



Advance Journal of Econometrics and Finance

Vol-4, Issue-1, 2026

Online ISSN

2959-8990

Print ISSN

2959-8982

<https://ajeaf.com/index.php/Journal/About>

Name of Publisher: SCHOLAR CRAFT EDUCATION & RESEARCH HUB

Review Type: Double Blind Peer Review

Jurnal Frequency: Quarterly Research Journal



Humble Leadership and Nurses' Career in Healthcare Organizations: The Mediating Role of Public Service Motivation

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	Abstract
Nadia Batool (Corresponding Author) MBA, Department of Business Management, University of Baltistan, Skardu, Pakistan Email: nadiabatool108@gmail.com Murad Hussain Assistant Professor, Department of Management Science, Shaheed Benazir Bhutto University, Sheringal, Khyber Pakhtunkhwa, Pakistan Email: muradhussain@sbbu.edu.pk	Purpose: This study examines the relationship between humble leadership and nurses' career in healthcare organizations and investigates whether public service motivation mediates this relationship. Design/methodology/approach: A cross-sectional quantitative survey was conducted among registered nurses working in public hospitals in Khyber Pakhtunkhwa, Pakistan. Data were collected from 329 nurses using self-administered questionnaires and analyzed using descriptive statistics, correlation analysis and regression-based mediation analysis through PROCESS Model 4 with 5,000 bootstrap samples. Findings: The results show that humble leadership was positively associated with nurses' career ($\beta = 0.52, p < 0.001$). Humble leadership also positively predicted public service motivation ($\beta = 0.48, p < 0.001$), while public service motivation was positively associated with nurses' career ($\beta = 0.28, p < 0.001$). The indirect effect was significant ($\beta = 0.13, 95\% \text{ CI } [0.06, 0.22]$), while the direct effect remained significant ($\beta = 0.39, p < 0.001$), indicating partial mediation. Originality/value: The study extends humble leadership research by examining nurses' career as an important professional outcome and identifies public service motivation as a mechanism linking leadership humility with career outcomes. It also contributes evidence from the relatively under examined South Asian healthcare context, particularly public hospitals in Khyber Pakhtunkhwa, Pakistan. Practical implications: The findings highlight the importance of developing humble leadership behaviors among nurse managers and strengthening nurses' connection with the broader service mission of healthcare organizations.
Keywords:	Humble Leadership; Nurses' Career; Public Service; Mediation; Khyber Pakhtunkhwa; Pakistan



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Introduction

Nurses play a key role in health care delivery and the security of the nursing workforce is strongly related to the quality of patient care. However, health care worker shortage is still a global challenge, and one of the main contributing factors is high health care worker turnover (Ur Rahman et al., 2025; Khattak et al., 2019; Jia et al., 2022). The COVID-19 pandemic only worsened the morale and motivation of health professionals (Fernandes et al., 2024) and thus, it is even more important to gain insight into what sustains nurses' long-term engagement with their profession. In the recent reviews, one of the factors that have been highlighted is the support received by nurses in the planning and development of their careers, which will influence the appeal of a nurse career and involvement of nurses (Jan et al., 2025; Mukhtar et al., 2019; Kallio et al., 2024). Formal career systems are not the only determinant of nurses' careers, however. They are influenced too by the day-to-day manners of those who lead them.

Humble leadership is one of the leadership styles that has been studied more and more. Humble leaders can be defined as individuals who have an accurate self-perception, understand the value of followership and are teachable (Khattak and Khattak, 2026; Khan et al., 2025; Lv et al., 2025; Chandler et al., 2023). The results of a meta-analysis of literature from the field showed that humble leadership has a positive relationship with followers' affective commitment, trust, engagement, job satisfaction, and psychological empowerment, and increases variance beyond transformational, servant, and ethical leadership (Arzu et al., 2025; Ma et al., 2023; Ahmad et al., 2022). Evidence from the nursing points that support the same side, and Humble leadership has been linked to knowledge sharing and creativity (Zada et al., 2024; Mrayyan & Al-Rjoub, 2024) and to nurses' psychological empowerment and innovative behavior (Khattak & Khattak, 2018; El-boudy et al., 2025), and the humility of head nurses has been associated with their respective psychologically safe ward climate, trust, and nurses' affective commitment (Khattak & Adnan, 2017; Mertens et al., 2025).

While there has been this progress, the implications of servant hood in the context of nursing careers are not well studied. In addition to nursing, humble leadership was related to employees' career success in terms of salary and career satisfaction (Chughtai & Arifeen, 2023), and to demonstrating a leader's promotability through mentoring (Chan et al., 2024). In nursing, those areas of career research have, instead, centered on organizational support, person–organization fit, and motivation (Kallio et al., 2024; Liu et al., 2025) and on the measurement of career growth itself (Ni et al., 2023). There is a lack of research to determine whether and how the humility of the nearest leaders of nurses feeds into better nursing careers.

This study suggests public service to be that mechanism. From a motivational perspective, public service, which is the nurses' attitude towards serving others and contributing to the public good, is a key motivational frame of reference for health professionals, and public service motivation (PSM) is used as the main framework to explain the motivation and perseverance of health professionals in public sector jobs (Fernandes et al., 2022). One of its antecedents seems to be leadership: Adaptive and authentic leadership are found to enhance PSM of public sector employees (Trinh et al., 2025), while public employees' wellbeing is examined through the lens of leader humility (Luu, 2021). Medical staffs who have lower turnover intention have higher PSM scores (Jia et al., 2022), and the dimension of self-sacrifice is correlated with increased job satisfaction in a public hospital (Gutinyu & Chang, 2023). Thus, we conclude that humble leaders accentuate the sense of doing a meaningful mission among nurses and the sense of nurses doing their mission strengthens the way nurses experience the mission.

In this study, this study investigates the impact of humble leadership on the careers of nurses in hospitals in Khyber Pakhtunkhwa (KPK), Pakistan and examines the mediation role of public service. The study is of value in three ways. First, it moves humble leadership research from attitudes and behaviors to outcome—an outcome that is important for retention and advancement in the nursing profession. Secondly, it brings together the lowly leadership and public service literatures by subjecting public service to an explanatory test. Third, it provides evidence from a South Asian health care context, in which to date, evidence around humble leadership among nurses is limited. The rest of the paper is a review of the literature, formulation of hypotheses, description of the method, reporting of the results, and discussion of the implications.

Literature Review

Humble Leadership

Humble leadership is a version of relational leadership that starts with a realistic assessment of one's strengths and weaknesses, includes an awareness of the value of others' strengths, and involves an openness to receiving feedback and learning (Chandler et al., 2023; Kelemen et al., 2023). It is argued that it is distinct from other constructs of leadership, as demonstrated by the meta-analytic evidence which suggests it explains a further variance in followers' outcomes beyond transformational, servant, and ethical leadership (Luo et al., 2022). The same meta-analysis found positive correlations between humble leadership and affective employee commitment, affective trust, engagement, job satisfaction, psychological empowerment and task performance (Luo et al., 2022). The second meta-analysis combines the individual, team, and organizational outcomes of leader humility (Chandler et al., 2023), while a more recent one finds that the impact of leader humility is moderated by culture (individualism versus collectivism; religiosity) (Silard et al., 2025). In hospitals, head nurses' humility has been found to be related to ward psychological safety, nurse trust in head nurse, and nurse affective commitment (Mertens et al., 2025). Other research studies link humble leadership to psychological empowerment and innovative behavior (El-boudy et al., 2025) and to knowledge sharing and creativity (Mrayyan & Al-Rjoub, 2024). The results indicate that humble leadership is a valuable asset in the nursing profession, though there was limited evidence of career outcomes and pathways of how this might manifest.

Career

Career, at the nursing level, is the evolution of nurses' professional aspirations, skills and reputability over time. According to a recent scale development study, the growth of a nurse's career can be divided into three parts: advancement toward career goals, enhancement of professional skills and attributes, and career promotion and prestige (Ni et al., 2023). These trajectories are shaped by the contribution of organizations, which a scoping review described as providing sufficient resources, clear guidelines for career planning and development, knowledge sharing and interpersonal support (Kallio et al., 2024). Individual perceptions matter, too, as clinical nurses see their career success as being moderately successful, and the person–organization fit is linked to career success via the construct of achievement motivation (Liu et al., 2025). Workforce instability is also related to career concerns given that turnover is a major contributor to the health care workforce shortage (Jia et al., 2022). The COVID-19 pandemic has also highlighted the loss of health professionals' motivation and morale (Fernandes et al., 2024). Leadership is a likely contextual factor in nurses' careers, since career experiences occur on a daily basis, in the interaction with supervisors.

Public Service

When thinking about public service, one's tendency to orient towards service and contribute to the public good is considered, and in the field of health care, it is studied as public service motivation (PSM) (Fernandes et al., 2022). Health professionals in the public sector often use the PSM construct and scale to understand their decisions regarding public sector employment and retention (Fernandes et al., 2022). The level of PSM is heterogeneous, and a study carried out in Portugal (Fernandes et al., 2024) with a sample of



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doctors and nurses after the pandemic shows that those who are women, older and in higher managerial positions report higher PSM levels. Preliminary studies showed that PSM is associated with reduced intentions to leave medical careers (Jia et al., 2022) and that the dimension of self-sacrifice is correlated with job satisfaction among medical staff in a public hospital in Zambia (Gutinyu & Chang, 2023). Leadership is one contextual factor that can influence PSM because: Adaptive and authentic leadership led to higher PSM among Vietnam's public sectors (Trinh et al., 2025). The concept of humility has also been applied in the field of public service management, with public employees who are more humbled showing stronger relationships between PSM and job crafting and between PSM and public employees' well-being (Luu 2021). These studies situate public service as a leadership orientation and career-appropriate orientation among health workers.

Hypothesis Development

Humble Leadership and Nurses' Career

Nursing careers are shaped by day to day relationships: Head nurses have an impact on who hears feedback, development opportunities, and who is recognized. We believe humble leadership will have a positive impact on the careers of Nurses for three reasons. The first trait of humble leaders is that they see the strength in others (Kelemen et al., 2023; Chandler et al., 2023). This recognition would convey to nurses that their skills are appreciated, thereby motivating them to continue advancing their skills as part of their career development, a key component that can be found in career development (Ni et al., 2023). Secondly, teachability is a characteristic of humble leaders, and if they admit that they are not infallible, it is okay to learn from others. This attitude has been linked to a psychologically safe ward culture and trust in the head nurse (Mertens et al., 2025) and trustful nurses are more engaged with their organisation (Mertens et al., 2025). By being comfortable asking for support, ideas and development in this regard, a nurse can be better positioned to advance toward their career goal.

Third, Humble Leadership is related to empowerment and mentoring. Humble leadership has been associated with psychological empowerment, which was associated with innovative behavior in nurses (El-boudy et al., 2025), and leader humility has been found to facilitate informal mentoring in career (Chan et al., 2024). The organizational conditions described by Kallio et al. (2024) that contribute to the career planning and development of nurses include interpersonal support, which is provided by humble leaders in everyday interactions. This is reinforced by direct evidence in the outside world from outside nursing. As reported by Chughtai and Arifeen (2023), humble leadership was both indirectly and directly associated with an objective measure (salary) and a subjective measure (career satisfaction) of career success, and innovative work behavior was a mediating variable. Additionally, the humble leadership literature includes evidence found in meta-analysis (Luo et al., 2022) that is related to conditions that often accompany positive career experiences such as engagement, job satisfaction, and psychological empowerment. In nursing, humble leadership has been linked to the creative abilities and the sharing of knowledge (Mrayyan & Al-Rjoub, 2024), which are actions that gradually improve nurses' visible competences.

When the head nurse and the nurse have a favorable attitude toward one another, the humble head nurse should feel recognized, supported and empowered to grow and should consequently have stronger career growth, which is the case with this group of nurses. We hypothesize:

H1: Humble leadership is positively related to nurses' career.

Mediating Role of Public Service

In addition to its direct impact, we propose that humble leadership influences the career development of the nurse in their attitude towards service. Humility in leadership enhances public service, and public service enhances careers – this is the argument. The former is based on the way leaders influence the definition nurses give their job. Leadership is one of the contextual antecedents of PSM, which was seen to be strengthened by adaptive and authentic leadership amongst public-sector employees (Trinh et al., 2025). Humble leaders have a great opportunity to have that impact. By acknowledging followers' contributions, they make the contributions of each nurse visible to patients and communities, further highlighting the role of each nurse in enhancing patient and community wellbeing, and they provide a role model of other-oriented work rather than self-promotion. (Kelemen et al., 2023; Chandler et al., 2023) Research in the public sector is consistent with this view. Luu (2021) demonstrated that leader humility positively affected the public employees' well-being through the mechanism of job crafting, which in turn was driven by employees' PSM. Therefore, if nurses feel that their head nurse is humble, they should feel that their job is more meaningful, meaning that it serves as a reinforcement of their public service orientation.

The second is about how a better service orientation can be advantageous to careers. Nurses will stay in their position and invest in their position if they consider their work as a service to others. It is found that PSM is negatively correlated with turnover intention among medical staff (Jia et al., 2022) and the self-sacrifice dimension of PSM is positively correlated with job satisfaction in a public hospital (Gutinyu & Chang, 2023). The case of health professionals in the public sector is similar, with PSM being cited as an important motivational reason for career entry and retention in the public sector (Fernandes et al., 2022). By committing to a career, nurses can find the time and motivation to advance in their career, develop their professional skills, and aim for promotion (Ni et al., 2023). Motivation is also directly related to career outcomes. The study by Liu et al. (2025) indicated that person–organization fit mediated the relationship between achievement motivation and nurses' career success, indicating the pathway of motivational states as a valid pathway to career outcomes in nursing. A service-based motivation should be similar: If nurses value public service in their career, then advancement should be viewed as a means of providing service.

Additionally, PSM has been considered as a boundary condition, as Luu (2021) reported that the relationship between leader humility and job crafting was stronger in low PSM conditions. We see this as complementary rather than mutually exclusive. The moderation result reveals that PSM does matter with respect to the way leadership functions, while our model questions whether humble leadership fosters a service orientation that is related to careers. We therefore expect:

H2: Public service mediates the relationship between humble leadership and nurses' career.

Conceptual Model

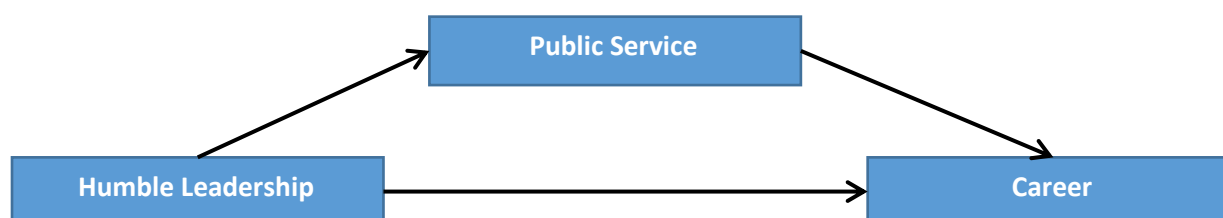


Figure 2.1: *The Conceptual model of this study*



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Methodology

This study used a cross-sectional survey with a quantitative-based approach. The study focused on registered nurses employed in hospitals across Khyber Pakhtunkhwa, Pakistan. The study used purposive sampling. I asked nurses to take part only if they met the set inclusion rules. In the end, 329 questionnaires were suitable for the analysis. I gave each nurse a self-filled questionnaire to complete. Before they started, I explained what the study was about in plain terms. I also told them that joining was their choice and they could skip it. During the whole process, ethical steps were followed. Current study told the nurses their answers would not include their names, and the information would be kept private. They were told the data would be used only for research work. I collected informed consent before the questionnaire was completed. They were also reminded they could refuse at any point or stop without any consequence, and asked the hospital offices for approval before starting data collection. The study also followed the ethical rules required by the relevant institutions.

Instruments

We used the available literature-based measures to design survey items. The complete survey measurements are included in the attached supplementary file. Each item was assessed using a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Humble Leadership

Humble Leadership was measured with 9 items taken from (Wens, et al., 2013). Nurses were told to judge how humble their closest head nurse or direct supervisor behaved. The questions covered whether leaders admit their limits, value what nurses do, listen to input, and show they can keep learning. Each item used a five point Likert scale. Scores went from [1 = strongly disagree] to [5 = strongly agree].

Career

Career was measured with 12 items from Shim and Park (2019). These items asked about how nurses see their own growth over time. Respondents rated each statement on a five Point Likert scale. A higher score meant the nurse felt more positive about their career progress and results.

Public Service

Public service was measured with 6 items adapted from Dik (2012). This part focused on how nurses view their job as helping other people. It also asked about support for the larger community. Nurses answered on a five Likert scale. Higher scores showed a stronger drive to serve the public.

Data Analysis

IBM SPSS Statistics 20 was used to analyze the data. Demographic characteristics of the respondents were summarized using descriptive statistics. The internal consistency was evaluated using Cronbach's alpha coefficient, with values of .70 and higher considered to be acceptable (Hair et al., 2022). The Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were used to check the factorability of the data; if the value of KMO is greater than .60, and the Bartlett's test is significant, then the data are suitable for factor analysis. To check bivariate relationships, Pearson correlations were calculated. The hypotheses were tested using regression-based path analysis using the PROCESS macro (Hayes, 2022). The direct effect of humble leadership on the nurses' career was estimated first and then the mediation hypothesis was tested in Model 4 with 5,000 bootstrap samples and 95% percentile confidence intervals. An indirect effect was deemed significant if its confidence interval was not the zero intervals.

Results and Analysis

Table 4.1: Demographic Profile of Respondents

Characteristic	Category	n	%
Gender	Male	118	35.9
	Female	211	64.1
Age (years)	20–29	96	29.2
	30–39	128	38.9
	40–49	72	21.9
	50 and above	33	10.0
Qualification	Diploma/General Nursing	42	12.8
	Bachelor’s degree (BSN)	185	56.2
	Master’s degree	82	24.9
	MPhil/Other	20	6.1
Work experience (years)	Less than 5	91	27.7
	5–10	119	36.2
	11–15	71	21.6
	More than 15	48	14.6
Total		329	100.0

Table 1 describes the sample characteristics of study respondents. Most individuals were female, at 64.1%. The biggest age group was 30 to 39 years, with 38.9%. On education, most respondents had a BSN degree (56.2%). For work history, 36.2% reported 5 to 10 years of experience. All participants worked in public hospitals. Thus, the group mainly reflects nurses with proper training and some job experience in the public health system.



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Reliability

Table 4.2: Reliability of the Study Variables

Variable	Items	Cronbach's α
Humble leadership	09	.753
Nurses' career	12	.835
Public service	6	.864

Table 4.2 reports the internal consistency of the three scales. Cronbach's alpha was .753 for humble leadership, .835 for nurses' career, and .864 for public service, all above the recommended .70 threshold (Hair et al., 2022)], indicating acceptable reliability.

Sample adequacy

Table 4.3: KMO and Bartlett's Test of Sphericity

Test	Statistic	Value
KMO measure of sampling adequacy	KMO	0.892
BTS	Approx. χ^2	3,842.617
	df	351
	p (Sig.)	0.001

Table 4.3 shows the KMO score is 0.892 that confirm the sampling adequacy. In other words, the study variables share enough correlation for further analysis. Bartlett's test also supports this. The result was significant, with $\chi^2 = 3,842.617$ and $df = 351$. The p value is less than 0.001. Because of these two checks, the correlation matrix was not the same as an identity matrix. So the data were judged to be suitable for factor analysis.

Descriptive analysis and Correlations

Table 4.4: Summary of Means, Standard Deviations, and Correlations

Variable	M	SD	1	2	3
1. Humble leadership (IV)	3.72	0.71	—		
2. Public service (DV)	3.84	0.68	0.48**	—	
3. Nurses' career (MV)	3.69	0.73	0.52**	0.46**	—

Note: $N = 329$. $p < .01$ (two-tailed).

Table 4.4 shows a correlation between humble leadership and public service ($r = 0.48$, $p < .01$). It also shows a link between humble leadership and nurses' career ($r = 0.52$, $p < .01$). Public service is also tied to nurses' career ($r = 0.46$, $p < .01$). Taken together, these results suggest that people who reported higher humble leadership and higher public service also tended to report more positive views of nurses' career. These relationships deliver preliminary support for the suggested relations among the constructs, although they do not found causality.

Hypotheses testing

Table 4.5: Summary of Direct and Mediating Effects

Hypothesis / Path	β	SE	t	95% CI	p	Supported
H1: HL $\rightarrow$ C	0.52	0.06	8.92	[0.40, 0.63]	0.001	(Yes)
(Path a)	0.48	0.06	8.15	[0.36, 0.60]	0.001	(Yes)
(Path b)	0.28	0.07	4.08	[0.14, 0.41]	0.001	(Yes)
H2: Indirect effect via PS ($a \times b$)	0.13	0.04		[0.06, 0.22]		(Yes)
Direct effect (c')	0.39	0.06	6.50	[0.27, 0.51]	0.001	(Yes)

Note: $N = 329$; 5,000 bootstrap samples; 95% bootstrap confidence intervals. H2 is supported because the bootstrap confidence interval for the indirect effect does not include zero.

The results show that **humble leadership has a significant positive relationship with nurses' career ($\beta = 0.52$, $p < 0.001$)**. The confidence interval [0.40, 0.63] does not include zero, indicating that the effect is statistically significant; therefore, **H1 is supported**. The mediation results indicate that humble leadership significantly predicts **public service ($\beta = 0.48$, $p < 0.001$)**, while public service is also positively associated with nurses' career after controlling for humble leadership (**$\beta = 0.28$, $p < 0.001$**). The indirect effect is **0.13**, with a bootstrap 95% CI of **[0.06, 0.22]**, which excludes zero, confirming a significant mediating effect. Because the direct effect remains significant (**$\beta = 0.39$, $p < 0.001$**), the results indicate **partial mediation**, and therefore **H2 is supported**.

Discussion

This study examined whether humble leadership is associated with nurses' career outcomes and whether public service motivation explains this relationship. The results lend support to H1, which reported that nurses perceiving more humility in their head nurses expressed more positive career outcomes. This finding aligns with the findings of previous studies that were linked to humble leadership and career success (Chughtai and Arifeen, 2023) and career mentoring (Chan et al., 2024) and with nursing research that was correlated with psychological safety, trust, affective commitment, empowerment, and knowledge sharing and creativity (Mertens et al., 2025; El-boudy et al., 2025; Mrayyan and Al-Rjoub, 2024). One possible reason is humble leaders appreciate nurses' work, accept their suggestions, acknowledge their limitations, and foster an interpersonal



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atmosphere conducive to learning, growth and career achievement (Kelemen et al., 2023; Ni et al., 2023).

The findings also support H2 since the public service motivation partially mediates the relationship between humble leadership and the nurses' career. Specifically, public service motivation was found to be positively correlated with humble leadership, which was positively correlated with the career of the nurses, and the direct effect of humble leadership was still significant. The indirect effect was also strong as it did not include zero in the 95% bootstrap confidence interval and public service motivation is one pathway by which humility and leadership are correlated with nurses' career outcomes. This finding aligns with the research that demonstrated the influence of leadership on public service motivation of public-sector workers (Trinh et al., 2025), and also that public service motivation was linked to important outcomes among health professionals, such as job satisfaction and lower turnover intentions (Gutinyu and Chang, 2023; Jia et al., 2022). The finding also confirms Luu (2021) who analyzed public service motivation as a boundary condition of leader humility, indicating that public service motivation may also be used as an explanation for how humble leadership relates to nurses' career outcomes. The results must however be interpreted in the context of the study. First, cross-sectional design does not allow for temporal or causal relationships between humble leadership, public service motivation and nurses' career. Second, findings were obtained from nurses in hospitals in Khyber Pakhtunkhwa and may not be generalizable to nurses in other provinces, to private hospitals and/or in other national contexts. It is especially important to consider this context given the recent empirical evidence that cultural conditions can affect the impact of leader humility (Silard et al., 2025).

Implications

Theoretical Implications

The study provides three main theoretical contributions. First, it is a humble study of leadership which takes a different approach to the nurse's career as a key career outcome, as opposed to attitudes, well-being, engagement and performance as the primary outcomes. Second, it suggests public service motivation as a mediating variable, linking the subservient leadership literature with the public service motivation literature and implying that leadership could be a factor that impacts on the service-oriented motivation of employees. Third, the study contributes to the body of knowledge from a context of nursing in South Asia, thus broadening the geographic and occupational focus of the previously conducted research on humble leadership and nursing outcomes.

Practical Implications

The results indicate that the interpersonal personality traits of humility are an important consideration for the nurse administrator. Leadership development programs can assist head nurses to be aware of their limitations, to appreciate the contributions of nurses, to be open to feedback, and to allow for meaningful opportunities for participation and development. Leadership development can also be included in mentoring and organized career development dialogues, as interpersonal support is a crucial aspect of nurses career planning and development (Kallio et al., 2024; Chan et al., 2024). The mediating effect of PSP also indicates the potential to further enhance the relevance of daily work for a broader purpose of service delivery to patients and the community by hospital organizations. Managers are able to acknowledge and recognize services provided by nurses, to explain the social contribution of the nursing service and to involve nurses in decision making around the care of patients. These practices might be especially relevant in healthcare contexts such as public healthcare organizations, where workforce retention and motivation are critical organizational issues.

Limitations and further studies

The study has a number of limitations that warrant further studies. The first is that it has a cross-sectional design, which means results cannot be used to draw conclusions about causality and temporal ordering; future studies might include longitudinal or time-lagged designs to determine whether humble leadership in turn leads to the development of public service motivation. Second, all variables were self-reported, which may have limited the study by the potential for common method bias; future studies may involve leadership assessments by multiple sources or matched nurse-supervisor data. Third, only hospitals in KP were the focus of the study and hence have a limited contextual generalizability. The model could be replicated in other provinces of Pakistan, private hospitals and different health care systems in the future. Other methods than PSM could also be investigated in future studies. For instance, a humble leadership style may lead to psychological safety, trust and psychological empowerment, which also have known links to humble leadership in a nursing context; thus, these may be additional factors that can explain the effect of humble leadership on nurses' careers. These variables could be tested either in parallel or serial mediation models, and a multilevel design could allow researchers to investigate if there are differences between hospital wards or teams in the effects of leadership.

Conclusion

In this study, humble leadership was explored in relation to nurses' career in a healthcare organization and the mediating role of public service motivation was examined. The results show that humble leadership is positively correlated with nurses' careers and public service motivation is a partial mediator of this relationship. The findings indicate that humble head nurses can help with the career development of nurses through ways other than recognition, openness and supportive leadership, as they can help reinforce nurses' orientation toward service and the community. The study thus points towards humble leadership and public service motivation as possible factors of nursing leadership and development in a public health care set up in Khyber Pakhtunkhwa.

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