

# Level and Influencing Factors of Clinical Nurses' Caring Behaviour in Southern China

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## ABSTRACT

A cross-sectional descriptive study was conducted to assess the level of caring behaviour among clinical nurses in Southern China and explore its influencing factors. The study was carried out in the Sixth Affiliated Hospital, South China University of Technology, Guangdong, China, from December 2022 to February 2023. A total of 537 nurses participated, and the mean scores for caring behaviour, responsibility perception, and inclusive leadership were examined. The mean score for caring behaviour among clinical nurses was  $125.25 \pm 18.31$ . The mean responsibility perception score was  $21.38 \pm 3.36$ , while the mean inclusive leadership score was  $38.04 \pm 6.56$ . Notably, the inclusive leadership questionnaire and responsibility perception showed significant positive correlations with caring behaviour ( $p < 0.01$ ). Furthermore, regression analysis indicated that inclusive leadership and responsibility perception exerted significant influences on nurses' caring behaviour ( $p < 0.01$ ). These findings underscore the importance of creating an inclusive leadership environment that enhances nurses' sense of responsibility perception in order to promote and improve nursing caring behaviour.

**Key Words:** Caring behaviour, Inclusive leadership, Responsibility perception, Influence factor, Clinic nurses.

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Caring behaviour constitutes a fundamental aspect of nursing practice, involving the active provision of care to others with emotion and a positive attitude. Watson *et al.* underscored the integration of nursing and humanistic care, asserting that the essence of nursing is rooted in affectionate interpersonal interactions.<sup>1</sup> Despite the primary focus of nursing services on administering therapeutic interventions to address patients' physiological needs, there remains a notable deficiency in emphasising psychological support and care. Consequently, it is imperative to scrutinise the current state of nurses' caring behaviour and thoroughly investigate the factors influencing it.

Inclusive leadership, defined within the nursing organisational context, represents a novel leadership model. This style of leadership acknowledges the personal needs and professional development of nurses, encouraging their full integration into healthcare organisations to enhance motivation. Responsibility perception, on the other hand, refers to the belief in fostering organisational development and goals.

Employees with a high level of responsibility perception actively engage in behaviour that benefits the organisation and exceeds their prescribed duties to contribute to attaining organisational objectives, thereby enhancing the quality of care.

This study aimed to assess the level of caring behaviour exhibited by clinical nurses in Southern China while examining the influence of inclusive leadership and responsibility perception on nurses' caring behaviour. The rationale was to provide a theoretical foundation for discussions on improving nurses' caring behaviour.

The participants in this study comprised clinical nurses from ten tertiary general hospitals located in the Southern City. The study was carried out in the Sixth Affiliated Hospital, School of Medicine, South China University of Technology, Guangdong, China. A convenient sampling method was utilised, and the study was conducted from December 2022 to February 2023. Inclusion criteria were actively practising nurses with valid registrations. Exclusion criteria encompassed nurses undergoing additional training or internship, as well as those absent from the hospital for more than six months due to external training or other reasons.

Approval for the study was obtained from the Research and Ethics Committee of the hospital (Approval No: 2022024). Participation by the nurses was entirely voluntary, with individuals providing informed consent before involvement in the study.

The research tools employed in this study encompassed four components, such as sociodemographic variables, the caring behaviour inventory (CBI), the inclusive leadership questionnaire, and the responsibility perception scale.

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**Table I: Caring behaviour scores and the relationship between dimensions and inclusive leadership and responsibility perception.**

Variable	Caring behaviour	Respect and connection	Knowledge and skills	Support and assurance
Caring behaviour	1.000	-	-	-
Inclusive leadership	0.644**	0.638**	0.616**	0.564**
Responsibility perception	0.696**	0.688**	0.655**	0.631**

\*\*Correlation is significant at the 0.01 level (2-tailed).

Specifically, the CBI comprises three dimensions: Respect and connection, knowledge and skills, and support and assurance, totalling 24 items.<sup>2</sup> Responses were recorded on a 6-point Likert scale, yielding total scores ranging from 24 to 144. Higher scores indicate a higher level of care provided by the nurse to the patient.<sup>2</sup>

The inclusive leadership questionnaire incorporates three dimensions: Openness, accessibility, and usability, encompassing a total of 9 items.<sup>3</sup> Scores on this questionnaire range from 9 to 45, providing an assessment of the inclusive leadership style exhibited by the team leader.<sup>3</sup> The responsibility perception scale, developed by Eisenberger, consists of a single dimension with 5 items, designed to evaluate employees' perceptions of responsibility towards the organisation.<sup>4</sup>

Statistical analysis was conducted using SPSS 25.0 software. Frequency and percentage were used to describe categorical data, while mean and standard deviation depicted continuous data. Group comparisons were performed using t-tests or ANOVA. Pearson's correlation analysis was employed to examine the relationship between nurses' humanistic caring behaviour and their perceptions of responsibility and inclusive leadership. Multiple linear regression analysis was used to determine the influencing factors of nurses' caring behaviour. A p-value of <0.05 was set for significance.

A total of 537 people participated in this study, with 521 valid questionnaires. Almost half of the respondents (n = 250, 48%) were between the ages of 26-35 years; 98.3% of the participants were female, and more than half of the respondents were married (n = 357, 68.5%). The vast majority of participants had a Bachelor of Science degree in nursing (n = 357, 68.5%). Nearly half of the participants had entry-level titles (n = 248, 47.6%), with the largest number coming from internal medicine (n = 176, 33.8%).

The average score of caring behaviour was  $125.25 \pm 18.31$  (range 0~144). Within this, the dimension respect and connection achieved a score of  $51.22 \pm 8.26$ , knowledge and skills scored  $26.23 \pm 3.86$ , and support and assurance scored  $47.80 \pm 6.88$ . The average score on the inclusive leadership scale was  $38.04 \pm 6.56$  (range 0~45). This comprised scores of  $12.60 \pm 2.25$  for the dimension openness,  $12.70 \pm 2.25$  for accessibility, and  $12.73 \pm 2.22$  for usability. In the responsibility perception scale, the total score was  $21.38 \pm 3.36$  (range: 0~25). Notably, the item presenting personal views to the organisation received the highest score of  $4.30 \pm 0.68$ . Inclusive leadership, responsibility perception, and caring behaviour were positively corre-

lated. The dimensions of inclusive leadership were positively correlated with caring behaviour ( $r = 0.644$ ,  $p < 0.01$ ), as was responsibility perception ( $r = 0.696$ ,  $p < 0.01$  Table I).

Multiple linear regression analysis was conducted with nurses' caring behaviour score as the dependent variable and meaningful items, responsibility perception, and inclusive leadership score as independent variables. Inclusive leadership was significantly associated with higher scores of nurses' caring behaviour ( $B = 0.243$ ,  $p < 0.001$ ). Conversely, there was a significant association between nurses' caring behaviour and responsibility perception ( $B = 0.502$ ,  $p < 0.001$ ).

The results of this study indicated that the caring behaviour score of the 521 surveyed nurses was  $125.25 \pm 18.31$ , reflecting a moderate level of caring behaviour.<sup>5</sup> Notably, the dimension of respect and connection received the lowest scores, while the dimension of support and reassurance scored the highest. These findings suggest that there is room for improvement in nurses' provision of psychological care to patients. The implementation of professional psychological care by nurses needs further enhancement.

Furthermore, the study revealed that the inclusive leadership total score was  $38.04 \pm 6.56$ , indicating a strong inclination towards inclusive leadership among the nursing leaders of the respondents.<sup>6</sup> Among the different dimensions, availability had the highest mean score, indicating that most nurses perceived robust support and assistance provided by their leaders, thereby enhancing their proactive caring behaviour.

Additionally, the nurses' perception of responsibility scored  $21.38 \pm 3.36$ . The item about presenting personal views to the organisation received the highest score, illustrating that nurses' sense of responsibility and accountability fosters their willingness to contribute to team ideas.

Moreover, the study unveiled a positive correlation between caring behaviour and inclusive leadership dimensions ( $p < 0.01$ ). This suggests that the leadership style of nursing has a direct impact on the cognitive aspects and work behaviour of clinical nurses. Inclusive leaders excel at establishing high-quality interactions with nurses, consequently enhancing their sense of psychological security and promoting caring behaviour. Given these findings, nurse administrators should acknowledge the significance of fostering inclusive leadership qualities.

This study also demonstrated a positive correlation between nurses' caring behaviour and responsibility perception ( $p < 0.01$ ). This implies that a higher level of responsibility

perception is associated with an increased level of caring behaviour. Nurses who possess a heightened sense of responsibility align their values with organisational development, translating them into caring behaviour. Consequently, this augments their motivation to provide high-quality nursing care. It is crucial for nursing managers to recognise the role of responsibility perception in enhancing the caring behaviour of nurses and acknowledge the influence of nurses' intrinsic characteristics on the implementation of humanistic caring behaviour. Based on these findings, the authors advocate for an appropriate increase in the percentage of humanistic caring behaviour in the department's quarterly assessment and the implementation of performance-based incentives to encourage nurses to engage in caring behaviour more frequently.

This study highlights that inclusive leadership and responsibility perception are critical factors influencing nurses' caring behaviour. Enhancing the caring behaviour of clinical nurses relies not only on nurses' internalised proactive behaviour but also on the adoption of suitable management measures by senior managers. Nurse managers can strengthen nurses' training in responsibility perception and foster an inclusive leadership atmosphere, which promotes nurses' commitment to their work and enhances their caring behaviour. However, it should be noted that this study has limitations as it is based on a cross-sectional survey. Therefore, future research endeavours should include longitudinal studies to record the caring behaviour of clinical nurses and to consider the influencing factors more rigorously.

#### **ETHICAL APPROVAL:**

Approval for the study was obtained from the Research and Ethics Committee of the hospital (Approval No: 2022024).

#### **PARTICIPANTS' CONSENT:**

Participation by the nurses was entirely voluntary, with individuals providing informed consent before involvement in the study.

#### **COMPETING INTEREST:**

The authors declared no conflict of interest.

#### **AUTHORS' CONTRIBUTION:**

ML: Conception, design of the work, drafting of the manuscript, and analysis and interpretation of the data.

QC: Drafting of the work, analysis, and interpretation of the data.

JX: Drafting of the work and critical revision of the important intellectual content.

QL: Conception and design of the work.

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