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#### **ABSTRACT**

**Aims:** This study aims to investigate the alignment between the expected roles of nursing assistants and their perceptions of nurses' expectations, and to explore how these perceptions relate to nursing assistants' engagement in nursing teams.

Background: The perceptions of nursing assistants regarding their roles can impact their involvement in nursing teams.

**Methods:** Data from a questionnaire survey involving 1,316 nursing assistants were analyzed.

Results: The findings reveal that nursing assistants tend to perceive their desired roles as broader and more comprehensive than what nurses expect of them. When nursing assistants perceived nurses' expectations to be higher, their desired role scores were positively associated with greater engagement in nursing teams. However, when perceptions of nurses' expectations were lower, the desired role score did not significantly impact team participation.

Conclusions: Nursing assistants often perceive their roles as encompassing more responsibilities than what nurses anticipate. This perception influences their level of engagement in nursing teams; higher perceptions of nurse expectations correlate with increased participation. Conversely, lower perceptions of nurse expectations result in lower engagement levels, despite nursing assistants' desire for greater involvement. Implications for Nursing Management: Collaborative reflection between nurses and nursing assistants on the functional roles of nursing assistants within the ward is recommended. This collaborative effort can enhance awareness of nursing assistants' roles, improve their participation in nursing teams, and optimize their professional scope.

**KEYWORDS:** cross-sectional study, nurses, nursing assistants, role perceptions, teamwork

#### INTRODUCTION

Effective teamwork between nurses and nursing assistants is crucial for delivering high-quality patient care. Each team member's contribution is vital for the overall functioning of the team, especially considering that nursing assistants directly engage in patient care within the team context (Gion & Abitz, 2019). However, there are concerns about the adequacy of nursing assistants' participation in nursing teams, as noted by Bellury et al. (2016). Inadequate participation can lead to communication challenges and hinder the sharing of crucial patient information, thereby posing risks to patient safety and the quality of care provided. Research by Bochatay et al. (2017) has highlighted the link between individuals' role perceptions and their behavior in professional practice. Therefore, understanding how nursing assistants perceive their roles is essential for ensuring their effective integration into nursing teams and their ability to contribute positively to patient care.

#### **BACKGROUND**

In nursing assistants are deployed across various healthcare settings to alleviate nurses' workloads, and their responsibilities vary based on ward functions and facility requirements. While nursing assistants do not necessarily need specific qualifications, they are expected to deliver patient care under nurses' guidance (Ministry of Health, Labour, & Welfare, 1993). However, the diverse educational backgrounds of nursing assistants pose challenges in developing educational content tailored to their needs within healthcare facilities (Takishita et al., 2019).

Internationally, nursing assistants, although not classified as healthcare professionals, play a crucial role in delivering direct patient care (Afzal et al., 2018; Blay & Roche, 2020; Lancaster et al., 2015; Munn et al., 2013). Their roles are typically defined by institutionalized job descriptions, and studies have examined these roles primarily based on assigned tasks. Research has shown disparities in the perceptions of roles between nurses and nursing assistants (Munn et al., 2013). Nursing assistants often desire to contribute to patient recovery but perceive that nurses may not expect them to fulfill such roles (Lancaster et al., 2015). Understanding how nursing assistants perceive their roles within the context of ward functions and patient needs is crucial for promoting cohesive teamwork between nurses and nursing assistants.

Parasuraman et al. (1991) introduced a gap model to measure expectations and perceptions, highlighting the disparity between consumer expectations and management's perception of those expectations in marketing research. Similarly, Al-Momani (2016) revealed gaps between patients' expectations and their perceptions of actual nursing care, suggesting areas for improving nurses' attitudes toward care delivery. Examining these gaps from dual perspectives can offer valuable insights.

Nursing assistants come from diverse educational backgrounds, ranging from certified care worker qualifications to experience in nursing homes, or neither (Hayakawa, 2014). Each nursing assistant's perception of their expected roles by nurses may vary based on individual backgrounds and the facilities they work in. Abrahamson et al. (2019) found that nursing assistants in nursing homes perceive themselves as playing a crucial role in patient experiences but are aware of boundaries set by nurses. This discrepancy between desired and expected roles forms the basis of the following hypotheses:

H1: Nursing assistants' perceptions of their desired roles are stronger and more positive than their perceptions of the roles expected by nurses. H2: Nursing assistants' perceptions of their desired roles are positively correlated with their level of participation in the nursing team. H3: Nursing assistants' perceptions of the roles expected by nurses are positively associated with their level of participation in the nursing team. H4: The association between nursing assistants' perceptions of their desired roles and their participation in the nursing team varies based on their perceptions of the roles expected by nurses.

This study aims to (a) assess the strength of nursing assistants' perceptions regarding their desired roles compared to roles expected by nurses, (b) explore the relationship between nursing assistants' role perceptions and their participation in the nursing team, and (c) investigate how nursing assistants' perceptions of roles expected by nurses moderate the relationship between their desired roles and participation in the nursing team.

#### **METHODS**

**Study Design** This research constitutes a secondary analysis of a cross-sectional study employing an anonymous self-administered questionnaire.

Setting and Participants The study focused on integrated community care wards catering to patients needing rehabilitation, disease management, or acute treatment (Ministry of Health, Labour, & Welfare, 2016). These wards primarily assist patients with daily activities who plan to return home or transition to nursing homes. The participants included all nursing assistants working in randomly selected integrated community care wards.

A cross-sectional study conducted in 2017 encompassed integrated community care wards, where nursing assistants play a direct role in patient care. The average staffing ratio in these wards is 6.6 nursing assistants to 19.2 nurses). Out of 1,860 hospitals, 660 were randomly chosen based on facility reports. Each hospital featured at least one integrated community care ward. Participation letters were sent to nursing department directors of 185 hospitals (194 wards), with 28.0% agreeing to partake. Self-administered paper

questionnaires were distributed to 1,316 nursing assistants across these wards, yielding 1,089 responses (82.8% response rate). G\*Power software determined the adequate sample size, ensuring statistical validity for multiple regression analysis.

#### **MEASURES**

**Nursing Assistant Role Perceptions** To gauge nursing assistants' role perceptions, we utilized the Nursing Assistant Role Perception Scale (Saiki et al., 2019). This scale assesses their perceptions of functional roles in patient recovery, distinct from daily tasks in job descriptions. It includes four subscales with 16 items, addressing desired roles and roles expected by nurses. Responses on a 5-point Likert scale ranged from 1 ("I do not think so") to 5 ("I think so"), yielding average scores for each subscale. Cronbach's alphas ranged from 0.76 to 0.83 in this study.

**Participation in the Nursing Team** The "achievement of/cooperation on team goals" subscale from a care workers' job competence scale in nursing homes (Mibu & Kamba, 2013) assessed participation in the nursing team. This subscale, comprising two items on a 5-point Likert scale, measured satisfaction with team goals achievement and collaboration. The scale score was the mean of these items, demonstrating good internal consistency (Cronbach's alpha = 0.81).

**Demographic Data** Demographic information collected included age, gender, marital status, employment status, qualifications, and experience in the ward and hospital.

# **Statistical Analysis**

We initiated descriptive analyses to characterize participants and conducted bivariate analyses. To evaluate differences between nursing assistants' perceptions of desired roles and nurses' expectations, we employed paired t-tests for each subscale and the overall scale score. Effect sizes were interpreted based on Cohen's criteria (1988): 0.2 = small, 0.5 = medium, and 0.8 = large.

Hierarchical multiple regression analysis explored the association between nursing assistants' role perceptions and their participation in the nursing team, considering the moderating effect of nurses' expectations. Due to correlated subscales, we summed them to prevent multicollinearity. The regression model included control variables (qualifications, years of experience), perceptions of desired roles, perceptions of expected roles, and the interaction between these perceptions. Mean centering was applied to mitigate multicollinearity from the interaction term.

R Studio version 3.5.1 (R Core Team, 2019), along with the MBESS (Kelley, 2018) and 'Pequod' (Mirisola & Seta, 2016) packages, facilitated paired t-tests and hierarchical multiple regression. Significance was set at p < .05.

# **Ethical Considerations**

This study, approved by the relevant university's ethics committee, utilized 2017 data to explore nursenursing assistant collaboration. The research aimed to assess the impact of role perceptions on collaboration outcomes. Participants provided consent, and an opt-out option was available. Only responses from consenting participants were analyzed.

# **RESULTS**

# Participant Data

Out of 1,316 nursing assistants across 182 hospitals, 1,089 responded (response rate 82.8%). On average, each ward had approximately 6.8 nursing assistants distributed and 6.0 collected. Data from 856 respondents with complete survey responses were analyzed (valid response rate 65.0%).

Differences in Perceptions

Statistically significant differences were found between nursing assistants' desired roles and nurses' expectations across all four subscales (p < .001). The former consistently scored higher, with mean differences per subscale ranging from 0.23 to 0.34. Effect sizes varied from 0.35 to 0.53.

Relationship with Nursing Team Participation

Hierarchical multiple regression revealed a positive relationship between nursing assistants' desired roles and nursing team participation ( $b^* = 0.27$ , p < .001). Nurses' expectations of nursing assistants' roles also positively related to team participation ( $b^* = 0.25$ , p < .001). Even after accounting for nurses' expectations,

nursing assistants' desired roles remained significantly associated with team participation ( $b^* = 0.10$ , p = .031).

In the moderating analysis (step four), the interaction between nursing assistants' desired roles and nurses' expectations significantly influenced team participation ( $b^* = 0.08$ , p = .014). Simple slope analysis indicated that when nurses had high expectations of nursing assistants, there was a significant positive relationship between desired roles and team participation (b = 0.22, p = .001). However, when nurses' expectations were low, this relationship was not significant (b = 0.06, n.s.).

#### **DISCUSSION**

# Nursing Assistants' Perceptions of Roles

The study found that nursing assistants generally had high perceptions of both their desired roles and the roles nurses expected of them. However, their perceptions of desired roles were even higher, indicating a discrepancy between what nursing assistants wished to do and what nurses anticipated from them. This aligns with existing literature suggesting that many nursing assistants are motivated by a desire to contribute meaningfully to patient care, fostering strong perceptions of their desired roles from the start of their careers. Additionally, close patient interactions and daily caregiving activities may contribute to nursing assistants' elevated perceptions of their desired roles compared to nurses' expectations. (Abrahamson et al., 2019)

# Relationship with Team Participation

The analysis revealed a positive relationship between nursing assistants' perceptions of their desired roles and their participation in the nursing team. This suggests that nursing assistants who aspire to play specific roles are more likely to actively engage in team activities, aiming to enhance patient care. Furthermore, when nurses also acknowledge and expect these roles from nursing assistants, it reinforces their sense of belonging and motivates greater participation in team-based care. (Afzal et al., 2018)

# Moderating Effect of Nurses' Expectations

The study highlighted the moderating effect of nurses' expectations on nursing assistants' role perceptions and team participation. For nursing assistants with low perceptions of nurses' expectations, there was no significant relationship between their desired roles and team participation. This underscores the importance of clear communication and mutual understanding between nurses and nursing assistants. When nursing assistants perceive that nurses expect them to fulfill certain roles within the team, they are more likely to actively contribute to patient care and engage in collaborative efforts. (Gion & Abitz, 2019)

# Implications for Practice

These findings underscore the significance of aligning role perceptions between nurses and nursing assistants to optimize team dynamics and patient outcomes. Enhancing communication and fostering mutual understanding regarding role expectations can lead to increased job satisfaction among nursing assistants. Moreover, reviewing job descriptions and establishing consensus on nursing assistants' functional roles can further optimize their scope of practice, contributing to a more cohesive and effective healthcare team. (Gray et al., 2016)

#### Limitations:

- 1. The study only assessed nursing assistants' perceptions of their roles and did not measure nurses' perceptions, leaving uncertainty about how nurses view nursing assistants' roles.
- 2. Desirability bias could have influenced responses regarding nursing assistants' role perceptions and team participation.
- 3. Common method bias might be present due to using the same items for two aspects of nursing assistants' role perceptions and the cross-sectional data collection.
- 4. This study is a secondary analysis based on data from the original study, limiting the scope of analysis.
- 5. The explanatory power of nursing assistants' role perceptions in explaining their team participation was relatively low at around 12%, indicating other factors such as personal characteristics, organizational culture, and relationships with nurses could also play significant roles.

#### **CONCLUSION:**

The study suggests that nursing assistants often perceive their desired roles more positively than the roles expected by nurses, with significant implications for their team participation. When nursing assistants believe that nurses have high expectations of them, they tend to participate more actively in the team. Conversely, low expectations from nurses can hinder nursing assistants' performance, despite their desire to contribute more.

# Implications for Nursing Management:

Nurse managers play a crucial role in creating educational systems and work environments that empower nursing assistants to feel confident and valued. Encouraging nurses to understand and express clear role expectations for nursing assistants can enhance team dynamics and optimize their scope of practice. Collaborative reflection between nurses and nursing assistants can foster awareness of each other's roles, leading to improved teamwork and patient care outcomes.

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