



International Journal of Practice-based Learning in Health and Social Care Vol. 12 No 2 Dec 2024, pages 34-48

Predictors of compassion competence among nurses working in the non-profit healthcare sector in India

Jismon Mathew George^a, Rofin T.M^b, John Varghese Thekkekkara^c, Asha K.C^d & *Vijesh P.V.^e

a: Christ University, Delhi- NCR; b: Indian Institute of Management, Mumbai, c: St. John's Medical College, Bangalore, d: St. Thomas Hospital, Chethipuzha, Kerala, e: Rajagiri College of Social Sciences, Kalamassery, Kerala, India

Abstract

Objectives: For many years, the non-profit healthcare sector in India has been able to instil a sense of goodwill in the society through the provision of healthcare services, which are not only affordable and accessible, but also deliver compassionate care. This study was an attempt to evaluate the compassionate care and competence of the nurses working in India's non-profit healthcare sector, and to identify the predictive factors associated with their work environment and engagement.

Methods: A cross-sectional survey of nurses working in the medical college hospitals managed by private trusts in the non-profit sector in India was conducted using an online questionnaire. The study was conducted in April 2021 after the second wave of the Covid-19 pandemic. Socio-demographic factors, compassion competence, nurse practice environment, and nurse engagement were assessed. Linear regression analysis was conducted to identify the variance and the predictors of compassion competence among Indian nurses.

Results: We found that nurses' practice environment (β =0.982, p=<.001) and engagement (β =0.842, p=<.001) predicted compassion competence during the Covid-19 pandemic. Moreover, nurse practice environment and engagement positively influenced compassion competence.

Conclusion: There was a considerably high level of compassion competence among nurses working in the non-profit healthcare sector during the Covid-19 pandemic. The compassion phenomenon was statistically significantly impacted by the nurses practice environment and their level of engagement. Consequently, not only does competent compassion behaviour require positive work environments and engaged nurses, but also nurses' compassion competence and its relationship with practice environment factors and engagement are critical in the non-profit healthcare sector in India. These findings support previous reviews that a high degree of compassion competence increases healthcare quality.

Email: vijesh@rajagiri.edu

Journal URL: https://publications.coventry.ac.uk/index.php/pblh

Jismon, M. G., Rofin T. M., Thekkekkara, J. V., Asha K. C., & Vijesh P. V. (2024). Predictors of compassion competence among nurses working in the non-profit healthcare sector in India. *International Journal of Practice-based Learning in Health and Social Care*, *12*(2), 34-48. <u>https://doi.org/10.18552/ijpblhsc.v12i2.1054</u>

© © © © © 2024 Jismon, M. G., Rofin T. M., Thekkekkara, J. V., Asha K. C., & Vijesh P. V. This Open Access article is distributed under the terms of the Creative Commons Attribution Attribution-Non-Commercial No Derivatives 4.0 International License (<u>https://creativecommons.org/licenses/by-nc-nd/4.0/</u>), which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited and is unaltered.

^{*}Corresponding Author: Vijesh P.V., Rajagiri College of Social Sciences, Kalamassery, Kerala. India.

Keywords: compassion competence, engagement, nurse practice environment, the non-profit sector

Introduction

Compassion is defined as being moved by the pain of another person and wanting to help them (<u>Gilbert, 2020</u>; <u>Goetz et al., 2010</u>; <u>Lazarus, 1991</u>) or having the emotion that develops from observing another's pain and prompts a desire to help them (<u>Goetz et al., 2010</u>). In healthcare, compassion enhances healthcare quality through patient-centeredness, making it the most valuable asset of caregivers, especially nurses (<u>Sinclair et al., 2017</u>; <u>Sinclair et al., 2016a</u>; <u>van der Cingel</u>, <u>2014</u>). However, healthcare organisations worldwide are failing to support nurses in providing compassionate care (<u>Aagard et al., 2018</u>; <u>Bivins et al., 2017</u>; <u>Grimani, 2017</u>).

To deliver compassionate care, nurses require compassion competence (<u>Halldorsdottir, 2012</u>; Lee & Seomun, 2016c). However, there is a scarcity of research on the skills and abilities needed for nurses to provide compassionate care (<u>Bramley & Matiti, 2014</u>; Lee & Seomun, 2016b; van der <u>Cingel, 2011</u>). The research literature also suggests that there are certain organisational factors such as nurse practice environment and nurse engagement that influence the delivery of compassionate nursing care (<u>Koy et al., 2020</u>; Liu & Aungsuroch, 2018; <u>Pfaff et al., 2014</u>; <u>Zamanzadeh et al., 2014</u>).

The non-profit healthcare sector in India has long been known for offering accessible and reasonable care. In addition to curative treatment, this sector also offers preventative care and connects healthcare to social reform, community involvement, and education. With a focus on public health rather than profit, they make use of the grants and resources that the government has made available to them (Sarwal et al., 2021). However, no previous research study has been conducted in the non-profit health care sector in India that examines the above-mentioned parameters in relation to compassionate nursing care. Therefore, this study is focused initially on the prevalence of compassion abilities among nurses working in the non-profit health sector in India, followed by organisational characteristics that might assist in improving nurses' compassionate care and, as a result, healthcare quality.

Literature review and research context

This section deals with the review of literature and the context of non-profit healthcare sector in India. The quality of compassion helps nurses to understand the needs of patients effectively (<u>Tehranineshat et al., 2019</u>), and to respect their dignity. (<u>Great Britain & Parliamentary and Health Service Ombudsman, 2011</u>). It also contributes to job satisfaction and retention; (<u>Sharp et al., 2016</u>; <u>Wagner & Whaite, 2010</u>). Compassion is also considered an essential value in the ethical codes of nursing associations worldwide (<u>American Nurses Association, 2014</u>; <u>Canadian Nurses Association, 2015</u>). It is a measurable indicator of quality nursing (<u>Sinclair et al., 2017</u>). However, literature confirms the need for competencies and skills to enact compassion, along with a positive work environment and commitment of nurses. Theories that confirm this claim are outlined below.

Compassion competence theory

The need for competencies to enact compassion (<u>Bramley & Matiti, 2014; Lee & Seomun, 2016b; van</u> <u>der Cingel, 2011</u>) has been underlined in the compassion competence theory, which describes, competent nurses as those who, based on their professional nursing knowledge, have respect for and can empathise with patients. Based on their experience and expertise, they can connect and communicate with patients emotionally and with sensitivity and insight. They constantly work on developing their skills in communication, sensitivity and insight (<u>Halldorsdottir, 2012</u>). This theory includes the fundamental component of compassion, the desire to relieve suffering (<u>Gilbert et al., 2017; Goetz et al., 2010; Lazarus, 1991</u>). The Compassion Competence Theory has a reliable and valid scale for nurses to self-evaluate their compassion capacities and behavioural skills in the clinical setting and has been empirically evaluated in the context of Korea (Lee & Seomun, 2016c; Sinclair et al., 2017).

Nurse work index theory

Nurses require organisational support to deliver compassionate care such as provision of adequate staff and supportive leadership (<u>Bramley & Matiti, 2014</u>). Many workplace challenges have been identified as affecting nurses' willingness and ability to provide compassionate care including the lack of relations between management and staff and compromising quality care (<u>Babaei & Taleghani, 2019; Hunter et al., 2018; Pehlivan & Güner, 2020; Valizadeh et al., 2018</u>). Nurse Work Index (NWI) theory (Lake, 2007), was later referred by the proponents of nurse practice environment which includes the organisational aspects of the nursing role such as leadership, collegial relations, continuing education, care quality, adequate resources and participation in decision-making. Nursing philosophy, in the workplace and factors that make professional nursing practise more manageable or difficult are also included (<u>Gea-Caballero et al., 2019; Lake, 2002</u>). These organizational support elements are covered by the nurse work index theory, which has led to the development of the nurse practice environment scale (<u>Lake, 2002</u>). However, this has not been studied as a predictive variable in relation to compassion competence or nurse work engagement.

Work engagement theory

Nurses need to be also engaged to deliver compassionate care (<u>Higgs et al., 2001; Lown et al., 2011;</u> <u>Sinclair et al., 2018</u>) because engaged nurses are more likely to have the emotional resources to demonstrate empathy and compassion despite the challenges they face at work (<u>The King's Fund, 2014, 2015</u>). Applying Schaufeli et al.'s (<u>2002</u>) theory of work engagement, nurse engagement is defined as a state of mind in which the nurse believes that their work is meaningful and wishes to offer their energy and dedication to the profession (<u>Cathcart et al., 2004</u>). It is reported that healthcare institutes with more engaged staff have higher levels of compassion and higher patient satisfaction (<u>Department of Health,</u> <u>UK, 2012; Nelson, 2019; West & Dawson, 2012</u>). Nurses work engagement was measured using the Utrecht Work Engagement Scale (<u>Schaufeli et al., 2002</u>). However, nurses' work engagement has not been studied in relation to compassion competence.

The context of non-profit healthcare sector in India

The healthcare sector in India is generally divided into public sector and private sector. The private sector is primarily divided into not-for-profit (non-profit) and for-profit hospitals. In the non-profit health care sector, lower fees are charged, the funds received for patient services are not turned over to the owners for profit and charitable organizations or non-profit corporations own these hospitals (<u>Sarwal et al., 2021</u>). According to the National Sample Survey (NSS, 75th Round), there is a huge disparity in hospitalisation cases as, for-profit hospitals account for 55.3% of in-patient facilities in India, whereas non-profit hospitals account for only 2.7% of in-patient services in the country and the rest is taken care by public sector (<u>National Statistical Office, 2019</u>). Despite the fact that non-profit hospitals are only visible in Western, Southern, and North East India, their infrastructure, services, and prices are designed to help the country's unreached and underserved population and provide a valuable service (<u>Sarwal et al., 2021</u>).

Non-profit hospitals provide altruistic healthcare services with a social purpose, and engage the community in a variety of ways, including in the areas of education, job training, women's empowerment, sanitation, and hygiene (Sarwal et al., 2021). However, the for-profit health sector, like the corporate and public healthcare sectors, have not previously prioritised healthcare quality in terms of person-centeredness and compassion (Central Bureau of Health Intelligence [CBHI], 2019; KPMG, 2016). Quality improvement strategies in Indian healthcare, irrespective of both private and public sector have instead focused on system-level requirements, governance issues, and institutional capacity building (CBHI, 2019; Gopal, 2019; KPMG, 2016; Mohanan et al., 2016; Zodpey & Farooqui, 2018). According to Anand and Fan (2016) and KPMG (2016), the provision of high-quality health care continues to be hampered in India due to lack of adequate facilities and infrastructure, poor accessibility, availability, and affordability in various places, as well as income disparities (Anand & Fan, 2016; KPMG, 2016).

Currently India is also experiencing a shortage of nurses with 2.4 million more nurses required to meet current demand (Anand & Fan, 2016; Federation of Indian Chambers of Commerce and Industry [FICCI], 2018; Sarwal et al., 2021). Due to staff shortages, workloads increase, and high nurse-patient ratio exist (Sharma & Rani, 2020). Poor human resource practices, such as unequal staffing patterns, hostile management, inadequate compensation, and unfavourable working conditions, have also been reported (Basu, 2019; Nair et al., 2016). Nurses may also be subjected to workplace mental harassment and increased stress (Jacob et al., 2020; Spoorthy et al., 2020).

Hypothesis development and theoretical framework

In this challenging context, this study makes an attempt to understand whether the compassionate attitude of nurses working in the non-profit healthcare sector in India contribute to healthcare quality. Hence, this study initially assesses the prevalence of nurses' compassion competence, engagement, and their attitude to practice environment. It then analyses the influence of predictor variables such as nurse practice environment and nurse engagement on compassion competence. This study is theoretically significant since it looks for a new link between constructs, and it is also notable in terms of context because it is the first-ever study of compassion competence and its influencing elements among nurses in India's non-profit sector. Another context of the study was that it took place shortly after Covid-19, when nurses were going through a difficult time.

The preceding background and context highlight three important objectives in our study: (a) to assess the current situation of nurses' compassion competence, practice environment and engagement; (b) to assess the associations among compassion competence, nurse practice environment and engagement; (c) to examine the influence of nurse practice environment and engagement on compassion competence.

Based on the objectives of the study, we hypothesized that;

H1: Nurse engagement is positively correlated with the prevalence of compassion competence among nurses working in the non-profit health care sector in India

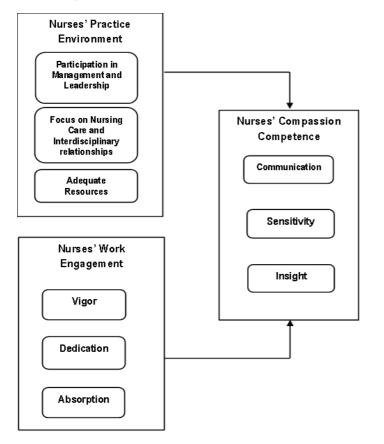
H2: Nurse practice environment is positively correlated with the prevalence of compassion competence among nurses working in the non-profit health care sector in India

Theoretical framework

The theories, objectives and the hypotheses are summed up in the development of the theoretical framework (<u>See Figure 1</u>). The framework hypothesises the relationship between compassion competence (CC) and its predictors, such as nurse practice environment (NPE) and nurse engagement (NE) (<u>Lee & Seomun, 2016c; Gea-Caballero et al., 2019; Schaufeli et al., 2002</u>).

Figure 1

Theoretical framework



Source: (Lee & Seomun, 2016c; Gea-Caballero et al., 2019; Schaufeli et al., 2002)

Materials and Methods

Study design

A cross-sectional, correlational, multicentre study was conducted in the three southern states of India.

Ethics statement

The data collection questionnaire was scrutinized and approved by the Institutional Ethics Committee of St. John's Medical College, Bangalore, Karnataka, Ref. No. 424 / 2021. In the pilot and preliminary studies, staff nurses were approached individually or through hospital administration. Informed oral consent was received from the staff nurses before forwarding the survey online. The nurses were free to choose to participate or not. The researcher ensured that the participants could participate freely without fear of victimization by guaranteeing confidentiality. The researcher maintained the confidentiality of the subjects. Only hospitals that requested feedback to benefit the organizations were informed of the research outcomes.

Population and sample

The study population consisted of staff nurses employed in non-profit medical college hospitals. This study used a non-probability convenience sampling method (<u>Lehdonvirta et al., 2021; Olivier, 2011;</u> <u>Walsh et al., 1992</u>), and data was collected through an online survey created in Google Forms. The

sample size was estimated using the Krejcie and Morgan formula (Morgan, 1970), and the required sample size was 384. This sample size was determined using data from the Ministry of Health and Family Welfare, which states that 60% (approximately 19.1 lakh) of registered nurses and registered midwives (RN&RM) are available for active service in India. Although there is no information on the number of nurses working in the non-profit sector, it is reasonable to assume that the non-profit sector employs fewer nurses, and therefore the sample size could have been reduced. However, for our survey 394 nurses, representing five hospitals, took part, which was more than the required sample size. On the first page of the survey questionnaire, an electronic non-disclosure and confidentiality agreement was signed by the respondents.

Inclusion and exclusion criteria

To participate in the study participants needed to be nurses with an M.Sc., B.Sc., or GNM degree, be able to answer questions independently via a mobile phone or computer, to be employed within a non-profit hospital and to have decided to participate willingly. Failure to respond, or failing to answer all survey questions, were exclusion factors.

Data Collection Instruments

The questionnaire consisted of demographic variables, the Compassion Competence Scale, the Practice Environment Scale of the Nursing Work Index and Utrecht Work Engagement Scale. Within this paper these variables are abbreviated as CC (compassion competence), NPE (Practice Environment Scale of the Nursing Work Index), and NE (Utrecht Work Engagement scale). The demographic variables were gathered using a self-designed questionnaire that included questions regarding age, gender, education level, marital status, profession, etc.

Compassion Competence scale

The compassion competence scale based on compassion competence theory (<u>Halldorsdottir, 2012</u>) was developed and psychometrically evaluated to measure compassion competence among practicing nurses in Korea (<u>Lee & Seomun, 2016a</u>). This scale is designed to be self-administered by nurses to measure behaviours that cause patients to perceive their nurses as compassionate. The scale has three sub-dimensions comprising the core elements of compassion behaviours: communication, sensitivity, and insight. Scoring was done on a 5-point Likert scale ranging from 1 'completely disagree' to 5 'absolutely agree,' with higher scores indicating a higher level of compassion competency.

Practice environment scale of the nursing work index (PES-NWI) (Shortened Version)

Lake developed the Nursing Work Index's Practice Environment Scale of which there are both short and long versions. (Lake, 2002). In this study we adopted the short version of the scale (Gea-Caballero et al., 2019). From the original long version of the scale, 31 items are included in the short version. These are recognised under three dimensions: (1) Leadership and management participation, (2) Nursing foundations for quality of care, and (3) Adequacy of resources that simplify practise environments. Scoring was done on a 5-point Likert scale ranging from 1 'completely disagree' to 5 'completely agree,' with higher scores representing a higher degree of the nurse practise environment.

Utrecht Work Engagement Scale (UWES-9)

Nurses work engagement was measured using the UWES-9 scale (<u>Schaufeli et al., 2002</u>). This scale has nine items in three dimensions. The dimensions are: 1) vigour, 2) dedication, and 3) absorption (<u>Schaufeli et al., 2002</u>). Scoring was done on a 5-point Likert scale ranging from 1 'completely disagree' to 5 'completely agree,' with higher scores representing a higher levels of nurse work engagement.

Data Analysis

Preliminary analyses

All analyses were performed using the SPSS 25.0 (SPSS, Inc.). A descriptive statistical analysis was conducted to describe the demographic variables such as gender, marital status, age, educational qualification, years of experience and nursing designation. Socio-demographic differences in these variables were examined using the independent sample t-test and one-way ANOVA. Pearson's correlation coefficients were calculated to estimate the correlations among nurse practice environment (NPE), nurse engagement (NE) and compassion competence (CC).

Linear regression analysis

To examine the hypotheses that nurse engagement and nurse practice environment are positively correlated with the prevalence of compassion competence among nurses working in the non-profit health care sector in India, linear regression analyses were performed. Nurse practice environment and nurse engagement were the predictor variables used, with compassion competence as the outcome variable. The model's fit was assessed using *R2* which depicted how much percentage of influence was exerted by the predictor variable on the outcome variable. Regression coefficients (β), standard errors (SEs), and p-values were reported for each step in the regression model. Statistical significance was defined as p < 0.05 (two-tailed) meaning that the effect can be tested in both the tails of the distribution and to interpret the results, p value is compared with the significance level.

Results

<u>Table 1</u> shows the demographic characteristics of the participants. Most of the participants were aged between 21 and 30 years, were female (n = 356; 90%), unmarried (n = 337; 86%), had a bachelor's degree (B.Sc.) (n = 304; 77%), and had less than five years of work experience (n = 284; 72%). 82% (n = 325). Most participants were designated as staff nurses (n = 314; 80%). There were, however, no statistically significant differences in the nurse practise environment, nurse engagement, or compassion competence scores across demographic characteristics. A summary of the demographic variables can be seen in <u>Table 1</u>.

Table 1

Socio-demographic characteristics of respondents (N=349)

Characteristics	No	%	
Gender			
Female	356	90%	
Male	26	6%	
Prefer not to say	12	3%	
Marital Status			
Not Married	337	86%	
Married	45	11%	
Prefer not to say	12	3%	
Age			
21-30	325	82%	
31-40	32	8%	
41-50	22	6%	
51 above	15	4%	
Educational Qualification			
B.Sc. Nursing	304	77%	
GNM	55	14%	
M.Sc. Nursing	35	9%	

Years of Experience		
00-05	284	72%
06 to 10	60	15%
11 to 15	27	7%
16 above	23	6%
Nursing Designation		
Staff Nurse	314	80%
Ward in Charge /TL	33	8%
Trainee Nurse	47	12%

Descriptive Statistics

The variables examined were nurse practice environment (NPE) (Mean=41.2, SD=5.96), nurse engagement (NE) (Mean=37.2, SD=5.42) and compassion competence (CC) (Mean=75.1, SD=8.56). In the assessment of the prediction of compassion competence by nurse practice environment and nurse engagement among the nurses working in the non-profit healthcare sector in India, the highest mean score was obtained for compassion competence, while the minimum mean score was for nurse engagement. This means that nurses demonstrated a higher degree of compassion competence followed by nurse practice environment and nurse engagement. The minimum values obtained were 15, 15, and 34 for NPE, NE, and CC. The maximum scores were 50, 45, and 85 for NPE, NE, and CC. Thus, the minimum score obtained was engagement, while the maximum score obtained was for compassion competence. Table 2 shows the descriptive statistics of the variables examined in the study.

Table 2

Descriptive Statistics of Variables

Variable	NPE	NE	CC
Ν	394	394	394
Range	1-5	1-5	1-5
Mean	41.2	37.2	75.1
Median	42	38	77
Standard deviation	5.96	5.42	8.56
Minimum	15	15	34
Maximum	50	45	85

Correlations of variables

<u>Table 3</u> shows the correlation matrix for the variables examined in the study. It was observed that the nurse practice environment is moderately positively correlated with compassion competence (r=0.586, p < 0.001). Nurse engagement is also moderately correlated with compassion competence (r=0.622, p < 0.001).

Table 3

Correlations of Variables

Variable		NPE	NE	
NE	Pearson's r	0.563		
	p-value	<.001		
CC	Pearson's r	0.586	0.622	
	p-value	<.001	<.001	

Linear regression analysis

Nurse practice environment (NPE) and nurse engagement (NE) were regarded as the predictor variables in the present study, with compassion competence (CC) as the outcome variable. The model's fit was assessed using R2, which depicted how much percentage of influence was exerted by the predictor variable on the outcome variable. As the Variance Inflation Factor (VIF) was 1, the data did not violate the assumption for multicollinearity for all the relations meaning that VIF measures the correlation among independent variables in regression models.

H:1- Nurse practice environment is positively correlated with the prevalence of compassion competence among nurses working in the non-profit health care sector in India (NPE-CC)

The hypothesis was tested to find if there exists a significant positive relationship between NPE and CC among nurses. Then the dependent variable CC was regressed on the predicting variable NPE to test hypothesis H1. NPE significantly predicted CC *F* (1,392) =205, *p*=<.001, (β =0.842, p=<.001). These results clearly show the positive effect of NPE on CC. The *R*².344 explains that the model accounts for 34% variance in CC. Thus, the regression model for NPE predicts CC significantly (see <u>Table 4</u>).

Table 4

Regression model for NPE and CC

Model Coeffic	cients - CC				
Predictor	Estimate	SE	t	р	
Intercept	40.488	2.444	16.6	<.001	
NPE	0.842	0.0588	14.3	<.001	

H:2- Nurse engagement is positively correlated with the prevalence of compassion competence among nurses working in the non-profit health care sector in India (NE-CC)

The hypothesis was tested to find if there exists a significant positive relationship between NE and CC among nurses. Then the dependent variable CC was regressed on the predicting variable NE to test the hypothesis H2. NE significantly predicted CC F(1,392) = 247, p = <.001, ($\beta = 0.982$, p = <.001). These results clearly show the positive effect of NE on CC. The R^2 .387 explains that the model accounts for a 38% variance in CC. Thus, the regression model for NE predicts CC significantly (see <u>Table 5</u>).

Table 5

Regression model for NE and CCE

Model Coefficients – CCE				
Predictor	Estimate	SE	t	Р
Intercept	38.571	2.3498	16.4	<.001
NE	0.982	0.0624	15.7	<.001

Discussion

The participants in the survey reported comparatively high-level prevalence of compassion competence (CC- Mean=75.1), nurse practice environment (NPE- Mean=41.2), nurse engagement (NE-37.2), especially during the Covid-19 pandemic, which is exemplary among the nurses working in the medical college hospitals owned by the private non-profit sector in India. Moreover, the current study revealed that the nurses' NPE, NE and CC did not differ according to sociodemographic factors such as gender, marital status, age, educational qualification, years of experience and nursing designation. Previous

similar studies have confirmed differences in CC among different sociodemographic characteristics (Lee & Seomun, 2016b). The findings show that the factors involved in NPE and NE have a dynamic influence on nurses' CC levels as NPE is moderately positively correlated. According to our findings, nurses' compassion competence is influenced not only by nurses' interests or abilities but also by specific factors of nurse practise environment and nurse engagement. Hence this study's findings are very important for non-profit healthcare management regarding the need to prioritise the relevant variables to improve healthcare quality.

The findings highlight the need to consider compassion as a required competency in healthcare organisations. Compassion as competence will help nurses better understand patients' physical, spiritual, and emotional difficulties and communicate patient needs emotionally and sensitively (<u>Sinclair et al.</u>, 2016a). According to the compassion competence theory (<u>Lee & Seomun</u>, 2016a), competent nurses can connect and communicate with patients. Hence, the dimensions of competence such as communication, sensitivity and insight are essential skills to be developed. Nurses who are competent in providing compassion are more effective in responding to various patient's needs. Knowledgeable and insightful compassionate nurses can communicate better to meet patients' needs more effectively.

This study shows the importance of nurse practice environment features such as participation in management and leadership, focus on nursing care and interdisciplinary relationships, and adequate human resources in healthcare organisations, since these aspects are essential for nurses to provide proper organisational support to perform compassionate care (Bramley & Matiti, 2014). Nurse practice environment dimensions were organisational factors common to the magnet hospitals in USA (McClure et al., 1983). In McClure's study magnet hospitals were defined as facilities that attracted and retain highly qualified committed nurses, despite the widespread nursing staff shortages during the 1980s (Aiken et al., 1997; McClure, 1983). The scholars in the USA identified the characteristics of these hospitals that made them 'magnets. Our study confirms the observations in the previous literature that a conducive organisational atmosphere is vital to develop nurses' compassion (Valizadeh et al., 2018; van der Cingel, 2014; Zamanzadeh et al., 2014). Our study also highlights the need to give nurses opportunities for participatory and collaborative role in hospital management and decision making. Our findings emphasise the decisive role of nurse managers and leaders, who promote shared management and leadership and confirms that clinical competency of nurses, primarily provided through clinical education and training, should continue to be offered to staff nurses through professional development programs.

The findings of this study suggest that the nurse practice environment is positively and directly related to compassion competence. While establishing this relationship, the study contributes to the literature that nurse practice environment and its dimensions are essential in facilitating nurses' compassion competence, especially the nursing workplace characteristics such as leadership, collegial connections, proper resources, participation in decision-making, and nursing philosophy, which are all vital for providing compassionate care according to the nurse work index theory (<u>Gea-Caballero et al., 2019;</u> <u>Lake, 2002</u>). Hence, according to the findings, all these characteristics are relevant and essential in promoting the competencies needed for compassionate nursing care, gathered in three categories: communication, sensitivity, and insight according to the compassion competency theory (<u>Lee & Seomun, 2016a</u>).

The findings of this study also suggest that nurse engagement is positively related to compassion competence. Thus the study offers a new result that nurses compassion competence is influenced by nurses' engagement and confirms the previous literature that engagement is predictive of job performance (Bakker, 2011). This study demonstrates that nurses' engagement with work is valuable in the nursing context because it can elicit positive work behaviours to create safe and effective patient care (Bargagliotti, 2012). Work engagement refers to focused energy directed toward organizational goals (Macey, 2009; Schneider & White, 2004). The study adds to the previous literature that work engagement is not only related to compassionate care in general (Dewar & Mackay, 2010; Dewar & Nolan, 2013; Lloyd & Carson, 2011; van der Cingel, 2011) but the ability to provide the same (Nelson, 2019). The research literature confirms that the nurses need to be engaged to deliver compassionate care (Higgs et al., 2001; Lown et al., 2011; Sinclair et al., 2018) because engaged nurses are more likely to have the emotional resources to show compassion, despite the pressures they work under (The King's Fund, 2014,

<u>2015</u>). This also confirms the prior report that healthcare institutes with more engaged staff have higher levels of compassion and higher patient satisfaction (Department of Health, UK, 2012; Nelson, 2019; West & Dawson, 2012).

Managerial implications

Health care organisations and healthcare leaders, including nursing leaders in India, should promote organisational systems that support nurses in providing compassionate care (<u>Tierney et al., 2019</u>). It is the duty of healthcare leadership to promote workplaces that have strong leadership, offer collegial connections and adequate resources, allow nurses to participate in decision-making, and foster philosophies that assist nurses to provide compassionate care. Healthcare leaders and managers should motivate nurses and engage them to deliver compassionate care, by providing them a conducive practice environment and motivation for engagement. Healthcare leaders should also consider compassion as a core competency and include compassion modules in clinical training.

Future research

There may be other predictive variables that have an impact on compassion competence, and future research in this area would be of value. Future research could include the assessment of the attitudes of all stakeholders in healthcare and other sectors such as public, private sectors on-profit. Research conducted from the perspective of patients to confirm the findings of this study would be useful given that nurses were self-reporting in this study. Given this was the first study of its kind in the Indian context, it establishes new avenues for research in the realm of nursing care.

Limitations

Much of the research that informs this study was conducted in countries outside India meaning that there was lack of references from the Indian context. The lack of accessibility to participants willing to take part in the study was a challenge with regard to the collection of data from the nurses as not all organisations were will to participate. There is no agreement in the literature regarding the best concepts and methods of measurement of compassion competence, and many of the available tools missed one or more elements that we consider core to compassion. The age of our sample, which comprised relatively young nurses with limited nursing experience, may limit generalisability of our findings, however, this sample may reflect the reality of nursing in the Indian non-profit context.

Conclusion

A considerably high level of compassion competence among nurses working in the non-profit sector, especially, during the Covid-19 pandemic was a remarkable finding. This study also provides evidence that compassion phenomenon is statistically significantly impacted by nurse practice environment and nurse engagement.

Sources of funding

This project did not receive specific funding.

Conflict of interest statement

No conflict of interest declared.

ORCID

Dr Rofin T.M https://orcid.org/0000-0003-2777-4658

References

- Aagard, M. Papadopoulos, I., & Biles, J. (2018). Exploring compassion in U.S. nurses: Results from an international research study. *Online Journal of Issues in Nursing*, 23(1). <u>https://doi.org/10.3912/OJIN.Vol23No01PPT44</u>
- Aiken, L. H., Sochalski, J., & Lake, E. T. (1997). Studying outcomes of organizational change in health services. *Medical Care*, 35(11), N26-NS18. https://doi.org/10.1097/00005650-199711001-00002
- American Nurses Association. (2014). The Code of Ethics for Nurses with Interpretive Statements. Public review draft for reading.

https://homecaremissouri.org/mahc/documents/CodeofEthicswInterpretiveStatements20141.pdf

- Anand, S., & Fan, V. (2016). *The health workforce in India*. World Health Organization. https://apps.who.int/iris/handle/10665/250369
- Babaei, S., & Taleghani, F. (2019). Compassionate care challenges and barriers in clinical nurses: A qualitative study. *Iranian Journal of Nursing and Midwifery Research*, 24(3), 213-219. <u>https://doi.org/10.4103/ijnmr.IJNMR_100_18</u>
- Bakker, A. B. (2011). An Evidence-Based Model of Work Engagement. *Current Directions in Psychological Science*, 20(4), 265-269. <u>https://doi.org/10.1177/0963721411414534</u>
- Bargagliotti, A. L. (2012). Work engagement in nursing: A concept analysis: Engagement. Journal of Advanced Nursing, 68(6), 1414-1428. <u>https://doi.org/10.1111/j.1365-2648.2011.05859.x</u>
- Basu, H. (2019). Deregulation, workplace, and women: Nurses in private health care in India. *Asian* Social Work and Policy Review, 13(2), 179–188. <u>https://doi.org/10.1111/aswp.12168</u>
- Bivins, R., Tierney, S., & Seers, K. (2017). Compassionate care: Not easy, not free, not only nurses. BMJ Quality and Safety, 26(12), 1023–1026. <u>https://doi.org/10.1136/bmjqs-2017-007005</u>
- Bramley, L., & Matiti, M. (2014). How does it really feel to be in my shoes? Patients' experiences of compassion within nursing care and their perceptions of developing compassionate nurses. *Journal* of Clinical Nursing, 23(19–20), 2790-2799. <u>https://doi.org/10.1111/jocn.12537</u>
- Canadian Nurses Association. (2015). Framework for the Practice of Registered Nurses in Canada 2015. https://hl-prod-ca-oc-download.s3-ca-central-1.amazonaws.com/CNA/2f975e7e-4a40-45ca-863c-5ebf0a138d5e/UploadedImages/Framework_for_the_Practice_of_Registered_Nurses_in_Canada 1_.pdf
- Cathcart, D., Jeska, S., Karnas, J., Miller, S. E., Pechacek, J., & Rheault, L. (2004). Span of Control Matters: JONA: The Journal of Nursing Administration, 34(9), 395–399. https://doi.org/10.1097/00005110-200409000-00004
- Central Bureau of Health Intelligence [CBHI]. (2019). National Health Profile. https://www.drishtiias.com/daily-updates/daily-news-analysis/national-health-profile-2019
- Department of Health, UK. (2012, September 21). *Developing the culture of compassionate care: Creating a new vision for nurses, midwives and care-givers*. Department of Health, NHS. <u>https://webarchive.nationalarchives.gov.uk/20160605121634/https://www.england.nhs.uk/wp-content/uploads/2012/10/nursing-vision.pdf</u>
- Dewar, B., & Mackay, R. (2010). Appreciating and developing compassionate care in an acute hospital setting caring for older people: Appreciating compassionate care. *International Journal of Older People Nursing*, 5(4), 299–308. <u>https://doi.org/10.1111/j.1748-3743.2010.00251.x</u>
- Dewar, B., & Nolan, M. (2013). Caring about caring: Developing a model to implement compassionate relationship centred care in an older people care setting. *International Journal of Nursing Studies*, 50(9), Article 9. <u>https://doi.org/10.1016/j.ijnurstu.2013.01.008</u>
- Federation of Indian Chambers of Commerce and Industry [FICCI]. (2018). *Nursing reforms in India*: Highlights and recommendations from the roundtable.

https://ficci.in/public/storage/events/24071/ISP/Recommendations-FICCI-Roundtable-on-Nursing-Reforms.pdf

- Gea-Caballero, V., Juárez-Vela, R., Díaz-Herrera, M.-Á., Mármol-López, M.-I., Alfaro Blazquez, R., & Martínez-Riera, J. R. (2019). Development of a short questionnaire based on the Practice Environment Scale-Nursing Work Index in primary health care. *PeerJ*, 7, e7369. <u>https://doi.org/10.7717/peerj.7369</u>
- Gilbert, P. (2020). Compassion: From its evolution to a psychotherapy. *Frontiers in Psychology*, 11, 586161. <u>https://doi.org/10.3389/fpsyg.2020.586161</u>
- Gilbert, P., Catarino, F., Duarte, C., Matos, M., Kolts, R., Stubbs, J., Ceresatto, L., Duarte, J., Pinto-Gouveia, J., & Basran, J. (2017). The development of compassionate engagement and action scales for self and others. *Journal of Compassionate Health Care*, 4, 4. https://doi.org/10.1186/s40639-017-0033-3
- Goetz, J. L., Keltner, D., & Simon-Thomas, E. (2010). Compassion: An evolutionary analysis and empirical review. *Psychological Bulletin*, 136(3), 351–374. <u>https://doi.org/10.1037/a0018807</u>
- Gopal, K. M. (2019). Strategies for ensuring quality health care in India: Experiences from the field. Indian Journal of Community Medicine, 44(1), 1-3. <u>https://doi.org/10.4103/ijcm.IJCM_65_19</u>
- Great Britain & Parliamentary and Health Service Ombudsman. (2011). *Care and compassion: Report of the Health Service Ombudsman on ten investigations into NHS care of older people*. Stationery Office.
- https://www.ombudsman.org.uk/sites/default/files/2016-10/Care%20and%20Compassion.pdf Grimani, K. (2017). Measuring Compassionate Care: Reliability and Validity of the Greek Version of a
- Compassionate Care Assessment Tool. *Journal of Correctional Health Care*, 23(3), 353–364. https://doi.org/10.1177/1078345817716436
- Halldorsdottir, S. (2012). Nursing as compassionate competence: A theory on professional nursing care based on the patient's perspective. *International Journal of Human Caring*, 16(2), Article 2. <u>https://doi.org/10.20467/1091-5710.16.2.7</u>
- Higgs, J., Titchen, A., & Neville, V. (2001). Professional practice and knowledge. In J. Higgs & A. Titchen (Eds.), *Practice Knowledge and Expertise in the Health Professions* (pp. 3--9). Butterworth-Heinemann.
- Hunter, D., McCallum, J., & Howes, D. (2018). Compassion in emergency departments. Part 2: barriers to the provision of compassionate care. *Emergency Nurse*. <u>https://doi.org/10.7748/en.2018.e1775</u>
- Jacob, N., Inamdar, V., Saha, A., & Bharadwaj, S. (2020, July 31). Low Salaries, Poor Facilities Deter Health Workers From COVID-19 Care. IndiaSpend. <u>https://www.indiaspend.com/low-salaries-poor-facilities-deter-health-workers-from-covid-19-care/</u>
- Koy, V., Yunibhand, J., Angsuroch, Y., Turale, S., & Rojnawee, S. (2020). Registered nurses' perceptions of factors influencing nursing care quality: A structural equation modeling study. *Nursing & Health Sciences*, 22(1), 91–98. <u>https://doi.org/10.1111/nhs.12653</u>
- KPMG. (2016). Healthcare in India: Current state and key imperatives. 60.
- Lake, E. T. (2002). Development of the practice environment scale of the nursing work index. Research in Nursing & Health, 25(3), 176-188. <u>https://doi.org/10.1002/nur.10032</u>
- Lake, E. T. (2007). The nursing practice environment. *Medical Care Research and Review*, 64(2_suppl), 104S-122S. <u>https://doi.org/10.1177/1077558707299253</u>
- Lazarus, R. S. (1991). Emotion and adaptation. Oxford University Press.
- Lee, Y., & Seomun, G. (2016a). Compassion Competence in Nurses. *Advances in Nursing Science*, 39(2), E54–E66. <u>https://doi.org/10.1097/ANS.0000000000111</u>
- Lee, Y., & Seomun, G. (2016b). Development and validation of an instrument to measure nurses' compassion competence. *Applied Nursing Research*, 30, 76–82. <u>https://doi.org/10.1016/j.apnr.2015.09.007</u>
- Lee, Y., & Seomun, G. (2016c). Role of compassion competence among clinical nurses in professional quality of life. *International Nursing Review*, 63(3), 381-387. <u>https://doi.org/10.1111/inr.12295</u>
- Lehdonvirta, V., Oksanen, A., Räsänen, P., & Blank, G. (2021). Social media, web, and panel surveys: Using non-probability samples in social and policy research. *Policy & Internet*, 13(1), 134–155. <u>https://doi.org/10.1002/poi3.238</u>
- Liu, Y., & Aungsuroch, Y. (2018). Factors influencing nurse-assessed quality nursing care: A crosssectional study in hospitals. *Journal of Advanced Nursing*, 74(4), 935–945. <u>https://doi.org/10.1111/jan.13507</u>

- Lloyd, M., & Carson, A. (2011). Making compassion count: Equal recognition and authentic involvement in mental health care: Making compassion count. *International Journal of Consumer Studies*, 35(6), 616-621. <u>https://doi.org/10.1111/j.1470-6431.2011.01018.x</u>
- Lown, B. A., Rosen, J., & Marttila, J. (2011). An agenda for improving compassionate care: A survey shows about half of patients say such care is missing. *Health Affairs*, 30(9). <u>https://doi.org/10.1377/hlthaff.2011.0539</u>
- Macey, W. H. (Ed.). (2009). Employee engagement: Tools for analysis, practice, and competitive advantage. Wiley.
- McClure, M. L., Poulin, M. A., Sovie, M. D., Wandelt, M. A. & American Academy of Nursing Task Force on Nursing Practice in Hospitals. (1983). *Magnet hospitals: attraction and retention of* professional nurses. American Academy of Nursing, Kansas City, Missouri, USA.
- McClure, W. (1983). The competition strategy for medical care. *The Annals of the American Academy of Political and Social Science*, 468(1), 30–47.
 Mohanan, M., Hay, K., & Mor, N. (2016). Quality of health care in India: Challenges, priorities, and the road ahead. *Health Affairs*, 35(10), 1753–1758.
 - https://doi.org/10.1377/hlthaff.2016.0676
- Morgan, K. (1970). Sample Size Determination Using Krejcie and Morgan Table. Kenpro. http://www.kenpro.org/sample-size-determination-using-krejcie-and-morgan-table/
- Nair, S., Timmons, S., & Evans, C. (2016). Nurses in the private health sector in Kerala: Any lessons learnt from their strikes in recent years? *Indian Journal of Gender Studies*, 23(1). https://doi.org/10.1177/0971521515612858
- Nelson, R. (2019). Work engagement and level of compassion in hospice nurses. [Doctoral thesis, Barry University].

https://www.proquest.com/docview/2323168375/B087FCFB145D4024PQ/1?sourcetype=Dissertat

National Statistical Office. (2019, November). *Key Indicators of Social Consumption in India: Health:* NSS 75th Round July 2017 – June 2018. Ministry of Statistics and programme Implementation, Government of India.

http://www.mospi.gov.in/sites/default/files/publication reports/KI Health 75th Final.pdf

- Olivier, L. (2011, November 13). LEX OLIVIER: River Sampling Non probability sampling in an online environment, *LEX OLIVIER*. <u>http://lexolivier.blogspot.com/2011/11/river-sampling-non-</u> probability-sampling.html
- Pehlivan, T., & Güner, P. (2020). Compassionate care: Benefits, barriers and recommendations. Journal of Psychiatric Nursing, 11(2), 148-153. <u>https://doi.org/10.14744/phd.2020.88557</u>
- Pfaff, K., Baxter, P., Jack, S., & Ploeg, J. (2014). An integrative review of the factors influencing new graduate nurse engagement in interprofessional collaboration. *Journal of Advanced Nursing*, 70(1), 4–20. <u>https://doi.org/10.1111/jan.12195</u>
- Sarwal, R., Gopal, K. M., Mehta, R., Matani, P., Agrawal, A., Arora, V., & Sunderrajan, S. (2021). Study on the not-for-profit hospital model in India [Preprint]. Open Science Framework. https://doi.org/10.31219/osf.io/ba5vu
- Schaufeli, W. B., Salanova, M., González-romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 17-92. <u>https://doi.org/10.1023/A:1015630930326</u>
- Schneider, B., & White, S. S. (2004). Service quality: Research perspectives. Sage Publications.
- Sharma, S. K., & Rani, R. (2020). Nurse-to-patient ratio and nurse staffing norms for hospitals in India: A critical analysis of national benchmarks. *Journal of Family Medicine and Primary Care*, 9(6), 2631-2637. <u>https://doi.org/10.4103/jfmpc_jfmpc_248_20</u>
- Sharp, S., McAllister, M., & Broadbent, M. (2016). The vital blend of clinical competence and compassion: How patients experience person-centred care. *Contemporary Nurse*, 52(2–3), 300-312. <u>https://doi.org/10.1080/10376178.2015.1020981</u>
- Sinclair, S., Hack, T. F., Raffin-Bouchal, S., McClement, S., Stajduhar, K., Singh, P., Hagen, N. A., Sinnarajah, A., & Chochinov, H. M. (2018). What are healthcare providers' understandings and experiences of compassion? The healthcare compassion model: a grounded theory study of healthcare providers in Canada. *BMJ Open*, 8(3), Article e019701. <u>https://doi.org/10.1136/bmjopen-2017-019701</u>

- Sinclair, S., McClement, S., Raffin-Bouchal, S., Hack, T. F., Hagen, N. A., McConnell, S., & Chochinov, H. M. (2016a). Compassion in health care: An empirical model. *Journal of Pain and Symptom Management*, 51(2), 193–203. <u>https://doi.org/10.1016/j.jpainsymman.2015.10.009</u>
- Sinclair, S., Norris, J. M., McConnell, S. J., Chochinov, H. M., Hack, T. F., Hagen, N. A., McClement, S., & Raffin-Bouchal, S. (2016b). Compassion: A scoping review of the healthcare literature. *BMC Palliative Care*, 15, Article 6. <u>https://doi.org/10.1186/s12904-016-0080-0</u>
- Sinclair, S., Russell, L. B., Hack, T. F., Kondejewski, J., & Sawatzky, R. (2017). Measuring Compassion in Healthcare: A Comprehensive and Critical Review. *Patient*, 10(4), 389–405. https://doi.org/10.1007/s40271-016-0209-5
- Spoorthy, M. S., Pratapa, S. K., & Mahant, S. (2020). Mental health problems faced by healthcare workers due to the COVID-19 pandemic–A review. *Asian Journal of Psychiatry*, 51(June), 102119. https://doi.org/10.1016/j.ajp.2020.102119
- Tehranineshat, B., Rakhshan, M., Torabizadeh, C., & Fararouei, M. (2019). Nurses', patients', and family caregivers' perceptions of compassionate nursing care. *Nursing Ethics*, 26(6), 1707–1720. <u>https://doi.org/10.1177/0969733018777884</u>
- The King's Fund. (2014, July 15). Improving NHS care by engaging staff and devolving decision-making: Report of the review of staff engagement and empowerment in the NHS. <u>https://www.kingsfund.org.uk/insight-and-analysis/reports/improving-nhs-care-engaging-staff-devolving-decision-making#:~:text=The%20review%20found%20compelling%20evidence%20that%20NHS%20organisations%</u>
- 20with%20high The King's Fund. (2015, February 19). Staff engagement: Six building blocks for harnessing the creativity and enthusiasm of NHS staff.

https://www.kingsfund.org.uk/insight-and-analysis/reports/staff-engagement-creativityenthusiasm#:~:text=This%20paper%20encourages%20NHS%20boards%20and%20other%20lead ers%20to%20focus

- Tierney, S., Bivins, R., & Seers, K. (2019). Compassion in nursing: Solution or stereotype? Nursing Inquiry, 26(1), Article e12271. <u>https://doi.org/10.1111/nin.12271</u>
- Valizadeh, L., Zamanzadeh, V., Dewar, B., Rahmani, A., & Ghafourifard, M. (2018). Nurse's perceptions of organisational barriers to delivering compassionate care: A qualitative study. *Nursing Ethics*, 25(5), 580-590. <u>https://doi.org/10.1177/0969733016660881</u>
- van der Cingel, M. (2011). Compassion in care: A qualitative study of older people with a chronic disease and nurses. *Nursing Ethics*, 18(5), 672-685. <u>https://doi.org/10.1177/0969733011403556</u>
- van der Cingel, M. (2014). Compassion: The missing link in quality of care. *Nurse Education Today*, 34(9), 1253–1257. <u>https://doi.org/10.1016/j.nedt.2014.04.003</u>
- Wagner, D. J., & Whaite, B. (2010). An exploration of the nature of caring relationships in the writings of Florence Nightingale. *Journal of Holistic Nursing*, 28(4), 225–234. <u>https://doi.org/10.1177/0898010110386609</u>
- Walsh, J. P., Kiesler, S., Sproull, L. S., & Hesse, B. W. (1992). Self-selected and randomly selected respondents in a computer network survey. *Public Opinion Quarterly*, 56(2), 241-244. <u>https://doi.org/10.1086/269315</u>
- West, M. A., & Dawson, J. F. (2012). *Employee engagement and NHS performance*. The King's Fund. https://assets.kingsfund.org.uk/f/256914/x/f7572997c3/employee_engagement_nhs_performance_ west_dawson_leadership_review2012_paper.pdf
- Zamanzadeh, V., Rassouli, M., Abbaszadeh, A., Nikanfar, A., Alavi-Majd, H., & Ghahramanian, A. (2014). Factors influencing communication between the patients with cancer and their nurses in oncology wards. *Indian Journal of Palliative Care*, 20(1), 12-20. https://doi.org/10.4103/0973-1075.125549
- Zodpey, S., & Farooqui, H. H. (2018). Universal health coverage in India: Progress achieved & the way forward. *Indian Journal of Medical Research*, 147(4), 327-329.