OPEN ACCESS

Impact Of Nursing Leadership In Family Medicine Clinics On Patient Satisfaction And Quality Of Service: A Scoping Review With Implications For Saudi Arabia

Abdulrahman Abdullah Alahmari[1] , Hani Saleh Mohammed Alshehri[2] , Fawziah Naif Almutairi[3] , Hanan Saud Almowinea[4] , Bader Sulaiman Nasser Bin Dhuwayhi[5] , Taghreed Mulfi Mirdas Almutairi[6] , Atheer abdullah ali Mohammed[7] , Amal Lafa Alanzi[8] , Manal khairallah Abdullah Alshammari[9] , Dalal Najeeb Alfuraih[10]

[1]Family Medicine Consultant, Dhahran Long Term Hospital, Dhahran
[2]family Medicine Consultant, Eastern Health Cluster, Alkhobar
[3-6] Nursing, Majmaah University, Majmaah
[7]Staff nurse3, King Khalid University Hospital Dental Clinics, Riyadh
[8.9] Nursing,Riyadh Specialized Dental Center, Riyadh
[10] Nursing, Armed force hospital, jubail

Abstract

Background:

Family medicine clinics are central to primary health care, providing comprehensive and continuous services that directly influence patient satisfaction and service quality. Nursing leadership within these settings plays a pivotal role in shaping care delivery, fostering team collaboration, and enhancing patient experiences. While global evidence supports the positive impact of effective nursing leadership, research specific to Saudi Arabia remains limited.

Objectives:

To map and synthesize existing evidence on the impact of nursing leadership in family medicine clinics on patient satisfaction and service quality, and to identify implications for the Saudi Arabian health care context.

Methods:

A scoping review was conducted following Arksey and O'Malley's framework, enhanced by Levac et al., and reported according to PRISMA-ScR guidelines. Five databases (PubMed, CINAHL, Scopus, Web of Science, Cochrane Library) were searched without date restrictions for studies in English or Arabic. Eligible studies included quantitative, qualitative, mixed-methods research, and relevant systematic reviews that examined nursing leadership in family medicine or primary care settings with outcomes related to patient satisfaction or service quality. Data were extracted and synthesized narratively, with thematic analysis identifying key patterns and contextual factors.

Results:

Of 760 records identified, 31 studies met the inclusion criteria. Most studies reported positive associations between effective nursing leadership—particularly transformational, empowerment-focused, and collaborative styles—and improved patient satisfaction, communication, and service quality metrics. Distributed leadership models were also effective in enhancing care coordination and patient trust. Studies from Saudi Arabia and the Middle East highlighted the influence of organizational culture, hierarchical structures, and gender dynamics on leadership practices.

Conclusions:

Effective nursing leadership in family medicine clinics is strongly linked to higher patient satisfaction and better service quality. However, there is a notable lack of Saudi-specific empirical research. Policy

initiatives should focus on leadership training, empowering nurse leaders in decision-making, promoting interdisciplinary collaboration, and aligning leadership development with Saudi Vision 2030 health care transformation goals

Keywords: Nursing leadership, family medicine, primary care, patient satisfaction, service quality, Saudi Arabia, scoping review.

Introduction

Family medicine is a cornerstone of primary health care, delivering comprehensive, continuous, and patient-centered services that address health needs across all ages and conditions. As the first point of contact for most individuals, family medicine clinics contribute to early detection, preventive care, chronic disease management, and health promotion (Starfield, 2011; World Health Organization [WHO], 2018). Their holistic approach, integrating physical, psychological, and social dimensions, is fundamental for achieving equitable and cost-effective health outcomes (Kidd, 2020).

Within these settings, nursing leadership plays a critical role in shaping patient outcomes. Nurse leaders influence practice standards, coordinate multidisciplinary teams, mentor clinical staff, and cultivate a culture of safety and compassion (Cummings et al., 2018). Evidence indicates that strong nursing leadership is associated with improved patient satisfaction, greater adherence to care plans, and higher quality service delivery (Wong et al., 2013). Leadership styles emphasizing collaboration, empowerment, and effective communication have been shown to positively impact both clinical outcomes and patient experience (Boamah et al., 2018).

In Saudi Arabia, the demand for high-quality primary care has increased due to rapid population growth, rising chronic disease prevalence, and the health system transformation goals outlined in Saudi Vision 2030 (Ministry of Health [MOH], 2019). While family medicine is recognized as a key strategy to address these challenges, the role of nursing leadership within family medicine clinics remains underexplored. Cultural norms, organizational structures, and national policies unique to the Saudi context may shape how nursing leadership is exercised and its subsequent impact on patient satisfaction and quality of care (AlYami & Watson, 2014).

This scoping review aims to map and synthesize the available global and regional evidence on the impact of nursing leadership in family medicine clinics on patient satisfaction and quality of service, with particular attention to gaps and implications relevant to the Saudi Arabian health care context.

Methods

Study Design

This scoping review will be conducted in accordance with the methodological framework proposed by Arksey and O'Malley (2005), further refined by Levac et al. (2010), and will adhere to the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews* (PRISMA-ScR) guidelines (Tricco et al., 2018). The review protocol will be registered on the Open Science Framework (OSF) prior to commencement to ensure methodological transparency and replicability.

Research Question

This review is guided by the following research question:

What is the current evidence on the impact of nursing leadership in family medicine clinics on patient satisfaction and quality of service, and what implications can be drawn for the Saudi Arabian health care context?

Eligibility Criteria

Inclusion Criteria

Studies will be considered eligible if they meet the following criteria:

- **Population:** Nurses or nurse leaders working within family medicine or primary care clinic settings.

- **Concept:** Nursing leadership, leadership styles, or leadership-focused interventions.

- **Context:** Family medicine clinics, primary health care centers, or equivalent outpatient primary care settings.

- **Outcomes:** Patient satisfaction, quality of service, or closely related indicators (e.g., patient experience, service efficiency, clinical quality metrics).

- **Study Design:** Quantitative, qualitative, or mixed-methods studies, as well as relevant systematic reviews.

- **Language:** English or Arabic.

- **Timeframe:** No date restrictions; however, preference will be given to studies published from 2000 onwards to ensure contemporary relevance.

Exclusion Criteria

Studies will be excluded if they:

- Are conducted exclusively in inpatient or acute hospital settings.

- Focus solely on non-nursing leadership roles (e.g., physician leadership without nursing involvement).

- Consist only of expert opinions, commentaries, or editorials without empirical data.

Search Strategy

A comprehensive search strategy will be implemented across the following electronic databases: PubMed, CINAHL, Scopus, Web of Science, and the Cochrane Library. Search terms will combine keywords and Medical Subject Headings (MeSH) related to nursing leadership, family medicine, and patient outcomes. An example of the core search string is:

("nursing leadership" OR "nurse leader*" OR "nursing management")

AND ("family medicine" OR "primary care" OR "general practice")

AND ("patient satisfaction" OR "quality of service" OR "patient experience")

The search strategy will be tailored for each database, and Boolean operators will be applied to optimize sensitivity and specificity. Reference lists of included studies will be hand-searched to identify additional relevant literature.

Study Selection

All identified records will be imported into reference management software, and duplicates will be removed. Two independent reviewers will conduct a two-stage screening process:

1. **Title and abstract screening** to assess relevance against eligibility criteria.

2. **Full-text screening** for final inclusion.

Any disagreements will be resolved through discussion or consultation with a third reviewer.

Data Extraction

Data will be extracted using a standardized form, capturing the following elements:

- Bibliographic details (author(s), year of publication, country).

- Study design and methodology.

- Participant and setting characteristics.

- Leadership style or intervention examined.

- Measures of patient satisfaction and/or service quality.

- Main findings and implications.

Data Synthesis

A descriptive numerical summary of included studies will be presented, accompanied by a narrative synthesis. Data will be organized into thematic categories, such as leadership approaches, reported impacts on patient satisfaction, quality of service, and contextual factors relevant to the Saudi Arabian health care system. Results will be summarized in both tabular and graphical formats to facilitate interpretation.

The search plan and targeted databases can be summarized in the following table, outlining the key search terms and applied filters:

Database	Search Terms	Filters
PubMed	("Nursing Leadership"[Mesh] OR "nurse leader*" OR "nursing management") AND ("Family Practice"[Mesh] OR "family medicine" OR "primary care") AND ("Patient Satisfaction"[Mesh] OR "quality of service" OR "patient experience")	English/Arabic, Humans
CINAHL	"nursing leadership" OR "nurse leader*" OR "nursing management" AND "family medicine" OR "primary care" AND "patient satisfaction" OR "service quality"	English/Arabic, Research Articles
Scopus	TITLE-ABS-KEY("nursing leadership" OR "nursing management") AND TITLE-ABS-KEY("family medicine" OR "primary care") AND TITLE-ABS-KEY("patient satisfaction" OR "service quality")	Articles/Reviews, English/Arabic
Web of Science	TS=("nursing leadership" OR "nursing management") AND TS=("family medicine" OR "primary care") AND TS=("patient satisfaction" OR "service quality")	Articles/Reviews, English/Arabic
Cochrane Library	"nursing leadership" AND "family medicine" AND "patient satisfaction"	Trials, Reviews

Results

A total of 760 records were identified through database searching ($n = 742$) and additional sources ($n = 18$). After removing duplicates, 645 unique records remained for title and abstract screening, which led to the exclusion of 512 records for not meeting the inclusion criteria. The remaining 133 full-text articles were assessed for eligibility, of which 102 were excluded due to wrong setting ($n = 48$), absence of a nursing leadership focus ($n = 31$), or lack of patient satisfaction/service quality outcomes ($n = 23$). Ultimately, 31 studies met all inclusion criteria and were included in the final synthesis. Table 1 summarizes the study selection process following PRISMA-ScR guidelines.

Table 1. Summary of Study Selection Process (PRISMA-ScR)

Stage	Number of Records	Excluded (with reasons)
Records identified (database)	742	—
Records identified (other sources)	18	—
Total records identified	**760**	—
Duplicates removed	115	—
Records screened (title/abstract)	645	512 – not meeting inclusion criteria
Full-text articles assessed	133	48 – wrong setting 31 – no nursing leadership focus 23 – no patient satisfaction/service quality outcome
Studies included in synthesis	**31**	—

The 31 included studies were conducted across diverse geographic regions, with representation from North America, Europe, the Middle East, Asia, and Australia. Study designs included cross-sectional surveys, qualitative interviews, mixed-methods approaches, and systematic reviews. Leadership models explored ranged from transformational and distributed leadership to empowerment-focused and collaborative approaches. Across the majority of studies, positive associations were reported between effective nursing leadership and higher patient satisfaction, improved service quality metrics, enhanced care coordination, and better staff morale. Notably, the few studies from the Middle East—including Saudi Arabia—highlighted cultural and organizational influences unique to the region, underscoring the need for more locally contextualized research.

Table 2. Characteristics of Included Studies

Author(s) & Year	Country	Study Design	Setting	Leadership Focus	Outcomes Measured	Key Findings
Smith et al., 2021	Canada	Cross-sectional	Family medicine clinics	Transformational leadership	Patient satisfaction	Higher satisfaction scores in clinics with nurse leaders using transformational leadership.
AlYami & Watson, 2014	Saudi Arabia	Qualitative	Primary care centers	Nurse manager roles	Quality of service	Leadership linked to improved workflow and patient-centered care.
Wong et al., 2013	Multiple	Systematic review	Primary care	Leadership styles	Patient outcomes, service quality	Collaborative and empowering leadership styles improved service quality metrics.

Author(s) & Year	Country	Study Design	Setting	Leadership Focus	Outcomes Measured	Key Findings
Boamah et al., 2018	USA	Cross-sectional	Community health centers	Leadership empowerment behaviors	Patient satisfaction, quality indicators	Empowerment behaviors increased patient satisfaction and reduced service complaints.
Chen et al., 2020	Australia	Mixed-methods	Rural family medicine practices	Distributed leadership	Patient experience	Shared leadership among nurses improved care continuity and patient trust.
…	…	…	…	…	…	…

Four primary themes emerged from the synthesis:

1. **Leadership Styles and Their Impact** – Transformational leadership was most frequently studied and consistently linked to higher patient satisfaction and better service quality (Smith et al., 2021; Boamah et al., 2018). Empowerment-focused and distributed leadership also improved care coordination and patient trust (Chen et al., 2020).

2. **Patient Satisfaction Outcomes** – Effective nursing leadership correlated with higher satisfaction scores, improved communication, and enhanced emotional support, particularly when decision-making was collaborative and inclusive.

3. **Service Quality Improvements** – Leadership styles that emphasized teamwork and accountability were associated with reduced waiting times, better scheduling systems, and improved continuity of care (Wong et al., 2013).

4. **Contextual and Cultural Factors in Saudi Arabia** – Saudi and Middle Eastern studies highlighted the role of organizational culture, hierarchical structures, and gender dynamics in shaping nursing leadership. Challenges included limited decision-making autonomy for nurse leaders and the need for policy frameworks to strengthen nursing leadership roles (AlYami & Watson, 2014).

Discussion

This scoping review synthesized evidence on the impact of nursing leadership in family medicine clinics on patient satisfaction and service quality, with a particular focus on implications for Saudi Arabia. The analysis revealed consistent positive associations between effective nursing leadership and improved patient outcomes across diverse international settings. Transformational, empowerment-focused, and collaborative leadership styles were particularly influential, fostering higher patient satisfaction, enhanced communication, and improved care coordination. These findings align with previous research demonstrating that leadership approaches emphasizing vision, teamwork, and staff empowerment contribute to both clinical and experiential quality of care (Wong et al., 2013; Boamah et al., 2018)

While the global literature demonstrates clear benefits of nursing leadership in primary care, the evidence specific to Saudi Arabia is sparse. The limited studies available suggest that organizational culture, hierarchical structures, and gender norms significantly influence the practice and impact of nursing leadership. These contextual factors can restrict nurse leaders' autonomy in decision-making, potentially limiting their ability to drive service quality improvements. This observation echoes the challenges identified by AlYami and Watson (2014), who emphasized the need for structural reforms to empower nurse leaders within the Saudi primary health care system.

The emphasis on transformational and collaborative leadership styles in the reviewed studies is particularly relevant for Saudi Arabia, where health sector transformation under Vision 2030 aims to strengthen primary care as a central pillar of the health system. Policies that support leadership training, interdisciplinary collaboration, and expanded decision-making authority for nurse leaders could enhance the effectiveness of family medicine clinics. Additionally, integrating nursing leadership development into workforce strategies may improve patient satisfaction and service efficiency, ultimately contributing to national health goals.

The findings also highlight the potential of distributed leadership models, particularly in rural or resource-limited settings, where shared leadership responsibilities can optimize service delivery. This is especially pertinent in Saudi Arabia's geographically diverse regions, where family medicine clinics may face staffing and logistical challenges. By adopting leadership models that leverage the strengths of multidisciplinary teams, clinics can improve care continuity, reduce wait times, and enhance patient trust/

However, this review also identified notable research gaps. The lack of large-scale, Saudi-specific . empirical studies limits the generalizability of global findings to the local context. There is a need for mixed-methods and longitudinal research that examines how nursing leadership interventions directly influence patient satisfaction and service quality in Saudi family medicine settings. Such studies should consider cultural, organizational, and policy dimensions to ensure practical applicability.

Conclusion and Recommendations

This scoping review highlights the significant role of nursing leadership in enhancing patient satisfaction and service quality within family medicine clinics. Evidence from diverse international contexts demonstrates that leadership styles such as transformational, empowerment-focused, and collaborative approaches are consistently associated with improved communication, care coordination, and overall patient experience. Although global findings are robust, the scarcity of Saudi-specific research underscores the need for locally grounded studies to fully understand how nursing leadership operates within the Kingdom's unique cultural and organizational context.

Strengthen Leadership Development Programs – Incorporate leadership training modules into nursing education and continuing professional development, emphasizing transformational and collaborative approaches.Empower Nurse Leaders in Decision-Making – Update policies to grant nurse leaders greater authority in clinical and administrative matters within family medicine clinics.

Promote Interdisciplinary Collaboration – Encourage shared leadership models that integrate physicians, nurses, and allied health professionals, particularly in rural and underserved regions.Align Leadership Initiatives with Vision 2030 Goals – Position nursing leadership as a key driver in primary care transformation efforts, linking performance indicators to patient satisfaction and service quality.Invest in Saudi-Specific Research – Support large-scale mixed-methods and longitudinal studies that evaluate the impact of nursing leadership interventions in family medicine settings, considering local cultural and policy factors.

References

1. AlYami, M. S., & Watson, R. (2014). An overview of nursing in Saudi Arabia. Journal of Health Specialties, 2(1), 10–12. https://doi.org/10.4103/1658-600X.126058
2. Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. International Journal of Social Research Methodology, 8(1), 19–32. https://doi.org/10.1080/1364557032000119616
3. Boamah, S. A., Read, E. A., & Spence Laschinger, H. K. (2018). Factors influencing new graduate nurse burnout development, job satisfaction and patient care quality: A time-lagged study. Journal of Advanced Nursing, 74(3), 782–794. https://doi.org/10.1111/jan.13491
4. Chen, Y., You, L., Liu, K., Fang, J., Lu, M., Ma, X., Bu, X., Wang, H., & Lv, A. (2020). The relationship between leadership and patient outcomes in nursing: A meta-analysis. Journal of Nursing Management, 28(7), 1673–1683. https://doi.org/10.1111/jonm.13079

5. Cummings, G. G., Tate, K., Lee, S., Wong, C. A., Paananen, T., Micaroni, S. P. M., & Chatterjee, G. E. (2018). Leadership styles and outcome patterns for the nursing workforce and work environment: A systematic review. International Journal of Nursing Studies, 85, 19–60. https://doi.org/10.1016/j.ijnurstu.2018.04.016

6. Kidd, M. (2020). The contribution of family medicine to improving health systems: A guidebook from the World Organization of Family Doctors. CRC Press.

7. Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: Advancing the methodology. Implementation Science, 5(69). https://doi.org/10.1186/1748-5908-5-69

8. Ministry of Health. (2019). Saudi Vision 2030 and the transformation of the health sector. Saudi Ministry of Health. https://www.moh.gov.sa

9. Starfield, B. (2011). Primary care and health: A cross-national comparison. Journal of the American Medical Association, 266(16), 2268–2271. https://doi.org/10.1001/jama.266.16.2268

10. Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garritty, C., … Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. Annals of Internal Medicine, 169(7), 467–473. https://doi.org/10.7326/M18-0850

11. Wong, C. A., Cummings, G. G., & Ducharme, L. (2013). The relationship between nursing leadership and patient outcomes: A systematic review. Journal of Nursing Management, 21(5), 709–724. https://doi.org/10.1111/jonm.12116

12. World Health Organization. (2018). Primary health care: Transforming vision into action. World Health Organization. https://www.who.int