisfaction on nursing care; and determine the association between perceived nurse caring behaviors and satisfaction levels.

**Methodology:** This descriptive cross-sectional study purposely selected seven free-standing hemodialysis centers in Metro Manila. Ninety-four nurses were surveyed via complete enumeration using the Practice Environment Scale of Nursing Work Index (PES-NWI) while 345 randomly selected patients answered the Caring Factor Survey-Tagalog (CFS-T) and Patient Satisfaction of Nursing Care Quality Questionnaire-Tagalog (PSNCQQ-T). Pearson's correlation was used to analyze the gathered data.

**Results:** The study revealed that nurses perceived their respective work unit as a favorable practice environment while hemodialysis patients perceived nurse caring behaviors as practiced to a great extent and their satisfaction with nursing care as very good. The study also revealed a significant positive correlation between the process and outcome indicators ($r=0.64$, $p=<0.0001$).

**Conclusion:** The study reflected positive nursing-sensitive indicators in hemodialysis. However, hemodialysis facilities should improve nurse staffing, spiritual nurse caring behavior, and facilitate a more healing environment while maintaining their current favorable qualities.

***Keywords:*** *Hemodialysis nursing care quality, nursing-sensitive indicators, practice environment, nurse caring behaviors, patient satisfaction*

## Introduction

Hemodialysis is the most common and preferred therapeutic approach for end-stage renal disease among most countries (United States Renal Data System [USRDS], 2016; Stavropoulou et al., 2017). In 2016, Philhealth (2017) reported hemodialysis as having the most filed health claims among procedures totaling up to more than 8 billion pesos, reflecting its substantial use among Filipinos. In hemodialysis, there is prolonged and repeated nurse-patient interaction, usually thrice weekly with four hours each session, throughout the patients' renal condition (Stavropoulou et al., 2017). This distinctively allows nurses to care for and positively impact their patients with chronic, and often debilitating, kidney disease. However, despite growing renal cases up to 15% annually and increasing numbers of hemodialysis facilities (Philippines News Agency [PNA], 2019), there are only select studies on hemodialysis nursing quality and its indicators (Thomas-Hawkins et al., 2008) and less so in the Philippines.

In 1996, the American Nurses Association (ANA) coined "nursing-sensitive indicators" (NSIs) based on Donabedian's Model of Quality Care (consisting of structure-process-outcome) to capture care and patient-related outcomes most affected by nursing care (Heslop & Lu, 2014). In 1998, the Nursing Role Effectiveness Model (NREM) further described the nursing practice in relation to their healthcare roles, and linked patient outcomes to nurses' role functions as a way of examining nursing contribution within the healthcare system (Doran et al., 2002; Doran, 2002).

NREM identifies the structure as nurse, patient, and/or unit/environmental factors that influence the processes and outcomes of healthcare. Focusing on unit factors, these are practice setting variables that influence the nurses' ability to engage in effective role performance (Doran, 2002). The practice/work environment as structure indicator reflects organizational characteristics of a work setting that facilitate or constrain professional nursing practice (Lake & Friese, 2006). There are a few numbers of research focused on the hemodialysis work environment compared to other specializations (Thomas-Hawkins et al., 2003; Burston et al., 2013) and results vary whether the hemodialysis unit is favorable (Thomas-Hawkins et al., 2003) or stressful and constraining (Ashker et al., 2012; Ross et al., 2009; Thomas-Hawkins et al., 2008). For this study, structure is defined as staff nurses' perception of the hemodialysis unit as practice environment.

The next indicator, process, reflects nursing intervention and practice which impacts patient outcome (Heslop & Lu, 2014). In NREM, process reflects what nurses do, with, or on behalf of patients that leads to health improvement under three distinct roles: the independent (autonomous nurse functions); interdependent (responsibilities shared with other healthcare team members); and dependent role (implementation of medical orders and treatments) (Doran, 2002). As hemodialysis nurses are endowed with much independent and autonomous functions essential to the unit—taking on flexible roles, having specialist knowledge, and often working with limited medical input that provides them an enhanced scope of practice (Gomez et al., 2011), this study defines process based on the independent role of hemodialysis nurses and this is measured using the 10 Caritas Processes.

Dr. Jean Watson's Theory of Human Caring postulates that nurse caring involves a range of knowledge, skills, and expertise that encompass holism, empathy, communication, clinical competence, technical proficiency, and interpersonal skills to potentiate therapeutic healing processes and relationships (Nelson & Watson, 2011). These are substantiated into the 10 Caritas Processes or behaviors by which nurses in a caring role must be able to perform (Watson, 2006). In conjunction, NREM views the independent role as inherent to nursing care wherein nurses are held fully accountable and that nursing care holistically encompass physiological, physical, psychological, social, and spiritual aspects of health (Sidani et al., 2004). This study, therefore, sees process as an independent role and describes it as hemodialysis patients' perception of nurse caring behaviors based on the 10 Caritas Processes.

Lastly, NREM refers to outcomes as directly attributed to process or care interventions (Doran, 2002). To view if the nursing process has achieved merit, this study examines patient satisfaction, an indicator specifically associated with the independent nursing role (Irvine et al., 1998). Satisfaction refers to one's affective judgment rounded by his/her perceptions of quality (LaVela & Gallan, 2014) and answers whether one's standards and level of contentment has been met (Devkaran, 2014). There have been differences in satisfaction among hemodialysis patients, for example, in Shnishil & Mansour's (2013) work there was high satisfaction in clinical nursing care and nurse-patient relationship but moderate satisfaction in health education, meanwhile in Bayoumi and colleagues' (2016) study, there were unsatisfactory results and a need to improve nursing communication and interpersonal relationship with patients. Though satisfaction is expected to correlate positively to nurse caring behaviors (Nelson & Watson, 2011), it is also possible to have high satisfaction despite negative experience and vice-versa (Devkaran, 2014) prompting this study to see if it occurs among hemodialysis patients as well. Aside from measuring patients' satisfaction with nursing care, this study also tests for correlation between the process and outcome indicators.

Nursing-sensitive indicators reflect healthcare delivery and patient outcomes and are helpful in quality improvement purposes (Heslop & Lu, 2014; Burston et al., 2013). Due to fewer NSI use in hemodialysis versus other units (Burston et al., 2013) especially among Filipinos, use of NREM in hemodialysis also lacked relevant studies. Using NREM as framework, this study aims to contribute to the existing database by describing the hemodialysis practice environment, perceived nursing care, and patient satisfaction as reflectors of quality nursing care among selected hemodialysis facilities in Metro Manila.

## Methods

### Study Design and Sample

This study utilized a descriptive cross-sectional design to collect data across different hemodialysis centers at a given period. Only free-standing/outpatient centers were included to promote a homogenous population. The researcher conveniently invited 16 centers across Metro Manila but only seven centers all located in Quezon City consented to participate. Nurses with at least 3-month experience in hemodialysis who worked with patients daily, and were regularly paid employees were invited. This was to provide sufficiency of their experience in perceiving the unit as a practice environment, to limit variation in their caring abilities, and to consider the training period common among hemodialysis facilities. Three months of continuous hemodialysis care is also an acceptable cut-off period to delineate patient perception of nursing care and their level of satisfaction (Richardson et al., 2015). Complete enumeration of nurses was done to answer for the small population expected in each unit. Ninety-four out of 97 total nurses participated in the study with an attrition rate of 3.1%.

For patient respondents, sampling size calculation was first done. Assuming 80% of patients who perceived above-average nurse caring behaviors had good satisfaction (Shnishil & Mansour, 2013), and it is hypothesized that 65% of patients who perceived below-average nurse caring behavior had good satisfaction, with an alpha error of 5%, effect size of 15%, power of 90%, and a one-tailed alternative hypothesis, the sample size required is 300 patients for two groups. Adding an attrition rate of 20%, final sample size required 375 patients. Stratified random sampling with proportional allocation was then performed among the seven participating centers.

Hemodialysis patients were selected on the following criteria: at least 18 years old; with ESRD; has regular hemodialysis sessions from the same unit for the past three months; and hemodynamically stable and of good mental capacity/comprehension. Any instability requiring emergency care excluded potential respondents. The study also allowed patients who were elderly/seniors (≥60 years old); terminally-ill; and/or those with physical disabilities who were willing and able to participate. To facilitate participation, the researcher allowed presence of an authorized representative/primary caregiver in the signing of consent; provided documents in large clear fonts; and allowed assistance from representative/caregiver or researcher in filling out forms given that patients fully made the answers. In the end, 345 patients out of 375 completed the study with an attrition rate of 8.0%.

## Instrumentation

Nurse respondents answered the Practice Environment Scale of Nursing Work Index (PES-NWI) which measured the quality of the nursing practice environment (Lake, 2002). It contained 31 items under five subscales, answerable in 10-15 minutes, and rated on a scale of 1 (strongly disagree) to 4 (strongly agree) indicating whether the descriptor was present in their current job. The presence of 4-5 subscales above a 2.5 rating indicated a favorable environment; 2-3 subscales with >2.5 indicated a mixed environment; and ≤1 subscale with >2.5 indicated a poor/unfavorable environment (Lake & Friese, 2006). Reliability analysis among Filipino nurses showed an acceptable Cronbach's α coefficient (α=0.89) (Barandino & Soriano, 2019).

Patients answered the 10-item Caring Factor Survey by Dinapoli et al. (2010) (Tagalog version) or CFS-T to assess their perceptions of received nursing care as a loving consciousness towards them as a whole person (Persky et al., 2011a). Items were rated 1 (strongly disagree) to 7 (strongly agree) and the higher the score, the more evidence of care/caritas meaning that patients viewed the more caring nurses as those who had honored their individual wholeness and unity of mind-body-spirit (Persky et al., 2011b). Mean scores for the respondents were quantitatively interpreted as follows: (6.14-7.00) very great extent; (5.28-6.13) great extent; (4.41-5.27) above average extent; (3.54-4.40) average extent; (2.67-3.53) below average extent; (1.81-2.66) low extent; and (0.94-1.80) very low extent that the Caritas Process was used by the nurse. The tool yielded a reliable Cronbach's alpha of 0.85.

Patients also answered the Patient Satisfaction with Nursing Care Quality Questionnaire (PSNCQQ) by Laschinger and colleagues (2005) (Tagalog version) or PSNCQQ-T. This contained 19 main items which measured patient satisfaction with nursing care, plus 4 additional questions for overall care, well-being, and intent to recommend. The items were answered in 10-15 minutes and rated 1 (poor) to 5 (excellent). Scores for the main items were averaged to yield a single value for each respondent. Reliability analysis showed equally high reliability of α=0.96.

To facilitate comprehension of patients, the Commission on the Filipino Language or "Komisyon sa Wikang Filipino" (KWF) which is the official regulating body of the Filipino language for developing, preserving, and promoting the local language (Komisyon sa Wikang Filipino, 1991) was approached for Tagalog translation of patient questionnaires resulting to the CFS-T and PSNCQQ-T versions. Internal pilot test of both tools among 30 hemodialysis patients showed that translation was clear and could be easily understood by the participants.

## Data Collection Procedures

Prior to implementation, the study underwent panel review; obtained permission to use the instruments from their corresponding authors, and secured an ethics approval (RIHS ERC Code: 0590/E/G/18/101). The researcher also secured written approval from the hemodialysis centers' medical director and/or nurse managers in accordance to their unit protocol. As permitted, the researcher conducted poster/flyer dissemination and a face-to-face invitation of patients which included screening of their eligibility. During implementation, the researcher fully explained the consent and data collection procedures to eligible participants following the guidelines stated above. For nurses, tools were provided at the start of shift which was submitted any time before their shift ends. For patients, tools were provided at their own convenience or time preference (between mid-dialysis or after hemodialysis in the unit's lobby or designated area). Anonymity and confidentiality were maintained for both groups. The study gifted tokens (free pen and socks) for complete participation.

### Data Analysis

Collected data were initially entered into Microsoft Excel for descriptive analysis and presentation. For statistical analysis, Pearson's correlation coefficient tested for the magnitude and direction of association between the process and outcome indicators using the tallied means. Data was computed using IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp.

## Result

### Demographic Profiles

A majority of hemodialysis nurses were young (≤30 years old) (58.5%), female (70.2%) and single (80.9%) during data collection. Nearly 90% had certification in BLS and ACLS, but only 14.9% were Certified Nephrology Nurses. Most had formal hemodialysis training (95.7%). The average length of experience hemodialysis nurses had in their current unit was a little over two years, similar with their total length of experience as hemodialysis nurses (Table 1).

**Table 1.** Demographic profile of Hemodialysis Nurses (n=94)

| Demographic Profiles | Nurses n (%) |
|---|---|
| Gender | |
| Male | 27 (28.7) |
| Female | 66 (70.2) |
| Age | |
| Mean (SD) | 29.59 (4.25) |
| Civil Status | |
| Single | 76 (80.9) |
| Married | 17 (18.1) |
| Living with common-law partner | 1 (1.1) |
| Educational Attainment | |
| Bachelor's Degree | 92 (97.9) |
| Master's Degree | 2 (2.1) |

| Demographic Profiles | Nurses n (%) |
|---|---|
| Certification* | |
| Basic Life Support (BLS) and Cardiopulmonary Resuscitation (CPR) | 83 (88.3) |
| Advanced Cardiac Life Support (ACLS) | 84 (89.4) |
| Pediatric Advanced Life Support (PALS) | 2 (2.1) |
| Intravenous Therapy (IVT) | 73 (77.7) |
| Certified Nephrology Nurse - from Renal Nurses Association of the Philippines (RENAP) | 14 (14.9) |
| With formal hemodialysis training with units/certification | |
| Yes | 90 (95.7) |
| Length of training | |
| ≤1 month | 15 (16.7) |
| 1 mo. 1 day – 3 mo. | 56 (62.2) |
| >3 mo. | 11 (12.2) |
| No answer | 8 (8.9) |
| No | 4 (4.3) |
| Length of experience in current hemodialysis unit (in months) | |
| Mean (SD) | 25.1 (22.3) |
| Total length of experience as hemodialysis nurse (in months) | |
| Mean (SD) | 31.9 (25.0) |

*multiple response items

For hemodialysis patients, they were mostly middle-aged (41-50 years old) (26.4%) married (61.6%) men (56.5%) who graduated with a Bachelor's degree (47.2%) and were unemployed during data collection (69.9%). 40% of patients have been having hemodialysis for the past 1-3 years, with 61.2% having twice weekly sessions. Co-morbid hypertension (69.6%) was also evident, followed by diabetes (35.7%). Vision difficulties and ambulation problems were, likewise, reported (35.1% and 32.5%, respectively), and 51.3% had some form of assistance with answering the survey.

**Table 2.** Demographic profile of Hemodialysis Patients (n=345)

| Demographic Profiles | Patients n (%) |
|---|---|
| Gender | |
| Male | 195 (56.5) |
| Female | 150 (43.5) |
| Age | |
| Mean (SD) | 49.87 (13.17) |
| Civil Status | |
| Single | 83 (24.1) |
| Married | 209 (60.6) |
| Living with common-law partner | 14 (4.1) |
| Widowed | 29 (8.4) |

| Demographic Profiles | Patients n (%) |
|---|---|
| Separated/Annulled | 8 (2.3) |
| Employment Status | |
| Working | 103 (29.9) |
| Non-working | 241 (69.9) |
| Educational Attainment | |
| Did not finish primary school | 3 (0.9) |
| Primary education | 27 (7.8) |
| Secondary education | 123 (35.7) |
| Bachelor's Degree | 163 (47.2) |
| Postgraduate | 13 (3.8) |
| Technical/Vocational | 15 (4.3) |
| Co-morbidities* | |
| Hypertension | 240 (69.6) |
| Diabetes | 123 (35.7) |
| Heart disease | 76 (22.0) |
| Lung disease | 6 (1.7) |
| History of stroke | 38 (11.0) |
| Cancer | 4 (1.2) |
| Hepatitis B | 12 (3.5) |
| Hepatitis C | 4 (1.2) |
| Duration of hemodialysis experience in current hemodialysis unit | |
| < 12 mo. | 91 (26.4) |
| 12-36 mo. | 138 (40.0) |
| 36-60 mo. | 49 (14.2) |
| > 60 mo. | 62 (18.0) |
| No answer | 5 (1.4) |
| Hemodialysis frequency per week | |
| Once (including alternate once-twice) | 4 (1.2) |
| Twice (including alternate twice-thrice) | 211 (61.2) |
| Thrice | 128 (37.1) |
| No answer | 2 (0.5) |
| Difficulty/ies* | |
| Hearing | 20 (5.8) |
| Sight | 121 (35.1) |
| Memory | 48 (13.9) |
| Walking/ambulation | 112 (32.5) |
| Others (i.e. breathing, cramps, joint pain, speech) | 8 (2.3) |

*multiple response items

## Structure: Staff Nurses' Perception of the Hemodialysis Unit as Practice Environment

Overall, hemodialysis nurses reported their units as favorable environments (93.6%) or facilitative to their practice of quality nursing. Among the five subscales found in a workplace (Table 3), the subscale nurse-physician relations were rated highest (M=3.45) which involved a positive working relationship, teamwork, and collaboration among nurses and physicians. On the other hand, the lowest subscale was staffing and resource adequacy (M=2.97) wherein, out of all 31 items, nurses also rated the lowest having enough RNs to provide quality patient care (M=2.84).

**Table 3.** Structure Indicator: Qualities Present in a Hemodialysis Unit as Perceived by Hemodialysis Nurses

| Subscale | Structure: Practice Environment Characteristic/Quality | Mean±SD |
|---|---|---|
| 1 | Nurse participation in dialysis provider affairs | 3.22±0.60 |
| 2 | Nursing foundations for quality of care | 3.27±0.64 |
| 3 | Nurse manager ability, leadership and support of nurses | 3.38±0.62 |
| 4 | Staffing and resource adequacy | 2.97±0.71 |
| 5 | Collegial nurse-physician relations | 3.45±0.57 |

## Process: Hemodialysis Patients' Perception of Nurse Caring Behaviors

Using Watson's Theory of Human Caring as the basis for nurse caring behaviors, overall patient perception of the 10 Caritas Processes has been rated to a great extent (M=5.80), with majority rating so (46.7%) and only 0.3% having very low perception. The patients also had high appreciation for their nurses' loving-kindness (M=6.29) but had diminished recognition of nurses' spiritual care (M=4.78) (Table 4).

## Outcome: Hemodialysis Patients' Level of Satisfaction with Nursing Care

Patients were satisfied with the nursing services provided (M=3.83) where 50.4% had very good levels and only 2.9% had fair to poor satisfaction scores. Out of the 19 items they were most satisfied with hemodialysis nurses' caring attitudes (M=4.1) but least pleased with the presence of a quiet and restful atmosphere in the unit (M=3.56) (Table 4).

**Table 4.** Results for Process and Outcome Indicators

| | Mean±SD | Interpretation |
|---|---|---|
| Process: Overall patients' perception of nurse caring behaviors based on the 10 Caritas Processes | 5.80±1.25 | Great extent |
| Highest: Everyday that I am here, care is provided with loving kindness | 6.29±0.87 | Very great extent |
| Lowest: Nurses encouraged practice of individual spiritual beliefs as part of caring and healing | 4.78±1.60 | Above average extent |
| Outcome: Overall patient satisfaction with nursing care | 3.83±0.92 | Very good |
| Highest: Concern and caring attitudes by nurses | 4.1±0.84 | Very good |
| Lowest: Restful atmosphere provided by nurses | 3.56±0.92 | Very good |

### Process and Outcome: Correlation between Patient Perception of Nurse Caring Behaviors and their Levels of Satisfaction

Statistical analysis utilized Pearson's correlation to test for the magnitude and direction of association between the process and outcome indicators. The product showed a strong, positive correlation between the two (r=0.64) indicating that as patient perception of nurse caring behaviors increases or improves, their level of satisfaction increases proportionately; and this is statistically significant (p=<0.0001) (Table 5).

**Table 5.** Relationship between Process (Perceived Nurse Caring Behaviors) and Outcome (Patient Satisfaction with Nursing Care)

| r Coefficient | p Value | Interpretation |
|---|---|---|
| 0.6438 | <0.0001 | Significant |

**p value is significant at 0.05 level*

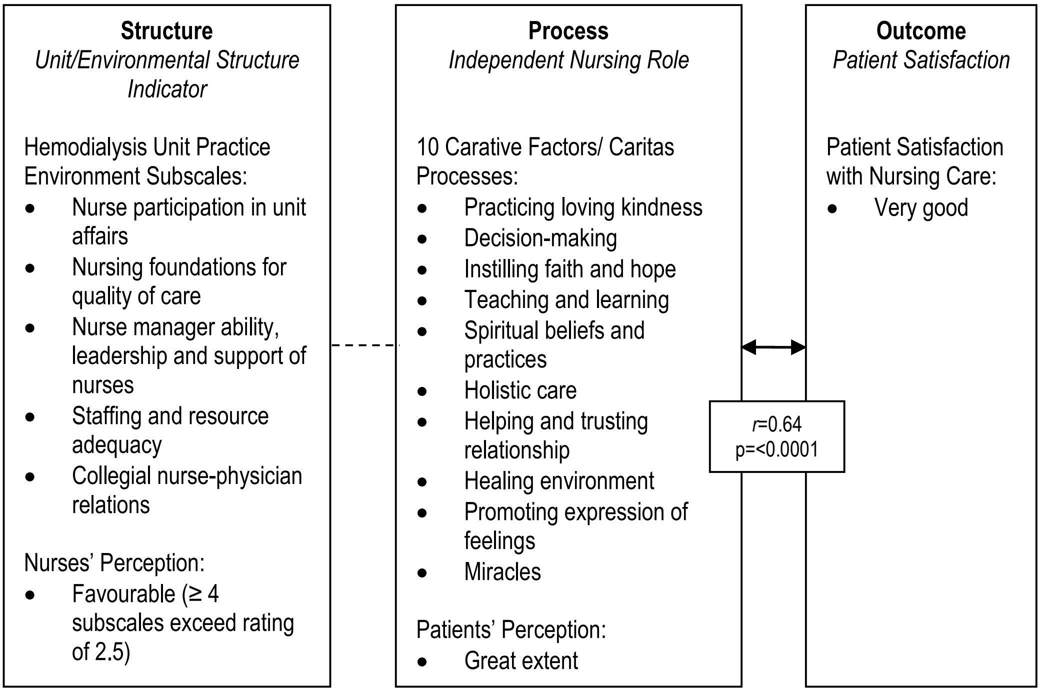

**Figure 1.** Framework used in this study and their results

## Discussion

The goal of this study was to gain an understanding of the quality of hemodialysis nursing, a fast-growing healthcare service in the Philippines and worldwide, by describing its quality indicators sensitive to nursing. The findings showed that hemodialysis nurses perceived their units as favorable practice environments with at least four organizational qualities that provide a favorable workplace and facilitate quality nursing practice. The results deviate but not fully negate prior research where the hemodialysis unit was found stressful and intense (Ashker et al., 2012; Ross et al., 2009). A good work perception among nurses continues to be important due to its association with positive job experiences, fewer concerns with quality of care, better intention to stay, lower burnout levels, and significantly lower patient mortality and rescue rates (Gardner et al., 2007; Aiken et al., 2008).

Comparing the environment subscales, collegial nurse-physician relations with the highest score reflects a professional practice environment consistent with previous findings (Gardner et al., 2007; Thomas-Hawkins et al., 2003). On the contrary, staffing and resource adequacy with the lowest score mirrors the findings of Barandino and Soriano (2019) contributing to workload stress and acting as the first cause of nurses' negative perceptions of the hemodialysis work environment (Thomas-Hawkins et al., 2003, 2008). Assuming all hemodialysis units followed the prescribed 1 nurse-to-4 patient ratio (DOH, 2012), nurses still perceived a lack of staffing. Staffing problems and a heavy workload can lead to task-oriented care, nurse-perceived low-quality care, decreased job satisfaction (Hayes et al., 2015), and increase nurses' intent to leave their jobs (Gardner et al., 2007).

For the process indicator, most hemodialysis patients perceived nurses' caring behavior (based on the 10 Caritas Processes) to a great extent meaning that nurses had a profound engagement with patients and cared for them as a whole, including their physical, mental, and spiritual needs. This may be because in general nurses aim to provide quality care through compassionate service, value of life, and commitment to other people regardless of status (Anquillano-Carsola & Castro-Palaganas, 2016). Nurses' care and inclusion of patients' spiritual beliefs as part of healing, however, was the lowest-rated behavior partly due to its lack of clear definition and applicability to some patients. Patients may also interpret not receiving or noticing components that might have been considered as spiritual care (Leger et al., 2012). Regardless, spiritual care warrants nurses' greater attention as this has been effective among hemodialysis patients to overcome depression, anxiety, and stress (Musa et al., 2017). Consistent with Watson's Theory of Human Caring and inherent in the NREM independent nursing role, hemodialysis nurses must work toward the ability of incorporating holistic care with technical and clinical proficiency—going beyond tasks and nursing routine and caring for the whole person, including their spiritual health.

Majority of patients also had very good satisfaction ratings with received nursing care, similar to the findings of Ferentinou and colleagues' (2016) and Calong Calong and Soriano (2018). This implies that nursing care provided among the participating hemodialysis centers were able to meet patients' standards, expectations, and level of contentment. Individually, all items received very good satisfaction scores; however, provision of a restful atmosphere by nurses scored the lowest which may be influenced by conversations of surrounding nurses and/or primary caregivers and by the uninterrupted use of television or music players common among hemodialysis units. The focus must then be given as excessive noise can prevent patients' needed sleep or rest, impair detection of patient and hemodialysis machine problems, and compromise communication among nurses (Prestes et al., 2015).

Statistical analysis displayed a significant positive correlation between process and outcome indicators, meaning that as patient perception of nurse caring behaviors increases, their level of satisfaction increases proportionately. This echoes Nelson and Watson's (2011) expectation of patient satisfaction associating positively with nurse caring perception, and with Palmer's cross-country evaluation (2014) where better dialysis care performance scores were associated with higher overall patient satisfaction. Devkaran (2014) stated, however, that a high satisfaction score may not always follow a positive experience or objective quality care, and vice-versa. When the study's process and outcome responses were grouped into excellent, good, and poor categories, three patients had poor perception of nurse caring behaviors but still had a good level of satisfaction. This deviance, although possible, is trivial in comparison to the rest of the findings.

The study also noted some limitations. First, the use of a mixed method instead of quantitative design may explain better the full range of feelings, values, and experiences with hemodialysis care. Second, the study did not test the association between structure and process/outcome indicators due to different participants groups where patients were not paired with nurses and instead responded based on the overall nursing care received. Third, this study did not test causal sequences as to how the outcomes were produced; hence, another design and statistics are needed to establish such facts. Lastly, patient-reported experiences and satisfaction measures may be limited as there is tendency to report approval of services due to acquiescence or social desirability bias that may result in false-high scores (Pearson et al., 1989). To minimize this, the study maintained anonymity and confidentiality of responses and respected patient preferences on how they wished to answer. Likewise, the researcher bore no involvement with any of the facilities nor partiality to the collected data. Researchers may consider these limitations in pursuing future studies surrounding hemodialysis nursing care quality.

## Conclusion

The study reflected positive nursing-sensitive indicators in hemodialysis. Hemodialysis facilities have good and facilitative practice environments, and hemodialysis patients perceived nurses as caring and were satisfied with the care they received. However, improvements can still be made. It may be beneficial to address staffing needs in hemodialysis units, to consider the physical aspects of care such as promoting a restful atmosphere for patients and to expand nurses' abilities in providing spiritual care. Facility administrators and nurse managers play both active and supportive roles in the improvement of these areas.

## Conflict of Interest

The author have no conflict of interest to disclose.

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## About the Author

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ORIGINAL RESEARCH

# "Journey of Uncertainties:" Nature of Transitioning among Persons Living with Undetectable HIV

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## Abstract

**Introduction:** The management of persons living with HIV gears towards making that person "seronegative," undetectable in screening and practically with almost no risk of transmitting the disease. Although the trajectory of this management is clear, the process by which the person living with HIV transition from being seropositive to seronegative remains to be explored. There remains to be a paucity of research on the nature of transitioning among seronegative persons living with HIV especially from the lens of an Asian nation.

**Methodology:** This study explored the nature of transitioning among nine (9) seronegative persons living with HIV. Grounded on the Rogerian Science of Unitary Human Being as its philosophical underpinning and Gadamerian interpretative phenomenology as its approach, nine (9) informants were selected with the following criteria: They are 1) Persons living with HIV for at least 2 years; 2) Seronegative for at least a year during the time of the interview, and 3) Willing to articulate and share their experiences. After obtaining approval from the University Research Ethics Board, multiple in-depth interviews, story-telling sessions, and photo-elicitation were utilized to gather the informants' narratives.

**Findings:** After a series of reflective analyses, the following nature of transitioning was identified: (1) transitioning as a conscious deliberate choice, (2) transitioning as an unpredictable struggle of being, and (3) transitioning as seeking a personal sense of normalcy. These transition patterns reflect the moment to moment deliberate choice of existence by the informants. The transition moments are appreciated thru the lens of unpredictability and internal struggles as they try to create a sense of normalcy amidst their transitioning situations.

**Implications:** Insights from this study suggest that though the process of transitioning among informants seems varied, the core patterns of deliberateness, unpredictability, and sense of normalcy cut across their stories. Persistent support from peers and family sustained counseling from diagnosis to being seronegative and health teaching focusing on risky behavior while transitioning are implied techniques to provide support during their transitioning process. The sense of immediacy and genuine presence from health care providers caring for these persons seems to be appreciated as a supportive mechanism of their transitioning journey.

***Keywords:*** *Persons Living with Undetectable HIV, Phenomenology, Science of Unitary Human Being, Transitioning*

## Introduction

The World Health organization has always emphasized the link between building a peaceful nation where its citizens are active participants in nation-building and the presence of a maximum sense of wellness and health among its citizens. The citizens of the country serve as the grassroots that lay the very structure and foundation of nation and peacebuilding initiatives. These processes can only be realized if there is justice, equity, and equality among its citizen in terms of health access and governmental support. Any health threat that may directly or indirectly break the very structure of society should be address as it affects both peacebuilding initiatives and the continuous nation-building program of the government. One of these emerging health threats is the HIV/ AIDS pandemic.

The World Health Organization (WHO) defines Human Immunodeficiency Virus as a microorganism that infects cells of the immune system, thus resulting in the deterioration of the body's defense mechanism against harmful infection and disease (2017). Globally, 37.9 million people were living with HIV in 2019 with over 5.8 million people from Asia and the Pacific region alone. In that same year, an estimated 160,000 deaths attributed to HIV/AIDS-related complications occur (UNAIDS, 2019; Avert, 2019). In terms of the number of cases, the Philippines remains to be one of the fastest-growing epicenters of this pandemic with an estimated 52,280 cases and at least 3,706 deaths from 1984 to 2019 (Verdery et al., 2017; Restar et al., 2018; Gangcuangco, 2019).

Even with the arising number of local cases, the golden standard for the treatment of HIV remains to be anti-retroviral therapy. Although antiretroviral therapy does not cure HIV, it can reduce the amount of virus in the bloodstream making the person living with HIV seronegative; undetectable in screening, and practically unable to transmit HIV through sexual intercourse (Eisinger et al., 2019). Taking antiretroviral therapy enables the person living with HIV to live longer without compromising their quality of life in the treatment process.

With the increasing number of HIV cases in Asia, specifically in the Philippines, and with the standard management of HIV toward making persons seronegative, the trajectory of the HIV management phenomenon points to two things; no new HIV cases and an increase in the number of persons living with undetectable HIV.

Although the HIV phenomenon is considered a global health concern and a looming national health emergency in the Philippines, research on the lives of persons with HIV are still given little attention. Research on the lives of persons with HIV that have been conducted primarily focuses on meaning-making (Barroso & Powell-Cope, 2000), experience adherence to medication (Sidat et al., 2007), and coping (Earnshaw et al., 2015; Siegel et al., 2018). The concept of transitioning among persons living with HIV remains unexplored. The concept of individual transitioning, vis-à-vis sense of being is closely tied to the idea of attainment of individual sense of peace with the self and coming to terms with living with the disease (Rogers, 1992). Further still, there much greater paucity of research exploring the lives of persons with undetectable HIV, more so their unique experience and meaning of the transition. Although there are studies that explore the lives of persons with HIV, the voices represented are mostly non-Asian.

The trajectory of the HIV phenomenon moving towards being a person with undetectable HIV, lack of studies exploring the concept of transitioning, the paucity of researches exploring the lives of people with undetectable HIV, and the lack of qualitative study on HIV explored thru a non-Western lens serves as the gaps that this study intends to fill. The immediacy and need for this research stem from the discourse that understanding the nature of transitioning and being among people living with HIV will provide insights on their processes of developing a sense of inner peace. By doing so, other people may come to understand their context and effectively dismantle inaccurate information regarding their lives, effectively giving them an active voice in the exposition of their health experience.

Insights from this research can be used to inform practice and create programs and policies that will minimize the effect of HIV as a national health burden and help facilitate the reintegration of persons living with undetectable HIV to their community and the society at large, aiding in their transformation into responsible citizens contributing to the nation-building processes.

## Methodology

### Philosophical Underpinning

This research is grounded on the paradigm of Roger's Science of Unitary Human Being (SUHB) which asserts that human beings are irreducible and are in constant change as they are in contact with the environment (Rogers, 1992; Phillips, 2016; Wright, 2007;). The experience of persons living with HIV will be gleaned holistically without fragmenting the experience of the person (i.e. coping, adherence, etc). The principles of hemodynamics serve as the philosophical underpinning of the study with the concept of transitioning being the primary focus of this endeavor.

Helicy, one of the principles of hemodynamics, emphasizes the idea of the constant interaction of the person and the environment which results in their continuous, diversified, and unpredictable changes (Rogers, 1992). Helicy presupposes the presence of a concept of transition. The unpredictability and diversification of a person's concept of being as they are in the process of transitioning echoes the principle of resonancy; that human being and their environment are dynamic energy fields continuously evolving (Phillips, 2016). Being a person living with undetectable HIV presumes that changes in their lives will be inevitable. The Rogerian Science of Unitary Human Being asserts the presence of this change and the uniqueness of the persons' experience of transitioning viewed from their distinctive contexts.

## Research Approach

Gadamerian interpretive phenomenology serves as the approach of inquiry of the study. The approach places great emphasis on the primacy of language, understanding as a fusion of horizon and the hermeneutic circle. The primacy of language gives pointers to the truth hidden within word meaning and reveals that something exists in a hermeneutic circle of ontological (the study of being) possibilities. The fusion of horizons- the hermeneutic circle, runs along like a rhythm, open to personal expectation, personal pre-generalization, prejudice, and judgments (Holroyd, 2007; Sammel, 2003). The tenets of Gadamerian Interpretive phenomenology echo the principles of SUHB, emphasizing the primacy of the person's experience and at the same time appreciate that the process of understanding as a co-created reality between the researcher and the informants.

The process developed by the researcher (Martinez, 2013) informed by the philosophy of SUHB and the approach of interpretative phenomenology was utilized to reflective analyzed the narratives from the informants. Figure 1 shows an overview of the process.

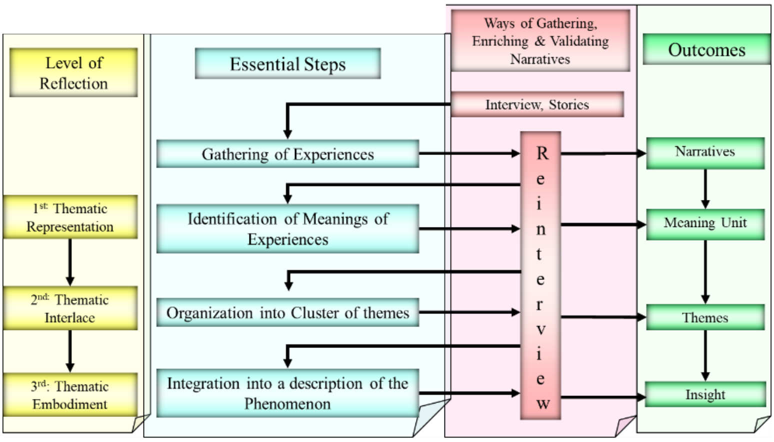

Figure 1: The process of reflective analysis

The yellow shaded boxes show the level of reflections utilized in this study and the opposite of which, the blue shaded boxes, represents the essential steps in the process of reflective analysis related to each level. The pink shaded boxes represent the ways by which the narratives of the informants were enriched, validated, and counter-validated while the green shaded boxes represent the significant outcomes of each essential step within the different levels of reflections.

## Selection of Informants

Theoretical saturation and criterion sampling were utilized to select the nine (9) informants that participated in this study. The following criteria were utilized in the selection process, 1) They are persons living with HIV for at least 2 years, 2) They have been on antiretroviral medication for at least 2 years, 3) They are currently seronegative and for at least 1 year and 4) They are willing to divulge and share their experience. The recruitment process was thru a snowballing technique starting from a referral from a national HIV advocacy organization.

## Gathering of Narratives

This research utilized three (3) qualitative methods to obtain and gather the narratives of the informants, in-depth interviews, storytelling, and artistic expression. The in-depth interview as a method involves a small number of informants who are interviewed individually to explore their perspectives on an idea or a particular situation (Boyce & Neale, 2006). The story-telling technique, on the other hand, relies much on the ability of informants to narrate individual experiences from their lens, with a little prodding from the researcher (Rosenthal, 2003). The storytelling technique enables the informants to situate the context of their life experiences and let the researcher be drawn within this context

The in-depth interviews and story-telling sessions were done through a face-to-face dialogue with individual informants at their choice of location. At least three (3) interviews were done with individual informants with each interview lasting at least 95 minutes. The informants were made aware and subsequently agreed to have the individual interviews tape-recorded to be later reflected upon and analyzed for their underlying themes.

The artistic expression, specifically photovoice, was utilized to provide another lens by which the informants' experience of transitioning was gleaned upon. Photovoice utilizes photographs captured by the informants that reflect the meaning of their transitioning and eventually discover insights that would break their socially constructed perspectives (Sutton-Brown, 2014). The informants were asked to show photographs that for them represent their experience of transitioning and were further asked to provide their reason why they chose their photographs and the meaning they attributed to it. These techniques provide multiple lenses by which the informants' experience of transitioning is understood, making the insights of this research more grounded and reflective of the informants' realities.

### Maintaining Rigor

To ascertain the study's rigors, the following processes were utilized: (1) method triangulation, (2) audit trail, and (3) informant resonance. Method triangulation, defined as the utilization of various methods of data collection (Creswell, 2013) was done by using three techniques, in-depth interview, story-telling, and artistic expression, to gather the informants' narratives thus providing multiple lenses by which their experience can be gleaned upon. An audit trail was done by making the process of reflective analysis open to scrutiny by the informants and making it certain that the process of creating the insights from this study is traceable to the informants' narratives. Last and most importantly, resonance with the informant was done by constantly returning to the informants for validation and counter-validation of the researcher's significant insights within the different levels of the process of reflective analysis. This ascertains that the insights from this study are a co-created reality of the researcher and the informants and that they are an active agent in this meaning-making process. These three processes maintained that the resulting insights from this study are a truthful representation of the informants' experiences.

## Findings

### The informants

Nine (9) informants recruited via the snowball technique, agreed to participate in this study. All informants were seronegative at the time of the study as evidenced by their most current CD-4 count laboratory results. Below is the overview of the individual informants:

***A*** is a 32-year-old male from Las Pinas, diagnosed with HIV three years ago. He decided to have himself tested after he and his long-time partner got separated. Now he owns a tattoo studio in his place of residence.

***B*** is 36 years old female from Pasay, diagnosed with HIV 11 years ago. She used to be an OFW before her diagnosis and is currently a full-time HIV advocate where she shares her experience as a person living with HIV and is also a part-time dressmaker.

***C*** is a 23-year-old female from Las Pinas, diagnosed with HIV 14 years ago. She used to work as a sex worker until her diagnosis and is currently a volunteer in an NGO that works with people living with HIV.

***D*** is a 32-year-old female, diagnosed with HIV 10 years ago. She used to work in the music industry abroad before her diagnosis and is currently working as a project assistant in an NGO.

***E*** is a 26-year-old male from Mandaluyong, diagnosed with HIV 3 years ago. A confessed person with multiple sexual partners, he attributes his diagnosis to this previous high-risk sexual behavior. He is currently working as a staff in a company's HR department

***F*** is a 29-year-old male from Pasig, diagnosed with HIV 4 years ago. His diagnosis was made known when he applied for work abroad. Currently, he is a full-time volunteer in an NGO HIV support group.

***G*** is a 27-year-old male from Quezon City, diagnosed with HIV 4 years ago. He was diagnosed after he got himself tested during free testing conducted by an NGO group. He is currently working in the BPO industry

***H*** is a 35-year-old male from Makati, diagnosed with HIV 8 years ago. He was a former OFW and was diagnosed during his medical examination. He is currently a shop owner in his place of residence

***I*** am a 28-year-old female from Quezon City, diagnosed with HIV 5 years ago. A former bar attendant before her diagnosis, she currently owns an online business and is a full-time online seller.

## Themes

After the series of reflective analysis of the individual narratives of the nine (9) informants, 267 unique meaning units were derived. From these meaning units, the further reflective analysis resulted in three (3) distinctive themes representative of the nature of their transitioning experience, that (1) transitioning as a conscious deliberate choice, (2) transitioning as an unpredictable struggle of being, and (3) transitioning as the personal sense of normalcy.

### ***Transitioning as a conscious deliberate choice***

This theme emphasizes that transitioning involves more than the physical and psychological aspect of a person but encompasses a deliberate conscious choice from the person. The initial shock of being diagnosed with HIV was cut across as the initial response and experience of the informants. Varied processes of coping, such as anger directed toward the self or towards society, seclusion from society, questioning the existence of a Supreme Being, was experienced by the informants as they navigate through the initial experience of being a person living with HIV.

Although varied ways of coping were experienced by the informants, a sense of meaning from the initial experience was only made clear when they have learned to accept the situation, they are in. As one informant said:

> *"At the end of the day kahit anu pa yang gawin mo wala ka naming choice kundi iaccept kung anu ka na, di na ikaw dati (No matter what we do, we do not have a choice but accept who we are now, we are not who we used to be) – Informant F"*

For the informants, the key to the start of their transitioning journey is accepting the reality that they are in now; that things will be different than they were used to be. There is the element of a conscious acceptance of their new reality which marks the beginning of their transitioning journey.

For them, the sign that they have indeed accepted their fate as a person living with HIV is that they are deliberately changing their behaviors to signal that they are journeying towards becoming a seronegative PLHIV.

For some informants, these behaviors include changing "habits" they deem now as risky such as vices, casual sex encounters, and sex without protection as well as creating new habits for their well-being such as healthy diet and exercise. Another recurring process is deemed important by the informants as part of their transitioning they are reconnecting with their families. The experience of having HIV and living the life of a PLHIV at times makes them distant and secretive with their family but somehow being seronegative gives them a boost of courage to make amends with their family. There is a prevailing belief among the informants that indirectly, HIV facilitates the process of healing their broken relationship with their families, that the disease was a wake-up call for them to fix their relationship and lives more than a punishment.

The experience of helping other persons like themselves make sense of their situation was also seen as an overarching story among the informants. Being an HIV advocate and/or peer counselor seems to be a prominent phase and integrate the aspect of their transition process.

Through their deliberate process of choosing to be with the company of other PLHIV by just being there in the “treatment hub” or by deciding to be part of other PLHIV's life journey by being counselors themselves, they seem to reintegrate what has happened in the past, what they are experiencing at the moment and what the future may bring. The realization that other people are also transitioning lets them feel that they are not alone in their journey and seeing that others have successfully transitioned enables them to see the possibility of a future. Helping other PLHIV seems to facilitate the informants’ sense-making of their transitioning process. This is expressed by the following statement by the informant I

> *“Ganito kasi yun eh, pag sinosolo mo yung sakit mahirap, di mo kasi nakikita na ay ganun meron pa palang iba gaya ko. Pag nandun ka sa hub naging peer counselor o kahit tambay tambay ka lang marerealize mo, di ka pla nag-iisa, may iba pang parang ikaw, yun iba pasimula pa lang yung iba ayun advocate na sila ganun, di na nahihiya na may HIV sila (It is like this, when you make your disease only as your own, it will be difficult since you are unaware that there are other people like yourself. If you are in the (treatment) hub and become a counselor or just be there around with people you will realize that you are not alone, that there are others like yourself, some just beginning (with their journey) while others are now advocates, they are not ashamed anymore that they have HIV).*

Transitioning, for the informants, is a journey that only they must deliberate chose. The conscious choice to transition is greatly influenced by the informant’s interaction and experience with the people they deemed significant. Transitioning for them involves accepting their past mistakes, their unpredictable current situation and an unsure but optimistic future.

### ***Transitioning as an unpredictable struggle of being***

This theme highlights that transitioning is a journey of unpredictability where their sense of self is continually being tested and recreated. For the informants, transitioning was never a linear process and is never the same for every seronegative PLHIV. Within the context of their transitioning experiences are varied personal accounts of good and worst times, all affecting their sense of being.

For the informants, transitioning was never a smooth journey but a rough one laden with random moments of introspection, self-doubt, and at times hopelessness. For some informants, even though they are well beyond their initial shock of the diagnosis and are already seronegative, there will be instances where the feeling of morose would creep in without any obvious cause. Some would randomly feel alone, some would start questioning their decisions in life while others will feel helpless for no apparent reason at all. The narrative of Informant G reflects this common experience among the informants.

> *"Alam mo yun yung ok ka na, seronegative ka na, prang normal ka na pero yun biglang ququestionin mo sarili mo ulit, bakit ako nagging ganito? Kasalanan ko ba? May pag-asa pa ba? Akala mo tapos na yan eh pero yun nga babalik bigla… minsan sa CR minsan sa Starbucks (It is like you are already doing fine because you are seronegative already but all of a sudden you will start questioning yourself again, why did this happen to me? Is it my fault? Is there still hope? You thought is it already done with, but these tend to recur suddenly… sometimes in the comfort room, other times inside Starbucks) – Informant G*

Although there are varied personal experiences among the informants, the importance of a form of support system within these moments is universal. For some, their peers within the HIV group serve as their support system, others their family, or a non-HIV friend. For the informants, these moments of the disorder are made worse with the absence of a significant person they can talk with or share their momentary concerns. For the informants, knowing that another person is there willing to listen to their random concerns would make their situation more bearable.

Informants who are active within their peer counseling volunteer works, it is paradoxical to find that although their volunteer works allow them to facilitate their meaning-making within of their transitioning experience, it is also the context where most of the moments of disorder occurs. For some informants, hearing the stories of another person undergoing almost the same journey they had undergone before brings back memories of their past struggles and this unconsciously triggers them to re-evaluate their past decisions and question the choices they have made.

> *"Minsan talaga di mo maiwasan yung ganun, yung anu parang pag ayan kausap mo yung may nagpositive na bago tapos ikaw tapos ka na dun kasi di ba seronegative ka na tapos magkukuwento siya makikinig ka tapos bigla kang tatamaan, hala, tama ba yung ginawa ko dati? Panu kung mali masabi ko sa kanya kasi baka mali yung nagawa ko dati? Nalulungkot ka para dun sa tao so malulungkot na ulit. Masarap mag peer (counselor) pero minsan draining kaya lie-low din ako (There are times that you can't avoid it, that instance where you are talking with another person recently diagnosed with HIV that even though you have been there and is now seronegative when they tell their stories you will start asking yourself "Did I do the right thing?" "What if I say something that is not right because my previous decision was bad?" You will feel bad about the other person so you will feel sad as well. It is fulfilling to be a per (counselor) but at times draining that's why I lie-lowed (in that volunteer work) – Informant H*

For the informants, the unpredictability of their transitioning journey makes it an experience of uncertainty of their being. It is an ordeal of continuously coming to terms with an inaccessible past in the present moment, traversed with their significant persons. Within their unplanned moments of disorder, their idea of acceptance as an incomplete and imperfect process is emphasized.

### *Transitioning as seeking a personal sense of normalcy*

This theme encompasses the notion that for the informants, to transition is to achieve a personal sense of normalcy. As the informants lived through their transitioning journey, they are on the continued process of creating what they deemed as a new “normal life”. Among the informants, there is the constant fear of discrimination as they feel that HIV is a disease stigmatized by society at large. With this, they have learned to live with this reality either by embracing their new identity and risk discrimination or consciously withholding their disease to others and risk living a doubled life. Transitioning for them is a persistent wandering between these two facets of a new "normal" life.

For some informants, being able to accept their newfound “self”, that of the seronegative PLHIV enables them to move forward and build a life of self-acceptance. Although the risk of discrimination is still palpable, for these informants it is a risk they must take. Expressions of this life path include being open with their status to any person especially their families, being an active member of the community of PLHIV, being able to counsel other PLHIV especially those that are newly diagnosed, and being able to live a life as an advocate. It is a belief among the informants that to be an advocate means you have fully acknowledged your identity as a seronegative PLHIV. For the informants, to be an advocate means you are sharing what you have experience and know about HIV to other people, may it be with many audiences (thru lectures and seminars) or with a single person (peer counselor or a friend) so they may not go through what you have been through. To live the life of an advocate is a personal choice for the informants.

> *“Siyempre pag advocate ka tanggap mo na lahat, discrimination and all. Panu ka magiging advocate kung nagtatago ka pa at may takot di ba?... Di naman lahat nagiging advocate na very active merong advocate sa sarili nilang paraan na di ganun ka obvious pero yun, alam na nila kung sino na sila” (If you are already an advocate you have accepted everything even discrimination (possible risk). How can you be an advocate if you are still hiding and still fearful?... Not all advocates are the "active" type (those that do seminars or appear in media) there are advocates in their little ways that are not that obvious but they already know who they are) – Informant G*

For the informants, their continued process of acceptance that they are seronegative PLHIV enables them to have a sense of oneness with their new self. The assumption of the seronegative status among PLHIV is somehow seen by the informants as a sign that they have accepted who they are. The seronegative status gave them confidence and respect by other people as it sends a signal to other PLHIV that all “pusit” (positive) can become seronegative.

With this, they are starting to see their disease, not as a hindrance to their life but just one facet of who they are. The common fear among the informants that they will be a burden to those they value and will become an unproductive member of society because of their status does not translate into reality. Their transitioning involves working around the restrictions brought about by the disease to fulfill their desire to be reintegrated into the society which they have momentarily left as they make sense of their experience.

There are some seronegative PLHIV that took the other path and deliberately choose not to disclose their status but still believe that they have accepted their fate as seronegative PLHIV. The fear of rejection by those they value, especially from their family, and the discrimination by other people, is enough for them to decide not to divulge their status even though they are seronegative. For them, the sense of being "normal" attached to the seronegative status connotes living the life they have left behind before they were diagnosed.

Secondary stories from the informants and some of their narratives point out the possible danger for a seronegative PLHIV in choosing to live their life as if they do not have HIV. These practices are expressions of giving in the temporal desire of the moment rather than focusing on their future which they see as precarious. Risky behavior may range from willfully missing some of their medications believing that they are already healed to practicing casual random unprotected sex to intentionally playing as the “giver” in the phenomenon of “bug chasing”.

> *“May tawag saamin. ‘Bug chasers’, that’s what we are called. When you say bug, that’s the virus. So you’re chasing the virus.”(We are called bug chasers, that’s what we are called. When you say bug, that’s the virus. So you’re chasing the virus (by practicing unprotected sex with a PLHIV)) – Informant E*

Transitioning, for the informants, is wandering between the bifurcated paths between being an advocate or being their old self, heavily influenced by their fear and acceptance of the reality of rejection and discrimination. To transition is to attain a sense of normalcy, whether this normalcy means accepting the present with all its restrictions or doing things reminiscent of their past self and experiences.

### Core Insight

These transition patterns reflect the moment to moment deliberate choice of existence by the informants. The transition moments are appreciated thru the lens of unpredictability and internal struggles as they try to create a sense of normalcy amidst their transitioning situations. Their transition journey is a willful process of sense-making along with the continued paradoxical dynamics of disorder and order. For the informants, transitioning is a journey of uncertainties of accepting who they were, who they are, and who they could become.

Insights from this study suggest that though the process of transitioning among informants seems varied, the core patterns of deliberateness, unpredictability, and sense of normalcy cut across their narratives. Acceptance within this context can never be perfectly achieved but only momentarily acknowledge.

## Resonance

Insights from this study support the assumptions set forth by Science of Unitary Human

Being (Roger, 1992), the unpredictability of persons, and their deliberate, multidirectional but unidirectional rhythm. Transitioning among seronegative PLHIV is an unpredictable moment to moment existence. Within their transitioning experience is the realization that they need to move forward and assume a new self that is unitary. Although it seems that some choose to willfully assume their previous self once they are seronegative, but in reality, this previous self is new, a mere conscious imitation of the pre-diagnosis notion of themselves. Redefining themselves in the context of their new identity echoes the idea of a continually innovative and creative process of change. The informant's assumption of their personalized sense of normalcy is always seen through the lens of them being seronegative PLHIV. As with the Rogerian concept of a continuous and infinite energy field, transitioning was appreciated as an imperfect and continuous process.

The continued exchange of energies between persons and their environment was echoed in this study such that for the informants, transitioning although an individual personalized journey, does not exist in silo. Their interaction with other persons and their appreciation of their unique contexts are an integral part of the meaning and sense-making of their transitioning experience. These experiences influenced the momentary decisions and choices they have and will continually make.

Some of the incidental findings of this study echoes with a portion of the findings of Barroso and Powell-Cope's (2000) meta-analysis of qualitative research on PLHIV, specifically the continued search for meaning and dealing with stigma as part and parcel of the transitioning experience. These shared similarities are attributed to the informants lived experiences as seronegative PLHIV, congruent with the experience of other PLHIV. This together with other studies points out that the context of the lives of PLHIV seems unchanged and the concerns seen decades ago may still be pervasively present today.

Although the context of the lives of PLHIV shares similarity with the incidental findings of this study, its primary is the nature of transitioning and not the overall experience of being a seronegative PLHIV, thus the insights found in this study provides a unique perspective not seen in other contexts. Insights that transitioning for seronegative PLHIV as a moment to moment deliberate choice of existence and a willful process of sense-making along with the continued paradoxical dynamics of disorder and order offers a fresh perspective of the nature of transitioning and finds no direct similarities with the current HIV/AIDS research literature.

## Implications

Persistent support from peers and family sustained counseling from diagnosis to being seronegative and health teaching focusing on risky behavior while transitioning are implied techniques to provide support during their transitioning process.

The sense of immediacy and genuine presence from persons caring for seronegative PLHIV seems to be appreciated as a supportive mechanism of their transitioning journey. There is a need to focus on assisting seronegative PLHIV as they are in the process of transitioning as and when they see it fit. Supporting seronegative PLHIV understand their patterns and make sense of their momentary situations should be one of the focus of health care providers.

Exploration of their self-images and sense of being while transitioning needs to be further understood. Research on the phenomenon of “bug-chasing” among seronegative PLHIV is also implied.

## Conflict of Interest

The author have no conflict of interest to disclose.

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REVIEW ARTICLE

# The Effect of Healing Garden to Improve the Patients Healing: An Integrative Literature Review

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## Abstract

**Background:** Healing Garden (HG) is developed as one of the therapies that do not only help in the physical recovery of the patient but also helps to restore mental, social, and spiritual health. This paper aims to determine the benefit of Healing Garden for the patients in the hospital and to produce evidence that Healing Garden relates to the positive experiences of the patients and contributes to their feeling of well-being.

**Method:** The study utilized An Integrative Literature Review of Literatures through EBSCO, ProQuest, and Google Scholar. The articles searched were within 10 years, starting in 2007 until 2017 using the following terms for Boolean Search: "Healing Garden AND/OR Healing environment AND Hospital". Systematic search related to the topic was started on January 26, 2018 to February 6, 2018.

**Results:** The results of the study revealed seven themes which include 1). Nature provides positive energy for patients, 2) Healing Garden as a protected self-expression space, 3). Healing Garden has the potential to improve the quality of life for patients both physically and psychologically 4). Nature provides space to relate and socialize for patients and families, 5). Garden therapy as a bridge between the outside and spiritual world, 6) Nurses have an important role as a professional in creating a healing environment, and 7). The garden as a "Healing Garden" that should be visible, accessible, quiet, and comfortable.

**Conclusion:** The report of the study gives an overview that Healing Garden therapy has the various advantage that can effectively accelerate holistic healing. It is recommended to build healing gardens such as at the workplaces, schools, public areas, and other places where people can relax and unwind.

***Keywords:*** *Healing garden, holistic healing, hospital, patients*

## Introduction

Healing Garden is an evolving concept that is gaining popularity today that involves the holistic healing for the patients in the hospital (Vapaa, 2002). Ulrich (1999) stated that the garden in the hospital provides social support, a sense of control, physical movement and exercise, and other positive distractions. A garden is a plant-dominated environment with nature aspects such as plantations, flowers, waters, etc. (Say Jer et al., 2014). Many studies conducted by the architects show that being in a garden during certain times has a real impact on health recovery, both physically and psychologically. Ulrich (1984) studied patients who underwent gallbladder surgery and found that those who are admitted in a hospital whose room was facing the garden were discharged faster, given fewer doses of antibiotics and analgesics compared to patients admitted in a room facing the wall. Applying the concept of a healing environment during the treatment period was seen in the final condition of the patient's health, such as a reduction in the day of care, a reduced cost of care, decrease in the level of pain and stress reduction, and a positive mood (Dijkstra, 2009).

Diehl (2013, as cited by Fleming et al., 2013) stated that the garden as a "healing Garden" should have healing attributes. Upon consideration of the mentioned information, there is only a little health care literature that presents the benefits of a healing garden among patients in the hospital. Most of which pertain to the psychology and architectural design. Thus, this review aims to determine the benefit of Healing Garden for the patients in the hospital and to produce evidence that Healing Garden relates to the positive experiences of the patients and contributes to their feeling of well-being.

## Methodology

### Research Design

In this Integrative Literature Review (ILR), the methodology proposed by Ganong (1987) was utilized. The process begins with the formulation of the review purpose and questions, followed by delineating the inclusion and exclusion criteria, and conduct of the literature search. Afterward, it was followed by the adoption of a data collection tool, setting rules for the inference for data analysis and interpretation, and revising the data collection tool to fit the review purpose. Extracting relevant information from included articles, systematically analyzing the data, and then discussing and interpreting the data was then conducted. This ILR aimed to review literature from different disciplines that discussed the benefit of a healing garden for patients in the hospital. A literature search was performed through EBSCO, ProQuest, and Google Scholar library. The articles searched were within 10 years, starting in 2007 until 2017 with used the following terms for Boolean Search: “Healing Garden” AND/ OR “Healing environment” AND “Hospital”. Systematic search related to the topic was started on January 26, 2018, to February 6, 2018.  A total of 471 kinds of literature were initially searched and only eight (8) studies were chosen based on the inclusion and exclusion criteria. A matrix was used as a tool to extract the necessary data from the literature. After this, data were systematically analyzed, discussed, and interpreted.

### Inclusion and exclusion criteria

Published articles that met the following criteria were chosen for inclusion: (1) written in English, (2) full-text articles, (3) participants are patients in the hospital, and (4) focused on the benefit of Healing Garden in Hospital. Titles were reviewed and when duplicates were identified only one study was included, thus, a total of 17 duplicates were initially excluded. After this, the titles and abstracts were reviewed, and 305 kinds of literature were found to have titles that have not matched the benefits of a healing garden and have participants other than patients in the hospital. Further, nine (9) kinds of literature were not written in English, and nine (9) were not research articles. Thus, a total of 18 articles were fully evaluated. Out of 18 articles, ten (10) were found to be irrelevant since it deals with studies related to the physical construction of the garden, hence, were excluded.

The PRISMA flow diagram (Figure 1) was used to determine the total number of works of literature that qualified as part of the review. The diagram was also used to monitor the screening and the identification of the eligible literature and to finalize the total number of the studies to be included in the review.

### Data extraction

For each study, the language, author, year of publication, full-text availability, detail about the subject, and the method used were extracted. Then, the extracted data were written in the matrix and were revised based on the rules of inferences for the data analysis and interpretation.

## Results and Discussion

Based on the eight (8) works of literature included in the study, a total of seven (7) themes were formulated. These include 1). Nature provides positive energy for patients, 2).  Healing Garden as a protected self-expression space, 3). Healing Garden has the potential to improve the quality of life for patients both physically and psychologically 4). Nature provides space to relate and socialize for patients and families, 5). Garden therapy as a bridge between the outside and spiritual world, 6). Nurses have an important role as a professional in creating a healing environment, and 7). The garden as a “Healing Garden” that should be visible, accessible, quiet, and comfortable. The report of the study gives an overview that Healing Garden therapy has the various advantage that can effectively accelerate in holistic healing.

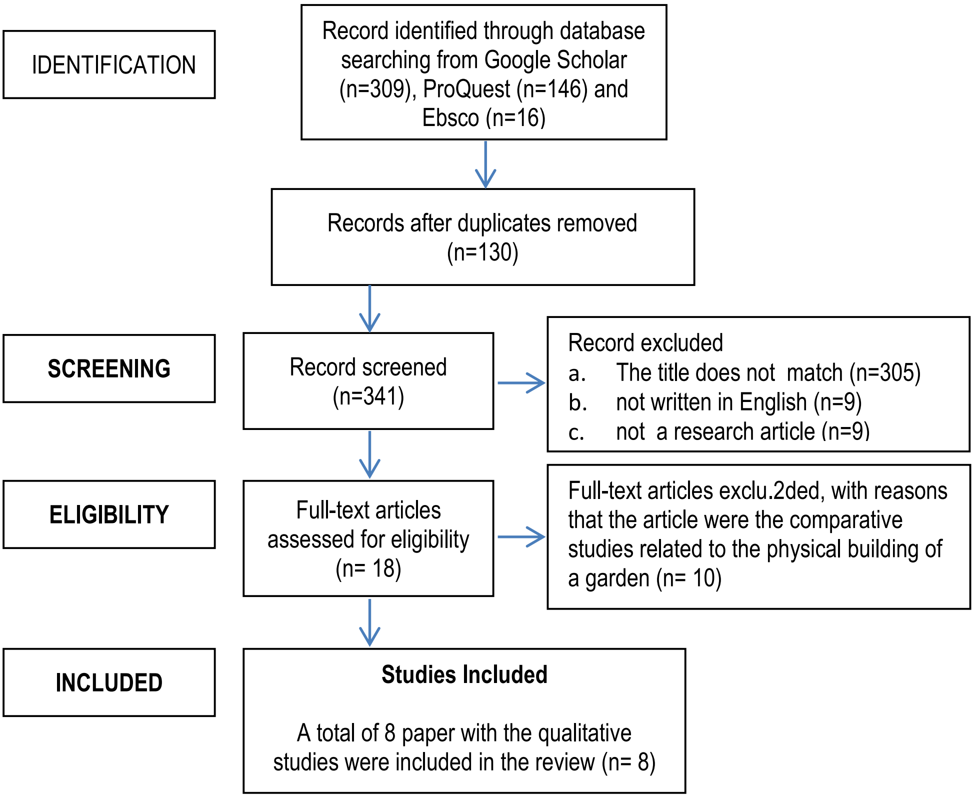

**Figure 1. PRISMA Flowchart**

**Nature provides positive energy for patients.**

Humans will feel healthier if they are happy and in turn, invite positive energy in a person. As it is well known that nature is the largest store of positive energy, being in the garden, will allow the patients to feel the flow of energy received. The beauty of the flowers, the sound of the wind, and the birds will make it fresh and give enthusiasm for the activity of the day. These findings confirm the opinion of Sevenedges (2014) which states that that nature gives place and pleasure also corroborates research results.

Marcus and Barnes (1995), that users of the garden have a positive change of mood after the time spent outdoors. Besides, this finding also supports Ulrich's state that garden allows accessing nature, and a place to reflect and reminisce in; a place of solitude, refuge, and familiarity, where it was reportedly possible to experience being present in the moment. That is why, there are patients who claim that a garden reflects life, as well as a life that is constantly changing but raises hope (Ivarsson & Grahn, 2010).

### Healing Garden as a protected self-expressions space

Humans can openly declare everything that is implied in their minds to others. Self-expression is expressing everything that is in a person, both in the form of feelings, thoughts, ideas, and desires that are owned. A quiet garden can provide someone's space and peace. Those in the garden (patients, their families, and hospital staff) can shed all their hearts and ideas. The results of this study confirm the opinion of Ulrich (1999) which states that a garden can support "a sense of control" for its users. This is an important thing especially for patients because they are in the hospital and can "lose control" of themselves because they face stressful conditions due to various situations experienced.

This result is also under Ward's (2013) opinion That persons with a strong sense of control more likely believe that their actions are responsible for their experiences and expect that they can influence the likelihood of events in their life. Moreover, many studies have shown that a sense of control is an important factor affecting a person's ability to cope with stressful situations (Erickson, 2012). Control refers to people's real or perceived ability to determine what they do and to determine what others do to them. The same is confirmed by Waxman et al. (1984) that much of the stress of hospitalization has been linked to loss of control, for example, loss of privacy, inability to choose clothing, meals, and room temperature, and unfamiliarity with buildings., Furthermore, Equally important is the opinion of Ericson (2012) which states that stress related to lack of control has been shown to have many negative effects, including depression, decreased cognitive performance, increased blood pressure, increased levels of circulating stress hormones, and suppression of immune function.

### Healing Garden has the potential to improve the quality of life for patients both physically and psychologically

This result is under the results of research by Hastuti (2017) that in the garden the patient feels healthier both physically and psychologically. The garden is a physical environment, providing an opportunity for patients. This result is confirmed by the opinion (Said et al., 2006) which states that especially for children, being in the garden can explore their physical abilities and cognitive skills. So, even in the hospital, patients may experience cognitive, affective, motoric, and social skills. This finding also supporting Marcus' (2007) statement that the meaning of the word “healing” in the healing garden is not meant to “cure” and will not cure hard diseases or any physical damages but it can reduce stress to a more balanced state. Also, according to Say Jer et al. (2014), it will build up self-confidence, provide an environment for a therapeutic program with patients, and provide an alternative place for a visitor from hospital interior.

Furthermore, Ivarsson and Grahn, (2010) argued that all gardens may have a therapeutic function, but the healing effect will be strengthened by the efforts or activities to support the recovery. In the same way, Weerasuriya et al. (2016) have specified that the psycho-physiological benefits of access in the garden reported were enhanced mood; reduced stress, agitation, distress, and anxiety; perceptions of enhanced safety and comfort, sensory stimulation, a sense of relaxation, rejuvenation, and hope. In the patient's view, nature also provided a great distraction when individuals were involved in overwhelming situations. Patients described nature as engrossing, and natural scenes as occasions to focus away from pain and discomfort (Barello et al., 2016).

These results are also supportive of Ulrich (1999) examines the health effects of the garden and suggests that there may be four potential benefits for health care facilities. According to Say Jer and Ibrahim (2014) these include stress reduction in patients, staff, and visitors, reduction in pain in patients, reduction in depression, a higher reported quality of life for chronic and severe illness, and finding better roads. Also, according to patients, observing beauty in nature offers comfort and pleasure (Ivarsson & Grahn, 2010). Also, visual contact with nature can reduce stress and pain (Rowlands & Noble, 2008). Children also exhibit supportive behaviors in their psycho-social and physical terms and provide the potential for better clinical outcomes (van der Riet et al., 2014). Furthermore, physical and psychological functions can be obtained during or after children participate in gardening activities (Said et al., 2006).

**Nature provides space to relate and socialize for patients and families**

In general, the definition of social support refers to the perceived emotional support or attention and physical assistance received by a person from another person (Erickson, 2012). This finding is by research conducted by Hastuti (2017) that while in the healing garden, patients feel they have found new friends and family. The social phenomenon in children is the transaction of children with their peers and caregivers (Said et al., 2006). Good social support can reduce stress and improve recovery (Say Jer et al., 2014; Rowlands & Noble, 2008). Other than that, Said et al. (2016) state that peer relationship in children includes communication, negotiation, and learning to reduce conflicts.

Moreover, Rowlands & Noble (2008) found that interacting with other patients for mutual support was important because this made them feel less isolated and can cope with their concerns better. Furthermore, Weerasuriya et al. (2016) stated that from a social perspective, the garden spaces provided an opportunity for more personalized interactions, a space to take visiting family and friends too, as well as spend time with colleagues. Also, access in the garden provided scope for enhanced interaction and conversation with others. Van der Riet et al. (2014) also stated that the benefit of Fairy Garden (FG) helped improve children 's development not just physically but socially and emotionally. Also, Ivarsson and Grahn (2010) stated that meeting others in the same situation, learning to appreciate their presence, and starting to open up is experienced by many as something very positive.

Considering the above theme, a similar statement was also presented by Ulrich (1999), that a higher level of social support will improve stress reduction and recovery rate for various medical conditions than isolated ones. Therefore, Ulrich (1999) suggested that garden design should encourage people to gather together and experience social support (Erickson, 2012). Waters et al. (2008) described that "relational experiences are recognized and treated as a central energetic influence in creating a healing environment.

## Garden therapy as a bridge between the outside and spiritual world

Schauer et al. (2016) defined spirituality as the breath or essence that infuses all life with meaning and that meaning is experienced through interconnectedness with nature, the earth, and the environment. While, Weerasuriya et al. (2016) described the experiences in nature as a connection to something “more powerful”, “magical” or considered a “haven”. As reported by Schauer et al. (2016), spirituality involves yearning for wholeness. Connectedness is an essential component of spirituality. Connection and relatedness may be experienced intrapersonal (connection to oneself), interpersonally (connection to others and the natural environment), and trans personally (sense of connection to the unseen, God, or something larger than the self) (Reed, 1992 as cited by Tranvag et al., 2016)

Furthermore, Schauer et al. (2016) found that immersion in nature impacts the human spirit such as connection, vibrancy, awe/presence, joy, gratitude, and compassion. The elements in nature commonly identified as earth, water, fire, wind, and space present in the gardens feature held multiple symbolic values. Especially, the larger trees were said to be symbolic of power, strength, wisdom, and regeneration while water fountains were symbolic of continuity. (Weerasuriya et al., 2016)

The Healing Garden provides a sense of safety, well-being, and show that life prevails even in the form of a plant or flower. Michaud (2003) reported that humans sometimes feel like they cannot move forward, or cannot change or evolve, but by connecting with nature maybe it can change, grow and reach great potential (Schauer et al., 2016). Also, apart from the power and strength that users drew from the garden experience, access to gardens was reported to have engendered a sense of tranquility and peace (Weerasuriya et al., 2016). These findings are also similar to research by Hastuti (2017) which states that when in a garden, patients feel a connection with the creator.

## Nurses have an important role as a professional in creating a healing environment

A nurse is a person who has completed a program of basic, generalized nursing education and is authorized by the appropriate regulatory authority to practice nursing in his/her country. According to the American Nurses Association (ANA, 1980), nursing, as an integral part of the health care system, encompasses the promotion of health, prevention of illness, and care of physically ill, mentally ill, and disabled people of all ages, in all health care and other community settings. Within this broad spectrum of health care, the phenomena of particular concern to nurses are individual, family, and group "responses to actual or potential health problems"

Nightingale’s view that nursing is the profession accountable for creating an environment that facilitates client healing. First and foremost, the nurse is responsible for providing a safe, comfortable, and supportive environment for the patient's healing. The nurse partners with the client to co-create the energetic capacity for making desired changes and expanding awareness that leads to healing (Waters et al., 2008). Historically, Nightingale suggested that nature was the best healer stating that the doctor and nurse can merely 'put the patients in the best condition for nature to act on them (Rowlands & Noble, 2008).

Holistic care can be expressed as all forms of nursing practice whose goal is to help patient's comprehensive include physical, mental, social, and spiritual. Additionally, when asked patients opinions about the current environment, the majority of patients' first response was about the staff and in particular the nurses. They suggest that good staff (nurses) communication can reduce anxiety and improve overall outcomes for the patient (Rowlands & Noble, 2008). The nursing profession is the powerhouse of a hospital and they accompany patients for 24 hours. In a healing process, nurses have an important role in holistic healing. Furthermore, Watson (1988) states that one of the causative factors that embodies caring for nurses is that nurses must create a healing environment at all levels.

The following indicators that the value of nurses and their roles were inferred from Watters's (2008) studied findings are: 1) Autonomy in making and implementing nursing practice decisions, 2) Support for individualizing client care, 3) Time and resources to support healing practices, 4) Recognition of the essential relationship between nurse self-healing and client healing, 5) Differentiation between technical and professional practice, and 6) Strong nursing presence throughout the organization.

In the hospital, nurses are responsible for integrating a curative aspect of care to a health professional (doctor, nutrition, pharmacist, etc.) to cure the patient, not only the physical but also the psychological, social, and spiritual of the patients. (Waters et al., 2008)

### The garden as a “Healing Garden” that should be visible, accessible, quiet, and comfortable

According to the American Horticultural Therapy Association (2007), the garden is an environment dominated by plants with natural aspects such as plantations, flowers, water, etc. The garden is designed to relax and unwind for the user. People who use the garden to just look around, sit around, walk, rest, pray or meditate, read, exercise lightly, play, and receive a therapeutic program. Thus, one thing that needs to be considered in designing the garden is its ability to provide opportunities to move and exercise. Sport is a combination of physical and psychological benefits (Brannon & Feist, 1997; Koniak-Griffin, 1994). The second function is a setting that allows children to play and the third function is a setting for walking contemplatively (eg, Labirin) and for users to walk or jog. The last function is the arrangement with approval for post-operation training.

This finding is the same as Marcus (1999) who stated that the garden around the hospital can be used as a healing garden for patients, to develop its full potential the following qualities such as visibility, accessibility, familiarity, quietness, comfortability, and shaped art are necessary. Furthermore, Marcus (2007) described that there are potential activities for users in the garden which is viewing, sitting, walking, resting, meditation praying, receiving the therapeutic program, reading, playing and sporting

## Conclusion

Based on the results of research on healing garden from previous researchers, it is important to understand that Healing garden therapy is very useful for hospitalized patients because it can affect to calm the mind, awaken the senses, reduced stress, and assist the user to master their inner healing resources. Also, nurses have a big role in creating a healing environment for patients. A Healing Garden is a garden that is easy to access, has privacy, and comfortable.

## Limitation of the Study

Although the creation of a healing environment is an often-cited goal of nursing, there is no formal professional consensus on what is meant by a healing environment. Not many studies have been conducted by health care providers (nurses) regarding the benefits of Healing Garden in supporting the healing of clients/patients. Thus, the professional literature on this subject is ambiguous and does not yet provide clear directions for practice.

## Recommendation

Based on the evidence that has been found that healing gardens in hospitals are useful for restoring patients' health conditions both physical and psychological, it is recommended to build healing gardens in public places such as workplaces (offices), schools, public areas, and other places where people can relax and unwind.

## Acknowledgement

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| No | Authors, year | Purpose of the Study | Research Design | Participants |
|---|---|---|---|---|
| 1 | Barello, Graffigna, Menichetti, Sozzi, Savarese, Claudio, Corbo (2016). | This study aimed to explore the post-stroke patients' experience of person-centered therapeutic gardening as part of their rehabilitation intervention by 1) deepening our comprehension of the psycho-social experience of post-stroke patients regarding their involvement in therapeutic gardening, and 2) exploring whether therapeutic gardening is perceived by patients as an opportunity to foster their engagement toward rehabilitation and self-care. | The design in this research is phenomenology with In-depth semi-structured qualitative interviews.<br>The Phenomenology is a qualitative method which offers a way to gain knowledge of a patient's subjective experiences and give meaning to phenomena in their life | The participant in this research were 22 Italian participants, all of whom had been patients who have been involved in therapeutic gardening activities.<br>They were selected from a list of patients taking part in a rehabilitation program for post-stroke patients at the hospital.<br>The sampling strategy used in this study was that of purposive sampling.<br>In purposive sampling, participants are individually selected according to their knowledge of the phenomenon.<br>The criteria inclusion criteria were: adults aged 50 or more; confirmed diagnosis of cerebral stroke, either ischemic or hemorrhagic; first acute event; being still physically active and interested in engaging in gardening sessions; Mini-Mental State Exam score > 24/30; Cumulative Index Rating Scale < 5; ability to converse in Italian; willingness to participate to the study; and cognitive capabilities and medical condition conducive to participation.<br>While, the exclusion criteria included: patients with psychiatric disorders and focal neuropsychological deficit (eg. aphasia, neglect); individuals who could not speak; confused individuals; patients who refused to sign informed consent. |
| 2 | Ivarsson, & Grahn (2010). | The purpose of this study was providing designers of therapeutic settings with more substantiated information to guide their design choices | The design in this research is phenomenology because the object of this study is to broaden our knowledge of how a therapeutic landscape is used and experienced by its patients | The number of a participant in this study are ten patients with stress-related diseases and they are in the rehabilitation program with nature-assisted therapy. This study located in the healing garden, Sweden.<br>In the Study, each patient has spent in the garden therapy differs from six weeks to spread out over eight months |
| 3 | Van der Riet, Jitsacorn, Junlapeeya, & Dedkhard (2014). | This paper aimed to report on the experiences of nurses of sick children who have participated in formal and informal activities in a healing haven environment called a 'Fairy Garden' | This was a qualitative study using narrative inquiry (NI). Dysvik et al. (2013) argue that narrative has different meanings, and over the years, researchers have had different approaches to narrative. | A purposive sample of eight nurse participants was interviewed in three focus groups (n = 8). The inclusion criteria were 1) Nurses working in the two children's wards.<br>2) Nurse administrators working at the hospital with involvement in the children's wards. |

| No | Authors, year | Purpose of the Study | Research Design | Participants |
|---|---|---|---|---|
| | | | | Initially, one focus group interview was with two head nurses, a second interview was with three ward nurses, and a third interview group was with three nurse administrators. In attendance were the principal researcher, the Thai language translator (who was part of the research team), and the nurses.<br>For each focus group interview, there were open-ended questions, with several key questions aiming to generate reflection and discussion. |
| 4 | Rowlands & Noble (2008). | This study aimed to explore the views of patients with advanced cancer on the effect the ward environment has on their overall well-being | A phenomenological approach was chosen to describe the lived experiences of the patients as they see it and interpret the data to identify core themes.<br>A semi-structured interview format was formulated based on the findings from pilot interviews with four patients.<br>The interview format focused on the patient's experiences of the hospital ward and facilities, and how they felt the environment affected their mood and quality of life during their hospital stay. | The participants were 12 patients. The sampling was purposive sampling with inclusion/exclusion criteria.<br>Participants were representatives of the oncology center SPCU with respect to sex, age, disease, and nursing needs dependency |
| 5 | Said, Sarofil, & Bakar (2006). | This study examines a phenomenological approach to elicit the behavioral responses of pediatric patients, aged 6-12, who are experiencing a hospital garden. | This study was the phenomenological approach | The participant of this study was children patients aged 6-12, who are experiencing a hospital garden. |
| 6 | Say Jer, & Ibrahim (2014). | The purpose of the paper was to find the elements of healing gardens and its healing factors in the existing garden design | The main methods of data collection were observation and informal interviews with the patrons. | The participants were the patients and visitors in the garden |
| 7 | Waters, Kritek, Cowling, Peloquin, Fenton, & Hill (2008). | The purpose of this study was to identify and describe characteristics of a healing environment from a nursing perspective | This qualitative study was conducted using an interpretive descriptive method consistent with a naturalistic inquiry model | The participant in this study was 9 expert nurses and the sampling with purposive sampling who practice within the conceptual framework of Rogers' The science of Unitary Human Beings. This study, that to increase the probability of selecting good informants, |

| No | Authors, year | Purpose of the Study | Research Design | Participants |
|---|---|---|---|---|
| | | | | this investigator developed criteria for choosing a purposive sample<br>The criterion for selecting the sample focused on identifying nurses who would be good informants are: the first criterion was that selected subjects would acknowledge her/his practice using a Science of Unitary Human Beings (SUHB) orientation, and the second criterion was a requirement that subjects would have published about their practices incredible professional journals or other scholarly sources.<br>There were no criteria specified relative to demographic mix or personal characteristics. |
| 8 | Weerasuriya, Townsend, Henderson-Wilson & Wells (2016) | This research explores the user experience already has access to gardens in three hospital campuses in Metropolitan Melbourne, Victoria The purpose of this paper is to report the initial findings of this study, against across groups studied | This phenomenological study was conducted at Austin Health's three metropolitan campuses in Melbourne, with data collected through the face-to-face, semi-structured interviews with staff, patients, and visitors. | The participants were staff, patients, and visitors. This sampling was A purposive sampling method |

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REVIEW ARTICLE

# Family Centeredness in Mental Health: A Concept Analysis

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## Abstract

**Background:** Mental illness affects the entire family structure. The family members are the main provider of care that results in caregiving burden. Thus, the care given should encompass the entire family system, termed as family centeredness.

**Purpose:** This study clarifies the concept of "family centeredness" in mental health to enhance individual and family cares living amid mental illness.

**Methods:** This research employed Walker and Avant's method of Concept Analysis. Literature was reviewed, and the characteristics that appeared repeatedly were noted and categorized. Data were mapped according to its definition, antecedents, attributes, and consequences.

**Results:** Three key defining attributes were identified: (a) A mutual, collaborative partnership between the patient, family and health care providers based on knowledge exchange, open communication and cooperation; (b) A supportive, professional relationship/bond/engagement among health care providers, patient and family characterized by empathy, understanding, respect and empowerment; and (c) Individualized care wherein the process is defined by the family is supported, enabling the opportunity to choose, control over decisions and empowerment.

**Conclusion:** The result of the study clearly defines family centeredness as a health care approach in mental health that acknowledges the patient and family as the experts on themselves, involves families as collaborative partners in all aspects of services and decisions about care through mutually beneficial supportive partnerships with health care providers; to help patients make progress towards recovery.

**Keywords:** *Family, Family-centered care, Mental Health, Mental illness*

## Introduction

Family denotes a group of individuals who live together during important phases of their lifetime and are bound to each other by biological and/or social and psychological relationships (Avasthi, 2010). Being a complete entity, the family is considered as the main provider of care of an in-need member (Foster et al., 2012; Mcneil, 2012). This significant responsibility, however, results in a substantial level of stress and burden in caregiving especially in caring for a member with mental illness (Rose et al., 2004). Thus, the focus of care should not be solely centered on the ill-member but should include the entire family. This care is termed as family centeredness.

Although family centeredness would seem to be focused on the nursing care of children (Hutchfield, 1999), its practice suggests a global concept of nursing care that embraces the whole family, with a multidimensional approach to care aimed at promoting well-being of the entire family throughout the entire course of the illness (Whittaker, 2017). Family centeredness can be applied to various levels of health care and in all branches of nursing – including mental health.

While family centeredness had been extensively explored in pediatric settings, there has been minimal insight done understanding this concept in mental health. Family stigma and caregiver burden in mental illness – terms all related to family centeredness are well-understood. However, the term’s definition in the field of mental health remains vague, even though several studies have examined family experiences amidst mental illness. For a precise description of the term, this paper defined family centeredness in mental health using Walker and Avant’s concept analysis method. The results of this analysis will enhance understanding of the concept and its theoretical and practical implications in the field of mental health care.

## Methods

### Study Design

Concept analysis is a process for deriving accurate theoretical and operational definitions of certain words, terms, or symbols by clarifying their fundamental properties (Park & Park, 2014). For Walker and Avant (1994), “Concept analysis is a concept development, a process of determining the likeness and unlikeness between concepts and its basic purpose is to distinguish between the defining attributes and the irrelevant attributes” (p.38). As family centeredness in a mental health field is still an ambiguous concept, the strength of the method of Walker and Avant in providing a structural guideline seemed the most appropriate approach.

Walker and Avant's method elucidates the concept by providing the definition, attributes, antecedents, consequences and empirical referents through the following steps: 1) select a concept; 2) determine the aims/purposes of analysis; 3) identify all uses of the concept that you can discover; 4) determine the defining attributes; 5) identify a model case; 6) identify borderline, related, contrary, invented and illegitimate cases; 7) identify antecedents and consequences, and; 8) define empirical referents.

**Data Gathering**

Given the aim of defining the concept of family centeredness in mental health, a systematic literature review was conducted. To be included in the present analysis, studies have to be papers in journals, dissertations, unpublished studies, experience reports, and theses; exploring issues and concerns of families with the mentally ill member. It should be written in English, published or written in the year 2000.

With the keywords "family", "mental health", "mental illness", "mental health care issues", "family-centered care and family-centered care in mental health, the EBSCOHost online search platform together with CINAHL, PubMed, and ProQuest databases were used. Additional literature was obtained through Google Search Engines and Google Scholar. The author also conducted a hand search in selected local libraries to determine some other unpublished works related to the topic of interest. The search and selection of articles were solely done by the researcher. Specific procedures for data collection are illustrated in Figure 1.

The initial search with the general keyword of family-centered care yielded 707 studies. Focusing on family-centered care in mental health, the volume was reduced to 266 studies. After further screening, removal of duplicates, and eligibility assessment, there remained 20 articles for analysis (Figure 1).

Overall, the review found eight discussion papers, four qualitative studies, three mixed methods, three literature reviews, and one master's Thesis. The papers were synthesized using a table indicating the name of authors, methodology, definition, attributes, antecedents, and consequences (Table 1).

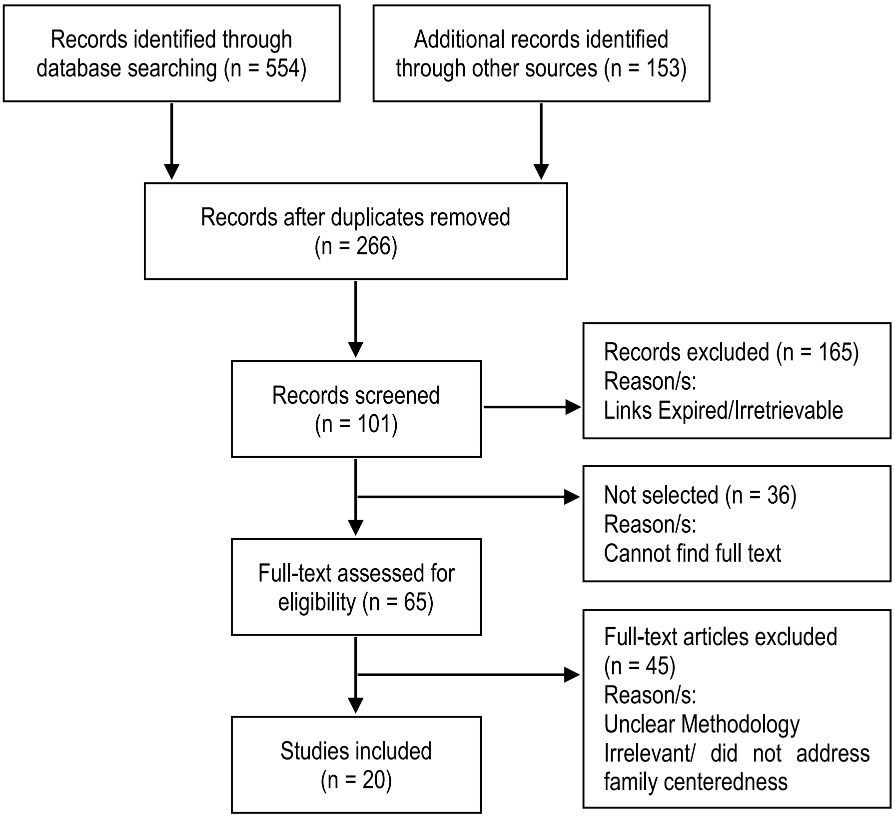

**Figure. 1. Flow Diagram of the Article Selection Process**

## Results

### Definition and use of the concept

In defining and determining the use of a concept, Walker and Avant (2005) recommended using dictionaries, thesauruses, and any other possible literature (Park & Park, 2014). However, the concrete word "family centeredness" could not be found. Instead, the concept has been defined under the guise of different labels, including family-centered care, family-centered practice, and family-centered approach. client-centered therapy, patient-centered care, and relationship-centered care (Parrish et al., 2008).

The term family-centered care initially emerged in the maternity nursing literature in the 1970s (Dokken and Ahmann, 2007; as cited in Goldfarb et.al., 2010 p.92). Also, it was first defined in 1987 as part of former Surgeon General C. Everett Koop's initiative for family-focused, community-based, coordinated care for children with special health care needs and their families (Brewer et.al., 1989; as cited in Goldfarb et al., 2010 p.92). Originated decades ago with the thrust of delivering the best care for sick minors, family-centered care has resulted in innovation in health care practice that resulted in the betterment of the care of hospitalized children (Jolley & Shields, 2009).

Child Welfare Information Gateway (n.d.) termed family centeredness as Family-centered practice, a way of working with families, both formally and informally, across service systems to enhance their capacity to care for and protect their children. Raising Children.net.au (n.d.), an Australian Parenting website named it Family-centered approach, is defined as a way of working in partnership with families to help them make their own decisions in creating the best environment for children's health, development, and well-being.

From the children-centered approach, family centeredness' definition evolved. Recently, the practice redefined relationships in health care by emphasizing collaborating with people of all ages, at all levels of care, and in all health care settings (Family-centered care, n.d.). In the definition of the Institute for Patient and Family-Centered Care (n.d.), the concept was described as an approach to the planning, delivery, and evaluation of health care that is grounded in mutually beneficial partnerships among health care professionals, patients, and families.

The Medical Dictionary for the Health Professions and Nursing (n.d.) correspondingly labeled the concept as Family-centered care and defined as the application of services, therapies, and interventions that are based on the concerns and priorities of the family and not primarily on establishing the diagnosis. Similarly, the Medical Dictionary (n.d.) defined Family-centered care as the integration and collaboration of family members in the patient care team, especially in the care of infants, children, or adults with complex or continuing health care needs.

In the review of the literature, several studies were found describing family centeredness using a different terminology but similarly suggests a global concept of nursing care that embraces the whole family. Foster et al. (2012, p.7) termed it as family-focused care, a method of care delivery that respects and recognizes the pivotal role of the family, considers their uniqueness, and views them as a complete entity. Caqueo-Urizar et al. (2015) referred to it as family intervention, a collaborative relationship between the family and the treatment team to help patients make progress towards recovery. A family-centered approach is another term referring to family centeredness, which defines it as engaging families, providing education and attending to their needs (Heru, 2015); while McGavin (2013) referred to it as family-focused practice, an approach that emphasizes the family as the unit of attention, as opposed to working with an individual alone ( as cited in Grant & Reupert, 2016).

Family centeredness was indeed being described and defined using different terminologies. The common theme that existed within these labels is that successful caregiving requires not only accurately diagnosing disease but also valuing the importance of human interactions in health care experiences and the legitimacy of the patient’s (and parents’) beliefs and practices (Parrish et al., 2008). Regardless of the term, they share the same principle: Family-centered care practice acknowledges the patient and family as the experts on themselves, involves families as collaborative partners in all aspects of services and decisions about care through mutually beneficial partnerships among health care providers, patients, and families; to help patients make progress towards recovery (Wong, 2014; Wong et al., 2016; Williams, 2014; Caqueo-Urizar et al., 2015).

## Defining Attributes of the Concept

Walker and Avant (2005) state that the defining attributes are 'characteristics of the concept that appear over and over again (cited in Easley, 2007). Upon reviewing the relevant literature, noting and summarizing the characteristics that repeatedly appear, the defining attributes of family centeredness include:

a) A mutual, collaborative partnership between the patient, family and health care providers based on knowledge exchange, open communication and cooperation wherein families are not called or treated as dependent clients, but viewed as equals, as citizens with whom they work in partnership (Bamm, 2008; Goldfarb et al., 2010; McNeil, 2012; Wong et al., 2014, 2016; Grant & Reupert, 2016; Foster et al., 2012, 2018, Ahmann & Johnson, 2000; Park et al., 2018; Caqueo-Urizar et al., 2015)

b) A supportive, professional bond among health care providers, patient and family characterized by empathy, understanding, respect, and empowerment; with the patient as the center of care and families are supported in their natural caregiving role (Foster et al., 2012, 2018; Avasthi, 2010; McNeil, 2012; Ahmann & Johnson, 2000; Heru, 2015; Hodgetts et al., 2013; Chien et al., 2013; Chadda, 2014; Bamm, 2008; Wong et al, 2016; Godfarb et al., 2010)

c) Individualized Care wherein the process is defined by the family is supported, enabling the opportunity to choose, control over decisions and empowerment (Foster et al., 2012; Avashti, 2010; Park et al., 2018; Bamm 2008; Goldfarb et al., 2010; Chadda, 2014; Williams, 2014).

## Collaborative relationship

According to the Center for Addiction and Mental Health (CAMH, 2004), collaboration requires a shift in organizational practices and in the attitudes and behaviors of individual providers from a model in which professionals are seen as the only people in possession of expert knowledge to a model that is based on knowledge exchange and partnerships (as cited in McNeil, 2012).

World Health Organization (WHO, 2018) defined the collaborative relationship as a partnership between two or more parties and is based on trust, equality, and mutual understanding for the achievement of the specific goal. Family centeredness is a mutual, collaborative partnership between the patient, family, and health care providers.

Working with families of mentally-ill appears to be one of the most effective ways of delivering the community-based intervention to these patients (Chien et al., 2013), and with proven efficacy in reducing the negative impact of psychosis in caregivers, reduce negative attitudes and increase caregiver's willingness to provide care to their ill-member (Chadda, 2014). In family centeredness, families are not called or treated as dependent clients, but viewed as equals, as citizens with whom they collaborate (Bamm, 2008). In fostering collaborative partnerships with families, there is the provision of quality mental health information, education, and support, resulting in better continuity of care in all levels of health care delivery system and better relationships for everyone involved (Ahmann & Johnson, 2000; Grant & Reupert, 2016; Foster et al., 2012, 2018; Goldfarb et al., 2010; McNeil, 2012; Park et al., 2018; Wong et al., 2014, 2016).

### Supportive, Professional Bond

Family centeredness is a mutual relationship between the patient, family, and health care provider anchored on empathy and understanding (Avasthi, 2010). Families are recognized in their contribution to care, supported in their natural caregiving roles, and focusing on their strengths (Avasthi, 2010; Foster et al., 2012). It is a professional engagement, thus the mental health care providers still exercise their capability and expertise in their field. But with the main goal of giving support, the mental health care providers need to extend their attention beyond giving information. The services should be anchored more on taking timely care of the needs of the caregivers, helping them to improve and maintain their well-being so that they can take better care of their loved ones (Chadda, 2014; Chien et al., 2013).

### Individualized Care

As each individual is unique, the care provided should always be individualized. Family centeredness employs dignity and respect, with the consent and choice of the consumer taken into consideration (Ahmann & Johnson, 2000; Foster et al., 2012). Since families are constant in the patients' life and best suited to determine the patients' needs, they are given choice and control over treatment decisions (Hodgetts et al., 2013).

Also, health care providers must recognize the distinct characteristics of each family. Although everyone needs help, it should be understood that help may be given differently, in a different frequency, in a different approach (Goldfarb et al., 2010). In considering the individualism of each family, there will be a chance for making a better choice of treatment, informed decision making and empowerment (Bamm, 2008; Hodgetts. et al., 2013; Park et al., 2018). Indeed, family centeredness is a process whereby help is defined by the family that is being supported (Goldfarb et al., 2010).

## Case Studies

To further expand the concept of family centeredness, four categories of case studies are provided.  The concept analysis method described by Walker and Avant (2005) uses case studies to clarify the concept and its attributes (Park & Park, 2014).

While cases may be invented or found in the literature, those presented here were taken from actual examples of the researcher's experience working with mentally-ill patients and their families. Descriptions used to identify each case are fictitious and are not based on the participant's actual names. The model case demonstrates all of the defining attributes of the concept. A borderline case is a case that contains most, but not all of the defining attributes. A related case is related to the concept but does not contain the clinical attributes; and the final contrary case is a clear example of what the concept is not (Walker & Avant, 2005 as cited in Brush, 2011).

### *Model Case*

Alvin is a 50-year old retired seaman. Being the eldest in the family, he became the father to his five siblings when their father died. His work as a seafarer enabled him to send all of them to schools and became professionals, and at the same time supporting the need of his widowed mother. Because of his devotion to family, he remained single until his retirement.

Years after he stopped working, his family noticed a change in his character. He became suspicious, aloof, always agitated, and had outbursts of anger. When his suspiciousness worsened to the point of becoming delusional, his family sought medical help. Rey was diagnosed to have Schizophrenia, paranoid type; and was admitted for treatment in a mental health facility. As a protocol, the institution assigned a case manager who will personally manage his situation.

His widowed mother, together with his brothers and sisters, was too disturbed and disheartened with what happened. During their first family therapy session with the case manager, they expressed their anxiety, asked information about the illness, and how will they be able to help Rey. Through a series of scheduled family therapy sessions, they were given psychoeducation, an intervention teaching the family about an illness to change any negative (and possibly false) ideas that family members may have about the illness. They were made to understand what is Schizophrenia and how to manage it. The sessions also include identifying each family member's strengths and using these to solve and manage their problems. Group therapy with other families having similar burdens was also done. During these sessions, the case manager gave ample time for each family member to comprehend the situation and verbalize their readiness to participate in the care. Eventually, every member of the family eagerly complied and attended the meetings regularly. These interventions increased their knowledge of the illness and strengthened their coping skills as they wait for Rey's recovery.

Similarly, Rey was treated in the institution through medications and psychoeducation. Slowly, his symptoms lessened and began to understand his condition. Through the guidance of the case managers, he was able to accept his illness and learned skills on how to cope with it. It was difficult for Rey but the case manager and the other health care providers helped him in his recovery.

By the time that Rey was discharged, his family was ready and eager to welcome him. He stayed in their ancestral home together with his mother and the youngest brother who is still single. The siblings who are not staying with him tried their best to communicate with Rey through the phone. Every Sunday, the entire family would gather together for prayer time and have lunch. The other siblings also brought their family to associate with Rey and make him feel welcome. Since Rey is already retired, every sibling contributed to the continuance of his treatment. The first few years after the initial attack was difficult. Rey experienced a minor relapse which results in conflict with the other members. But the family was able to manage it through cooperation, understanding, and patience, with the continuous guidance of the case manager.

At present, Rey is helping his youngest brother in their delivery business, and he constantly had his follow-up check-ups. His case manager is also continuously monitoring his condition through collaborating with the family, his psychiatrists, and others involved in his care.

This model case study fully demonstrates all attributes of family centeredness, collaborative partnership, supportive relationship, and individualized care. Here, the need for the whole family was met, not only the patient. Every member was made to understand the illness, recognized their struggle, and strengthened their individual's capability needed to manage the present stressful situation that resulted in empowerment and improved quality of life.

### ***Borderline Case***

Jeric, 23 y.o. was brought to the mental health facility by his sister. He was reported to be violent and destructive with active visual and auditory hallucinations. During the admission, the sister willingly provided all the necessary information and had given consent for admission. During hospitalization that lasted for almost a year, Jeric had occasional visits from his family. In those brief visits, the hospital staff conducted conferences/meetings to give insights on Jeric's diagnosis and progress. The hospital staff requested a more frequent visit and specific time for psychoeducation, but the family said that "they were too busy and will just pay a visit if they have time."

After one year, Jeric was discharged in stable condition. His sister fetches him, and the hospital staff gave instructions regarding medications, follow-up checkups, and how to managed Jeric at home. They were even allowed to use the ambulance in going home, assisted by the social worker, for further assessment of the home environment. However, after three days, Jeric was brought back by a family member to the hospital. He had a relapse. It seems that his family is not ready to live with him in his present condition. Upon readmission, his verbalizations in dialect are: "Diri na lang ko kay tawhay." (I would rather stay here, at least I have peace of mind.)

Based on the case, there is an effort to implement family-centered care. The health care providers collaborated with and extended support to the family by involving them in the decision-making process, giving information about the patient's condition and progress, and assisting in discharge as well as evaluating the home environment. However, because the family can only have brief, occasional visits to Jeric, there was no in-depth engagement between the family and the health care provider. Family involvement needs time and effort exerted by both parties. In this case, there is an effort for collaboration and support, but the family is not yet ready to integrate the care of Jeric into their system. Managing people with a mental health condition is difficult, especially if the family is capable of handling it. Jeric might be ready to go back, but his family is not, and that stressful situation probably triggered the relapse.

### *Related Case*

Juan is a 67-year-old male, a patient of a private mental health facility in Davao City. He is a member of a well-off family in the city but unfortunately succumbed to Schizophrenia at the early age of 21. He was brought to the facility and had remained there since then because family members are not willing to take care of him. According to them, they are "afraid, incapable, and had their concerns to attend to." They believed that keeping Tomasito inside the facility is best for everyone. They just requested that they will be kept informed of the condition of Tomasito, and only communicates with the hospital administration to settle their financial obligations. They considered themselves lucky for finding an institution that can fully attend to Tomasito's needs so that they can also "carry on with their normal life". To date, Tomasito is a permanent resident of the facility. His immediate needs are provided (food, medicine, clothing) since the family is financially capable of sustaining his hospitalization; but is seldom visited by his kin.

This is an example of a related case. The needs of the entire family are being met, as the patient is well-taken cared of by the health care providers; and the family members were able to live a normal life. However, the clinical attributes are not present, as there is no collaborative and supportive partnership between the health care provider, patient, and family.

### Contrary Case

Maria is a 35 year old female suffering from psychosis for almost three years. She is married with three children. Maria exhibits severe signs and symptoms that disrupt their community, and she was rumored as being 'possessed by demons'. Because the family is living in poverty and lacks intellect in understanding Maria's condition or how to take care of her, the husband decided to hide her. He left his children to the care of his parents, made a simple dwelling on the mountains, away from people. To be sure that Maria will not be able to escape, he made a wooden cage and kept her inside.

Maria is still living inside the cage until now, slowly deteriorating. His husband is willingly taking care of her, although the toil of caregiving is breaking him apart. The children are growing without their parents, but the husband believed that this is the only best thing that he can do for his wife and the children.

This final case is an example of a contrary case, as the family had no awareness about the illness and it's proper management, did not even seek any professional help, and still struggling until at present.

### Antecedents of Family Centeredness

Walker and Avant (2005) defined antecedents as "those events or incidents that must occur before the occurrence of the concept (as cited in Park & Park, 2014). Regarding family centeredness, these include:

#### *Presence of Mental Illness in a Family Member*

Severe mental illness is stressful, not only for the individual but also for the entire family as this ill individuals live with their family rather than in mental health institutions and eventually becomes an increasing family concern.

Families of people with severe mental illness have significant responsibility for providing support and care for their relatives over extended periods, in many cases years and decades (Rose et al., 2004). Often represented as the primary source of support, family members are referred to as critical resources of care, central support system, main carers for patients and primary caregivers (Avashti, 2010; Caqueo-Urizar et al., 2015, Chadda, 2014; Chien et al., 2013). According to studies, social support networks among those living with serious mental illness are typically smaller and more restricted, and primarily consist of kin as compared with the general population (Froland et al., 2000; Perese & Wolf 2005; Philips 1981; as cited in Duca, 2010). This small, kin-dominated network plays multiple roles in care for the psychiatric patient, including day-to-day care, supervising medications and check-ups, taking care of financial needs, and bear with the behavioral disturbances of the ill-member (Chadda, 2014; Duca, 2010). Thus, in the health care field, the family represents one of the most valuable sources of support, recovery, and essential insights on the behavior and coping strategies of the individual (Bamm, 2008).

#### *Experience of Burden*

Severe illness or injury brings with it an inevitable distortion of family dynamics and equilibrium (Bamm, 2008). In mental illness, many of the families experience a substantial level of stress and burden that adversely affect the health of the individual members and the entire family unit

(Doornbos, 2002; as cited in Rose, et al. 2004). As the support systems of families living with the mentally-ill member are limited, the reliance on this small, restricted network increases interpersonal stress and lead to greater emotional disturbance in family interactions (Vaugn & Leff, 1981; as cited in Duca 2010).

The impact of mental illness on the caregivers has been termed as the burden of care. According to Platt (1985), the burden of care is the presence of problems, difficulties, or adverse events that affect the lives of the psychiatric patient's significant others (cited in Avashti, 2010, p.116). These include disruptions in social functioning, economic burden, feeling of loss, shame, guilt, anger and embarrassment that results in much distress, suffering and reduced quality of life (Avasthi, 2010; Caqueo-Urizar et al., 2015; Chadda, 2014; Chien et al., 2013; Duca, 2010; Foster et al., 2012, 2018; Heru, 2015; Leonard et al., 2018; McNeil, 2012; Rose et al., 2004).

### *Acknowledgement of Responsibility*

Although addressing mental health problems is one of the functions of the government, the burden of care falls into family members. Being the primary caregiver of persons with mental illness, the family attends to the needs of the ill-member from onset, admission to discharge. The family caregiver plays multiple roles in care of persons with mental illness, including day-to-day care, supervising medications, taking the patient to the hospital and looking after the financial needs (Chadda, 2014; Caqueo-Urizar, et al. 2015). Common identified reason of this family provision of care to an ill-member is the paucity of trained mental health professionals required to cater to the vast majority of the population (Avasthi, 2010; Caqueo-Urizar, et al. 2015). However, aside from the mere responsibility of providing the needed health assistance of the ill-member, the value of love and concern for a dear one in adversity posits a greater reason for the care given. Being considered as a single complete entity, families are the primary carers of their ill-member. (Avasthi, 2010, Caqueo-Urizar, et al. 2015, Chadda, 2014; Chien et.al. 2013; Foster, et.al. 2012; McNeil, 2012; Rose, et al, 2004).

### *Constant Presence*

Family is the central to and/or the constant in the life of every member, the primary source of strength and support and best suited to determine the needs of each one (Bamm, 2008; Hodgetts et.al. 2013). Regardless of the type of disorder, it is the family caregivers who takes care of the day-to-day needs of patients. In mental illness, this needs includes monitoring of the mental state, identify the early signs of illness, relapse and deterioration, supervise treatment and access to services, and provision of emotional support (Chadda, 2014, Caqueo-Urizar, et al. 2015). Assuming the caring role for mentally ill individual is a constant responsibility. Taking on this caring role is at an important cost for the caregiver, who loses a series of opportunities for his personal and working growth (Caqueo-Urizar, et al. 2015). Caregivers have to curtail on their leisure and social activities, and sometimes have to leave their jobs (Chadda, 2014) to continuously provide care. However, families still prefer to be meaningfully involved in all aspects of care of their ill-member (Avasthi, 2010). Despite the odds of experiencing confusion, frustration, fear, sadness, grief, anger, resentment and guilt, families still holds on to hope, caring, compassion, sympathy and love (Chadda, 2014).

## Consequents of Family Centeredness

Walker and Avant (2005) defined the consequences of the concept as the outcomes or results of the occurrence of the concept (as cited in Park & Park, 2014), and can often stimulate new ideas or avenues for research (Brush et al., 2011).

In this concept analysis, identified consequences are reduced burden of care to families (Foster et al., 2012; Caqueo-Urizar et al., 2015; Hodgetts et al., 2013; Duca, 2010; Chien et al., 2013; Foster et al., 2018; and Leonard et al., 2018); improved patient outcomes that include reducing relapse rate, hospital admissions and increased medication compliance (Chadda, 2014; Chien et al., 2013; Duca, 2010; Foster et al., 2012, 2018; Heru, 2015; Hodgetts et al., 2013; Park et al., 2018; and Williams, 2014); and better quality of life that includes improved social functioning, empowerment and resilience to both caregiver and patient (Ahmann & Johnson, 2000; Avashti, 2010; Bamm, 2008; Caqueo-Urizar et al., 2015; Chadda 2014; Chien et al., 2013; Foster et al., 2018 ; Hodgetts et al., 2013; Park et al., 2018; Williams, 2014).

Family centeredness also resulted in a paradigm shift for healthcare provider's practice from a professional-centered model in which professionals are regarded as the experts to a family-centered model in which families and professionals share power and control and work collaboratively (Espe-Sherwindt, 2008; Mohr, 2000; cited in Wong et al., 2016). As a consequence, there is improved quality of care characterized by increased confidence in work, increased job satisfaction, improved experience in health care delivery and reduced stress and burnout by generating a right working environment for practitioners (Park et al., 2018; Williams, 2014; Wong, 2014; Wong et al., 2016).

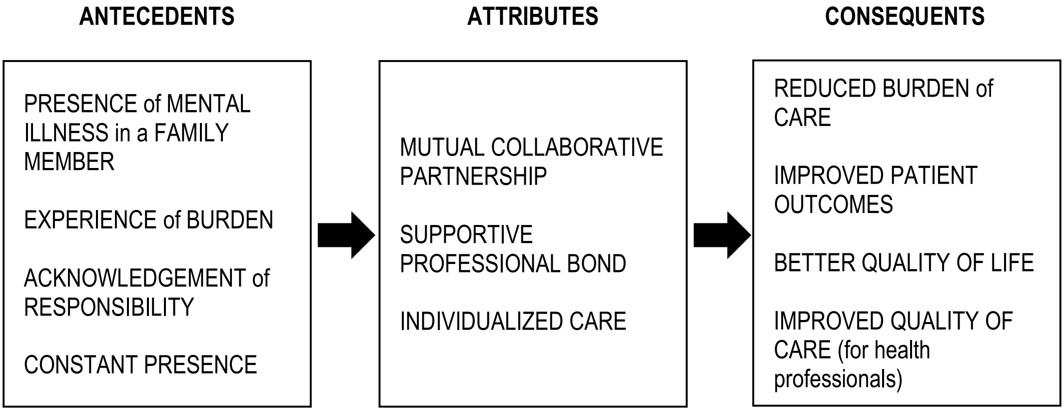

**Figure 2. Conceptual Model of Family Centeredness**

### Empirical Referents

Empirical referents are classes or categories of actual phenomena that by their existence or presence demonstrate the occurrence of the concept itself (Walker & Avant, 2005). Once identified, the empirical referents are useful regarding developing the instrument since they are developed based on the theoretical analysis of the concept (Walker & Avant, 2005).

So far, there is no known tool specifically measuring family centeredness in mental health. The majority of the assessment tools are on pediatric care, focusing on helping families of children with special needs. Some of those are Self-Assessment Family Tool (Engaging Patients & Families, 2020), Perceptions of Family-Centered Care: Parent, Perceptions of Family-Centered Care: Staff and Parental Stress Care: Neonatal Care Unit (Balbino et al., 2016). Standardized Surveys assessing the experiences of consumers receiving different types of health care in hospitals, nursing homes, hospice, and end of life are also existing (Berselli et al., 2018).

For this research, the defining attributes of family centeredness are abstract and hard to measure. The degree of collaboration, level of support, and promotion of individualized care is better assed through qualitative studies because it is more on the in-depth experiences of the persons involved, thus very difficult to quantify. More so, it is also appropriate to include the identified antecedents (Family being the main provider of care and Caregiver Burden) and consequents (reduced burden of care, improve patient outcomes, the better quality of life, and improve quality of care) to qualitatively measure family centeredness.

## Discussion

Family denotes a group of individuals who live together during important phases of their lifetime and are bound to each other by biological and/or social and psychological relationships (Avasthi, 2010). Being a complete entity, the family is considered as the main provider of care of an in-need member (Foster et al., 2012, Mcneil, 2012). This significant responsibility, however, results in a substantial level of stress and burden in caregiving especially in caring for a member with mental illness (Rose et.al. 2004). Thus, the focus of care should not be solely centered on the ill-member but should include the entire family.

In this study, three attributes of family-centered care were explored: (a) Family Centeredness is a mutual, collaborative partnership between the patient, family and health care providers based on knowledge exchange, open communication and cooperation wherein families are not called or treated as dependent clients, but viewed as equals, as citizens with whom they work in partnership; (b) it is a supportive, professional bond among health care providers, patient, and family characterized by empathy, understanding, respect, and empowerment; with the patient as the center of care and families are supported in their natural caregiving role; and (c) Individualized care wherein the process is defined by the family is supported, enabling the opportunity to choose, control over decisions and empowerment.

Finally, the consequences of family centeredness were identified. For the family, employing family centeredness in the care of mentally-ill individuals results in the reduced burden of care, improved patient outcomes, better quality of life. It also results in improved quality of care for health professionals.

Understanding family centeredness is essential in the field of mental health care. Indeed, the result of this analysis has several implications in nursing practice. First, as the ill-member reintegrates into the community after institutional treatment, the family will be the main support system and has to be strengthened and supported. They will be the health care provider's natural allies in caring; monitoring medication adherence, observing for side effects, keeping close attention to relapse, help keep appointments, promote a caring environment, and provide emotional support. Indeed, working with families appears to be one of the most effective ways of delivering the community-based intervention to mental patients (Chien et al., 2013). Thus, the health care providers should understand that the family members should be helped, supported, and be included in the team so that they care for their loved ones; they will also maintain their health and well-being.

Also, health care providers must realize the importance of family centeredness because of its difference from traditional caring practices. In family centeredness, there is a shift from the individually focused medical model to the systemic and strength-based perspective; from thinking of families as part of the problem to seeing them as part of the solution; and from a professional-centered model in which professionals are regarded as the experts to a family-centered model in which families and professionals work collaboratively (Wong, 2014). Family centeredness is a focus away from health professions and towards the empowerment of individuals and family as active collaborators in decision-making (Williams, 2014). The researcher hopes that this study will cause health care providers to reexamine their perceptions and stereotypes (if there are any) to the patient and their families to promote a better therapeutic relationship.

In many western countries, family centeredness has been recognized as one of the best practice approaches for adult mental health care practice (Carr, 2009 as cited in Wong et al., 2016). However, in a nonwestern world, nurturing a new practice approach presents an enormous challenge (Wong et al., 2016). In Hongkong, a family-centered approach to adult mental health care is almost non-existent (Wong & Ma, 2013; as cited in Wong et al., 2016). In India, where there are a limited number of healthcare workers, importance is being given to the ill individual – ignoring the caregivers (Avasthi, 2010). Many factors result in poor or even absent implementation of family centeredness in mental health in the third world and non-western countries. However, the time has come to recognize the family members’ contribution to the treatment and rehabilitation of mentally ill patients. Successful implementation of family-centered practice requires a coordinated effort across all levels of the mental health service delivery system, including not only the service users and their families but also mental health social workers, administrators, and policymakers (Wong et al., 2016).

## Limitations

There are several limitations to this paper. First, the studies were screened and reviewed by only the author. Therefore, there might be some bias in the study selection and the information that contributed to defining the attributes, antecedents, and consequences. Second, cultural factors are important to the concept of family. However, such cultural aspects were not considered. Finally, inability to access full text articles was also considered as a limitation, for the supposed inclusion of those articles would have broadened and strengthened the result of the study.

## Conclusion

Health care providers, including nurses, meet numerous patients daily and tend to focus only on patients' medical conditions. However, as shown in the result of this analysis, mental illness affects the entire family and should be cared for as a whole entity. Family members are the primary caregivers of persons with mental illness, and this key support system cannot be ignored or taken for granted. The defining attributes of this concept analysis were found to be the key in identifying the essential role of the family as partners in the provision of health care and at the same time recognizing their need to be cared. Family centeredness is indeed an approach characterized by active collaboration with families, building a therapeutic relationship based on understanding, support and empathy; and provision of needs in an individualized approach and frequency, recognizing the uniqueness of every family member involved.

May the results of this analysis of family centeredness will not only extend the body of knowledge on nursing theory and practice but also pave the way for health care providers to view and care for their patients more deeply and thoughtfully, beyond just focusing on their medical conditions, but with the inclusion of the whole family in the caring process.

### Directions for Future Research

This research had shown the benefit of family centeredness in mental health care. Unfortunately, its implementation specifically in non-western and third world countries is not as robust as of the west. Thus, future researches should focus on the assessment of a focused family approach in countries wherein it is almost non-existent. Doing so could enlighten reasons why family centeredness is not a prioritized intervention in mental health care, and for those reasons and barriers to be addressed appropriately.

Moreover, this analysis can promote communication between nursing researchers for a better understanding of the concept which can lead to the development of related theories, models, and measurement tools in nursing. Lastly, the result of the study can contribute to more family-related research; as a family is a major component in the patient's recovery.

## Conflict of Interest

The author has no conflict of interest to disclose.

**Table 1.** Summary of Included Studies

| | Methodology | Definition | Attributes | Antecedents | Consequences |
|---|---|---|---|---|---|
| **Foster et al., 2012** | Literature Search/ Discussion Paper | Family centeredness/family-focused care is a method of care delivery that respects and recognizes the pivotal role of the family | Family collaboration<br>Supporting families in their natural caregiving roles | The family is a complete entity<br>Mental illness causes psychosocial and mental health problems to family | Reduce the burden of care<br>Strengthen individual and family resilience |
| **Avasthi, 2010** | Literature Search/ Discussion Paper | Family centeredness/Family-based interventions focus on the strengths of caregivers | Building a relationship with caregivers based on understanding and empathy, focusing on their strengths | Family as the primary care provider<br>Interconnectedness<br>Burden of care<br>Diminished self-worth | Family centeredness contributes to a better outcome and improved quality of life<br>Reduces relapse |
| **Caqueo-Urizar, et al., 2015** | Literature Search/ Discussion Paper | Family centeredness/family interventions is a collaborative relationship between the family and the treatment team to help patients make progress towards recovery | Collaborative relationship | The family is the main support system<br>Burden of Care<br>Reduce caregivers quality of life | Positive impact on patient's recovery and improvement of social functioning that includes caregivers<br>Reduce levels of burden<br>Increase caregivers perception of self-efficacy and social support, and levels of satisfaction |
| **McNeil, 2012** | Qualitative, exploratory research | Family centeredness/family-centered care refers to welcoming and respecting family members as partners in caregiving, program planning, and policymaking | Fostering a collaborative partnership with the family<br>Providing quality mental health information, education, and support Involving families in professional | Families are primary providers of care<br>Families are blamed for failing to manage the patient's deviant behavior | Improve patient outcomes<br>Family members feel involved, informed and supported |

| | Methodology | Definition | Attributes | Antecedents | Consequences |
|---|---|---|---|---|---|
| | | | training, research, and policymaking | | |
| **Rose et al., 2004** | Qualitative, exploratory research | Family centeredness/family care is a response to the primary illness education or support for illness-related stress | | The family have significant responsibility for providing care and support to their mentally ill relatives<br>Families experience a substantial level of stress and burden in caregiving | |
| **Ahmann & Johnson, 2000** | Discussion Paper | Family centeredness/Family-centered care is an approach to the planning, delivery, and evaluation of health care that is grounded in mutually beneficial partnerships among health care providers, patients, and families. | Collaboration among patients, families and healthcare providers<br>People are treated with dignity and respect<br>Communication and sharing of unbiased information | | Enhance control and independence of families by building on their strengths |
| **Heru, 2015** | Discussion Paper | Family centeredness/family-centered approach to care is about engaging families, providing education and attending to their needs | Family inclusion | Caregiver Burden | Improve patient and caregiver outcome |
| **Hodgetts et al., 2013** | Mixed method study | Family centeredness/family-centered care is a broadly defined practice philosophy in which parents and service providers work in partnership, and supports and services coincide with changing needs and priorities of the family | Families are given choice and control over treatment decisions | The family are constant in a child's life and best suited to determine their child's needs | Increased parent satisfaction<br>Decreased parent stress<br>Improve child outcomes |
| **Park et al., 2018** | Literature Review | Family centeredness/family-centered care requires mutual power-sharing relationships that are collaborative and include the "whole person orientation." | Collaborations among patient, family and healthcare providers | | A positive outcome, improvement of the quality of life and empowerment to patient and family<br>Generates the right working |

| | Methodology | Definition | Attributes | Antecedents | Consequences |
|---|---|---|---|---|---|
| | | | | | environment for practitioners |
| **Duca, 2010** | Qualitative, exploratory research | Family centeredness is family involvement in the treatment approach | Family participation | Restricted social support<br>Caregiver burden<br>The family is the significant source of support of the ill member | The decreased burden of care<br>Hasten recovery process |
| **Chien et al., 2013** | Literature Review/ Discussion Paper | Family centeredness/family-focused interventions are interventions directed to patient and family members focusing on the family need and aiming to reduce patient relapse and readmission | A collaborative relationship with the family<br>Psychosocial therapies<br>Spiritual therapy<br>Family education<br>Psychoeducation | Family members are primary carers of patients in the community<br>Caring has a burdensome effect | Improvement in the mental status and psychosocial functioning of patients<br>Reducing family burden<br>Increase the quality of life |
| **Chadda, 2014** | Discussion Paper | Family centeredness/family-based interventions mean the involvement of families in the care of the mentally ill | Psychoeducation<br>Proven efficacy in reducing the negative impact of psychosis in caregivers, reduce negative attitudes and increase caregiver’s willingness to provide care to their ill-member | Family members are the primary caregivers of persons with mental illness<br>Family caregiver experiences a considerable amount of stress and burden | Reduce relapse rates<br>Reduce the negative impact of psychosis among caregivers<br>Reduce negative attitudes and increasing the willingness of caregivers in providing care for the patient |
| **Foster et al., 2018** | Integrative literature review | Family centeredness/family-focused practice refers to how mental clinicians and mental health services respond to other family members when an adult or child has the identified health problem | “Whole of Family” approach to care<br>Psychoeducation<br>Acknowledging and responding to families in their caring role and how they cope<br>Collaborative, respectful, open and honest relationship between the professional team, consumer/patient, and family | All family members are affected by mental illness | Improvement of patient<br>Reduction in the subjective burden of care<br>Increased levels of self-care and emotional role functioning among caregivers |
| **Bamm, 2008** | Literature review/Discussion Paper | Family centeredness/Family-centered care is an innovative approach to the planning, delivery, and evaluation of health | Promote family-to-family and community-based systems of care and mutual support | Client-centered practice<br>Recognition of the significance of treating the patient in the context of family and the | Mutual influence on the treatment process, family dynamics and individual function and participation in social life |

| | Methodology | Definition | Attributes | Antecedents | Consequences |
|---|---|---|---|---|---|
| | | care that is grounded in mutually beneficial partnerships among patients, families, and providers. It applies to patients of all ages, and it may be practiced in any healthcare setting | Promote collaboration and empowerment | general perception of the family as the basic social unit – the foremost educator, supporter, and shaper of each person<br>Family systems theory | |
| **Wong, 2014** | Mixed-Method | Family-centered care practice acknowledges the patient and family as the experts on themselves and involves families as collaborative partners in all aspects of services and decisions about care | Collaborative partnerships | | Nurses were energized in their role by practicing specialized clinical skills such as family-centered practice |
| **Wong et al., 2016** | Exploratory study | Family-centered care recognizes the centrality of family in the lives of individuals, acknowledges the service users and family as the experts on themselves, and involves clients and families as collaborators in all systems providing care | Regard the family as the basic unit of care<br>Recognizing the importance of partnership among providers, clients, and family members<br>Facilitating professional collaboration at all levels of healthcare delivery | | Challenging the paradigm shift for psychiatric social workers |
| **Leonard et al., 2018** | Literature review | The family-focused practice is an umbrella term encompassing a continuum of family-focused care activities | Whole family approach | Burden of care<br>Family as the unit of care | Reduces the burden of care of families<br>Provides a preventive and supportive function for children |
| **Goldfarb et al., 2010** | Discussion paper | Family-centered care is a process whereby help is defined by the family that is being supported | Collaboration between parents and health care providers | | |
| **Grant & Rupert, 2016** | Mixed method | The family-focused practice is an approach that emphasizes the family as the unit of attention, as opposed to working | Collaborating with other services to meet the needs of families<br>Providing information to the family | | |

| | Methodology | Definition | Attributes | Antecedents | Consequences |
|---|---|---|---|---|---|
| | | with an individual alone | | | |
| **Williams, 2014** | Master's Thesis | Family centeredness/Family-centered care is an approach to the planning, delivery, and evaluation of health care that is grounded in mutually beneficial partnerships among health care providers, patients, and families. | Placing the patient in the center of care<br>Treating the patient as a whole, within the community<br>Including the patient as identified by the client<br>Inclusiveness<br>Compassion<br>Respect<br>Dignity | | Reduce relapse rate and hospital admissions<br>Lower mortality<br>Increased medication compliance<br>Empowerment<br>Improved experience in health care delivery of health care workers |

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RESEARCH NOTE

# Humanoid Nurse Robots and Compassion: Dialogical Conversation with Rozzano Locsin

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## Abstract

It is important that in the future, nursing practice is framed with the humanoid nurse robot (HNR) functionality as a sure partner capable of expressing compassion that mimics human persons. Sr. Trecella May Macalam, SPC, a member of the Sisters of St. Paul of Chartres congregation, and doctoral student of St. Paul University Philippines and Dr. Rozzano Locsin, nurse theorist and author of the theory of Technological Competency as Caring in Nursing (TCCN) discuss the futurist idea of Humanoid Nurse Robots (HNRs) capability to express compassion in nursing. Locsin's theory has inspired the utility of advancing machine technologies in health care practice. Framing explanations and descriptions between human persons and HNRs as intelligent healthcare robots (IHRs) stimulate future nursing care in many ways. The theory of TCCN inspired "knowing persons as caring" as a process of nursing. In the future, this theory will most likely influence the inevitability and dependency of nursing through compassion in nursing by HNRs.

***Keywords:*** *Compassion in nursing, Dialogical Interview, Humanoid Nurse Robots, Technological Competency as Caring in Nursing*

## Introduction

Why is it important for HNRs to be able to communicate with compassion, and mimicking human beings? Compassion is an ingredient of Caring (Roach, 1987) that fosters the practice of nursing uniquely as a personal interactive engagement between the nurse and nursed. Therefore, communicating compassion is integral to nursing practice. Grounded in the science of Caring, as HNRs are intelligent machines, it is commonly assumed that compassion can be expected of them making possible the concern of HNRs becoming the replacement of human nurses. However, issues of 'expressions of being caring' and 'functionalities that are fundamentally human' in robot compassion ontology are intertwined, therefore, it is imperative that the practice concept of compassion-in-caring is clearly described and explained. Compassionate expressions of caring are critical to human-robot interaction, thereby requiring theoretical and practical clarifications. A dialogical discussion through an unstructured interview platform between a nurse theorist and a practitioner of nursing exemplify a mechanism for knowledgeable practice grounded in the TCCN theory (Locsin, 2017) that is “knowing-persons-as-caring.”

Two conditional elements to argue these questions are, “is nursing the practice concerned about predicting healthcare situations from illness to wellness?” and “is nursing the practice of completing tasks guided by the predictive actions of the traditional nursing process of assessment, planning, intervention and evaluation?” This predictive process can affirm the question supporting the notion that indeed, humanoid robots (HRs), because they can be programmed, can perform nursing. However, in the very near future, due to machine learning and the utility of affective computers and quantum computers, perhaps HRs may be imbued with emotive, affective, and expressive actions that in turn may translate to be appreciated as compassion.

While intelligent machines through machine learning may be able to dictate precise practice processes, it is vital that future nurses are educated to meet the exigencies of highly-demanding protagonists in a futurist world. Therefore, Technological Knowing, Mutual Designing and Participative Engaging (Locsin, 2016) provides the over-arching functionality of a disciplinary practice process that is grounded in an explicit theory of nursing.

In a recent conversation on a social media platform, a conversation about robot compassion and its possibilities were addressed (Sep 20, 2019, 5:00pm Philippine Standard Time [PST]). This is a dialogue between the nurse theorist, Rozzano Locsin, author of the theory of Technological Competency as Caring in Nursing (2015), and Sr. May (Trecella May Macalam, SPC), a Sister of Saint Paul of Chartres of Perpetual Succour Hospital, Cebu City, Philippines. This conversation ensued because of earlier discussions about robots in nursing care settings appearing as human-looking, the question of caring robots, and the possibilities of humanoid nurse robots (HNRs) as partners in the practice of nursing. The initial discussion focused on whether or not HNRs can express or communicate compassion?

**Transcript of the Dialogical Conversation**

RL (Rozzano Locsin): Btw, (by the way) what do you think about Robot Compassion?

SM (Sr. Trecella May Macalam): What about robot compassion? That robots can be more compassionate than humans? Or that robots have the ability to show compassion?

RL: Just the latter, (do robots have the ability to show compassion?) and then (can robots be more compassionate than humans?) Then maybe the next question will be your first question.

SM: But robots are being programmed by humans. Their compassion is made possible because the human programmer made it so. It is still human compassion with robots as "conduit," right? It is still part of human ingenuity?

RL: Well said. A conduit! However, that is arguing the capabilities of today's robots. Prospectively, robots (in the very near future) will be “self-aware,” autonomous, and imbued with affect, thereby being able to express itself [humanlikeness]. With machine learning, HRs will or can have the capacity for deep-learning and because of a more speedy connectivity through quantum computers, HRs will now be able to respond quickly, and with these added capabilities, it can possibly exhibit rationality. So, would you want a compassionate nurse bot?

SM: Yes, no harm in trying these nurse bots. These self-aware robots, imbued with affect to be expressive much like humans, they will be okay, I'd like to meet them and start engaging in a dialogue with them. I'd like to listen to what they will have to say to me.

RL: Agree. Now that's the spirit. Their expressions will be an aggregate of what they have learned through machine learning, therefore the more experiences they will have (hopefully excellent and affirming experiences) the more emotive and expressive of compassion they will become.

SM: When can I have an up close and personal encounter with a nurse bot? Do they have a gender? And sexual orientation and preference as well?

RL: All these will be answered based on the assimilated data derived from experiencing behaviors with human beings.

SM: Now I am slowly beginning to understand, more than just being “conduits” of human compassion, maybe their encounter with human persons much like some sort of “coaching” can be employed. Every encounter with humans means additional experience for them, eventually growing to become more emotive and expressive or being compassionate.

So, it is the process of becoming...and when becoming more emotive and compassionate, does this mean they are becoming more robotic? Same way as human persons become more robotic or compassionate, robots can also become more human? Very interesting huh!

RL: Very well summarized and theorized. The hypotheses are also plausible. The robots may become more human/humane, unless of course the experience with humans is from robotic human nurses [automatons, non-thinking human nurses!]. We have many of these human nurses! Which may become dangers to my Robots!

SM: Why?

RL: With many robotic nurses! the robots will “learn” these [behavior] to be the ideal human characteristics that serve to make a compassionate expression. I believe this process is what is called imprinting, much like other animals that imprint acts, and sounds. HRs may learn these through the process of imprinting and use it as a way to emulate or mimic human compassion as perhaps defined and described by human programmers!

SM: Hala oi... naay miduol nako just now. (Oh watch out, one just came to visit me!)

RL: 🤖🤖🤖🤖 ha ha ha

SM: What are these robo-emojis?

RL: They represent robot nurses! And without caps.

SM: Ohhhh... so when you say robot nurses, you are describing nurses as having robot-like behaviors, right? So we still attribute compassion as specifically a human attribute expressed as love, affection, kindness, gentleness, generosity of spirit and warm-heartedness, while the opposite to the aforementioned attributes continue to be of HRs of today. And the difference lies in that these days, these robots have the capacity to learn the ways of the human’s expressions of compassion, unlike the robots of long ago who (that?) were affectless...

RL: Yes!!! Yes!!!

SM: How wonderful it is that we had this conversation. It is like an On-Line class on robotics, caring and the philosophical bases of nursing. Thanks.

## Discussion

Clarifying the concept of robot compassion is critical, and a dialogical engagement between a scholar and a practitioner of nursing attempting to make things real exemplify a processual commitment towards clarifying a mechanism of "knowing persons as caring."

Minsky (1975) explained that when an encounter occurs, human beings select a memory, a structural “frame.” As data produce structures, frames represent stereotypical situations. Minsky explains that when persons enter a restaurant, certain expectations of the restaurant emerge, and with the expectations are information that provides anticipatory views of what will happen next, including what to do when the expectation is not fulfilled (p. 368). This expectation describes how human beings and HNRs as intelligent healthcare robots (IHRs) may mutually be influenced in furthering future nursing practice.

## Humanoid nurse robots as caring entities

Many of the reasons advanced about Humanoid Nurse Robots (HNRs) replacing human nurses focus on HNRs' capabilities to mimic human-like activities, in particular, actions expressing emotive sentiments such as compassion (Locsin et al., 2018). However, why is it of great importance for HNRs to be able to express themselves with compassion, and specifically mimicking those of human beings?

As compassion is an attribute of caring (Roach, 1987), its realization is assumed to be communicating an integral aspect of nursing practice. Grounded in the science of caring, compassion has been defined and described in multifarious ways. Sr. Simone Roach (1984) illuminated six attributes of caring, one of which is compassion - becoming a collaborator of humanity in relationship with an "other." The Dalai Lama, as well, has been preaching the essence of humanness as compassion, connoting love, affection, kindness, gentleness, generosity of spirit and warm-heartedness. Other theorists have also included compassion as integral to their theories, particularly in Nursing. Boykin and Schoenhofer (2001) in their theory Nursing as Caring has expressively invoked the nursing situation as the shared lived experience in which the caring between the nurse and nursed enhances personhood. Compassion as an ingredient of caring is expressly illuminated in the shared experience.

## Compassion in Nursing

Clearly, compassion is an expected attribute in nursing practice: when HNRs can communicate compassion (through frequent and meaningful encounters with nurses demonstrating behaviors likened to compassion), the HNRs, through machine learning may be able to develop an integrated affective communication data-base that can be easily retrieved, thereby allowing HNRs to demonstrate compassion as expression of caring in nursing. The nurse, in the practice of nursing also becomes nursed. As the nurse participates in the nurse-caring encounter with the HNR, essentially, more than just possibly being replaced by the HNR, the encountered experience becomes complementary (between the nurse and the HNR).

What can the HNR experience in this complementary process of the nurse-caring encounter? The experience is for the HNR being and becoming part of the nursing care process. This experience can be the shared lived experience in which the caring between the nurse and nursed enhances personhood (Boykin & Schoenhofer, 2001).

Therefore, while compassion is an affirming behavior, often unrecognized is compassion fatigue, an occasion that can be anticipated in the process of communicating compassion, and a very common experience among those engaged in the practice of nursing. Situational tolerance of compassion decreases consequently ignoring the positive value of compassion.

Nevertheless, the presence of HNRs as partners in nursing may decrease the possibility of experiencing compassion fatigue (Peters, 2018) and/or perhaps mitigate its duration should it be an inevitable experience for those nurses in practice. Welcoming the HNR should not pose as a threat to nurses, but rather to be appreciated as an experience that nurses can look forward to as a rewarding and mutually beneficial event for patients, human nurses, and HNRs alike.

Furthermore, when these HNRs begin to show more encouraging contributions to global healthcare, experiences such as these should provide more welcoming opportunities for human nurses to rethink the meaningfulness of being human, and propose a worthwhile appreciation of HNRs as ‘living’ creations which are integral partners in this demanding world of health care.

Compassion, though critical to nursing, is also an integral part of the soul and spirit of every human person. Therefore, when the HNRs communicate compassion in caring, where is this expression coming from? Should HNRs have souls and spirits to be HNRs? Should it be a consideration that perhaps their integrated and mutual experience with human nurses instills in them the soul and the spirit? If so, can HNRs possess capabilities to anticipate some form of spiritual care which nurses assume as part of their practice of nursing?

Can HNRs replace human nurses (Pepito et al., 2019)? Should HNRs complement human nurses so that anticipatory caring (when one cannot give it, the other may be able to give it) is expressed as precisely and as humanlike as do nurses?

## Conclusion

In the future, given these discriminating characteristics of human compassion, a major elemental condition for HNRs to assume is its existence and utility as an intelligent machine that is dependent upon how well it can communicate nursing with compassion. Consequent compassionate expressions can also lead to compassion fatigue, the expression of kindheartedness that oftentimes result in, and illustrate the 'effect' of profound emotional and physical erosion of relating with an “other” who is unable to replenish and regenerate a compassion-filled experience. As HNRs are intelligent machines, surely, sensors may be added to extinguish conditions that may heighten their fatigability, thereby causing affirming actions as functional deterrents. Perhaps, compassionate expressions by HNR’s can be expected if it is considered to replace human nurses. Nonetheless, with recognized issues, such as 'expressions of being caring' and 'functionalities that are fundamentally human' in its ontological composition, it is imperative that the HNR practice of compassionate caring is clarified, explained, and expressed. Therefore,

“Where must we go? We who wander the [universe]
In search of our better selves?” First History Man – Mad Max: Fury Road

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RESEARCH NOTE

# Initiating Developments of Nursing Informatics Within a Caring Perspective for Philippine Nursing

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## Abstract

Nursing informatics, despite its rich evolution and dynamic nature remains an emerging field in the Philippines. With its inclusion as a critical content in the Bachelor of Science in Nursing Curriculum, Policies, and Standards in 2008, various interpretations and adaptations were made evident thereby influencing Philippine Nursing. Critical discussions, whether or not Nursing Informatics affect the focus of nursing with the integration of information and communication technologies into nursing service delivery systems continue to exist. It is imperative that better understanding of the contributions of Nursing Informatics on Philippine Nursing from a historical perspective and declaring its implications for Philippine Nursing Practice initiated within a Caring viewpoint are addressed and illuminated. This paper aims to provide a description of the initiation of Nursing Informatics in the hope of establishing its ontological and epistemological position while providing a clearer understanding of its historical developments and influences on Philippine Nursing initiated within a caring perspective in a highly technological world.

***Keywords:*** *BSN Curriculum, eHealth, Nursing, Nursing Informatics, Philippine Nursing*

## Introduction

The emergence of information and communication technologies as adjunct tools to address health care needs (ICT4Health) in the biomedical field is starting to become prominent in the Philippines. This phenomenon starts to emanate even in the nursing context not only in the academic perspective but also in the practice settings and research undertakings. A few studies have been documented in the Philippines talking about integrating eHealth in Nursing Education, Research and Practice despite its current inclusion by the Board of Nursing (n.d.) in the National Core

Competency Standards for Filipino Nurses and with the Commission of Higher Education (CHED) including this concept as a subject in its memorandum 5 series of 2008 and memorandum 14 series of 2009. Indeed, this poses an urgent concern to visit its value and importance in the delivery of nursing care, and probably how it impacts in the concept of caring among nurses with the advancement of technology and machines in the 21st century, in the context of a developing country such as the Philippines. Hence, this paper aims to define what nursing informatics is and provide an understanding of how caring can be applied in a technological world through a comprehensive review of the existing literatures pertaining to the topic matter.

## Evolution of Nursing Informatics: Definition and Frameworks

As an emerging field of Nursing in the Philippines, there remains a great deal of challenge posed to better understand what nursing informatics is. This section aims to present the continuing evolution of its definition and the various frameworks holding the ground of nursing informatics.

### An Evolving Definition of Nursing Informatics

Nursing Informatics became more prominent in the Philippines during its inclusion in the new Bachelor of Science in Nursing Policies and Standards, thus affecting the curriculum in 2008. Since then, the concept eHealth was seen in the Nursing profession from three perspectives: (1) how the Board of Nursing (n.d.) will have to revisit their National Core Competency Standards for Filipino Nurses from the current outlined competencies (Table 1) and (2) how the Board of Nursing or the appropriate Nursing Organization (e.g., a nursing informatics organization or the higher educational institutions (HEIs) will have to align Nursing Informatics competencies among Beginning Nurses and Advance Nurse Practitioners with the creation of the National Nurse Career Progression framework based on the competencies defined by Staggers et al. (2001), Chang et al. (2011) and the American Nurses Association (ANA, 2014) and (3) how will this concept affect the context of Caring in the Nursing Profession in the Philippines. However, there remains the need to define clearly what nursing informatics is before one gets caught in the mix of these curricular challenges in the Philippine Nursing Education System.

Staggers and Thomson (2002) cited three main themes to cluster the definitions of nursing informatics: (1) information technology-oriented, (2) conceptually oriented, and (3) role-oriented definitions.

### Information Technology-Oriented definitions

Nursing Informatics was first defined according to its high inclination towards information technology in nursing. Scholes and Barber (1980) defined it as “the application of computer technology to all fields of nursing – nursing service, nursing education, and nursing research.” Ball and Hannah (1984), on the other hand, drew their definition as a jump-off from medical informatics, asserting the inclusion of all health care professionals in this concept. However, Hannah (1985) focused on technology and incorporated nursing role within the definition. Zielstorff et al. (1990) likewise supported the importance of technology in nursing informatics. Saba and McCormick (1996) further stressed technology in line with their definition:

> The use of technology and/or a computer system to collect, store, process, display, retrieve, and communicate timely data and information in and across health care facilities that administer nursing services and resources, manage the delivery of patient and nursing care, link research resources and findings to nursing practice, and apply educational resources to nursing education.

**Conceptually Oriented definitions.**

Several authors also showed their shift from technology-focused definitions towards conceptually-oriented definitions. Schwirian (1986) emphasized the importance of a proactive and model-driven definition and stressed that nursing informatics knowledge should have a grounding and “focus, direction, and cumulative properties.” More popularly, Graves and Corcoran (1989) gave a widely cited definition of nursing informatics in a more conceptually oriented fashion as *a combination of computer science, information science, and nursing science combined to assist in the management and processing of nursing data, information and knowledge to support the practice of nursing and the delivery of nursing care*. Likewise, Turley (1996) enhanced this conceptually oriented definition by incorporating cognitive science – memory, problem solving, mental models, skill acquisition, language processing, and visual attention - to the original three sciences in Graves and Corcoran’s definition.

**Role-oriented definitions.**

With the emergence of informatics nurse specialists in the late 1980s, nursing informatics gained significant momentum especially with its recognition by the ANA as a specialty field of nursing. ANA (1992) defined nursing informatics as:

> A specialty that integrates nursing science, computer science, and information science in identifying, collecting, processing, and managing data and information to support nursing practice, administration, education, and research and to expand nursing knowledge. The purpose of nursing informatics is to analyze information requirements; design, implement and evaluate information systems and data structures that support nursing; and identify and apply computer technologies for nursing.

In 1994, the ANA improved the definition to respond for the need to create a certification examination in this field of specialization:

> Nursing informatics is the specialty that integrates nursing science, computer science, and information science in identifying, collecting, processing, and managing data and information to support nursing practice, administration, education, research, and expansion of nursing knowledge. It supports the practice of all nursing specialties, in all sites and settings, whether at the basic or advanced level. The practice includes the development of applications, tools, processes, and structures that assist nurses with the management of data in taking care of patients or in supporting their practice of nursing.

The advancement of nursing informatics further advanced the definitions initially set by ANA (2001), which is used up until now and includes in great detail information structures, processes and technology as implied in this definition:

> Nursing Informatics is a specialty that integrates nursing science, computer science, and information science to manage and communicate data, information, and knowledge in nursing practice. Nursing informatics facilitates the integration of data, information, and knowledge to support patients, nurses, and other providers in their decision-making in all roles and settings. This support is accomplished through the use of information structures, information processes, and information technology.

## Frameworks Defining Nursing Informatics

There had been numerous frameworks that attempted in evaluating nursing informatics and its competencies. However, they range from frameworks differing in focus such as generic evaluation frameworks, human behavior, social/organizational relationships, and software life cycle. Their main characteristics can be summarized as follows (Currie, 2005):

**Table 1.** Characteristic of Frameworks used to evaluate nursing informatics

| Author(s) | Framework | Context-centric | User-centric | Functionality-centric | Theory Based? |
|---|---|---|---|---|---|
| **Generic evaluation frameworks** | | | | | |
| Stead et al. | Development Evaluation Matrix | Yes | Yes | Yes | No |
| Friedman and Wyatt | House's eight approaches to research | No | Yes | Yes | No |
| Shaw | CHEATS | Yes | Yes | Yes | No |
| **Frameworks that focus on human behavior** | | | | | |
| Patel et al. | Cognitive psychology | Yes | Yes | Yes | Yes |
| Dixon | Behavioral psychology | Yes | Yes | Yes | Yes |
| **Frameworks that focus on social/organizational relationships** | | | | | |
| Kaplan | Social interactionism | Yes | Yes | No | No |
| Berg | Sociotechnical Approach | Yes | Yes | Yes | Yes |
| Effken | Carper's four ways of knowing | Yes | Yes | Yes | Yes |
| Anderson | Social network analysis | Yes | Yes | Yes | Yes |
| Westbrook et al. | Multi-disciplinary, multi-method framework | Yes | Yes | No | No |
| **Frameworks that focus on software life-cycle** | | | | | |
| Grant et al. | TEAM methodology | Yes | Yes | Yes | Yes |
| Kushniruk | System development life cycle | Yes | Yes | Yes | Yes |

Among the frameworks that focus on generic evaluation frameworks, Stead (1994), Friedman and Wyatt (1997), and Shaw (2002) mainly emerged among these. Basically, Stead's development evaluation matrix focused on expert reviews and 'qualitative studies' while Friedman and Wyatt's house's eight approaches to research utilizes observation, interviews, document and artifact analysis in its evaluation. On the other hand, Shaw's CHEATS recommended the use of thematic analysis of subjects' experiences and perceptions.

When dealing with human behavior, Patel et al. (1999) came up with a framework on cognitive psychology, which advocated evaluation using propositional analysis and semantic analysis. Dixon's behavioral psychology (1999), however, speculated interviews with no analysis process specified in evaluating framework for informatics.

As to social/organizational relationships, Kaplan's social interactionism (2001) prescribed evaluating informatics using ethnographic interviews and observations. Berg's socio-technical approach (1999) uses participant observation, interviews, user participation in development. Effken (2002) adopted Carper's four ways of knowing and postulated evaluating using cognitive work analysis. Anderson's social network analysis (2002) makes use of email and communication to evaluate informatics. Westbrook et al. (2004) came up with the multi-disciplinary, multi-method framework, with an attempt to evaluate informatics through interviews, focus groups, and ethnography.

Software life-cycle authors also utilized their own mechanism of evaluating informatics. Grant et al. (2002) came up with the TEAM methodology with questionnaire and video-taping their means of evaluating informatics. Kushniruk's systems development life cycle (2002), however, makes use of cognitive task analysis, focus groups, and usability testing to assess informatics in nursing.

To this end, these frameworks were considered in developing evaluative measures in nursing informatics. Currently, with the emergence of evidence-based practice, competency-based nursing appraisal systems have been developed and are currently set in place to be utilized by institutions as reflected by Chang et al. (2011) and the ANA.

## Caring and Technology: Advantages and Challenges in Nursing

Several studies were able to describe how caring applies in a technological environment. These include, but not limited to, Ray's Theory of Bureaucratic Caring (Turkel, 2007), Locsin's (2005) Technological Competency as Caring in Nursing, McDonald's (Agency for Healthcare Research and Quality [AHRQ], 2011) Care Coordination, Locsin and Purnell's (2007) Rapture and Suffering with Technology in Nursing, Kongsuwan and Locsin's (2010) Thai nurses' experience of caring for persons with life-sustaining technologies in intensive care settings.

### Integrating the Use of Technology in Caring

Central to the idea of these literature is the use of information and communication technologies to support the delivery of nursing care. As Turkel (2007) highlighted, Dr. Ray included technology as part of the concepts in her Theory of Bureaucratic Caring. She emphasizes that technological factors consist of non-human resources and the knowledge of using them to perform nursing tasks and client services. Similarly, Locsin (2005) integrates the importance of technology and its competencies as caring in nursing specifically in the quest to complete human beings, aid in case as machine technologies and mimicking human beings and activities. In addition, McDonald (AHRQ, 2011) integrates health information technology – enabled coordination as part of the mechanisms for achieving care coordination as a broad approach.

Likewise, Barnard and Margarete (2000) argues that a humanist view on technology as nonhuman and non-natural is not enough to claim a dehumanizing client experience. They assert that the use of these technologies by the nurses determines the impersonal care that clients receive. These include user-specific contexts including attribution of an individualistic, socio-cultural, political and economic view of what is human in a technological system.

In addition, Strople and Ottani (2006) reports that electronic systems is seen as a useful tool in the shift report process towards better patient care provided full utilization of its capacity. These technologies have the potential to improve patient data management. As such, computer-generated shift reports, when fully understood, are seen to improve the quality, effectiveness, and efficiency of patient-centered shift reports and contribute significant improvement in patient care safety and outcomes. A similar finding in realizing the potential of informatics tools usage is depicted in the study by Swan et al. (2004). They assert that tools such as predictive modeling, artificial intelligence and evidence-based practice algorithms allow the forecast of client health care needs. These methods thus enhance the nursing care management of patient problems.

Quality assessment and improvement are also areas identified by Henry (1995) where nursing informatics play a significant role. She asserts that with the increase in care provision information, technology can greatly improve information management and processing. However, she posits that there still remain challenges in the attainment of knowledge and skills necessary to process these nursing care-related information.

Aside from offline nursing informatics tools, web-based platforms have also emerged to enhance the experience of nursing care provision. Bond (2006) sees that the internet provides a relatively powerful mechanism to ensure the delivery of nursing interventions such as education and chronic disease support. Goldstein et al. (2007) also asserts that wireless technology coupled with tablet devices allow greater portability for nurses in caring for clients with acute pain.

### Challenges in the Adoption of Caring in a Technological World

Despite the positive impacts of technology use in nursing care, there are also challenges that are perceived in the workplace. Several studies also assert that it is still unclear whether electronic nursing documentation indeed improves patient care outcomes. (Kelley et al., 2011; Gunningberg et al., 2009; Saranto & Kinnunen, 2009; Qiuping et al., 2009; Eland-de Kok et al., 2011). Moreover, Locsin and Purnell (2007) poses a challenging question whether nurses will remain caring despite the emergence of technology, cybergenetic organisms and other “technosapiens.” Kongsuwan and Locsin (2010) likewise see differing insecurities in the use of technology. They view this instance as a possible avenue for nurses to allow technology to hinder them from viewing people as wholes. Given these dynamics between caring as a concept revolving around the technological environment, the next section presents a more focused lens on the frameworks and literatures trying to define the nature of nursing informatics.

Resistance of the nurse on the technology use is also a valid concern raised by Timmons (2003) when he reviewed nurses’ experience in three UK NHS hospitals. While the implementation of the technology was not halted, the resistance among these nurses persisted through minimizing use and extensive criticism of the systems. They were also concerned about system security, skills deterioration, and detraction from individualized care, among others.

Usability and flexibility are another concern posed by Ward et al. (2008) when they review literatures on the attitudes of health care staff to information technology. They see that systems were created for the workplace, but they were not “fit for purpose.” There are also seen issues on the ability of the users to integrate these technologies into their work patterns. Given this, successive education and training were needed to support the staff in the use of these IT systems. A similar experience among nurses and midwives were also expressed in the study made by Darbyshire (2004) when he did a study on 53 practitioners across five Australian states. There was disappointment in the user experience of these technologies and was associated with non-enhancement of their clinical practice and patient care. The technological solutions seem to have no significant impact in their patient care outcomes, causing them to look for where the “real nursing” is alongside the incompatibilities and non-responsiveness of these systems to patient care.

## Theoretical Framework

Having evaluated various nursing informatics definitions and frameworks, it is imperative that the caring component be integrated in this quest to advance nursing informatics in the Philippines. Locsin (2005) in his theory, Technological Competency as Caring in Nursing focused the process of nursing as grounded in Knowing persons as a framework for Nursing Practice. This theory presents a clear perspective of caring for persons who live and grow in caring (Boykin & Schoenhofer, 2001).

The competencies described in Locsin's theory is addressed within other conceptual and theoretical frameworks which inform contemporary nursing informatics. These include the Fundamental Patterns of Knowing in Nursing by Carper (1978, as cited by Pipe et al., 2005) which were intended to present a varied modality of validating nursing knowledge on informatics among beginning nurses in education, practice and research. This may be presented through, but not limited to, empirical, personal, ethical and aesthetic knowing.

Furthermore, the combined formulated competencies on informatics of nurses at the beginner level by Chang et al. (2011) and the ANA (2014) version addressed how the ways of knowing by Carper may develop categories that will serve as a counterpart of the task-based informatics competencies that can elicit caring-infused informatics competencies. Moreover, when one looks "through the lens of Nursing as Caring using technologies competently to appreciate persons as whole in the moment" (Boykin & Schoenhoffer, 2001, as cited by Locsin, 2005), nurses at the beginner level who might be competent with task-based skills may now be assessed based on the parameters that measure how technological advancements enhance their caring imperatives for their nursing care.

This attempt at looking at the caring component is guided by the "calls for nursing which affirm, support, and celebrate who a person is and what a person" is amidst the use of information technology in nursing service delivery. Further enhancement in caring among persons can be seen when responses to calls for nursing is monitored to "sustain and enhance who is person and what is person?" In this end, not only does a nurse informaticist able to address his technical skills in addressing nursing care for clients, but he is also able to keep in mind the practice of nursing grounded on caring through knowing persons.

## Conclusion

Amidst the technological advancements in health care, caring remains as a central concept among the nursing professionals in the delivery of health care services. Having seen the dynamics between caring and technology through the various literatures and frameworks, there are now challenges set as to how we will define the competencies required of nurses and nursing informaticians at various levels. Truly, there still remain opportunities for the development of a more robust and responsive nursing informatics scope and standards of practice that highlights how nurses can truly function in the essence of caring.

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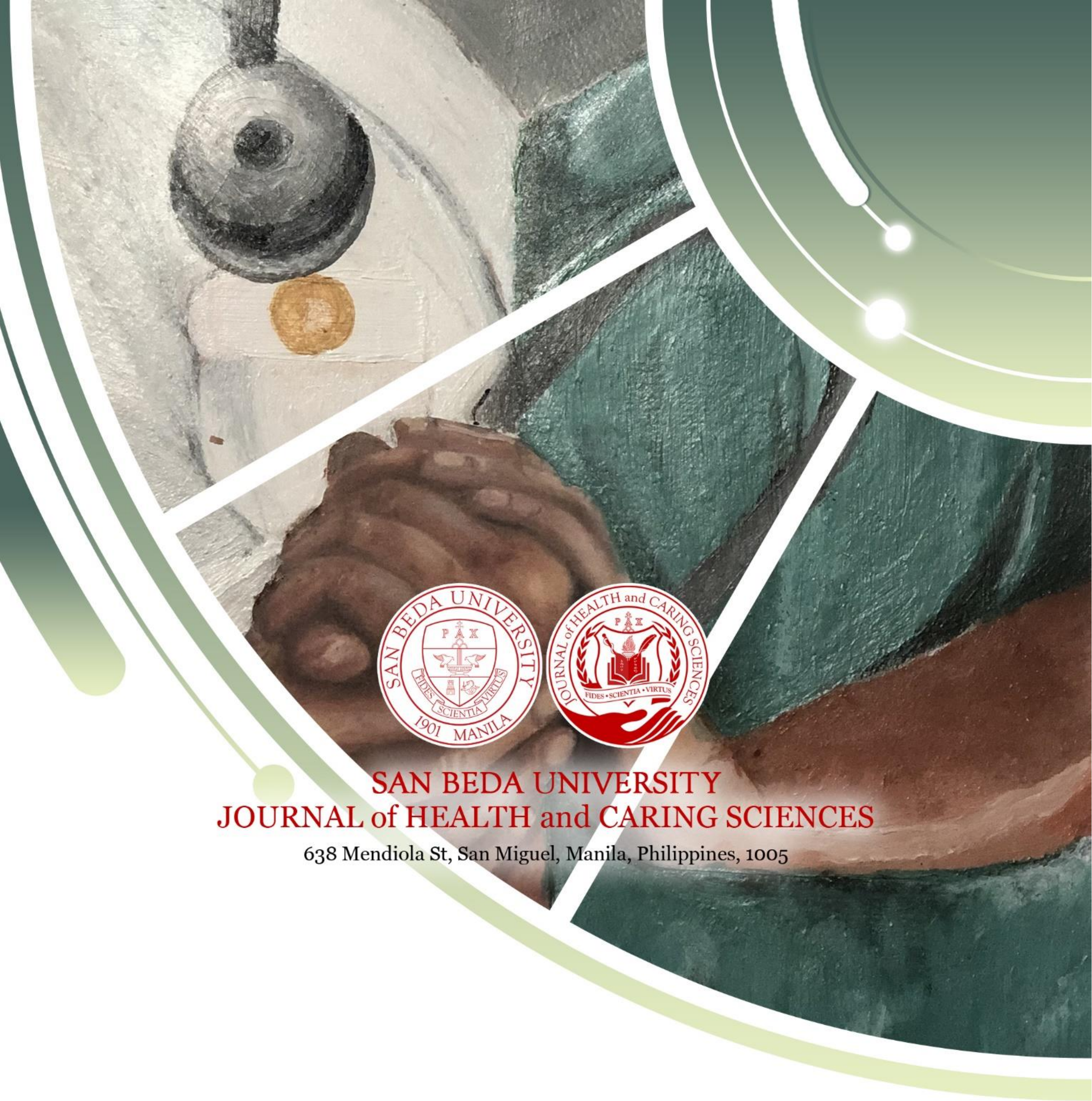

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## About the Cover

The world thinks a new breed of heroes was born into the world ever since the pandemic emerged, but they have already been doing their jobs for as long as I can remember. "Capes" serves as a reminder that no matter the circumstance, these front liners are heroes who have been honoring their responsibility to the world and the people. This piece uses capes as a metaphor to represent the different uniforms worn by these heroes to make justice prevail. All heroes wear capes in various forms with the same mission- to save and to protect lives.