

Compassionate Care: Correlation and Predictors of Nurses' and Patients' Opinions

Hanan Elzeblawy Hassan^{1,*}, Aziza Abozid², Abeer Elmghwry³, Eman Moustafa Ibrahim⁴

¹Maternal and Newborn Health Nursing, Faculty of Nursing, Beni-Suef University, Egypt

²Community Health Nursing, Faculty of Nursing, Beni-Suef University, Egypt

³Community Health Nursing, Faculty of Nursing, Damietta University, Egypt

⁴Ambulatory Department, Hammed Medical Corporation, Qatar

*Corresponding author: nona_nano_1712@yahoo.com

Received March 19, 2021; Revised May 09, 2021; Accepted August 13, 2021

Abstract Background: Compassion has also been defined as acknowledgment and engagement with one's own suffer and the suffering of others, together with a deep commitment to work towards alleviating and preventing that suffering. This definition highlights two psychological components of compassion that provide a direction for the therapy. **Aim:** This study aims to evaluate the correlation and predictors of nurses' and patients' opinions about compassion in Beni-Suef city. **Design:** A descriptive cross-sectional design was used in conducting the study. **Setting:** This research was conducted at Beni-Suef University Hospital, General Hospital, as well as Continuing/Long-term care and Home Health Care (HHC) services. **Sample:** 140 nurses being employed in the current health care facility for at least one year were eligible for inclusion in the study sample and all elderly (140) patients receiving care in the above-mentioned settings. **Tools:** Two tools have been used to gather data; 1) Structured questionnaire interview sheet included data related to socio-demographic characteristics for nurses and patients. 2) Compassionate Care Scale. **Results:** Statistically significant moderate positive correlations were identified among nurses' scores of compassionate care attitude, practice, and confidence. Nurses' scores of compassionate care confidence and practice had statistically significant weak positive correlations with their qualification, and negative correlations with their age and experience. The unmarried status of the nurse was the only statistically significant independent negative predictor of the compassionate care attitude score. A strong statistically significant negative correlation between patients' scores of opinions about patient expectations and nurses' attitude toward compassionate care ($r=-0.900$). **Conclusion:** The study findings concluded a strongest correlation between the scores of nurse competence and caring attributes. A strong statistically significant negative correlation between patients' scores of opinions about patient expectations and nurses' attitude toward compassionate care was found. **Recommendations:** Replication of this study on a large representative probability sample is highly recommended to achieve more generalization of the results for further research. The impact of such training interventions on elderly patients' opinions about compassionate care should also be investigated.

Keywords: *compassionate care, correlation, nurses' predictors, patients' opinions*

Cite This Article: Hanan Elzeblawy Hassan, Aziza Abozid, Abeer Elmghwry, and Eman Moustafa Ibrahim, "Compassionate Care: Correlation and Predictors of Nurses' and Patients' Opinions." *American Journal of Public Health Research*, vol. 9, no. 6 (2021): 234-243. doi: 10.12691/ajphr-9-6-2.

1. Introduction

Healthcare professionals have been praised for their outstanding levels of compassion. Moreover, the nursing profession prides itself on being compassionate. However, feels that the heart has gone out of nursing and that today's professionals are not as caring as those of the past. With the ever-increasing scrutiny on the nursing profession surrounding the area of compassionate care, there has been a notable increase in reporting uncompassionate care of older adults in care settings Thus, the long deep-rooted image of the compassionate nurse may be at risk. [1,2,3,4]

Compassion has been defined in different ways. described compassion as a deep feeling of connectedness with the experience of human suffering that requires personal knowledge of the suffering of others evokes a moral response to the recognized suffering and that results in caring that brings comfort to the sufferer, and argued that 'compassion involves noticing another person's vulnerability. Compassionate care offers comfort to suffering others and the component of acting upon feeling compassion differentiates compassion from other emotions such as sympathy or empathy. [5,6,7]

To add further complexity, the term 'compassion' is also used interchangeably with 'caring', 'empathy', 'kindness,' and 'sympathy'. Perhaps incontestably, it has been argued that until compassion is clearly defined,

nurses will not be able to truly claim it as an integral dimension of professional practice. Not surprisingly, given the subjective and complex nature of compassion, its measurement is difficult. Compassion manifests differently in different contexts and means different things to different people, therefore there is a danger of simply measuring what is easy to quantify in compassionate care, rather than what is important. [8]

Compassion has also been defined as acknowledgment and engagement with one's own suffer and the suffering of others, together with a deep commitment to work towards alleviating and preventing that suffering. This definition highlights two psychological components of compassion that provide a direction for the therapy. Firstly, compassion involves motivation and intention to approach, tolerate, and engage with suffering. Secondly, there is a corresponding commitment to try to alleviate suffering and seek to prevent future suffering. [9]

Compassionate care is defined as a set of four attributes: wisdom, humanity, love, and empathy, where these attributes may be expressed as awareness of a situation when a person is vulnerable and suffering. It is the inner feeling of another person's suffering with the motivation to help and alleviate the suffering. Compassionate healthcare is characterized by relationships based on empathy, concern, and respect for persons contextualized knowledge of the patient as an individual within a network of relationships at home and in his or her communities, effective communication within interactions, over time, and across settings, and facilitation of patients' and families' participation in decisions and care. [10,11]

From an evolutionary approach, compassion is considered an advantageous competency that evolved from attachment and caring motivation and responses. According to this perspective, compassion is conceptualized as a combination of motives, emotions, thoughts, and behaviors, and involves two dimensions: compassionate attributes (i.e. an intentional sensitivity to suffering, ability to tolerate distress in an accepting and non-judgmental way, and motivation to engage with suffering) and compassionate actions (i.e. motivation and commitment to take helpful actions to prevent or deal with one's self and others' distress, in a kind, supportive and accepting manner). [9]

Different attributes such as sensitivity, dignity, and respect, listening and responding, attentiveness, confronting, involvement, helping, presence and understanding, and genuine connection have been associated with compassion. [12] On the other hand, compassionate nursing care from the patient's point of view is featured with being considerate and accurate in dealing with patient's problems, being committed to realize and work to soothe the patient's pain while keeping a respectful relationship with the patient. [13]

To develop a compassionate self, one must adopt two mindsets or 'psychologies, encompassing a multitude of compassionate attributes and skills. The *first mindset* involves the motivation and ability to notice, engage with, and make sense of the suffering of self and others (i.e., sensitivity to suffering). Six attributes are distinguished in this dimension. These are (1) *care for*

wellbeing, the motivation/willingness to address suffering and/or facilitate flourishing; (2) *sensitivity*, or ability to recognize suffering; (3) *sympathy*, to feel emotionally connected to suffering; (4) *distress tolerance*, ability to stay with and tolerate rather than avoid or deny emotions evoked by suffering; (5) *empathy*, ability to stand back from and understand suffering; and (6) *non-judgment*, ability to take an accepting, non-critical, and non-condemning approach. [14,15]

The *second mindset of compassion* involves the skills and wisdom to undertake actions towards preventing or alleviating the suffering of self and others. This requires six transformative skills, including (1) *compassionate attention*, the ability to pay attention to what is helpful and supportive; (2) *compassionate reasoning*, ability to use supportive thought patterns; (3) *compassionate behavior*, ability to act upon suffering in a way that alleviates distress and facilitates development and growth; 4) *compassionate imagery*, ability to apply imagery and meditation - like practices to cultivate affiliated emotions; 5) *compassionate feeling*, ability to experience emotions linked to compassion; and 6) *compassionate sensation*, ability to generate physical states conducive to compassion. [16]

The literature identifies compassion in healthcare as comprising of five defining attributes (Figure 1). Although these occur sequentially and each attribute needs to occur, the individual who is to display compassion may need to move between the attributes depending on the situation. [17]

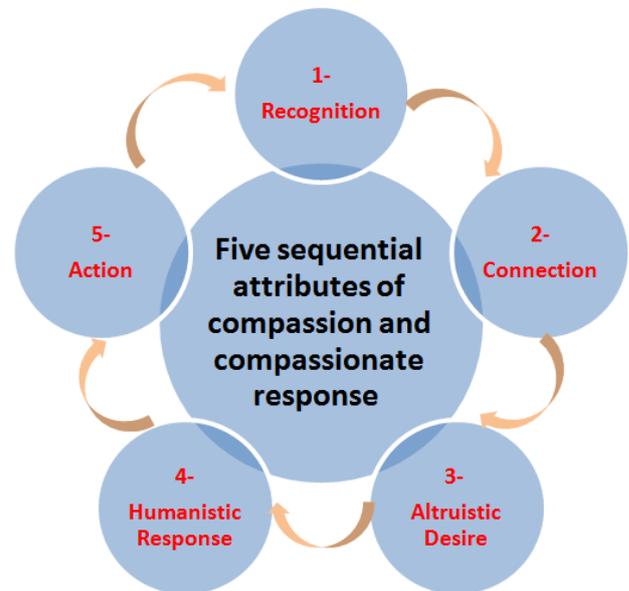


Figure 1. Five sequential attributes of compassion and compassionate response [17]

Recognition is cognitive recognition of another's adverse circumstances, physical, psychological or emotional wellbeing. **Personal connection** with another is based on automatic, authentic, and genuine thought. **Altruistic desire** is to aid another. **Humanistic**, person-to-person, is understanding of what it is to be human. **Action** is an undertaking of an act or responsive behavior. [17]



Figure 2. Conceptual framework of compassionate care [18]

Nurses defined and characterized compassionate care as a phenomenon not standing on its own, but closely related to and connected to other concepts which represent key values in nursing practice. Nurses described compassionate care as a phenomenon centered on empathy which forms the moral drive for the nurse to exercise his or her humane caring behavior. It is directly connected with and operationalized along with other components including the desire for alleviation of patients' suffering, addressing individualized care needs, using therapeutic communication, and recognizing and promoting mutual benefits. [18]

Nurses further described compassionate care as a phenomenon that occurs within the clinical practice environment where a therapeutic relationship between a nurse and a patient can be initiated. Factors such as role modeling by staff nurses, the leadership of administrative nurses, and the workload of the unit can influence this relationship and shape the compassionate caring behavior of a nurse as illustrated in Figure 2. [18]

1.1. Significance of the Study

People are living longer; however, they are not necessarily experiencing good health and well-being as they age. Older adults are at a significant risk of having Multiple Chronic Conditions (MCC), also known as multi-morbidity, and associated functional impairment. [19] As they continue to age, many older adults live with a growing number of complex health issues that adversely affect their day-to-day functioning and overall quality of life. For some individuals, and groups of older adults, these issues are further compounded by factors related to social and structural determinants of health. [20,21,22]

Data demonstrate that being able to age at home or in an environment of one's choice in the community, and maintaining functional independence are key priorities for older adults. For persons with MCC, living with complex health issues that hinder their day-to-day functioning, aging at home can be significantly more challenging and these individuals frequently rely on the support of friends and/or family caregivers to complete activities of daily living. [23,24,25]

The caregivers of older adults with MCC often face challenges to their own financial, emotional and psychological well-being, and also require social and medical support. Meanwhile, older adults' experiences of aging can vary widely and those diverse individuals and groups of older adults with MCC and their caregivers have unique health and social care needs. [26]

1.2. Aims of the Study

This study aims to evaluate the correlation and predictors of nurses' and patients' opinions about compassion in Beni-Suef city.

1.3. Research Objectives

1. Assess nurses' confidence in compassionate care
2. Assess correlation and predictors of nurses' compassionate care
3. Assess correlation and predictors of patients' opinions about compassionate care
4. Find out the relationship between nurses' and elderly patients' views about compassionate care.

1.4. Research Questions

1. What about nurses' confidence in compassionate care?
2. What about correlation and predictors of nurses' compassionate care?
3. What about correlation and predictors of patients' opinions about compassionate care?
4. Is there a relationship between nurses' and elderly patients' views about compassionate care?

2. Subjects and Methods

2.1. Research Design

A descriptive cross-sectional design was used in conducting the study.

2.2. Setting

This research was conducted at Beni-Suef University Hospital, General Hospital, as well as Continuing/Long-term care and Home Health Care (HHC) services.

2.3. Sampling

Sample size: 140 nurses being employed in the current health care facility for at least one year were eligible for inclusion in the study sample and all elderly (140) patients receiving care in the above-mentioned settings who fulfill the following criteria were eligible for being selected in the study sample

Sample technique: The required sample size was estimated based on an expected high perception rate of 50% or higher among nurses with 4% standard error, and 95% level of confidence, taking into account the finite population correction and an expected non-response rate of approximately 15%. Accordingly, and through the use of the Open-Epi software package.

2.4. Tools of Data Collection

2.4.1. Tool (1): A Structured Interviewing Questionnaire Sheet for Nurses Included Two Parts

Part 1: Included data related to socio-demographic characteristics and job characteristics of nurses: such as age, gender, residence, nursing qualification, marital status, years of experience, training courses attended, as well as the work department.

Part 2: Included Compassionate Care Scale: This was adapted and translated by the researcher based on Kemper et al (2006). [27] It was translated into Arabic using the translate-back-translate technique to preserve its validity. The scale consists of three sections as follows:

1. Compassionate care attitude: This included 15 statements categorized into attitudes related to:

- a) Nurse role (5 items) such as “the nurse-patient ratio in my unit helps in the provision of compassionate care;”
- b) Hospital leadership role (5 items) such as “The hospital leaders are role models in the provision of compassionate care;”
- c) Individual (5 items) such as “compassionate care provision is not affected by age, sex, or nationality.”

Scoring: Each statement’s response was on a 4-point-Likert scale ranging from “strongly agree” to “strongly disagree.” These were scored respectively from 4 to 1. The negatively stated items were inversely scored so that a higher score indicates a more positive attitude. The scores of each section and the total scale were summed up and divided by the corresponding numbers of items. These were converted into percent scores. A score of 60% or more was considered as a positive attitude, whereas a lower score was considered as a negative attitude.

2. Compassionate care practice: This consisted of three statements as follows:

- a) Self-training to be calm;
- b) Trust own intuition;
- c) Use non-drug therapies to help a patient feel better.

Scoring: For each statement, the nurse had to provide a percentage ranging from zero to 100%. The scores of each

statement and of the total scale were considered adequate practice if 60% or more, and inadequate if <60%.

3. Self-confidence in compassionate care:

This consisted of 7 statements measuring nurse’s confidence in the provision of compassionate care, such as “Keep peaceful and focused when moving or in noise” and “Can describe major risks of mind-body therapies for patients.”

Scoring: The response to each statement was on a numeric scale ranging from 0 = no confidence to 10 = total confidence. The scores of the seven statements were summed up and converted into a percent score, and a higher percentage reflected more self-confidence. The nurse confidence was considered high if the percent score was 60% or more, and low if <60%.

2.4.2. Tool (2): A Structured Interviewing Questionnaire Sheet for Elderly Patients Included Three Parts

- **Part 1:** Included data related to socio-demographic characteristics such as age, gender, education, marital status, job, residence, income, crowding index, etc., in addition to the department where the patient care is provided.
- **Part 2:** Health/medical history: such as admission diagnosis, comorbid chronic diseases, medication intake, previous surgery, disability, as well as the length of stay in the health care setting, etc.
- **Part 3:** Included Compassionate Care Scale: This was developed by Burnell and Agan (2013) to assess elderly patient’s perception of the compassionate care provided. [28] It was translated into Arabic using the translate-back-translate technique to preserve its validity. The scale consisted of two sections:

1. Priorities in compassionate care: This comprised 5 statements asking about the importance of “understanding problems”, “Competence”, “Skill in using equipment”, “Helping control pain” and “No prejudice.” The patient was asked to give a ranking from 1 to five for each statement so that 1 means the highest priority and 5 means the lowest priority. The sums of the ranking of each statement were calculated, and means, standard deviations, medians, and quartiles were computed. The statement with the lowest mean/median was ranked first, and the highest-ranked last.

2. Opinions about compassionate care: This section consisted of 20 statements on a 4-point Likert type scale ranging from “extremely important” to “not important.” They were categorized into 4 dimensions as follows.

- a) Meaningful connection: 8 items such as humor, respect, and dignity, etc.
- b) Patient expectations: 5 items such as pain control, care plan, etc.
- c) Caring attributes: 4 items such as empathy, encouragement, etc.
- d) Nurse competence: 3 items such as self-confidence, competence, etc.

Scoring: Each item’s response from “extremely important” to “not important” was scored from 4 to 1 respectively, so that a higher score indicates a higher opinion about compassionate care. The scores of each section and the total scale were summed up and divided by the corresponding numbers of items. These were converted into percent scores. A score of 60% or

more was considered high, whereas a lower score was considered low.

2.4.3. Tools Validity and Reliability

The scales used in this study have proved validity and reliability. [28,29] Moreover, they were translated using a translate-back-translate process to preserve their validity as recommended by Sireci et al. (2006). [30] The prepared tools were presented to a panel of experts from nursing faculty members in the community and geriatric nursing for final review. The tools were modified according to their minor suggestions. The reliability was achieved by Cronbach's Alpha coefficient test which revealed moderate to the high reliability of each tool. The reliability of the scales was assessed by testing their internal consistency. They mostly demonstrated good levels of reliability as shown below.

| Scales | Number of Items | Cronbach's Alpha |
|-------------------------------|-----------------|------------------|
| Nurse: | | |
| Compassionate care attitude | 15 | 0.42 |
| Compassionate care practice | 3 | 0.80 |
| Compassionate care confidence | 7 | 0.66 |

| Scales | Number of Items | Cronbach's Alpha |
|---------------------------------|-----------------|------------------|
| Patient compassionate care view | 20 | 0.72 |

2.4.4. Pilot Study

Applicability of the study tools was tested through a pilot study that was carried out on 10% (14 nurses & 14 elderly patients) to ensure clarity, and understandability of the tool. Based on the results of the pilot study, modifications and omissions of some details were done and then the final forms were developed, so the pilot study was excluded from the study sample

2.4.5. Administrative Issue

Official permissions were obtained from the directors of the mentioned hospitals, as well as from the nursing managers as authorized personnel in the study settings. This was achieved through official letters addressed from the Dean of the Faculty of Nursing, Beni-Suef University, explaining the aim of the study and its procedures.

2.4.6. Ethical Issue

Before embarking on study conduction, approval was obtained from the scientific research and ethics committee of the Faculty of Nursing, Beni-Suef University. Oral informed consents were obtained from each nurse and elderly patient after a full explanation of the aim of the study and the data collection procedure. They were informed that they can refuse participation or withdraw at any stage of the data collection. They were also reassured that any information collected would be strictly confidential and only used for research purposes.

2.4.7. Fieldwork

The execution of the study was through three phases namely assessment, implementation and evaluation. This

lasted for 6 months from the beginning of July 2019 till the end of December 2019.

Once permissions were obtained, the researcher started the process of data collection. She visited each of the study settings, met with the nursing director, and arranged a schedule for data collection. Then, the eligible nurses were recruited after giving their oral consent. They were handed the data collection form and instructed in filling it. The researcher was present all-time for any clarification, collected the filled forms, and checked for their completion. Then, for each nurse, a patient under her/his care was recruited. The researcher met with each selected patient, explained the aim of the work, and obtained his/her oral informed consent to participate. Those who gave their consent were interviewed using the designed interview questionnaire form. The fieldwork started in January and ended in June 2019. The work was done three days per week, from 9:00 am to 1:00 pm. The filling of the nurse form consumed 20-30 minutes. The interview with each patient took 25-40 minutes.

2.4.8. Statistical Analysis

Data entry and statistical analysis were done using SPSS 20.0 statistical software package. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, means, standard deviations, medians, and interquartile ranges for quantitative variables. Cronbach alpha coefficient was calculated to assess the reliability of the scales through their internal consistency. Qualitative categorical variables were compared using the chi-square test. Whenever the expected values in one or more of the cells in a 2x2 table were less than 5, Fisher's exact test was used instead. In larger than 2x2 cross-table, no test could be applied whenever the expected value in 10% or more of the cells was less than 5. Spearman rank correlation was used for the assessment of the inter-relationships among quantitative variables and ranked ones. To identify the independent predictors of compassionate care scores, multiple linear regression analysis was used and analysis of variance for the full regression models was done. Statistical significance was considered at a p-value <0.05.

3. Results

The sample of nurses consisted of 140 staff nurses whose age ranged between 20 and 65 years, median 28.5 years, mostly females (63.6%) as presented in Figure 3. More than two-thirds of them were diploma degree nurses (68.6%), married (70.7%), from rural areas (77.1%), and having sufficient income (82.9%). Their medians' experience was 5.0 years. Moreover, a sample of patients (140) equal to the sample of nurses was recruited. As shown in Figure 3 their age ranged between 60 and 88 years, median 65 years, with slightly more females (52.9%). The great majority were from rural areas (90.7%). More than two-thirds of them were illiterate (77.9%), married (70.7%), having sufficient income (72.1%), and having a crowding index <2 (70.5%).

As illustrated in Table 1, statistically significant moderate positive correlations were identified among nurses' scores of compassionate care attitude, practice,

and confidence. The strongest of the correlations was between the scores of confidence and practice ($r=0.642$). Additionally, statistically significant weak to moderate positive correlations were identified among patient's scores of compassionate care domains of opinions. The strongest correlation was between the scores of nurse competence and caring attributes ($r=0.445$). Meanwhile, no correlation was revealed between meaningful connection and nurse competence.

Table 2 demonstrates that nurses' scores of compassionate care confidence and practice had statistically significant weak positive correlations with their qualification, and negative correlations with their age and experience. Meanwhile, their attitude had no significant correlations with any of their characteristics. The same table points to no statistically significant correlations between patients' scores of opinions of compassionate care and any of their characteristics.

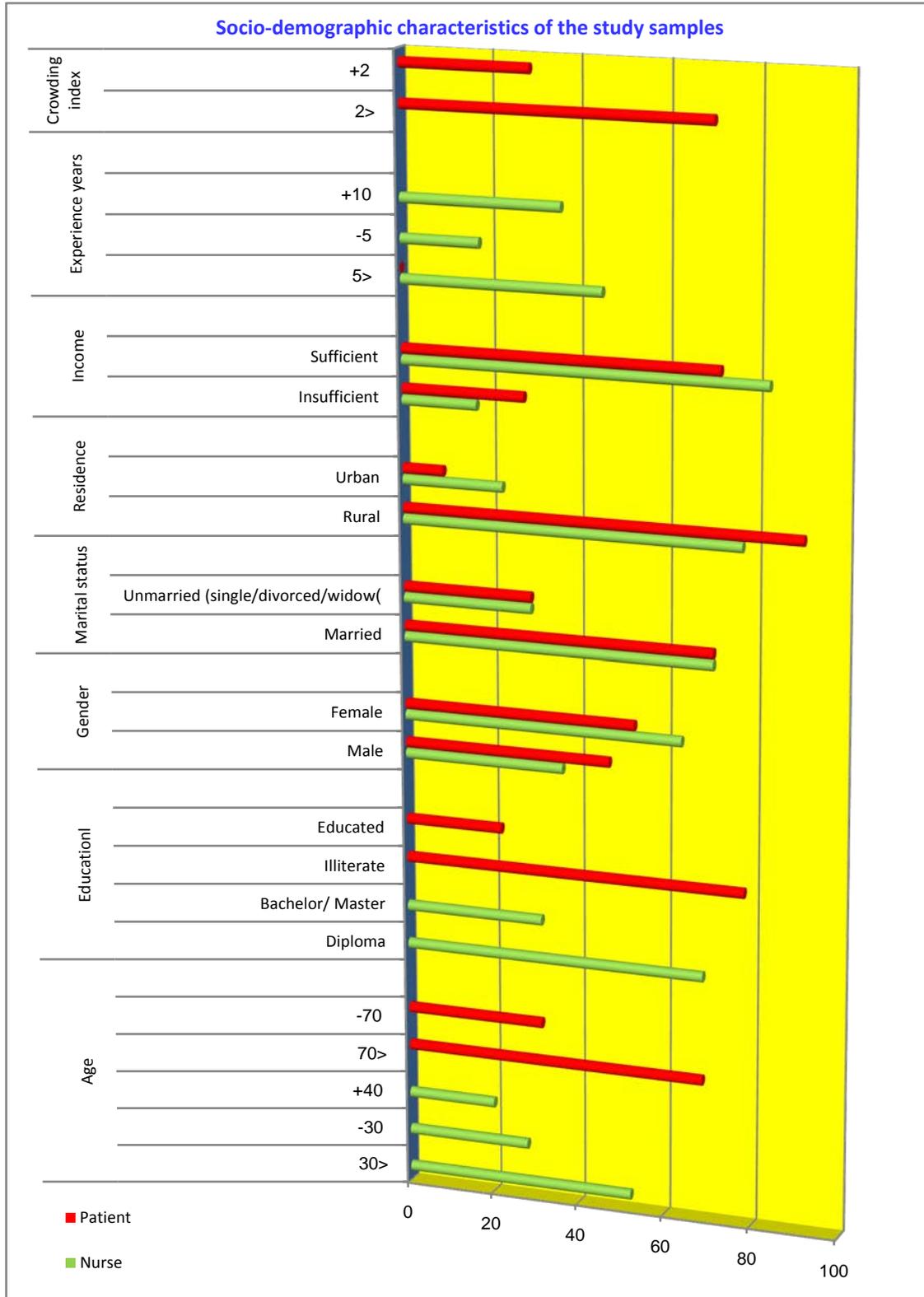


Figure 3. Socio-demographic characteristics of the studied nurses and patients

Table 1. Correlation matrix of nurses' and patients' scores of compassionate care dimensions

| | Compassionate care domains | Spearman's rank correlation coefficient | | | |
|----------------|----------------------------|---|----------|------------|---|
| | | Attitude | Practice | Confidence | |
| Nurses' Scores | Attitude | | | | |
| | Practice | 0.417** | | | |
| | Confidence | 0.414** | 0.642** | | |
| | | 1 | 2 | 3 | 4 |
| Nurses' Scores | 1. Meaningful connection | | | | |
| | 2. Patient expectations | 0.315** | | | |
| | 3. Caring attributes | 0.167* | 0.241** | | |
| | 4. Nurse competence | 0.102 | 0.231** | 0.445** | |

(*) Statistically significant at $p < 0.05$, (**) statistically significant at $p < 0.01$.

Table 2. Correlation between nurses' and patients' scores of compassionate care and their personal characteristics

| | | Spearman's rank correlation coefficient | | | | |
|------------------|-------------------------|---|----------|------------|-------|-------|
| | | Compassionate care domains | | | | |
| Nurses' Scores | Items | Attitude | Practice | Confidence | | |
| | Age | -.003 | -.215* | -.246** | | |
| | Qualification | .157 | .274** | .230** | | |
| | Income | .028 | -.102 | -.071 | | |
| | Experience | .030 | -.250** | -.179* | | |
| patients' Scores | Items | 1 | 2 | 3 | 4 | Total |
| | Age | -.132 | .043 | .068 | .079 | .033 |
| | Education | -.112 | -.023 | -.117 | -.151 | -.133 |
| | Income | -.068 | -.044 | -.046 | -.031 | -.083 |
| | Crowding index | -.077 | .117 | .026 | .107 | .004 |
| | Duration of illness | .117 | -.045 | -.028 | -.121 | -.018 |
| | Length of hospital stay | .050 | -.084 | -.060 | -.018 | -.091 |

(*) Statistically significant at $p < 0.05$, (**) statistically significant at $p < 0.01$.

Table 3. Best fitting multiple linear regression model for nurses' and patients' view scores of compassionate care attitude

| | Items | Unstandardized Coefficients | | Standardized Coefficients | t-test | p-value | 95% Confidence Interval for B | |
|------------------|-------------------------|-----------------------------|------------|---------------------------|--------|---------|-------------------------------|-------|
| | | B | Std. Error | | | | Lower | Upper |
| Nurses' Scores | Constant | 76.81 | 1.38 | | 55.753 | <0.001 | 74.09 | 79.54 |
| | Unmarried | -2.39 | 1.01 | -0.20 | 2.376 | 0.019 | -4.38 | -0.40 |
| patients' Scores | Constant | 75.64 | 2.53 | | 29.883 | <0.001 | 70.63 | 80.64 |
| | Education | -5.20 | 1.55 | -0.29 | 3.352 | 0.001 | -8.27 | -2.13 |
| | Length of hospital stay | -0.08 | 0.04 | -0.18 | 2.177 | 0.031 | -0.16 | -0.01 |

For nurses: r-square = 0.03

Model ANOVA: $F = 5.47$, $p = 0.02$

Variables entered and excluded: age, gender, qualification, experience, residence, income

For patients: r-square = 0.08

Model ANOVA: $F = 5.23$, $p = 0.002$

Variables entered and excluded: age, gender, marital status, job status, income, residence, duration of illness, chronic diseases, disability.

Table 4. Best fitting multiple linear regression model for nurses' scores of practice of compassionate care

| Items | Unstandardized Coefficients | | Standardized Coefficients | t-test | p-value | 95% Confidence Interval for B | |
|-----------------|-----------------------------|------------|---------------------------|--------|---------|-------------------------------|-------|
| | B | Std. Error | | | | Lower | Upper |
| Constant | 83.13 | 7.47 | | 11.126 | <0.001 | 68.35 | 97.90 |
| Age | -0.41 | 0.16 | -0.21 | 2.594 | 0.011 | -0.72 | -0.10 |
| Urban residence | -8.30 | 3.56 | -0.19 | 2.333 | 0.021 | -15.33 | -1.26 |
| Qualification | 13.30 | 3.16 | 0.33 | 4.214 | <0.001 | 7.06 | 19.54 |

r-square = 0.18

Model ANOVA: $F = 9.66$, $p < 0.001$

Variables entered and excluded: gender, experience, marital status, income.

Table 5. Best fitting multiple linear regression model for nurses' scores of confidence in compassionate care

| Items | Unstandardized Coefficients | | Standardized Coefficients | t-test | p-value | 95% Confidence Interval for B | |
|---------------|-----------------------------|------------|---------------------------|--------|---------|-------------------------------|-------|
| | B | Std. Error | | | | Lower | Upper |
| Constant | 82.24 | 3.68 | | 22.330 | <0.001 | 74.96 | 89.52 |
| Age | -0.50 | 0.15 | -0.51 | 3.296 | 0.001 | -0.81 | -0.20 |
| Qualification | 4.83 | 1.64 | 0.24 | 2.942 | 0.004 | 1.58 | 8.07 |
| Experience | 0.43 | 0.18 | 0.36 | 2.333 | 0.021 | 0.07 | 0.80 |

r-square = 0.13

Model ANOVA: F=6.76, p<0.001

Variables entered and excluded: gender, marital status, residence, income.

Table 6. Ecologic correlation between nurses' and patients' scores of compassionate care

| Patients view of compassionate care | Ecologic spearman's rank correlation coefficient | | |
|-------------------------------------|--|----------|------------|
| | Nurses' compassionate care | | |
| | Attitude | Practice | Confidence |
| Meaningful connection | -.500 | .500 | .600 |
| Patient expectations | -.900* | -.200 | .100 |
| Caring attributes | -.100 | .200 | -.100 |
| Nurse competence | -.300 | .600 | .500 |
| Total | -.300 | .600 | .500 |

(*) Statistically significant at p<0.05.

In multivariate analysis (Table 3), the unmarried status of the nurse was the only statistically significant independent negative predictor of the compassionate care attitude score. However, it explained only 3% of the variation in this score. The same table demonstrates that the patient education level and the length of hospital stay were statistically significant independent negative predictors of their score. However, they explain only 8% of the variation in this score.

As displayed in Table 4, the nurse age and urban residence were the statistically significant independent negative predictors of the compassionate care practice score, whereas the higher nursing qualification was a positive predictor. These factors explain 18% of the variation in the practice score.

Table 5 demonstrates that the nurses' age was a statistically significant independent negative predictor of the compassionate care confidence score. On the other hand, a higher nursing qualification and longer experience were positive predictors. These factors explain 13% of the variation in the confidence score.

An ecologic analysis, Table 6 shows a strong statistically significant negative correlation between patients' scores of opinions about patient expectations and nurses' attitude toward compassionate care (r=-0.900).

4. Discussion

Compassionate has an important role in nursing care. Compassion is a profound feeling, which is brought about by witnessing the pain or distress of others. This seems to hold regardless of the discipline of nursing. The majority of nurses work in an environment where they are surrounded by adults and children, who are affected by pain or distress, be that physical or emotional. [31,32]

The nurses in the present study sample were mostly females, in younger age groups, diploma degree nurses, with less than ten-year experience. More than two-thirds were married, and living in rural areas. Yet, the ranges of their age and experience years were very wide, so that the sample includes a wide spectrum of these two characteristics that would certainly influence their view and practice of compassionate care.

On the other hand, for patients, their mean age was 66.3±9.6 years. The great majority were from rural areas. Most of them were illiterate, married, and having sufficient income. Yet, the majority of the patients were suffering from chronic diseases, mostly diabetes or hypertension, and on regular medication.

Regarding the factors influencing nurses' compassionate care practice, the bivariate analyses revealed that male nurses and those residing in rural areas had significantly more adequate practice. However, in the multivariate analysis, nurse's gender had no significant influence, but the rural residence persisted as a positive predictor of the score of compassionate practice. The finding might be attributed to the more close relationships in the rural community leading to a more intense sense of compassion among them. A similar finding was reported by Ruiz-Fernández et al. (2020) in a study of compassion satisfaction among nurses in Spain. Their results demonstrated that urban residence was a negative predictor of their compassion. [32]

Nurses' age and experience were also factors having a significant impact on their compassionate care practice in the current study. Thus, the scores of compassionate care practice had significant negative correlations with nurses' age and experience. Meanwhile, only age persisted in the multivariate analysis as a significant negative predictor of the score of compassionate care practice. This might be attributed to the increasing low tolerance to stressors with increasing age, thus leading to less adequate

compassionate care. The finding is in congruence with *Kolthoff and Hickman (2017)* whose study in the United States demonstrated that nurses' compassionate care had an inverse relationship with their age. [33]

The present study has also demonstrated that the nurses having a bachelor/master degree in nursing had significantly more adequate compassionate practice. Moreover, nurses' score of compassionate care practice had significant positive correlations with their qualification, and in the multivariate analysis, a higher qualification was identified as a positive predictor of this score. This might be attributed to the higher emphasis given to this subject in the curricula of these higher degrees. The result is in line with previous studies that reported a positive impact of a higher level of education on nurses' confidence in compassionate care. [34,35] Moreover, a systematic review provided strong evidence of education on nurses' compassionate care. [36]

As for the factors affecting nurses' confidence in compassionate care practice, the results of the current study revealed that this confidence significantly decreased with increasing age and experience, and was higher among those having bachelor/master degrees. Moreover, the scores of compassionate care confidence had significant positive correlations with nurses' qualifications and negative correlations with their age and experience. These findings were confirmed in multivariate analysis. The same explanations provided before regarding the effect of age and nursing qualification on compassionate care practice also apply to nurses' confidence in compassionate care. In agreement with this, a study in Spain demonstrated that nurses' emotional and compassionate skills increased with their age. [37]

The present study has also investigated elderly patients' opinions about compassionate care. The sample of patients had a median age of 65 years, with slightly more females, and the majority was from rural areas, married, and illiterate. These are typical characteristics of patients in a rural Egyptian community. Seeking patients' opinions about compassionate care is quite important for a wider scope view. In line with this, a systematic review concluded that compassionate care research is lacking the viewpoints of the patients and their families. [38]

More than half of the patients in the present study sample were from medicine departments, which might influence their receiving compassionate care as shown above where the nurses' practice of compassionate care was less in surgical departments. The majority of the patients in the current study sample were having chronic diseases (mostly diabetes and/or hypertension, and were on regular medication, with a long duration of illness). Such patients might be in more need of sympathy and compassionate care. In congruence with this, a study in Australia revealed that the long duration of chronic diseases as well as their complexity and multiplicity make these patients in more need of support and compassionate care. [39]

Clarke et al. (2014) reported that the older adults wanted the primary care provider to build a good trusting relationship with them and to have a more person-centered approach to decision making. Older adults wanted to build and maintain connections and relationships with trusted providers and sought to end relationships with providers

they did not trust. Many persons felt that they were not being heard, which led to distrust in the relationship and feeling powerless. [40]

Lastly, the ecologic analysis of the present study showed a strong significant negative correlation between patients' scores of opinions about patient expectations and nurses' attitudes toward compassionate care. Thus, as nurses' attitudes tend to be more positive, patients' expectations are less. This is quite plausible since the nurses with a positive attitude do meet the patients' needs and thus their expectations are less. Nonetheless, there is still a need for a unified instrument to be able to compare nurses' and patients' views of compassionate care as concluded by a systematic review by Sinclair et al. (2017a). [41]

5. Conclusion

The study findings concluded the strongest correlation between the scores of nurse competence and caring attributes. Meanwhile, no correlation was revealed between meaningful connection and nurse competence. The patient education level and the length of hospital stay were statistically significant independent negative predictors of their score. Nurses' age and residence were the statistically significant independent negative predictors of the compassionate care practice score, whereas the higher nursing qualification was a positive predictor. A strong statistically significant negative correlation between patients' scores of opinions about patient expectations and nurses' attitude toward compassionate care was found.

6. Recommendations

1. Replication of this study on a large representative probability sample is highly recommended to achieve more generalization of the results for further research.
2. In-service training programs should be applied on a wide scale for nurses to improve their practice and self-confidence related to compassionate care.
3. The impact of such training interventions on elderly patients' opinions about compassionate care should also be investigated.

References

- [1] Greenberg, M.A. (2011). 'Care and compassion', *Clinics in Dermatology*; 29(1): 104-106.
- [2] Straughair C. (2012). Exploring compassion: implications for contemporary nursing. Part 1', *British Journal of Nursing*; 21(3): 160-164.
- [3] Francis R. (2013). Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry. London: The Stationery Office.
- [4] Hehir B. (2013). Report A crisis of compassion: Who cares?: Battle of ideas, 20-21 October 2012, London, *Nursing Ethics*; 20(1): 109-114.
- [5] Ibrahim E., Mahmod A., Elmaghwry A., Hassan H. Compassionate Care Delivery: Elderlies' Perception. *Research in Psychology and Behavioral Sciences*, 2021; 9(1): 24-32.
- [6] Frampton S.B., Guastello S., and Lepore M. (2013). Compassion as the foundation of patient centered care: the importance of compassion in action. *J Comp Eff Res*; 2: 443-455.

- [7] Dewar B., Adamson E., Smith S., Surfleet J., and King L. (2013). Clarifying misconceptions about compassionate care. *J Adv Nurs*; 70: 1738-1747.
- [8] Sims S., Leamy M., Levenson R., Brearley S., Ross F., and Harris R. (2020). The delivery of compassionate nursing care in a tick-box culture: Qualitative perspectives from a realist evaluation of intentional rounding. *Int J Nurs Stud.*, 107: 103580.
- [9] Gilbert P. (2015). The evolution and social dynamics of compassion. *Soc Personal Compass*, 9: 239-254.
- [10] Blomberg K., Griffiths P., and Wengstrom Y. (2016). Interventions for compassionate nursing care: a systematic review. *Int J Nurs Stud*; 62: 137-155.
- [11] Rodriguez A.M., and Lown BA. (2019). Measuring compassionate healthcare with the 12-item Schwartz Center Compassionate Care Scale. *PLoS ONE*; 14(9): e0220911.
- [12] Hemberg J., and Wiklund Gustin L. (2020). Caring from the heart as belonging-The basis for mediating compassion. *Nurs Open.*; 7(2): 660-668.
- [13] Dalvandi A., Vaisi-Raygani A., Nourozi K., Ebadi A., and Rahgozar M. (2019). The Importance and Extent of Providing Compassionate Nursing Care from The Viewpoint of Patients Hospitalized in Educational Hospitals in Kermanshah - Iran 2017. *Open Access Maced J Med Sci.*; 7(6): 1047-1052. Published 2019 Mar 28.
- [14] Nunberg G., and Newman E. (2011). *The American heritage dictionary of the English language*. 5th ed. Boston, MA: Houghton Mifflin Harcourt.
- [15] Sommers-Spijkerman M., Elfrink T.R., Drossaert C.H.C., Schreurs K.M.G., and Bohlmeijer E.T. (2019). Exploring compassionate attributes and skills among individuals participating in compassion-focused therapy for enhancing well-being. *Psychol Psychother.* 10.1111/papt.12235.
- [16] Arimitsu K. (2016). The effects of a program to enhance self-compassion in Japanese individuals: A randomized controlled pilot study. *The Journal of Positive Psychology*, 11(6): 559-571.
- [17] Taylor A., Hodgson D., Gee M., and Collins K. (2017). Compassion in healthcare: a concept analysis. *Journal of Radiotherapy in Practice*; 16(4): 350-360.
- [18] Su J.J., Masika G.M., Paguio J.T., and Redding S.R. (2020). Defining compassionate nursing care. *Nursing Ethics*; 27(2): 480-493.
- [19] Fortin M., Mercer S.W., Salisbury C. (2014). Introducing multimorbidity In: *ABC of multimorbidity*; 1-25.
- [20] World Health Organization [WHO], *World report on ageing and health*. 2015. Luxembourg: World Health Organization, 2015: 1-260.
- [21] Hassan H., Abozed A., Mohamed A., Ibrahim E. Compassionate Care Delivery for Elderly Patients: Nurses' Perception. *American Journal of Applied Psychology*, 2021; 9(1).
- [22] Northwood M., Ploeg J., and Markle-Reid M. (2017). Integrative review of the social determinants of health in older adults with multimorbidity. *J Adv Nurs*.
- [23] Donnelly S., O'Brien M., and Begley E. (2016). I'd prefer to stay at home but I don't have a choice: meeting older people's preference for care: policy, but what about practice? *University College Dublin School of Social Policy, Social Work and Social Justice*.
- [24] Stenholm S., Westerlund H., and Head J. (2015). Comorbidity and functional trajectories from midlife to old age: the Health and Retirement Study. *J Gerontol A Biol Sci Med Sci*; 70: 332-338.
- [25] Eckerblad J., Theander K., and Ekdahl A. (2015). To adjust and endure: a qualitative study of symptom burden in older people with multimorbidity. *Appl Nurs Res*; 28: 322-327.
- [26] Comisso E., McGilton K.S., and Ayala A.P. (2017). Identifying and understanding the health and social care needs of older adults with multiple chronic conditions and their caregivers: a protocol for a scoping review. *BMJ Open.*; 7(12):e018247.
- [27] Kemper K., Larrimore D., Dozier J., and Woods C. (2006). Impact of a medical school elective in cultivating compassion through touch therapies. *Complement Health Pract Rev*; 11: 47-56.
- [28] Burnell L., and Agan D. (2013). Compassionate Care: Can it be defined and measured? The Development of the Compassionate Care Assessment Tool. Available at: www.internationaljournalofcaringsciences.org.
- [29] Grimani K. (2017). Measuring Compassionate Care: Reliability and Validity of the Greek Version of a Compassionate Care Assessment Tool. *Journal of Correctional Health Care*, 2017; 23(3): 353-364.
- [30] Sireci S.G., Wang Y., Harter J., and Ehrlich E.J. (2006). Evaluating guidelines for test adaptations: A methodological analysis of translation quality. *Journal of Cross-Cultural Psychology*; 37: 557-567.
- [31] Zhang Y.Y., Zhang C., Han X.R., Li W., and Wang Y.L. (2018). Determinants of compassion satisfaction, compassion fatigue and burn out in nursing: A correlative meta-analysis. *Medicine (Baltimore).*, 97(26): e11086.
- [32] Ruiz-Fernández M.D., Pérez-García E., Ortega-Galán Á.M. (2020). Quality of Life in Nursing Professionals: Burnout, Fatigue, and Compassion Satisfaction. *Int J Environ Res Public Health*; 17(4): 1253.
- [33] Kolthoff K.L., and Hickman S.E. (2017). Compassion fatigue among nurses working with olde. *Geriatric Nursing*, 38 (2017): 106e109.
- [34] Bray L., O'Brien M.R., Kirton J., Zubairu K., and Christiansen A. (2014). The role of professional education in developing compassionate practitioners: A mixed methods study exploring the perceptions of health professionals and pre-registration students'. *Nurse Education Today*; 34(3): 480-486.
- [35] Henderson A., and Jones J. (2017). *Developing and Maintaining Compassionate Care in Nursing*. 2012 RCN Publishing Company Ltd. PMID: 29094531.
- [36] Coffey A., Saab M.M., and Landers M. (2019). The impact of compassionate care education on nurses: A mixed-method systematic review. *J Adv Nurs.*; 75(11): 2340-2351.
- [37] Giménez-Espert M.D.C., Valero-Moreno S., and Prado-Gascó V.J. (2019). Evaluation of emotional skills in nursing using regression and QCA models: A transversal study. *Nurse Educ Today*; 74: 31-37.
- [38] Sinclair S., Norris J., McConnell S.J. M., Chochinov H., Hack T.F.M., Hagen N., McClement S.A., and Bouchal S.R. (2016). Compassion: a scoping reviews of the healthcare literature. *BioMed Central Palliative Care*; 15 (6): 3-16.
- [39] Foley H., Steel A., and Adams J. (2020). Consultation with complementary medicine practitioners by individuals with chronic conditions: Characteristics and reasons for consultation in Australian clinical settings. *Health Soc Care Community*. 10.1111/hsc.13072.
- [40] Clarke L.H., Bennett E.V., and Korotchenko A. (2014). Negotiating vulnerabilities: how older adults with multiple chronic conditions interact with physicians. *Canadian Journal on Aging*; 33(1): 26-37.
- [41] Sinclair S., Beamer K., and Hack T.F. (2017a). Sympathy, empathy, and compassion: A grounded theory study of palliative care patients' understandings, experiences, and preferences. *Palliat Med.*, 31(5): 437-447.

