

Building A Supportive Culture: The Influence of Servant Leadership on Employee Engagement in The Ministry of Health

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ABSTRACT

Background: This paper investigated the impact of servant leadership on employee engagement in the Ministry of Health (MOH) in Saudi Arabia, focusing on its effectiveness in creating a supportive organizational culture.

Method: A quantitative cross-sectional survey design was used, involving 322 MOH employees selected through stratified random sampling. Data were collected using validated instruments, including the Servant Leadership Questionnaire (SLQ) and the Utrecht Work Engagement Scale (UWES-3). Data were analyzed in SPSS Version 29 using descriptive statistics, reliability tests, and multiple linear regression, with demographic and work-related variables controlled for.

Results: Both servant leadership and employee engagement were rated low to moderate. It was found that there were significant differences in employee engagement based on nationality, education level, years of experience, job position, department, and work schedule. Regression analysis revealed that servant leadership was significantly and positively correlated with employee engagement ($B = 0.73$, $p < 0.001$). However, experience showed over the years that engagement is negatively correlated with mid-career employees.

Conclusion: Servant leadership plays a major role in increasing employee engagement in MOH settings. Strengthening servant leadership practices can help create a more positive, engaged healthcare workforce that meets organizational objectives.

Keywords: Servant leadership, Employee engagement, Ministry of Health, Healthcare workforce, Organizational culture, Saudi Arabia.

INTRODUCTION

Healthcare executives and other stakeholders seeking ways to achieve excellence in leadership, management, service, and professional development have taken an interest in servant leadership.¹ Servant leadership, a morally based leadership style, is motivated by the belief that serving others is a natural part of an altruistic calling, with a focus on others' personal development and well-being.²

Since care is inherently servant-oriented, healthcare companies are encouraged to adopt the servant leadership paradigm.³ Understanding physicians' and nurses' attitudes toward teamwork and servant leadership can significantly shape how nursing and medicine are practiced in the future and help transform a healthcare organization's culture.⁴ Among the human resource challenges that healthcare companies must address are the need for effective leadership styles that enhance work performance and the lack of initiatives to improve employee well-being.⁵ Recent analyses and meta-analyses indicate that those who exhibit servant leadership characteristics report greater job satisfaction, creativity, and organizational commitment.⁶

This body of research shows broad consensus that servant leadership is a positive organizational behavior strategy.⁷ Research has shown that servant leadership is linked to positive outcomes, including higher organizational commitment and job satisfaction.⁸ Servant leadership greatly increases administrative openness, especially via rules and accountability, with a minor impact on work procedures, according to a descriptive study conducted at Abha government hospitals in Saudi Arabia.⁹ Similarly, a mixed-methods study in Saudi Arabia also found that servant leadership strengthens leadership effectiveness and that cognitive style significantly enhances this relationship. However, the study has only considered three aspects of the cognitive style; therefore, further research should examine the remaining aspects of cognitive style, and leadership effectiveness should also be considered as a key outcome variable.¹⁰

Because direct studies on staff engagement in Ministry of Health settings are scarce, the body of research on servant leadership outcomes in Saudi healthcare settings is generally strong but not fully uniform or comprehensive. Most existing studies focus on leadership effectiveness, motivation, or broader healthcare contexts rather than MOH-specific engagement outcomes. This creates a clear research gap and encourages more research on the impact of

servant leadership on employee engagement in this context. This research aims to help the MOH develop strategies to enhance participation and promote a more positive work environment, ultimately improving patient care by identifying the connection between these concepts.

METHODOLOGY

Study Design and Setting

This quantitative, observational cross-sectional survey examined the relationship between servant leadership and employee engagement within the Ministry of Health (MOH).

Sample Size Determination and Power Analysis

A priori sample size calculation was performed using G*Power (version 3.1.9.7). For a multiple linear regression analysis involving two primary independent variables (servant leadership and years of experience) and ten covariate/control variables (demographic and work-related characteristics), a minimum sample size was calculated to achieve 80% statistical power ($\beta=0.20$) for detecting a small effect size ($f^2=0.04$) at a significance threshold of $\alpha=0.05$. To account for an anticipated 20% non-response or attrition rate,¹¹ the target sample size was established at $n=322$.

A stratified random sampling strategy ensured proportional representation across three main occupational categories within the MOH: administrative, clinical, and support personnel.

Eligible participants who met the following criteria were included:

- Full-time employment status at the MOH with a minimum tenure of six consecutive months, ensuring sufficient exposure to organizational practices and leadership behaviors.
- Reliable access to an internet-connected computer or device to complete the online survey instrument.
- Provision of active electronic informed consent prior to study participation.

To minimize confounding and response bias, participants who met one of the following criteria were excluded from the study:

- Part-time, temporary, and contracted personnel were excluded due to inconsistent organizational exposure.
- Employees with fewer than six months of service were excluded to control for novelty effects.
- Supervisory and executive leadership staff were excluded to prevent self-evaluation bias and preserve the study's focus on subordinate perceptions.

Data Collection Procedure

Data were collected online through a web-based survey platform (SurveyMonkey). Potential participants received an email invitation containing a brief overview of the study's background, objectives, confidentiality assurances, and a secure hyperlink to the instrument. To maximize response rates, the researchers sent two follow-up reminder emails at two-week intervals. All responses were collected anonymously and automatically recorded in a password-protected database.

Study Measures

The survey instrument contained four sections: participant demographics, work-related characteristics, perceived servant leadership, and employee engagement.

1. Demographic and Work-Related Characteristics:

Participants reported demographic data, including age, gender, educational attainment, and marital status. Work-related profile variables included job position/title, department, overall tenure at the Ministry of Health (MOH), work schedule/shift, and work location.

2. Servant Leadership Questionnaire (SLQ):

The Servant Leadership Questionnaire (SLQ) assessed perceptions of leadership behavior and evaluated key dimensions, including empathy, stewardship, and community building. Items were rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). In the present sample ($n=338$), the scale demonstrated

exceptional internal consistency (Cronbach's $\alpha=0.973$). Individual scores spanned the full range of the scale (1.0 to 7.0), with an overall median score of 2.90 (IQR = [2.70-3.30]).

3. Utrecht Work Engagement Scale (UWES-3):

Employee engagement was assessed using the ultra-short Utrecht Work Engagement Scale (UWES-3), which captures its three core dimensions: vigor, dedication, and absorption. Items were scored on a 7-point frequency scale ranging from 0 (never) to 6 (always/every day). The instrument showed excellent internal reliability ($\alpha = 0.962$). Participant scores ranged from 0.0 to 6.0, with a median score of 2.17 (IQR = [1.80-2.70]).

Statistical Analysis

All statistical analyses were conducted using IBM SPSS Statistics for Windows (Version 29.0; IBM Corp., Armonk, NY, USA). Two-tailed tests were used throughout, with statistical significance at $p < 0.05$.

- Descriptive Statistics: Continuous metrics were summarized using means and standard deviations (SD) for normally distributed data, or medians and interquartile ranges (IQR) for non-normally distributed data. Categorical parameters were summarized as frequencies (n) and percentages (%).
- Reliability Testing: Internal consistency for multi-item subscales was evaluated using Cronbach's alpha (α).
- Inferential Statistics: The association between servant leadership, years of experience, and employee engagement was examined using multiple linear regression, adjusting for demographic (age, gender, education, marital status) and work-related covariates (position, department, schedule, location). Prior to modeling, regression diagnostics were performed to verify linear regression assumptions:
 - Normality: Assessed via visual inspection of P-P plots and Kolmogorov-Smirnov/Shapiro-Wilk testing.
 - Linearity and Homoscedasticity: Confirmed through inspection of standardized residual plots against predicted values.
 - Independence of Errors: Evaluated using the Durbin-Watson statistic.
 - Multicollinearity: Checked using Variance Inflation Factors ($VIF < 5$) and tolerance values (> 0.20).

Ethical Considerations

This study was conducted in accordance with the Declaration of Helsinki and approved by the Institutional Review Board (IRB) of the Saudi Ministry of Health, Jeddah (Approval No. A02019). Participation was entirely voluntary. Electronic informed consent was obtained from all participants before they accessed the questionnaire. Respondents were informed of their right to withdraw from the study at any time without penalty or impact on their professional standing. All collected data were anonymized at source, stored in an encrypted electronic format, and made accessible exclusively to the primary research investigators.

RESULT

Sample Characteristics and Univariate Overview

A total of 338 employees completed the survey. The sample was mostly female ($n=177$, 52.4%) and Saudi ($n=244$, 72.2%). In terms of age distribution, most respondents were aged 35–44 years ($n=141$, 41.7%), followed by those aged 18–34 years ($n=127$, 37.6%) and 45 years or older ($n=70$, 20.7%). Regarding educational level, 41.1% ($n=139$) held a bachelor's degree, 35.2% ($n=119$) held a master's or doctoral degree, and 23.7% ($n=80$) completed less than a bachelor's degree.

Work-related profile analysis indicated that 42.0% ($n=142$) of participants had more than 10 years of professional experience, 36.1% ($n=122$) had 6–10 years, and 21.9% ($n=74$) had under 5 years. By job position, staff members were the largest group ($n=113$, 33.4%), followed by supervisors ($n=82$, 24.3%), team leaders ($n=78$, 23.1%), and managers ($n=65$, 19.2%). Across departments, clinical staff ($n=113$, 33.4%) and technical staff ($n=96$, 28.4%) comprised the majority. Most employees worked day shifts ($n=145$, 42.9%), while 29.0% ($n=98$) worked night shifts and 28.1% ($n=95$) worked rotating shifts.

Association of Demographic Factors with Employee Engagement

Non-parametric bivariate comparisons revealed statistically significant differences in employee engagement levels across demographic variables, specifically nationality and educational background (Table 1).

- **Age and Gender:** No statistically significant differences in employee engagement levels were identified across age groups ($p=0.610$) or between genders ($p=0.387$). Both female (Median=2.2) and male (Median=2.2) respondents, as well as all three age brackets (Median=2.2), showed identical median engagement scores.
- **Educational Level:** Engagement scores varied significantly by educational attainment ($p=0.008$). Participants holding a master's or doctorate degree showed the highest median engagement score (Median=2.6, range: 0.0–6.0), followed by those with a bachelor's degree (Median=2.1, range: 0.7–6.0) and those with less than a bachelor's degree (Median=1.8, range: 0.9–6.0).
- **Nationality:** Saudi employees demonstrated a significantly higher median engagement score compared to non-Saudi employees (Median =2.7, range: 0.0–6.0 vs. Median=1.8, range: 0.9–5.9; $p<0.001$).

Table 1. Comparison of Employee Engagement Level with Demographic and Work-Related Factors (n = 338)

Variable	Category	n	Median	Minimum	Maximum	P-value
Age Group	18–34	127	2.2	0.0	6.0	0.610*
	35–44	141	2.2	0.5	5.9	
	45+	70	2.2	1.0	5.9	
Gender	Female	177	2.2	0.5	5.7	0.387**
	Male	161	2.2	0.0	6.0	
Nationality	Saudi	244	2.7	0.0	6.0	<0.001**
	Non-Saudi	94	1.8	0.9	5.9	
Educational Level	Less than bachelor's degree	80	1.8	0.9	6.0	0.008*
	Bachelor's Degree	139	2.1	0.7	6.0	
	Master's/Doctorate Degree	119	2.6	0.0	6.0	
Years of Experience	<5 years	74	2.2	0.7	6.0	0.001*
	6–10 years	122	2.0	0.0	5.9	
	>10 years	142	2.5	0.5	6.0	
Position	Manager	65	2.2	1.2	5.9	<0.001*
	Staff	113	3.0	0.5	6.0	
	Supervisor	82	2.1	0.0	5.9	
	Team Leader	78	1.8	0.9	5.3	
Department	Administration	48	3.1	0.0	6.0	<0.001*
	Clinical	113	2.6	0.5	5.9	
	Other (non-specified)	24	2.1	0.7	5.4	
	Support Services	57	1.9	0.9	5.7	
	Technical	96	1.9	1.1	5.8	
Work Schedule	Day Shift	145	3.6	0.0	6.0	<0.001*
	Night Shift	98	1.6	0.7	6.0	
	Rotating Shifts	95	2.0	0.7	5.8	

Association of Work-Related Factors with Employee Engagement

All evaluated work-related variables—years of experience, organizational position, department, and work schedule—demonstrated statistically significant associations with employee engagement levels ($p\leq 0.001$ for all; Table 1).

- **Years of Experience:** Employees with over 10 years of experience reported the highest engagement (Median=2.5, range: 0.5–6.0), followed by those with less than 5 years (Median=2.2, range: 0.7–6.0) and those with 6–10 years (Median=2.0, range: 0.0–5.9; $p=0.001$).
- **Organizational Position:** Engagement scores differed significantly across professional ranks ($p<0.001$). Staff members reported the highest median engagement score (Median=3.0, range: 0.5–6.0), while team leaders reported the lowest (Median = 1.8, range: 0.9–5.3). Managers (Median = 2.2) and supervisors (Median = 2.1) showed intermediate engagement levels.
- **Departments:** Employee engagement varied substantially across functional departments ($p<0.001$). Administration personnel reported the highest engagement level (Median = 3.1, range: 0.0–6.0), followed by

Clinical staff (Median = 2.6, range: 0.5–5.9). Support Services (Median=1.9, range: 0.9–5.7) and technical personnel (Median=1.9, range: 1.1–5.8) recorded the lowest median engagement scores.

- **Work Schedule:** Shift type yielded one of the most pronounced differences in engagement ($p<0.001$). Day-shift workers revealed higher median engagement (Median=3.6, range: 0.0–6.0) than those working rotating shifts (Median=2.0, range: 0.7–5.8) or night shifts (Median=1.6, range: 0.7–6.0).

Association of Demographic Factors with Servant Leadership

Non-parametric bivariate analysis evaluated perceptions of servant leadership across participants' demographic characteristics ($n=338$). As shown in Table 2, servant leadership scores differed significantly by nationality, years of experience, position, department, and work schedule. Nevertheless, no statistically significant differences were found by age group, gender, or educational level.

Table 2. Comparison of Servant Leadership Level with Demographic and Work-Related Factors (n = 338)

Variable	Category	n	Median	Minimum	Maximum	P-value
Age Group	18–34	127	2.9	1.0	7.0	0.633*
	35–44	141	2.9	1.0	7.0	
	45+	70	2.9	1.2	6.6	
Gender	Female	177	2.8	1.0	7.0	0.097**
	Male	161	3.0	1.0	7.0	
Nationality	Saudi	244	3.3	1.0	7.0	<0.001**
	Non-Saudi	94	2.7	2.0	6.6	
Educational Level	Less than bachelor's degree	80	2.7	2.0	7.0	0.055*
	Bachelor's Degree	139	2.8	1.0	7.0	
	Master's/Doctorate Degree	119	3.2	1.0	6.9	
Years of Experience	<5 years	74	2.9	1.0	7.0	0.044**
	6–10 years	122	2.9	1.0	6.6	
	>10 years	142	3.0	1.0	7.0	
Position	Manager	65	2.9	1.9	7.0	<0.001**
	Staff	113	3.7	1.0	7.0	
	Supervisor	82	2.8	1.0	6.8	
	Team Leader	78	2.7	1.3	5.9	
Department	Administration	48	4.1	1.0	7.0	<0.001**
	Clinical	113	3.3	1.0	6.9	
	Other (non-specified)	24	2.8	1.5	5.6	
	Support Services	57	2.7	2.0	6.8	
	Technical	96	2.8	1.2	6.4	
Work Schedule	Day Shift	145	4.2	1.0	7.0	<0.001*
	Night Shift	98	2.6	1.0	4.6	
	Rotating Shifts	95	2.9	1.5	6.4	

- **Age and Gender:** No statistically significant variations in servant leadership ratings were observed across age groups ($p=0.633$) or gender ($p=0.097$). All age brackets showed an identical median rating (Median=2.9), while male respondents (Median=3.0, range: 1.0–7.0) reported slightly higher median scores than female respondents (Median=2.8, range: 1.0–7.0), though the difference was not statistically significant.
- **Educational Level:** Perceptions of servant leadership tended to increase with educational attainment, reaching borderline statistical significance ($p=0.055$). Employees with a master's or doctorate degree recorded the highest median score (Median=3.2, range: 1.0–6.9), compared to those holding a bachelor's degree (Median=2.8, range: 1.0–7.0) or less than a bachelor's degree (Median=2.7, range: 2.0–7.0).
- **Nationality:** Saudi respondents reported significantly higher median ratings for servant leadership compared to non-Saudi respondents (Median=3.3, range: 1.0–7.0 vs. Median=2.7, range: 2.0–6.6; $p<0.001$).

Association of Work-Related Factors with Servant Leadership

Significant associations were evident across all four work-related variables: years of experience, job position, department, and work schedule ($p < 0.05$ for all; Table 2).

- **Years of Experience:** Servant leadership scores varied significantly by tenure ($p = 0.044$). Employees with more than 10 years of experience reported the highest median rating (Median = 3.0, range: 1.0–7.0), whereas those with less than 5 years (Median = 2.9, range: 1.0–7.0) and 6–10 years (Median = 2.9, range: 1.0–6.6) reported identical, slightly lower median ratings.
- **Job Position:** Ratings differed significantly across professional ranks ($p < 0.001$). Staff members perceived the highest levels of servant leadership (Median = 3.7, range: 1.0–7.0). In contrast, team leaders recorded the lowest median rating (Median = 2.7, range: 1.3–5.9), while supervisors (Median = 2.8, range: 1.0–6.8) and managers (Median = 2.9, range: 1.9–7.0) revealed intermediate levels.
- **Department:** Perceived servant leadership varied substantially by organizational department ($p < 0.001$). Personnel in Administration reported the highest median score (Median = 4.1, range: 1.0–7.0), followed by Clinical personnel (Median = 3.3, range: 1.0–6.9). Technical (Median = 2.8), Support Services (Median = 2.7), and other non-specified departments (Median = 2.8) had lower median scores.
- **Work Schedule:** Shift type was strongly associated with servant leadership perceptions ($p < 0.001$). Day-shift workers reported higher median scores (Median = 4.2, range: 1.0–7.0) compared to those working rotating shifts (Median = 2.9, range: 1.5–6.4) and night shifts (Median = 2.6, range: 1.0–4.6).

A multiple linear regression analysis evaluated independent predictors of employee engagement while adjusting for demographic and work-related characteristics ($n = 338$). The overall regression model was statistically significant and accounted for a substantial proportion of variance in employee engagement scores (Adjusted $R^2 = 0.669$). As detailed in Table 3, perceived servant leadership score, mid-level tenure, nationality, and night-shift work were statistically significant independent predictors of employee engagement.

Table 3. Multiple Linear Regression Analysis of Factors Associated with Employee Engagement ($n = 338$)

Variable	B	SE	95% CI	P-value
Servant Leadership Score	0.729	0.037	0.656 to 0.803	<0.001
Years of Experience (6–10 years)	-0.277	0.119	-0.511 to -0.042	0.021
Years of Experience (>10 years)	-0.050	0.124	-0.294 to 0.194	0.688
Age Group (35–44 years)	-0.005	0.105	-0.211 to 0.201	0.960
Age Group (45+ years)	0.102	0.128	-0.150 to 0.354	0.427
Female Gender	-0.061	0.088	-0.233 to 0.112	0.488
Non-Saudi Nationality	-0.259	0.102	-0.460 to -0.058	0.012
Bachelor's Degree	0.004	0.114	-0.221 to 0.228	0.975
Master's/Doctorate Degree	0.093	0.119	-0.141 to 0.328	0.434
Manager	-0.141	0.132	-0.399 to 0.118	0.286
Supervisor	0.010	0.121	-0.228 to 0.248	0.935
Team Leader	-0.065	0.125	-0.312 to 0.181	0.603
Clinical Department	-0.133	0.136	-0.401 to 0.135	0.330
Support Services Department	-0.051	0.163	-0.371 to 0.269	0.753
Technical Department	-0.122	0.148	-0.414 to 0.170	0.412

Other Department	0.215	0.199	-0.176 to 0.607	0.280
Night Shift	-0.397	0.124	-0.642 to -0.153	0.002
Rotating Shifts	-0.206	0.118	-0.439 to 0.027	0.083

Dependent variable: Employee Engagement Level

Adjusted R² = 0.669

Among the predictors, servant leadership was the strongest positive predictor of employee engagement ($B = 0.729$, $SE = 0.037$, 95% CI: [0.656, 0.803], $p < 0.001$). For each unit increase in perceived servant leadership rating, employee engagement increased by 0.729 units, holding all covariates constant. Regarding work schedule, compared with day-shift workers (reference group), night shifts were significantly associated with lower employee engagement scores ($B = -0.397$, $SE = 0.124$, 95% CI: [-0.642, -0.153], $p = 0.002$). Working rotating shifts showed a negative trend toward lower engagement relative to day shifts ($B = -0.206$, 95% CI: [-0.439, 0.027]), but this did not reach statistical significance ($p = 0.083$).

Compared with employees with less than 5 years of experience (reference group), those with 6–10 years of experience had significantly lower engagement ($B = -0.277$, $SE = 0.119$, 95% CI: [-0.511, -0.042], $p = 0.021$). However, employees with more than 10 years of experience did not differ significantly in engagement from the reference group ($B = -0.050$, $p = 0.688$). The study also analyzed participants' nationality. Non-Saudi nationality was significantly associated with lower engagement than Saudi nationality ($B = -0.259$, $SE = 0.102$, 95% CI: [-0.460, -0.058], $p = 0.012$). Finally, the covariates were age group, gender, educational attainment, organizational position, and functional department. None of these variables showed statistically significant independent associations with employee engagement in the multivariate model ($p > 0.05$ for all).

DISCUSSION

The study examined how perceived servant leadership affects employee engagement among staff at the Saudi Ministry of Health, controlling for a comprehensive set of demographic and work-related characteristics in a sample of 338 participants. Multivariate regression showed that servant leadership was the strongest positive predictor of employee engagement, with each unit increase in servant leadership associated with a substantial rise in engagement scores. This finding confirms the primary hypothesis and aligns with a growing global literature indicating that leadership styles centered on empathy, stewardship, and employee development foster supportive work environments that heighten worker motivation and organizational commitment.

While servant leadership has gained widespread recognition as an effective management paradigm, its specific influence on employee outcomes in healthcare settings remains underexplored.¹² Scholarly literature emphasizes the need to further investigate how cultural dimensions shape the enactment and perception of servant leadership and how this leadership style ultimately drives sustainable organizational success.¹³ To address this gap, the primary objective of this study was to examine the impact of servant leadership on employee engagement among healthcare staff within the Saudi Ministry of Health (MOH). The study findings revealed a strong, positive, independent association between servant leadership and employee engagement, confirming that leadership behaviors centered on empathy, stewardship, and empowerment foster a supportive work environment that heightens staff commitment and motivation.

This strong relationship aligns with recent empirical literature and theoretical frameworks. A 2024 systematic review synthesizing 55 medical studies concluded that servant leadership is vital for enhancing institutional performance and staff dedication.¹ Furthermore, servant leadership has been shown to elevate employee well-being, psychological health, and teamwork—key determinants of workplace engagement.¹⁴ From a theoretical standpoint, Social Exchange Theory provides a robust framework for interpreting these results; it posits that when leaders demonstrate genuine care and support, employees feel an implicit obligation to reciprocate with favorable workplace attitudes and enhanced discretionary effort.¹⁵ Beyond immediate engagement outcomes, a meta-analysis of 25 studies found that employee engagement is significantly correlated with healthcare quality ($r = 0.26$, $p < 0.01$), demonstrating that servant leadership yields benefits that extend directly to patient care outcomes.¹⁶

The significant disparity in engagement observed between Saudi and non-Saudi employees aligns with established cross-cultural leadership concepts. International research shows that the effectiveness and reception of servant

leadership vary by cultural dimensions such as collectivism and power distance, which are especially prominent in Middle Eastern healthcare environments.¹⁷ Specific core components of servant leadership—namely empowerment, active listening, and emotional processing—were key drivers of employee dedication. Supporting this mechanism, prior research among Saudi healthcare workers in the Asir region showed that emotional intelligence strongly correlates with all facets of servant leadership, including empowerment, emotional processing, and community development.¹⁸ However, recent statistics also caution that much of the material currently in publication is of cross-sectional design and thus limits the possibility of drawing conclusions about causality.¹⁹

When examining demographic and work-related variables, bivariate analyses initially suggested that higher educational attainment and longer tenure were associated with higher engagement, echoing literature linking greater experience to stronger professional identity, autonomy, and intrinsic motivation.²⁰ However, after adjusting for covariates in the multivariate regression model, employees with 6–10 years of experience reported significantly lower engagement than those with less than five years of service. This discrepancy points toward mid-career stagnation or professional burnout, a well-documented phenomenon in healthcare literature.²¹ Furthermore, significant variations in engagement and leadership perceptions emerged across departments, positions, and work schedules. Night-shift personnel and support staff reported lower engagement and lower perceived servant leadership than administrative and day-shift workers, mirroring evidence that shift patterns, workload, and physical proximity to leadership strongly shape perceived support and morale.^{22, 23}

These findings carry important practical implications for healthcare administrators and MOH policymakers. Health organizations should implement targeted training initiatives that cultivate servant leadership behaviors, focusing on active listening, empathy, and employee empowerment. Given the structural disparities observed across departments and shift schedules, leadership strategies must be tailored to off-peak operational units—such as night-shift staff—who experience reduced leadership visibility.

Several methodological limitations must be acknowledged. First, the cross-sectional study design limits the ability to establish definitive causal relationships.¹⁸ Second, the use of self-reported survey data introduces potential common methods and social desirability biases. Third, sampling exclusively within public Ministry of Health facilities may constrain the generalizability of findings to private healthcare organizations or other geographical regions. Finally, the model did not account for unmeasured organizational factors such as fatigue, institutional culture, and explicit burnout metrics.

CONCLUSION

This study provides empirical evidence that servant leadership is a powerful independent predictor of employee engagement in the public healthcare sector. By prioritizing empathy, stewardship, active communication, and structural empowerment, servant leaders cultivate a supportive organizational environment that significantly enhances workforce motivation and commitment. Furthermore, the observed disparities across shift schedules, nationality, and occupational tenure underscore the need for nuanced, context-specific leadership strategies rather than one-size-fits-all administrative interventions.

Targeted efforts to close leadership visibility gaps—especially for off-peak shift workers and mid-career professionals—are essential to sustaining organizational morale. Ultimately, institutionalizing servant leadership principles in healthcare management training offers a viable, scalable strategy to optimize workforce well-being, strengthen operational performance, and elevate the overall quality of patient care.

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