Original Article

Compassionate care and moral distress in nursing: the mediating role of organizational citizenship behavior

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Abstract

Decline in compassionate care is potentially linked to moral distress and fostering different aspects of organizational citizenship behavior can reduce the outcome of moral distress. This study aimed to determine the mediating role of organizational citizenship behavior in the relationship between compassionate care and moral distress among nurses. For this purpose, a correlational study design using structural equation modeling was employed. Between December 2023 and March 2024, 300 nurses were selected through convenience sampling from hospitals in Fars Province, southern Iran. Data were collected using the Organizational Citizenship Behavior Questionnaire, the Compassionate Care Questionnaire for Nurses, and the Moral Distress Questionnaire. Data analysis was conducted using SPSS version 22 and Smart-PLS software.

Our findings showed that compassionate care, combined with the mediating role of organizational citizenship behavior, significantly impacted moral distress ($t = 2.442$, $P < 0.015$, $\beta = -0.071$). Pearson's correlation coefficients showed that compassionate care had a positive and significant relationship with organizational citizenship behavior ($r = 0.444$, $P < 0.001$) and a negative and significant relationship with moral distress ($r = -0.353$, $P < 0.001$). It is therefore recommended that managers in clinical systems focus on training nurses who exhibit appropriate organizational citizenship behavior in health-care settings.

Keywords: *Compassionate care; Nurses moral distress; Organizational citizenship behavior; Structural equation modeling; Ethical dilemma.*

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Introduction

Care is the core component of the nursing profession (1), and compassionate care is a process in which the nurse engages in constructive interaction with the patient, empathizing by putting themselves in the patient's place, understanding their circumstances, and striving to address their concerns to the best of their ability (2). Compassion is the human and ethical aspect of care that can facilitate effective communication between the caregiver and the patient, ultimately leading to recovery and better treatment outcomes (3).

Today, the benevolent goals of compassion in care seem to be diminishing. Recent studies and reports indicate that patients often do not have a positive experience in terms of attitudes and behaviors of nurses in clinical settings (4). The results of a study by Tehranineshat et al. also revealed that hospitalized patients complained about feelings of neglect, lack of empathy, and absence of proper communication and friendly connection with nurses. From their perspective, this situation has led to a decline in the quality of nursing care (3).

One factor contributing to this perception is the ethical challenges nurses face in the workplace (5). Among these challenges, moral distress is particularly impactful (6). Moral distress occurs when an individual finds themselves in a situation that conflicts with their moral beliefs. Consequently, they cannot perform the corresponding ethical action due to real or perceived barriers despite making the correct ethical judgment (7). The undesirable outcomes of moral distress can include job dissatisfaction, decreased quality of care, poor decision-making, and medical errors (8). Certain measures can be taken to mitigate the effects of moral distress on nurses, for instance assisting colleagues with heavy workloads, enhancing communication skills among staff, and paying attention to new organizational policies – all of which are components of organizational citizenship behavior (9).

Organizational citizenship behavior (OCB) refers to individual voluntary behaviors that are neither directly nor clearly acknowledged by the official incentive framework of the organization but, overall, contribute to the effectiveness and efficiency of the organization. The discretionary nature of these behaviors means that they are not part of an employee's job description or the expected organizational role behaviors. These actions are entirely voluntary, and failure to perform them does not result in formal punishment.

When employee communication issues are resolved and their relationships are improved, their positive citizenship behaviors increase, enhancing the organization's performance and effectiveness (10).

Organizational citizenship behavior (OCB) can explain the aesthetic aspects of nursing care by emphasizing civil behavior and altruism (11). A study by Idris et al. highlighted that a loyal workforce aligned with organizational values and willing to go beyond the assigned duties in their job descriptions is a crucial factor in organizational effectiveness. This type of behavior can influence the attitudes and actions of nurses, thereby predicting the quality of the care provided (9). Zarei et al. also noted in their study that ethical values serve as the strongest reinforcers of citizenship behaviors, and that enhancing the ethical climate leads to better responses from nurses in the face of moral distress, better adaptation to other causes of dissatisfaction in the workplace, and the manifestation of citizenship behaviors (12).

A review of studies has shown that the concept of compassionate care has been gaining attention from researchers in recent years. However, at the time of the review, no study was found that examined the connection between compassionate care, organizational citizenship behavior (OCB), and moral distress. Previous studies on variables have been correlational and almost exclusively conducted through simple statistical analyses (9, 11, 12). In the present study, however, the proposed model was used to analyze the relationships between variables and their dimensions in an advanced manner and at the same time, the measurement errors were calculated. Structural equation modeling allows researchers to model and test complex phenomena statistically. Based on a review of the previous studies, this theoretical model can be proposed and its validity can be tested.

OCB in nurses shares common elements with ethics and empathetic care, and can help to explore significant relational overlaps. A nurse who embodies the qualities of a good citizen and nurtures these attributes within themselves will play a more compassionate and prominent role in loyalty to the organization and commitment to compassionate care. When faced with ethical conflicts and challenges, such a nurse is likely to make more ethical decisions through the collaboration and support received from other nurses, ultimately improving the quality of care. Furthermore, by fostering OCB among nurses, the negative outcomes of moral distress can be

mitigated, leading to greater satisfaction among nurses in caring for their patients and a more committed adherence to the mission of compassion in care (Figure 1). Therefore, this research sought to examine the mediating role of OCB in the relationship between compassionate care and moral distress among nurses in hospitals connected to Shiraz University of Medical Sciences.



Figure 1. Proposed Conceptual Model

Methods

Sample and Setting

This study used a correlational design based on structural equation modeling (SEM) in Namazi and Faghihi Hospitals in Shiraz, southern Iran. These hospitals are among the largest in Fars Province and have the most nurses in the province. The "Rule of Thumb" approach was employed to estimate the sample size due to the absence of similar studies (13). Given that the questionnaires used in this study contained 13 variables, according to the Rule of Thumb, data from 20 participants had to be collected for each variable, resulting in a required sample size of 260 participants. Accounting for a potential 20% attrition rate, the estimated sample size was 310 participants, of which 300 questionnaires were deemed suitable for analysis. Finally, 300 nurses were included in the study using convenience sampling from December 2023 to March 2024. The method of selecting participants from the two hospitals was non-random quota. First, a quota was assigned to each hospital based on the number of nurses in the two hospitals. Then, sampling was performed based on the desired quota from each hospital. Inclusion criteria were holding a bachelor's degree or higher in nursing, a minimum of one year of clinical experience in hospital wards, and readiness to take part in the study. Exclusion criteria were submitting incomplete questionnaires with missing information.

Data Collection Tools

This study was conducted after obtaining approval for the research proposal from the relevant

authorities, including the Graduate Studies Office and the Vice-Chancellor for Research at the School of Nursing and Midwifery, Shiraz University of Medical Sciences. Additionally, ethical clearance was granted by the university's ethics committee, along with the required ethical code. Data were collected using questionnaires, which were administered face-to-face with participants and completed within approximately 20 minutes. Nurses were made aware of the research goals and the questionnaire completion procedure.

Demographics Survey

The demographic information form collected data on nurses' age, gender, marital status, and professional status, including education level, position, work experience, shift schedules (fixed morning, fixed afternoon, fixed night, or rotating), and the type of ward.

Organizational Citizenship Behavior (OCB) Questionnaire

Organ developed the Organizational Citizenship Behavior (OCB) questionnaire. This questionnaire consists of 15 questions that measure five dimensions: altruism (questions 1 - 3), conscientiousness (questions 4 - 6), chivalry (questions 7 - 10), civil behavior (questions 11 - 13), and politeness and consideration (questions 14 - 15). Respondents answered the questionnaire using a 5-point Likert scale extending from "strongly agree" (rated 5) to "strongly disagree" (rated 1). The total score of this questionnaire ranges from 15 to 75, with a higher score indicating greater organizational citizenship behavior among nurses (14).

The Oregon and Kanosky Nurses' Organizational Citizenship Behavior Questionnaire was selected because it has common components with ethics and compassionate care, and because it can examine sensitive and important communication commonalities using structural equations.

This questionnaire has been validated and used in Iran, and its reliability and validity has been assessed by Poorsoltani and Amirjinaghandar. The internal reliability of the OCB questionnaire was determined using Cronbach's alpha, yielding a coefficient of 0.76, and the content validity index (CVI) was found to be 0.88 (15).

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Moral Distress Questionnaire

The Revised Moral Distress Scale (MDS-R) in 21 items developed by Hamric et al. was used to assess moral distress (16). This revised scale is an update of the original Moral Distress Scale developed by Epstein et al. (17). The questionnaire evaluates moral distress from two aspects: frequency and intensity.

- ***Frequency:*** The scoring uses a Likert scale ranging from 0 to 4, where 0 indicates "never encountered" and 4 indicates "encountered very often."
- ***Intensity:*** The scoring also uses a Likert scale from 0 to 4, where 0 indicates "does not cause any distress" and 4 indicates "causes very high distress."

Each item is scored by multiplying the frequency of the moral distress experience by its intensity (frequency × intensity), yielding a range of scores from 0 to 16 per item. The overall possible score varies from 0 to 336, with elevated scores reflecting greater levels of moral distress (16).

Escolar and Magpantay in the Philippines reported the reliability of this tool with a Cronbach's alpha coefficient of 0.89 (18). Sharif Nia et al. localized the scale in Iran with a Cronbach's alpha coefficient greater than 0.7 (19). Mohammadi et al. assessed the validity of the questionnaire with a content validity index (CVI) of 0.88 (20).

Compassionate Care Questionnaire for Nurses

The Compassionate Care Questionnaire for Nurses has been developed in Iran and consists of 28 items, each rated on a 5-point Likert scale from "always" (scoring 5) to "never" (scoring 1). The total score of the questionnaire is determined by adding the scores of all items, which are all positively worded (21).

The questionnaire is divided into several dimensions:

- ***Professional Performance:*** Scores ranging from 9 to 45
- ***Continuous Follow-up:*** Scores ranging from 6 to 30
- ***Patient-Centered Performance:*** Scores ranging from 7 to 35
- ***Empathetic Communication:*** Scores ranging from 6 to 30

Based on the total score, the results are categorized as weak (scores between 28 and 65, bottom third); moderate (scores between 66 and 103, middle third); and good (scores between 104 and 140, top third).

The reliability of the questionnaire was demonstrated by Cronbach's alpha of 0.89. For validity, the content validity index (CVI) was calculated at 0.87, and the scale content validity index/average (SCVI/Ave) was 0.91.

Data Analysis

The data analysis was performed using SPSS version 22. Means and standard deviations were reported for quantitative (continuous) data, and frequencies and percentages were reported for qualitative (categorical) data. To analyze the relationship between the target variable (a qualitative variable) and demographic characteristics, the authors used an independent samples t-test to compare the means between two-level variables. Analysis of variance (ANOVA) was employed to compare means across multi-level variables, followed by post hoc tests for pairwise comparisons. The relationship between quantitative (continuous) variables was assessed using the Pearson correlation test (or Spearman's rank correlation for non-normally distributed data). The association between qualitative (categorical) variables was examined using the Chi-square test. Finally, multiple regression analysis was utilized to achieve the primary objective of identifying prognostic variables.

The role of organizational citizenship behavior as a mediator in the relationship between compassionate care and moral distress was examined using structural equation modeling

(SEM) and Smart-PLS software. A significance level of 0.05 was considered, and several criteria were applied to evaluate the measurement model's quality: 1) Convergent validity was assessed using outer loadings of the indicators and the average variance extracted (AVE); 2) Discriminant validity was examined using the Fornell-Larcker criterion and cross-loadings; 3) Composite reliability was used to check the reliability of the constructs. Also, the coefficient of determination (R^2) and predictive relevance (Q^2) were calculated for the structural model, and hypothesis testing within the model used bootstrapping to determine significance levels and effect sizes (22).

Ethical Considerations

This research project was approved by the Ethics Committee of Shiraz University of Medical Sciences (code IR.SUMS.NUMIMG.REC.1402.076). Necessary permissions for data collection were obtained from Shiraz University of Medical Sciences. The study objectives were communicated to the participants, and written informed consent was acquired from them. Participants were assured of the confidentiality and anonymity of their information, and were also informed that their participation in the study was entirely voluntary.

Results

Out of the 310 distributed questionnaires, 300 were fully completed and included in the analysis. In terms of demographic characteristics, the majority of the nurses were women (75.3%) and unmarried (50.3%), and most were between 23 and 60 years of age. Table 1 pesents the results of the independent sample t-test and one-way ANOVA, assuming equality of variances, for the relationship between demographic variables, compassionate care, moral distress, and organizational citizenship behavior among the studied nurses.

Table 1. Relationship among scores of compassionate care, citizenship behavior and moral distress, and demographic variables

Qualitative Variables		N (%)	CCFN Mean ± SD	OCB Mean ± SD	Moral Distress Mean ± SD
Gender	Male	74 (24.7)	118.175±12.719	54.716±8.136	103.364±30.220
	Female	226 (75.3)	123.234±15.713	54.269±7.405	100.119±22.309
	P-value		0.248	0.511	0.692
Age	20 - 30	172 (57.3)	120.040±16.457	53.261±8.138	103.959±29.887
	30 - 40	84 (28)	122.738±13.040	54.690±6.226	99.345±32.097
	> 40	44 (14.7)	128.159±11.802	58.159±6.444	92.045±37.059
	P-value		**0.005	***0.001	0.074
Work Experience (Years)	1 - 10	198 (66)	120.378±16.04	53.151±7.875	103.328±29.893
	10 - 20	83 (27.7)	124.638±12.331	56.444±6.190	98.397±33.376
	20 - 30	19 (6.3)	126.777±15.618	56.879±7.374	86.500±41.802

	P-value		*0.037	***0.001	0.069
Marital Status	Married	149 (49.7)	123.530±13.289	55.449±7.182	96.389±33.925
	Single	151 (50.3)	120.463±16.723	53.324±7.835	105.390±25.030
	P-value		0.08	*0.015	*0.014
Position	Nurse	287 (95.7)	121.919±15.150	54.177±7.404	101.905±31.603
	Head nurse	13 (4.3)	123.461±16.107	58.846±10.131	79.153±574
	P-value		0.710	0.142	0.692
Education Level	Bachelor's degree	267 (83.3)	121.779±15.259	54.393±7.384	102.501±817
	Master's degree	27 (16.7)	122.111±15.663	54.481±10.043	86.814±30.964
	PhD	6 (2)	130.666±1.366	53.333±3.141	94±20.218
	P-value		0.366	0.942	*0.043
Ward	Surgical ward	140 (46.7)	195.450±17.256	53.892±7.902	99.485±33.158
	Medical ward	160 (53.3)	124.206±12.715	102.175±30.634	102.175±30.634
	P-value		0.512	0.765	0.583
Shift	Fixed morning	26 (8.7)	129.038±12.173	58.346±5.959	86.846±40.198
	Fixed evening	8 (2.7)	121.375±11.400	74.875±10.260	127.750±26.337
	Fixed night	2 (0.6)	94 ±0.001	56±0.001	122±0.001
	Rotating	264 (88)	121.522±15.261	54.174±7.500	101.333±30.551
	P-value		0.603	0.509	0.510

*$P < 0.05$, ** $P < 0.01$, *** $P < 0.001$. CCFN: compassionate care for nurses; OCB: organizational citizenship behavior; SD: standard deviation

The mean and standard deviation of the overall score for organizational citizenship behavior were 54.380 ± 7.580, the mean total for compassionate care was 121.986 ± 15.168, and the mean and standard deviation for moral distress were 100.92 ± 31.811.

The correlation matrix coefficients revealed a significant positive relationship between compassionate care and organizational citizenship behavior (r = 0.444, $P < 0.001$). Additionally, a significant negative relationship was observed between compassionate care and moral distress (r = -0.243, $P < 0.001$), as well as between organizational citizenship behavior and moral distress (r = -0.353, $P < 0.001$). The coefficients of the correlation matrix for the subscales of compassionate care, moral distress, and organizational citizenship behavior among the nurses are reported in Table 2.

Table 2. Mean, standard deviation and correlation coefficients of research variable dimensions

Variables	Total MD	Total CCFN	Total OCB
Altruism	**-0.212	**0.316	**0.758
Conscience	-0.094	**0.382	**0.669
Chivalry	**-0.394	**0.265	**0.573
Civil Behavior	**-0.251	**0.345	**0.742
Politeness and Consideration	**-0.229	**0.158	**0.619
Total OCB	**-0.353	**0.444	1
Professional Performance	**-0.143	**0.892	

Continuous Follow-Up	**-0.224	**0.918
Patient-Centered Performance	**-0.273	**0.861
Empathic Communication	**-0.253	**0.898
Total CCFN	**-0.243	1
MD Intensity	**-0.978	
MD Frequency	**-0.974	
Total MD	1	

* $P < 0.05$, ** $P < 0.01$. CCFN: compassionate care for nurses; OCB: organizational citizenship behavior; MD: moral distress; SD: standard deviation

Convergent Validity, Discriminant Validity, and Composite Reliability

The model's fit indices are reported below, followed by hypothesis testing. The conceptual model's fit was evaluated by assessing both the measurement model quality and the structural model.

1) Measurement Model Quality

In order to evaluate the quality of the measurement model, convergent validity, discriminant validity, and composite reliability were calculated (22). Outer loadings of the indicators and the Average Variance Extracted (AVE) are shown in Figure 2. In the modified model, the dimensions of politeness and sportsmanship were removed due to an AVE of less than 0.5, considering reliability. In the modified model, all outer loadings were above 0.7, and the AVE for the three variables was above 0.5, indicating acceptable convergent validity.

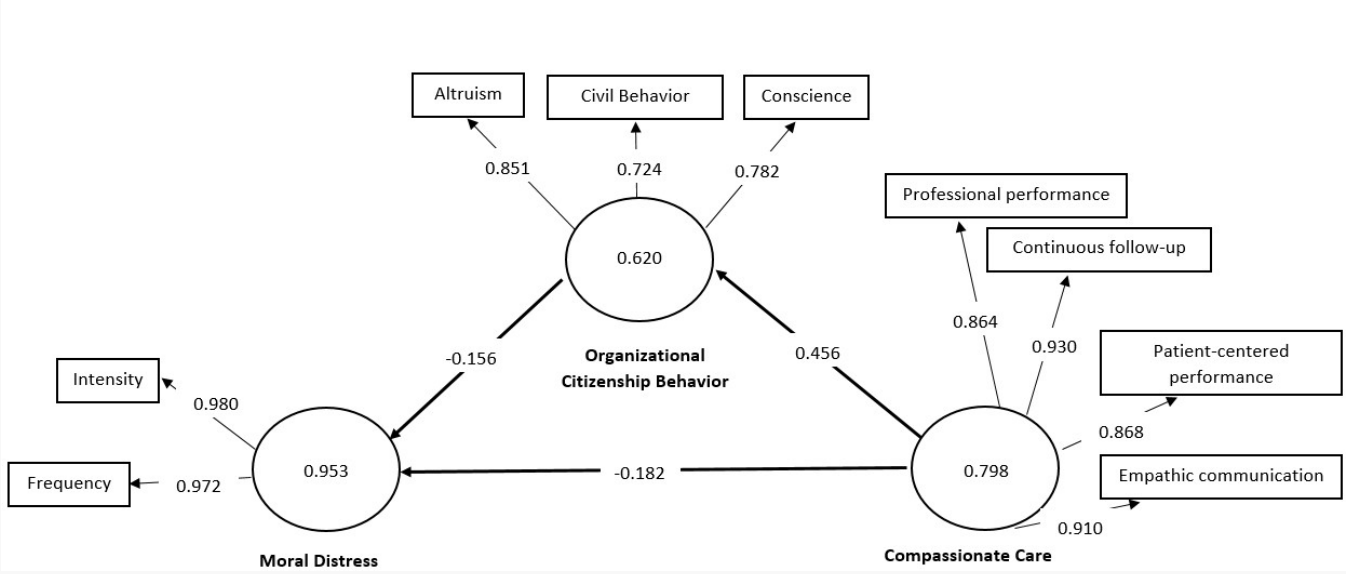


Figure 2. Outer loadings of the indicators and the Average Variance Extracted (AVE).

The cross-loading criterion shows that each factor has the highest loading on its corresponding construct (Table 3). The Fornell-Larcker criterion also indicates that the square root of the AVE for each construct is more than the highest correlation of that construct with any other construct in the model (Table 4) (23). Therefore, the presented model has adequate discriminant validity, demonstrating that the factors of one construct are distinct from those of other constructs.

Table 3. Criterion of transverse loads in structural equation modeling in nurses

Variables	CCFN	OCB	MD
Empathic Communication	0.910	0.311	-0.255
MD Frequency	-0.213	0.229	0.972
Civil Behavior	0.337	0.723	-0.250
MD Intensity	-0.275	-0.230	0.980
Professional Performance	0.863	0.365	-0.133
Patient-Centered Performance	0.868	0.332	-0.273
Altruism	0.332	0.851	-0.212
Conscience	0.393	0.782	-0.095
Continuous Follow-Up	0.930	0.398	-0.225

CCFN: compassionate care for nurses; OCB: organizational citizenship behavior; MD: moral distress; SD: standard deviation

Table 4. Fornell-Larcker criterion in modeling structural equations in nurses

Variables	Moral Distress	Organizational Citizenship Behavior	Compassionate Care for Nurses
Moral Distress	0.976		
Organizational Citizenship Behavior	-0.239	0.788	
Compassionate Care for Nurses	-0.253	0.356	0.893

The reliability of the measurement model was evaluated using Cronbach's alpha and composite reliability. An acceptable threshold for Cronbach's alpha and composite reliability is 0.70 (22). Cronbach's alpha and composite reliability were calculated as follows:

- Compassionate Care: 0.94 (composite reliability: 0.916)
- Moral Distress: 0.976 (composite reliability: 0.951)
- Organizational Citizenship Behavior: 0.830 (composite reliability: 0.750)

The measurement model is acceptable based on these reliability indices. Therefore, the reliability of the compassionate care measurement model among nurses, based on observable variables, is confirmed.

2) Structural Model

The authors used the Coefficient of Determination (R^2) and Predictive Relevance (Q^2) criteria to evaluate the structural model. For R^2, values of 0.19, 0.33, and 0.67 are considered weak, moderate, and strong, respectively (24). This criterion represents the amount of variance in the dependent variable explained by the model's independent variable. In the current study, 0.405 of the variance in organizational citizenship behavior (OCB) and 0.357 of the variance in moral distress is explained by compassionate care. These values indicate that the model has a suitable explanatory power.

In assessing the predictive relevance of the structural model, Q^2 values of 0.02, 0.15, and 0.35 are considered weak, moderate, and strong, respectively (22). At this stage the blindfolding procedure was employed, wherein parts of the data are systematically omitted, and the remaining data are used to predict the omitted values. The Q^2 criterion is based on the cross-validated redundancy and commonality of constructs and indicators, and shows the model's ability to predict outcomes effectively. The obtained Q^2 values suggest that the model has adequate predictive relevance and an acceptable fit, as demonstrated in Table 5.

Table 5. The results of the Q2 criterion for structural model variables in the modeling of structural equations in nurses

Indicators	Variables	Q2
Construct Cross-Validated Commonality	Moral distress	0.687
	Organizational citizenship behavior	0.248
	Compassionate care for nurses	0.641
Construct Cross-Validated Redundancy	Moral distress	0.151
	Organizational citizenship behavior	0.185
	Compassionate care for nurses	----
Indicator Cross-Validated Commonality	Empathic communication	----
	MD frequency	0.153
	Civil behavior	0.113
	MD intensity	0.280
	Professional performance	-----
	Patient-centered performance	-----
	Altruism	0.157
	Conscience	0.132
	Continuous follow-up	----
Indicator Cross-Validated Redundancy	Empathic communication	0.669
	MD frequency	0.714
	Civil behavior	0.175
	MD intensity	0.660

Professional performance	0.592
Patient-centered performance	0.606
Altruism	0.402
Conscience	0.246
Continuous follow-up	0.700

MD: moral distress

Hypothesis Analysis of the Proposed Model:

The proposed hypotheses for the model are as follows:

- *Main Hypothesis:* Organizational citizenship behavior (OCB) mediates the relationship between compassionate care and moral distress.
- *Specific Hypothesis 1:* There is a negative relationship between compassionate care and moral distress.
- *Specific Hypothesis 2:* There is a positive relationship between compassionate care and organizational citizenship behavior (OCB).
- *Specific Hypothesis 3:* There is a negative relationship between organizational citizenship behavior (OCB) and moral distress.

The path coefficients of the structural model were evaluated using the bootstrap procedure to test these hypotheses. The significance of the path coefficients was determined based on the beta coefficients, significance levels, and t-test statistics. If the significance value for any path exceeds 1.96, the path is considered significant at the 95% confidence level, and the related hypothesis is confirmed (22).

Table 6 shows that the mediating role of organizational citizenship behavior (OCB) in the relationship between compassionate care and moral distress is confirmed.

In direct effects, the first specific hypothesis (path of compassionate care to moral distress) indicates a significant negative relationship ($P < 0.05$). The second specific hypothesis (path of compassionate care to citizenship behavior) shows a positive and significant relationship ($P < 0.05$). Finally, the third specific hypothesis suggests a negative relationship between citizenship behavior and moral distress ($P < 0.05$). Regarding the main hypothesis in indirect effects (as can be seen in Table 6, considering that a significance level of less than 0.05 is obtained), it can be said that the mediating role of citizenship behavior in the relationship between compassionate care and moral distress is confirmed.

Table 6. Coefficients of direct and indirect effects of compassionate care and moral distress variables with citizenship behavior in the modeling of structural equations in nurses

Path	Direct Effects			Indirect Effects			Total Effect		
	Coefficient β	*P-value*	*t-statistics*	Coefficient β	*P-value*	*t-statistics*	Coefficient β	*P-value*	*t-statistics*
CCFN ---> MD	-0.182	0.013	2.961	-----	-----	-----	-0.253	0.001	5.055
CCFN ---> OCB	0.456	0.003	8.474	-----	-----	-----	0.456	0.001	8.474
OCB ---> MD	2.487	0.003	-0.156	-0.071	0.015	2.442	-0.156	0.013	2.487

P < 0.05, CCFN: compassionate care for nurses; OCB: organizational citizenship behavior; MD: moral distress

Discussion

This study aimed to determine the relationship between compassionate care and moral distress, and the mediating role of organizational citizenship behavior among nurses in Namazi and Faghihi Hospitals, Shiraz. The findings indicated that compassionate care, together with the mediating role of organizational citizenship behavior, can reduce moral distress. These results are consistent with the findings of a study by Ghafourifard et al., who suggested that compassionate care is an ethical dimension of nursing practice; they also believed one important contributing factor to organizational citizenship behavior to be the ethical foundations that, by fostering collaborative behavior, can improve organizational communication, interpersonal cooperation, and the ethical climate (25). The results of a study by Idris et al. also confirmed that nurses loyal to the organization's values and willing to go beyond their assigned duties play a crucial role in organizational effectiveness and enhance the quality of care (9). Henderson and Jones also noted in his study that nurses can improve their attitudes and behaviors by identifying their personal and professional values (26).

In explaining the mediating role of organizational citizenship behavior, it can be stated that due to its shared components of ethics and compassionate care, the organizational citizenship behavior of nurses clarifies these relational commonalities. By performing humanitarian tasks beyond their job description, nurses can provide more compassionate care for patients. Additionally, moral distress can be managed by reducing ethical conflicts and improving relationships between

nurses, patients, and other individuals within the organization.

Compassionate care has shown a positive and significant relationship with organizational citizenship behavior. This is consistent with the results of a study by Anitha and Suganthi (27) and one by Ghafourifard et al. (25). According to these researchers, the ability of nurses to provide compassionate care is affected by personal and organizational factors that either promote or hinder this form of care.

In explaining these findings, it can be stated that the health-care environment heavily relies on positive nursing behaviors, and the emotional convergence created through organizational citizenship behavior can play a significant role in improving care. A negative and significant relationship was found between organizational citizenship behavior and moral distress, indicating that the average scores of moral distress decrease as organizational citizenship behavior increases. This finding is consistent with a study by Atia and Abdelwahid in Egypt (28) and also Zarei et al. They noted that reducing moral distress and dissatisfaction in the workplace leads to better alignment among nurses and the emergence of citizenship behaviors (12). These findings suggest that through humanitarian and supportive behaviors like organizational citizenship behavior, organizational communication can be enhanced, and by improving interpersonal cooperation, moral distress can be reduced.

In the present study, the average score for organizational citizenship behavior (54.38 ± 7.58) was above the moderate level. In studies by Atia and Abdelwahid in Egypt and Hossain in Bangladesh, organizational citizenship behavior among nurses was reported to be moderate (28, 29). The level of organizational citizenship behavior among Turkish nurses in a study by Özlük and Baykal was high (30). Akira and Jatmika, however, found low levels of organizational citizenship behavior among nurses at a maternity and child hospital in Bandung, Indonesia, which is inconsistent with our study. They discovered that different job characteristics of nurses and the quality of workload can be important factors affecting organizational citizenship behavior (31). These variations in findings may be due to differences in culture and personal and social factors influencing the formation of organizational citizenship behavior.

In this study, the average score for compassionate care was calculated as 121.986 ± 15.168, indicating a high level of compassionate care among nurses. Similarly, in the study by Faghihi et al., a high level

of compassionate care was observed among nurses providing care for elderly patients with COVID-19 in hospitals in southern Iran (32). It can be stated that since compassionate care is a core value in nursing practice and is emphasized in nursing ethical codes, it provides a strong foundation for understanding this empathetic characteristic, leading to its prevalence among nurses.

The average moral distress score in the present study was 100.92 ± 31.811, which is considered low. A systematic review and meta-analysis of estimation of moral distress by Alimoradi et al. also showed a low estimated composite score. They noted, however, that although the moral distress score was not elevated, nurses in developing countries reported greater levels of moral distress compared to their counterparts in developed countries (33). In a study by Sirilla et al. nurses working in critical care, perioperative, and procedure areas reported the highest levels of moral distress (34). Lusignani et al., on the other hand, found that nurses in surgical and intensive care units experience moderate levels of moral distress (35).

To explain the findings, it can be said that organizational culture plays an important role in determining moral distress, and there is still concern about its existence in health-care systems.

One of the study's strengths is the use of structural equation modeling. However, the study also has limitations inherent to correlational studies, which do not assess causal relationships. Additionally, the study was conducted in a limited geographical area within the country, indicating the need for similar studies in other regions. In this study, the statistical population was relatively homogeneous in terms of demographic characteristics, and access to participants was easy, and therefore simple random sampling was used as the data collection method. It should be noted that this method may lead to limitations in the generalizability of the results, so it is recommended to use other random sampling methods in future research.

Potential biases of the study include the selection of the Hamric Moral Distress Scale (MDS-R), which has been carefully selected and psychometrically validated in Iran; however, the researcher who collected the data stated that there was a need to explain the items of the instrument while the nurses were completing it. Additionally, the instrument seems to be in need of further cultural adaptation for improved application within the Iranian context.

Conclusion

The findings indicate that organizational citizenship behavior has successfully mediated the relationship between compassionate care and moral distress. Therefore, compassionate care can lead to ethical decision-making by fostering the dimensions of organizational citizenship behavior. This can in turn reduce the consequences of moral distress in hospitals and enhance organizational effectiveness. It is therefore recommended that managers focus on developing compassion and providing compassionate role models in clinical settings to foster comprehensive and aesthetic care practices.

The results suggest that this model can serve as a conceptual framework for future research. It is also proposed that analysis and comparison of OCB among different hospitals be conducted by designing longitudinal and intervention studies in this field.

Some measures that managers can take to provide a work environment that fosters organizational citizenship behavior in nurses include: holding ongoing and in-service training workshops on civic behavior, sensitization of conscience, promoting altruism, and rewarding nurses who are good role models in civic behavior such as altruism and chivalry, as well as those who go above and beyond their duties.

Moreover, nursing officials' attention to the humanitarian and conscientious nature of organizational citizenship behavior can lead to better organizational communication, improved organizational planning, enhanced interpersonal collaboration, and a positive ethical climate. These achievements will directly impact nurse satisfaction, service delivery, and job commitment.

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Authors' Contributions

Hamid Reza Hamidian was in charge of collecting the data. Somayeh Mohammadi, Mostafa

Roshanzadeh and parvin ghaemmaghami provided and analyzed the data. Somayeh Mohammadi and Mahnaz Rakhshan provided the data and prepared the manuscript.

Conflict of Interests

The authors declare no conflict of interests.

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