Exploring Clinical Leadership, Predictive Factors, and Its Impact on Retention Among Dutch Staff Nurses: A Cross-Sectional Survey

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Abstract

This is a cross-sectional study into the clinical leadership behaviours of Dutch staff nurses, predictive factors, and their association with job satisfaction and nurse retention. The issue of nursing turnover is a serious worldwide concern that affects healthcare organisations in many ways. While there appears to be an association between clinical leadership and retention, as far as we know, there has not been any Dutch research conducted on this topic. This study aims to assess the current level of clinical leadership among Dutch staff nurses. Furthermore, it examines the potential impact of demographic and job-related variables on clinical leadership. Finally, it examines the suggested relationship between clinical leadership, job satisfaction and retention among Dutch staff nurses. A cross-sectional survey was conducted among Dutch staff nurses (n = 71) to measure demographic and job-related characteristics, clinical leadership behaviours, self-perceived clinical leadership, job satisfaction and retention. The results suggest relatively high scores of clinical leadership among Dutch staff nurses, consistent with previous research in this population, yet notably lower compared to American nurses. Regarding demographic and job-related characteristics, only experience appears to be linked to self-perceived leadership. Interestingly, no direct correlation was observed between clinical leadership and retention. However, an indirect relationship was identified between clinical leadership and retention, mediated by job satisfaction. These results suggest that improving clinical leadership might not be the best method to improve nurse retention. Job satisfaction seems to be more important. Therefore, understanding the nuances of job satisfaction among Dutch staff nurses is advised.

Contents

Introduction

Nursing turnover rates are a pressing global problem with multifaceted implications for healthcare organisations. Defined as the departure of nurses from their current position or the healthcare industry altogether (Pressley & Garside, 2023), turnover poses significant challenges to organisational stability due to the shortage of skilled nurses (Antwi & Bowblis, 2018; Cox et al., 2014; Hong & Yoon, 2021). As a result, high turnover rates place a significant financial strain on healthcare organisations, as evidenced by increased recruitment expenses and decreased operational efficiency (Alreshidi et al., 2021; Pressley & Garside, 2023). Furthermore, the resulting shortages exacerbate existing pressures on healthcare staff (Buchan et al., 2022; Pressley & Garside, 2023), compromising patient safety and standards of care (Aiken & Fagin, 2018; Antwi & Bowblis, 2018). In short, nursing turnover is a problem with a substantial impact on the patients, nurses and the organisation.

Several factors contribute to nurse turnover. These factors include working overtime, inadequate resources, and organisational factors such as low salaries and unsatisfactory working conditions (Brewer et al., 2012; Hong & Yoon, 2021). Demographic variables such as younger age, male gender, fewer years of experience and a lower education level were also identified as turnover risk factors (Wu et al., 2024). Factors associated with the reduction of turnover include job satisfaction and organisational commitment among nurses (Pressley & Garside, 2023). In short, several factors are identified to influence nurse turnover.

One of the factors that may play a significant role in nurses' job satisfaction and their intention to stay is their sense of 'clinical leadership'. Clinical Leadership has become a widely embraced and common topic in nursing literature, even though it still lacks a universally recognised and agreed-upon definition. Malby (1998) introduced the term 'clinical leadership' to distinguish between the leadership shown by staff nurses in direct patient care and that of nurses in administrative roles. This was beneficial given the growing necessity for leadership skills for staff nurses due to the increasing complexity of healthcare settings (Daly et al., 2014). Bedside nurses hold an important position in observing issues, motivating the rest of the care team to respond, and leading efforts to tackle emerging challenges within the clinical setting (Otait, 2023). Following the initial introduction of the concept, subsequent literature has extensively relied on Cook's (2001) and Stanley's (2006) publications to elaborate and define the evolving scope of clinical leadership (Stanley & Stanley, 2018). Cook (2001) defined clinical leaders as nurses who actively participate in providing clinical care, who consistently enhance patient care, and who have a positive impact on others, while Stanley (2006, 2014) defined clinical leaders as actively involved in care delivery, embodying

notable, adept, and skilled practices, serving as sources of inspiration and motivation for their colleagues. This study will adopt the following definition, which aligns with the definitions outlined by Cook (2001) and Stanley (2006): "nurses who are directly involved in providing nursing care at the bedside and who exert influence on health care team colleagues to achieve positive patient outcomes, even though no formal authority has been vested in them" (Chávez & Yoder, 2014; Patrick et al., 2011). Overall, despite a generally agreed-upon definition, clinical leadership is a prominent topic in nursing literature.

Clinical leadership can be divided into five essential practices that are based on transformational leadership principles: challenging the process, inspiring a shared vision, modelling the way, empowering others to act, and encouraging the heart, where each is associated with specific observable behaviours or activities (Kouzes & Posner, 1995). Patrick et al. (2011) argue that these leadership practices apply to the practice behaviour of staff nurses. 'Challenging the process' involves seeking opportunities for change and questioning the status quo. An example of this practice is nurses taking risks by asking questions about the treatment plan when concerned about the patient's well-being (Patrick et al., 2011). 'Inspiring a shared vision' entails positive communication and fosters a sense of shared purpose. For example, this entails negotiating with and supporting the multidisciplinary team to facilitate patients' reaching their goals (Patrick et al., 2011). 'Modelling the way' involves leading by example and clarifying values. An example of this practice is making sure they set and reach realistic, measurable targets aimed at improving clinical outcomes (Patrick et al., 2011). 'Enabling others to act' involves fostering collaboration and sharing information. To illustrate, this involves nurses building relationships so that colleagues want to collaborate with them (Patrick et al., 2011). Finally, 'encouraging the heart' involves recognising contributions and celebrating achievements. For example, nurses publicly express appreciation for colleagues who serve as examples of dedication to professional values (Patrick et al., 2011). In conclusion, clinical practice encompasses multiple practices that can be observed through certain behaviours. Still, it remains unclear how these practices are represented among Dutch staff nurses.

Only a few studies have examined clinical leadership skills among Dutch nurses. A comprehensive qualitative study of how nurses at a Dutch top clinical hospital perceive, experience and assess their leadership skills was recently conducted by van der Cingel et al. (2022). They underscore the significance of leadership skills but also found that many nurses do not feel competent. The nurses in their study indicated that factors such as reflection and team safety supported the demonstration of leadership skills, while insufficient self-

confidence, low self-esteem, work pressure and lack of knowledge were seen as obstructive (Van Der Cingel et al., 2022). Another Dutch study, a cross-sectional study by Braam et al. (2023) on comparisons and contrasts in clinical leadership behaviours of nurses and physicians, describes that given their extensive and direct interactions with patients, it appears inevitable for nurses in hospitals to assume the role of clinical leaders. Nonetheless, they conclude that nurses do not often perceive themselves as clinical leaders, even when they exhibit appropriate behaviours. In short, Dutch staff nurses do not seem to perceive themselves as clinical leaders, which contradicts the higher level of self-reported clinical leadership behaviours.

Clinical leadership among staff nurses has been shown to be associated with various benefits. To illustrate, clinical leadership is linked to improving team performance (O'Donovan et al., 2021) and care quality, safety, and effectiveness (Casey et al., 2011; Patrick et al., 2011). Research into the role of clinical leadership of staff nurses on job satisfaction or retention rates is less common, although some studies suggest that there is a positive relationship. However, the existing literature often focuses on clinical leadership among nurses with formal authority, or it is ambiguous whether the nurses studied hold formal leadership positions. Despite this ambiguity, there is evidence to suggest that enhancing leadership among staff nurses can positively impact retention. To illustrate, a study by Abraham (2011) demonstrated improved retention rates of nurses who participated in a program aimed at developing their leadership capabilities. Specifically, the retention rate of the program participants was compared with that of the general nursing population, revealing a 100% retention rate among the participants. Similarly, Smith and Dabbs (2007) reported a decrease in staff turnover following the implementation of a new care delivery model in preparation for the clinical nurse leader role. Regarding job satisfaction, Boamah (2018), in a Canadian study, reported a weak positive correlation between clinical leadership and job satisfaction. While, a recent Dutch study showed no significant correlation (Braam et al., 2023). Recognising that clinical leadership has the potential to enhance job satisfaction and that both factors potentially contribute to improved nurse retention (Abraham, 2011; Boamah, 2018; Smith & Dabbs, 2007), job satisfaction may act as a mediator in the relationship between clinical leadership and retention. Finally, given the apparent discrepancy between reported clinical leadership behaviours and self-perceived clinical leadership (Braam et al., 2023; Van Der Cingel et al., 2022), it remains unclear how each of these variables individually relates to job satisfaction and retention and whether these relationships differ. In conclusion, although some studies have examined the relationship between clinical leadership

skills among staff nurses, job satisfaction and retention, to our knowledge, there has not been any prior Dutch research on this topic.

To influence clinical leadership among Dutch staff nurses effectively, understanding its associated factors is important. Drawing insights from international studies, factors such as experience, educational attainment, and gender have been identified as correlating with clinical leadership. It is commonly posited that heightened levels of experience and education correlate with increased clinical leadership proficiency (Cummings et al., 2008). Age may similarly play a role in this regard. However, gender presents a more nuanced picture, with divergent findings across studies. Some studies suggest that female nurses exhibit stronger leadership abilities (Cummings et al., 2008; Mrayyan et al., 2023), whereas Masanotti et al. (2020) indicate comparable strengths among male nurses. Whether these conclusions also apply to Dutch nurses remains uncertain. Understanding the demographic and job-related factors influencing clinical leadership among staff nurses is useful for a more comprehensive understanding of clinical leadership within the context of Dutch hospitals.

In summary, nurse retention is a widespread global challenge, with potential solutions suggesting that clinical leadership among staff nurses without formal authority could be conducive to addressing both retention and job satisfaction. However, the current body of Dutch research concerning this is limited, and it is not clear to what extent results from foreign studies also apply to the Dutch situation. Moreover, research on the relative impact of the separate components of clinical leadership (challenging the process, inspiring a shared vision, modelling the way, empowering others to act, and encouraging the heart) on retention and job satisfaction is missing. Yet, in order to improve job satisfaction and reduce turnover, it may be relevant to know which of the five clinical leadership behaviours is most strongly related to nurses' job satisfaction and intention to stay. Furthermore, there remains uncertainty regarding which demographic and job-related characteristics might serve as predictors of nurses' clinical leadership skills. Finally, this study aims to investigate the relationship between clinical leadership, encompassing both reported clinical leadership behaviours and self-perceived clinical leadership, job satisfaction, and retention among staff nurses without formal authority in a Dutch hospital, while also exploring the potential mediation of job satisfaction between clinical leadership and intention to stay. Therefore, the research questions for this purpose are formulated as follows:

1. What is the extent of clinical leadership, including both (specific) clinical leadership behaviours and self-perceived clinical leadership, among Dutch staff nurses without formal authority?

2. To what extent are demographic or job-related characteristics associated with clinical leadership behaviours and the self-perceived clinical leadership of Dutch staff nurses?

3. How does clinical leadership, including both clinical leadership behaviours and self-perceived clinical leadership, correlate with staff nurses' job satisfaction and retention?

    3.1 Does job satisfaction mediate the relationship between clinical leadership skills, including both clinical leadership behaviours and self-perceived clinical leadership, and staff nurses' intention to stay in their current position?

Methods

Design

The study employed a cross-sectional survey conducted within a Dutch hospital to explore the leadership competencies among staff nurses. This study is part of a larger study by this hospital regarding the enhancement of leadership skills, specifically focusing on the ability of staff nurses to provide care from a Positive Health perspective. By examining the relationship between leadership levels among staff nurses, background variables, job satisfaction and retention, the study sought to provide insight into the predictive factors and effects of leadership skills to promote nurse retention.

Participants and procedures

Participants were recruited from nursing departments of a Dutch hospital. Nine departments registered to participate. An email invitation containing a direct link to the survey was dispatched to the department managers of the participating departments, asking them to forward it to the nurses in their departments. The inclusion criteria for selecting the participants included Dutch nurses aged 18 years and older with valid BIG registration.

All participants were asked to complete an online self-reported cross-sectional survey. Before the study commenced, ethical clearance was obtained from the Ethics Committee Behavioural, Management and Social Sciences (BMS) of the University of Twente and the local feasibility committee non-WMO of Medisch Spectrum Twente (MST). Potential participants were sent an email invitation to participate in the online survey using Enalyzer. All participants were informed that the online survey pertained to their self-perceived leadership, job satisfaction and intention to stay. Moreover, they were informed about confidentiality and other necessary information to obtain informed consent. Following the

acquisition of active online consent, they could start the questionnaire. First, the participants were asked demographic and job-related questions regarding age, gender, education level and years of experience. Then, the participants were asked to complete the 14-item CLS, a two-item global leadership scale, a single item about job satisfaction and lastly, a single item about their intention to stay.

Instruments

Demographic and job-related variables

Personal background variables were measured by asking participants for information about their gender, age, education level, current work experience, total experience in a similar role and department. See Appendix A for the exact wording of questions and answer options.

Clinical leadership

Clinical leadership was evaluated using the Clinical Leadership Scale (CLS) (Patrick et al., 2011), which was translated into Dutch by Braam et al. (2023b). The CLS is based on Kouzes and Posner's transformational leadership model, which has been modified to encompass general clinical leadership practices and situations (1995). The CLS is a 15-item self-report measure of transformational leadership behaviours, categorised into five subscales, each consisting of three items: challenging the process, inspiring a shared vision, modelling the way, enabling others to act, and encouraging the heart.

Respondents rate each item on a five-point Likert scale, where a rating of 1 (strongly disagree) represents the lowest score, and a rating of 5 (strongly agree) represents the highest score of leadership. An example item is "I provide positive feedback to colleagues when their actions contribute to the wellbeing of patients and their families". The total clinical leadership score varies between 15 and 75 points, with elevated scores signifying more self-reported leadership behaviour. Past studies have demonstrated that the CLS had a Cronbach's alpha of .86, with subscale alphas ranging from .64 to .78 (Patrick et al., 2011). The translated Dutch version of the CLS showed a sufficient Cronbach's alpha of .79 for the overall scale (Braam et al., 2023). In this study, the CLS demonstrated good reliability with a Cronbach's alpha of .83. When dividing the CLS into subscales, the alphas for three subscales, 2. 'inspiring a shared vision' ($\alpha = .58$), 3. 'enabling others to act' ($\alpha = .51.$) and 4. 'modelling the way' ($\alpha = .61$) ranged from poor to questionable, falling below the threshold of .70. Despite the suboptimal alpha values, the decision was made to sum the subscale scores, based on the consideration that the subscale items continued to contribute to measuring the intended constructs and shared a certain amount of variance, which were deemed beneficial to obtain a

more extensive understanding of the construct of clinical leadership. Recognising these limitations when interpreting the summated scores derived from these subscales is important.

In addition to the CLS reflecting transformational leadership behaviours, a two-item global leadership scale was used to assess the degree to which participants viewed themselves as leaders in their clinical practice. The global leadership scale asks participants to score the following on a five-point Likert scale: (a) the degree to which they viewed themselves as leaders; and (b) the degree to which they believe they demonstrated leader behaviour in their clinical practice. The lowest perceived leadership score is represented by a rating of 1 (strongly disagree), and the highest score is represented by a rating of 5 (strongly agree). The total global leadership score, which is the sum of the two items and ranges from 2 to 10, indicates the degree to which participants perceived themselves as leaders in their clinical practice. The two-item global leadership scale was reported to have a Cronbach's alpha of .78 (Patrick et al., 2011). In a previous study, the items translated into Dutch exhibited a good Cronbach's alpha of .86 (Braam et al., 2023). In this study, the GLS showed good reliability with a Cronbach's alpha of .86.

Job Satisfaction

Nurses' job satisfaction was assessed using a single-item measure: "Taking everything into consideration, how do you feel about your job as a whole?". Respondents were asked to indicate their satisfaction level regarding their current nursing job on a seven-point Likert scale from 1 (extremely dissatisfied) to 7 (extremely satisfied). The use of a single item was chosen because previous studies have indicated its preference over a sum of items for assessing job satisfaction. This preference stems from the recognition that multiple items cannot adequately capture the diverse variables influencing job satisfaction. Furthermore, the single-item measure has demonstrated good reliability and validity (Dolbier, 2005).

Retention

A single-item measure of intent to stay was used. Nurses were asked to rate their intention to leave on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The item is "I intend to stay in this organisation for the next 12 months". The choice for a single item was based on the strong predictive quality of intent to stay for retention (Cardiff et al., 2023) and the suggestion to use a single-item format to alleviate the burden of a questionnaire, especially combined with other concepts of measurement (Zúñiga et al., 2019).

Analysis

To assess the demographic and job characteristics of the participants (including gender, age, education and work experience), descriptive statistics (means, standard

deviations, percentages and frequencies) were used. The same descriptive statistics were used to assess the clinical leadership of the staff nurses. Moreover, scores from a Dutch study (Braam et al., 2023) and an American source (Proud, 2018) were utilised for comparison purposes due to the absence of specific norm scores for the CLS and GLS. This allowed for a comparative framework in analysing whether observed scores are general or specific to the Dutch population. A one-sample t-test was employed to analyse whether the mean of this study sample significantly differed from the scores obtained in the comparison studies. Next, Cramer's V is used to assess the strength of the association between the nominal demographic variable education and clinical leadership. Then, a Spearman correlation analysis was performed to assess if demographic or job-related characteristics can explain clinical leadership. Additionally, it was used to determine the correlation between the main study variables, clinical leadership, job satisfaction, and retention, to describe the strength and direction of the association. Finally, to examine if job satisfaction mediates the relationship between clinical leadership and retention, a mediation analysis was conducted using Model 4 within PROCESS V 4.3 (Hayes, 2018). The data analysis was performed with IBM SPSS Statistics V 27.0. A statistically significant result was defined as a two-tailed P value <0.05.

Results

Demographic and job-related characteristics

The characteristics of the nurses in the study sample are presented in Table 1. Out of a total of 674 nurses who were sent an email about the survey, 107 nurses started the survey, and 71 completed it, yielding a response rate of 11%. Gender distribution shows predominantly female participants. The table illustrates the distribution of participants across different age groups, with the majority of participants aged between <30 and 40 years (62%). Regarding education level, there is an even distribution among the different categories. Finally, the table shows that most participants have worked over five years in their current position and have worked over ten years in a similar function.

Table 1

Descriptive Statistics of Background Characteristics of Staff Nurses (N=71)

Characteristics	Categories	n	Per cent
Gender	Male	8	12%
	Female	63	89%
Age	< 30 years	22	31%
	31 – 40 years	22	31%
	41– 50 years	11	16%
	51–60 years	15	21%
	>60 years	1	1%
Education	Inservice opleiding (A, B, Z)	6	9%
	Mbo (niveau 4)	18	25%
	Hbo (niveau 5 & 6)	47	66%
Experience Current Position	< 1 year	8	11%
	1–3 years	13	18%
	3–5 years	11	16%
	>5 years	39	55%
Total Experience Similar Position	<1 year	3	4%
	1–3 years	10	14%
	3–5 years	7	10%
	5–10 years	12	17%
	> 10 years	39	55%

Clinical leadership

Table 2 summarises the means, standard deviations, and scores obtained from previous studies of the Clinical Leadership Scale (CLS), its subscales and the Global Leadership Scale (GLS). The respondents in this study indicated relatively high clinical leadership scores, with a rating of 4.1 on a scale from 1 to 5. Interestingly, this score is equal to the mean score in the Dutch study but significantly lower than the mean score in the American study. Examining specific behaviours of clinical leadership, respondents consistently reported high levels across all practices, particularly demonstrating behaviours aligned with 'modelling the way' and less frequently with 'encouraging the heart'. Compared to the American mean scores, participants in this study reported significantly fewer instances of 'encouraging the heart' and 'challenging the process'. In terms of self-perceived leadership, respondents expressed a moderate level of confidence. Notably, compared to the Dutch mean score, participants in this study showed significantly higher perceptions of their leadership abilities.

Table 2

Descriptives and scores obtained from previous studies for CLS and GLS

Scale	Scale[a]	Items	Mean	SD	Mean US study	Mean Dutch study
Clinical Leadership Survey (CLS)	1-5	14	4.1	0.4	4.4**	4.1
1. challenging the process	1-5	3	4.2	0.6	4.6**	-
2. inspiring a shared vision	1-5	2	4.3	0.5	4.3	-
3. enabling others to act	1-5	3	4.3	0.6	4.5	-
4. modelling the way	1-5	3	4.4	0.4	4.6	-
5. encouraging the heart	1-5	3	3.6	0.6	4.1**	-
Self-perceived leadership (GLS)	1-5	2	3.4	0.8	-	3.0**

Note. Differences were tested with a one-sample t-test, * = $p < .05$, ** $p < .01$. Data for the Mean US study were obtained from Proud (2018), and data for the Mean Dutch study were obtained from Braam et al. (2023).

[a] The scale anchors ranged from 1 (strongly disagree) to 5 (strongly agree).

Demographic and job-related characteristics

Table 3 presents the Spearman correlations between clinical leadership, age and experience. The associations between clinical leadership and the categorical variable education, as determined by Cramer's V, are displayed in Appendix B, Table B1. Interestingly, no significant correlations were found between clinical leadership behaviours and the demographic or job-related variables. Similarly, there were no significant correlations between self-perceived leadership and gender or education. However, self-perceived leadership had a significant, weak positive correlation with age and a moderate positive relationship with experience.

Table 3

Spearman Correlations Between Clinical Leadership, Gender, Age and Experience

	Gender	Age	Years of experience in current function	Years of experience (total)
Clinical leadership behaviours (CLS)	.08	-.04	-.08	.01
1. challenging the process	-.08	.03	-.04	-.02
2. enabling others to act	.16	.16	.05	.14
3. inspiring a shared vision	.08	-.14	-.04	-.01
4. modelling the way	.04	-.02	-.06	.04
5. encouraging the heart	.11	-.08	-.19	-.11
Self-perceived leadership (GLS)	-.06	.25*	.32**	.35**

Note. $^{*}p < .05$. $^{**}p < .01$.

Clinical leadership, job satisfaction and retention

The correlations between clinical leadership, job satisfaction and retention are displayed in Table 4. There was a significant weak positive correlation between clinical leadership behaviours and job satisfaction. Interestingly, there was no significant correlation between clinical leadership behaviours and retention. Similarly, when looking at the different behaviours of clinical leadership, none of them significantly correlated with retention, but 'inspiring a shared vision', 'enabling others to act' and 'encouraging the heart' had a significantly weak positive correlation with job satisfaction. Furthermore, there was a weak positive correlation between self-perceived leadership and job satisfaction, but there was no significant correlation between self-perceived leadership and retention. Finally, there was a moderate positive correlation between clinical leadership behaviours and self-perceived clinical leadership, with a Spearman's rank correlation coefficient of $r(69) = .47$, $p < .001$. Similarly, job satisfaction and retention are moderately positively correlated, with $r(69) = .41$, $p < .001$, suggesting that higher job satisfaction is associated with higher retention rates.

Table 4

Spearman Correlations Between Clinical Leadership, Job Satisfaction and Retention

	Job Satisfaction	Retention
Clinical leadership behaviours (CLS)	.29*	.15
Challenging the process	.18	.14
Inspiring a shared vision	.24*	.13
Enabling others to act	.26*	.21
Modelling the way	.08	.02
Encouraging the heart	.29*	.09
Self-perceived leadership (GLS)	.29*	.00

Note. *$p < .05$. **$p < .01$.

The mediating role of job satisfaction on the relationship between clinical leadership behaviours and retention was assessed (see Figure 1). The results revealed a significant indirect effect of the impact of clinical leadership behaviours on retention (b=0.40, 95% CI [0.00, 0.06]). Furthermore, the direct effect of clinical leadership behaviours on retention was not found to be significant. Therefore, job satisfaction fully mediated the relationship between clinical leadership behaviours and retention.

Figure 1

Simple mediation model for the relationship between Clinical Leadership Behaviours and Retention as mediated by Job Satisfaction (N=71)
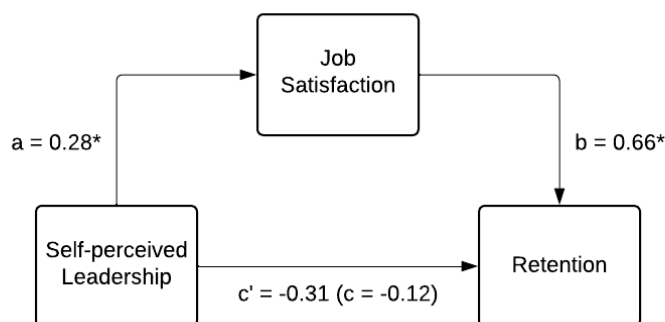

Note. $^{*}p < .05.$ $^{**}p < .01.$

Additionally, the mediating role of job satisfaction on the relationship between self-perceived leadership and retention was assessed (see Figure 2). Similarly, the results revealed a significant indirect relationship between self-perceived leadership and retention (b=0.19, 95% CI [0.04, 0.38]). Additionally, there was no significant direct effect of self-perceived leadership on intention. Consequently, job satisfaction fully mediated the relationship between self-perceived leadership and retention.

Figure 2

Simple mediation model for the relationship between Self-Perceived Leadership and Retention as mediated by Job Satisfaction (N=71)

Note. $^{*}p < .05.$ $^{**}p < .01.$

Discussion

This study assessed the current state of clinical leadership behaviours among Dutch staff nurses, revealing that they scored in line with a previous Dutch study (Braam et al., 2023), but significantly lower than when compared to the scores derived from an American study (Proud, 2018). Regarding demographic and job-related variables, nearly no significant correlation emerged between these variables (gender, age, education and experience) and clinical leadership. Moreover, this study revealed a significant positive correlation between clinical leadership and job satisfaction. However, a correlation between clinical leadership and retention was not found. Interestingly, while there was no direct link between clinical leadership and retention, an indirect relationship emerged between clinical leadership and retention, mediated by job satisfaction.

The reported level of clinical leadership behaviours among the staff nurses in this study was relatively high. This aligned with the scores observed in another Dutch study but were notably lower compared to those observed in the American study. According to Buckner et al. (2014), when comparing the clinical leadership of Dutch and American nurses, there are similarities in valuing equality and personal autonomy due to the low power distance and high individualism in both cultures. However, differences in leadership style arise due to the feminine culture in the Netherlands, which emphasises cooperation and moderate uncertainty avoidance, compared to the masculine culture in the US, which favours assertiveness and low levels of uncertainty avoidance (Buckner et al., 2014). These differences may explain why American nurses tend to score higher on clinical leadership, reflecting a preference for structured approaches and assertive decision-making. Moreover, our study identified significantly lower scores in the practice of 'challenging the process', possibly attributable to variance in assertiveness and uncertainty avoidance, which might manifest as a reluctance to challenge established processes and norms. Moreover, the nurses in this study scored significantly lower in 'encouraging the heart', though the precise implications of these differences remain uncertain, suggesting potential influences from other cultural factors. Despite the differences in clinical leadership scores, it is important to recognise that the impact on retention remains uncertain. without available correlations between clinical leadership and retention in the US, it is unclear whether these differences in scores translate to a differential influence on retention. To provide a definitive answer, future research is needed to delve deeper into these cultural dynamics and their implications for clinical leadership behaviour.

Interestingly, the nurses in our study scored significantly higher on self-perceived clinical leadership compared to the scores in another Dutch study (Braam et al., 2023). This difference might be clarified by various factors outlined by van der Cingel (2021). To illustrate, factors such as reflective practice and a positive and safe work environment with supportive colleagues promote clinical leadership. Conversely, little self-confidence, low self-esteem and a work environment perceived as unpleasant and unsafe could inhibit the development of clinical leadership. It is likely that these factors may vary across different Dutch hospitals, with the possibility that these factors might be more favourable for our sample in terms of personal factors or in the work environment of this sample. However, it remains uncertain if and how precisely these factors influence self-perceived clinical leadership and why this difference does not appear in the reported clinical leadership behaviours. Further exploration into these factors and their interplay with clinical leadership behaviours and self-perceived clinical leadership could offer valuable insights into the clinical leadership of staff nurses.

In this study, no significant correlations were found between reported clinical leadership behaviours and gender, age, education, and experience. Similarly, self-perceived clinical leadership did not show significant correlations with these demographic and job-related variables, except for experience, which showed a weak positive correlation, as was expected. Some of these findings seem to contradict some previous findings. Regarding gender, conflicting results have been reported in the literature, with some studies suggesting that female nurses exhibit more clinical leadership (Cummings et al., 2008; Mrayyan et al., 2023), while Masanotti et al. (2020) indicate the opposite. However, our study did not show a significant association. Furthermore, previous studies reported that greater efficacy in leadership was correlated with higher educational and experience levels (Cummings et al., 2008), expecting a similar correlation with age. While our study did find a positive correlation between experience and self-perceived clinical leadership, the correlation did not extend to reported clinical leadership behaviours. A possible explanation is that experience may boost confidence in staff nurses' leadership abilities, reflected in their self-perception, but does not automatically translate into their actual clinical leadership behaviours. Conversely, some individuals may demonstrate effective leadership behaviours, yet this proficiency may not be fully integrated into their self-perception. It can be concluded that the impact of demographics and job-related factors, such as education and work experience, on clinical leadership appears to be limited. Future research could delve into alternative factors that may influence clinical

leadership. For instance, examining variables associated with work environment or variables like self-confidence and self-esteem could provide valuable insights.

One of the main aims of this study was to explore the extent to which clinical leadership is associated with retention and job satisfaction. The results revealed no significant correlation between clinical leadership and retention, which does not align with expectations based on prior research suggesting clinical leadership is positively associated with retention (Abraham, 2011; Smith & Dabbs, 2007). This could possibly be explained due to the fact that the previous studies focused on American nurses (Abraham, 2011; Smith & Dabbs, 2007) and cultural disparities may influence the generalisability of their findings to Dutch nurses. Moreover, variations in the assessment methods and perceptions of clinical leadership across studies might contribute to inconsistent results. Furthermore, our study identified a positive correlation between clinical leadership and job satisfaction, aligning with findings from the Canadian study (Boamah, 2018). However, this correlation diverged from the results reported in the recent Dutch study (Braam et al., 2023). Interestingly, although there was no direct correlation between both reported clinical leadership behaviours and self-perceived clinical leadership, they both had a significant indirect relationship with retention, with job satisfaction serving as a mediating factor. In conclusion, our study suggests that while clinical leadership may indirectly influence retention, it does not exhibit a direct relationship with retention rates. While enhancing clinical leadership remains beneficial for various aspects of healthcare delivery, such as care quality and safety (Casey et al., 2011) and team performance (O'Donovan et al., 2021), its effectiveness in directly addressing retention challenges appears limited. Conversely, our findings emphasise the role of job satisfaction in fostering retention, highlighting the importance of interventions aimed at improving overall job satisfaction among healthcare professionals.

Strengths and limitations

Beginning with the strengths of this study, firstly, the translated questionnaire demonstrated strong reliability, surpassing the threshold of .70. This suggests that despite translation from English into Dutch, the questionnaire continued to be reliable for gathering data in an accurate manner. Secondly, to the best of our knowledge, this study represents the first investigation into the influence of clinical leadership among staff nurses on nurse retention in the Netherlands. Consequently, it contributes valuable insights to the limited body of research addressing this subject matter. Lastly, the absence of a correlation between clinical leadership and retention, contrary to existing literature, suggests that our study offers a new perspective on this topic within the population of Dutch staff nurses.

The study also had some limitations. First, it relied on self-reported measures, which may be subject to biases such as respondents' potential tendency to provide socially desirable responses, variations in introspective ability, and differences in the interpretation of survey questions. Second, unfortunately, one item of the Clinical Leadership Survey (CLS) was mistakenly missing from the questionnaire provided to the respondents, which could potentially impact the comprehensiveness and validity of this study's findings. While the CLS still showed good reliability, its absence could have limited the reliability or validity of the subscale this item belonged to, namely "inspiring a shared vision". Acknowledging this limitation is important when interpreting the scores obtained from this subscale. Third, the observed lower reliability of the Clinical Leadership Scale (CLS) subscales may be indicative of potential challenges regarding its applicability in the Dutch context. Cultural differences between Canada (where the CLS has been developed and validated) and the Netherlands could contribute to this discrepancy. This could impact the validity of the CLS scales, as well as the conclusions drawn about the relationships between clinical leadership (as measured by the CLS) and other variables in this study. Therefore, it is advisable to be cautious when interpreting the scores as well as the correlations observed based on those scores. Fourth, all nurses in this study were from one hospital, which may restrict the generalisability of the findings. Findings based on data from a single hospital may not accurately represent the broader population, potentially impacting the applicability of the study's conclusions. Moreover, due to the organisation having consistent characteristics, variance in the data may be lower. This reduced variance could potentially impact the correlations observed. For future research, it is therefore advisable to conduct this research with staff nurses from various Dutch hospitals to ensure the findings are generalisable. Fifth, the small sample size in this study is a limitation as it may affect the generalisability and reliability of the findings. With limited participants, the study may lack the statistical power necessary to detect significant relationships or effects accurately. Additionally, a small sample size can increase the risk of sampling bias because the sample may not adequately represent the broader population of interest, potentially causing decreased variability and limited generalisability of our study's findings. Future research efforts would benefit from larger and more diverse samples to increase the validity and generalisability of the findings. Finally, potential self-selection bias arises from the possibility that nurses who feel more confident in clinical leadership may be more inclined to participate in the study. This could result in a disproportionate number of participants from this group, which may potentially skew the findings, potentially resulting in

higher scores and limiting their generalisability. Thus, it is important to keep in mind when interpreting the study's findings.

Conclusion

Dutch staff nurses scored relatively high on clinical leadership behaviours, consistent with the scores in another Dutch study while scoring significantly higher on self-perceived clinical leadership compared to the other Dutch study. No correlations were found between clinical leadership and demographic or job-related variables, with the exception of self-perceived clinical leadership and experience. Finally, this study found no correlation between clinical leadership and retention. However, it did show a relationship between clinical leadership and job satisfaction. Specifically, the clinical leadership practices 'inspiring a shared vision', 'enabling others to act' and 'encouraging the heart' had a positive correlation with job satisfaction. Finally, this study showed an indirect relationship between clinical leadership and retention mediated by job satisfaction.

Based on these findings, clinical leadership does not seem to be the most important factor in improving retention among Dutch staff nurses, while job satisfaction does seem to be important. However, clinical leadership does indirectly influence retention, mediated by job satisfaction. Moreover, it is associated with other beneficial outcomes, including team performance (O'Donovan et al., 2021) and the quality and safety of care (Casey et al., 2011). Therefore, it remains a potentially valuable area for development. To improve clinical leadership among Dutch staff nurses, further research is needed into factors associated with enhanced clinical leadership and its benefits for this population. Moreover, it is desirable to conduct such research with staff nurses from different Dutch hospitals to ensure generalisability. However, when aiming to improve nurse retention, this study indicates that prioritising job satisfaction is more beneficial. Finally, future research efforts would benefit from larger samples to enhance the validity and generalisability of findings.

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Appendix A

Questionnaire details

This appendix contains the survey questions regarding gender, age, education, and experience level. The exact wording of these questions, translated from Dutch to English, is displayed, along with the corresponding answer options.

1. What is your gender?

    1: Male

    2: Female

    3: Prefer not to say

    4: Other, namely: …

2. What is your age?

    1: 30 years or younger

    2: 31 - 40 years

    3: 41 – 50 years

    4: 51 – 60 years

    5: 61 years or older

3. What is your highest level of education attained?

    1: Mbo level 4

    2: Hbo level 5

    3: Hbo level 6

    4: In-service training A

    5: In-service training B

    6: In-service training Z

    7: Other, namely: ...

4. How long have you been working in your current position?

    1: Less than 6 months

2: 6 months to 1 year

3: 1-3 years

4: 3-5 years

5: More than 5 years

5. What is your total work experience in a similar position?

1: Less than 1 year

2: 1-3 years

3: 3-5 years

4: 5-10 years

5: More than 10 years

Appendix B

Association Analysis of Clinical Leadership with Education

This appendix presents an analysis of the associations between clinical leadership and the categorical variable education. The strength of these associations, determined through Cramer's V statistic, is detailed in Table B1.

Table B1

Association Analysis: Cramer's V for Clinical Leadership vs. Education

	Education
Clinical leadership behaviours (CLS)	.55
Challenging the process	.30
Inspiring a shared vision	.30
Enabling others to act	.20
Modelling the way	.24
Encouraging the heart	.38
Self-perceived leadership (GLS)	.28

Note. $^*p < .05$. $^{**}p < .01$.