



Narrative Review of Leadership Development Programs among Medical Professionals

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Abstract

In the recent studies and large-scale radical change efforts to improve patient safety culture, leadership emerged as the most substantial influential factor in facilitating an organizational culture. Effective leaders care for and support their staffs to improve job satisfaction, loyalty, and productivity, which ultimately promote high-quality care increasing patients' experience and overall healthcare service satisfaction. In this review paper, themes like leadership in organizational culture, leadership styles, and leadership qualities were analyzed to assess the effectiveness of medical leadership in a healthcare organization where professionals at the bottom often have more significant influence in decision-making than their managers. As most literature evaluated the impact of leadership development programs at personal levels, our study has addressed the paucity of studies that assess the mechanisms by which leadership programs stimulate learning and change at organizational-level outcomes. We found that good medical leadership in an organizational culture includes effective human resources and staff management, strong senior management support, a learning environment, time for improvement efforts, and psychological safety. Transformational leadership style also showed a positive association with job satisfaction, motivation, and teamwork. Besides, a leader's well-being, pro-activeness, and willingness to learn are also essential factors. Our review advocates for leadership development programs in the medical curricula to morph leadership among medical students, graduates, and continuing physicians in a dynamic and interactive influence process.

Subject Areas

Human Resource Management

Keywords

Leadership Style, Leadership Quality, Medical Professionals

1. Introduction

The term “leadership” is described in various ways. The stereotypic idea features leaders as born charismatic individuals with extensive control over their followers towards a common goal [1] [2] [3]. However, in healthcare organizations, leadership has an inverted power structure. Professionals like doctors at the bottom generally have more significant influence in decision-making than their managers, who are nominally at the top [4] [5] [6]. Hence, the modern conceptualization recognizes shared leadership, in which the ebb and flow of power lies upon those with the expertise at each moment, notwithstanding a formal hierarchy [1] [2] [3] [7] [8] [9] [10]. It is also highlighted by the United Kingdom General Medical Council that,

“the formal leader of the team is accountable for the team’s performance, but the responsibility for identifying problems, solving them, and taking the appropriate action is shared by the team as a whole [11].”

The Healthcare Leadership Model and the Leadership Framework were introduced based on this concept of shared leadership to standardize leadership development for all healthcare workers regardless of discipline, role, or function [12] [13]. Similar to the Leadership Framework, both the Medical Leadership Competency Framework (MLCF) and Clinical Leadership Competency Framework also deliver the services to patients, service users, carers, and the public. They emphasized the five domains among doctors and clinicians, namely demonstrating personal qualities, working with others, managing services, improving services, and setting directions [1] [12] [14].

The Leadership Framework also underlies leadership styles, the modus operandi a leader practices to influence their followers [12]. Over the past decades, the classical transactional, paternalistic influence gradually transformed into a more creative, participative approach [3] [15]. Studies showed that despite the autocratic leadership being severely criticized for its authoritative approach, causing work-life imbalance and high absenteeism rate, it is yet the most effective in unexpected situations when immediate remedial decisions are needed to save patient lives [15] [16] [17]. On the contrary, transformational and democratic leadership, which encourages input from group members in a decision-making process, positively improves members’ confidence, well-being, job satisfaction, and healthcare outcome [3] [16] [17] [18] [19]. However, a study in the United States suggested that this is only seen among group members who are more experienced, resilient, or hopeful [20]. This evidence evinces the need for medical leadership interventions at all levels, from undergraduate and post-graduate curricula to on-the-job training, with tailored alterations to different scenarios [2] [15] [21] [22] [23] [24].

Leadership is indeed found to be the most decisive influential factor in facilitating an organizational culture and large-scale radical change efforts to improve patient safety culture after reviewing various strategies, including public/private

partnerships at macro levels in the past decade [4] [6] [8] [10] [25] [26] [27] [28]. A positive health leadership style prioritizes care and support services for staff to improve their satisfaction, engagement, loyalty, and productivity. This initiative promotes high-quality and compassionate care which ultimately increases patients' experience and overall satisfaction with the healthcare service [9] [10] [13] [17] [21] [29] [30] [31]. Further, the World Health Organization and recent studies showed an increasing impulse for hybrid managers, with the hopes to enhance the clinical governance of organizations in developed countries [2] [21] [22] [25] [29] [32] [33] [34] [35]. The outcome, however, was not as desired. Evidence revealed the lack of support in management training and leadership development on top of misalignment of individual and organizational goals, resulting in stress and threatened quality of patient care [2] [25] [35] [36]. In Malaysia, effective leaders are also called for at all levels to drive the complex Ministry of Health [2] [37].

However, the effectiveness of good leadership in improving outcomes at organizational levels remains unclear despite the increasing popularity of leadership development programs [7] [22] [24] [38]. In accordance with the search for more robust evidence on this topic, we aimed to collate studies that evaluated leadership effectiveness in the healthcare settings [4]. Our review paper focuses on leadership effectiveness as measured by group performance and success of group goals (healthcare outcomes), improved decision making, subordinate leader effectiveness evaluations, subordinate job satisfaction, subordinate performance, subordinate satisfaction with their leaders, advanced subordinate commitment, and performance [29] [39]. The results of our review will identify effective leadership methods and with strong evidence, will advocate for their integration into healthcare organizations.

2. Leadership in Organizational Culture

We reviewed the leadership effectiveness in improving outcomes at organizational levels under the following subthemes: 1) Human resources and staff management; 2) Senior management support; 3) Learning environment; 4) Time for improvement efforts; 5) Psychological safety. These sub-themes are related to each other as in a functioning organizational culture, seniors strategically place subordinate together to form an effective human resource team and support them closely towards organizational success. They are also the pillars of change for a conducive environment for peer learning, reflective practices, and open discussions [34]. **Table 1** shows the selected articles with the main findings and conclusion.

2.1. Human Resources and Staff Management

Staff capacity is one of the crucial resources to develop an organization [40]. Their knowledge and skills are required to collect and analyze data that can be used to sustain good organizational culture [41]. Mathole *et al.* showed that a shortage of staff in the poorly performing hospital resulted in the lack of data

Table 1. List of selected articles with the main findings and conclusion.

Article; study country; year of publication [reference no]	Type of study	Sample size	Main findings	Conclusion
Gordon <i>et al.</i> ; all countries; 2011 [47]	Systematic review	10 studies	<ul style="list-style-type: none"> • Nine out of ten studies showed improvement in attitudes or knowledge and skills in handover. • One study showed successful transfer of skills to workplace. 	Evidence from poor quality published studies on effectiveness of educational interventions to improve handover skills demonstrated the application of this skills at workplace but none was found to improve patient safety.
Mathole <i>et al.</i> ; South Africa; 2018 [42]	Mixed-methods case-study	19	<ul style="list-style-type: none"> • In the better performing hospital, innovative and supportive leadership motivated staff and improved patient satisfaction on quality of services. • In the poorly performing hospital, authoritative leadership style and insufficient support from their leaders led to frustration among staff, poor communication, and healthcare outcomes. 	Leadership styles, structures and work culture influence teamwork and maternal health care services in district hospitals where resources and support from authorities are limited.
Musinguzi <i>et al.</i> ; Uganda; 2018 [48]	Cross-sectional study	564 health workers from 228 health facilities	<ul style="list-style-type: none"> • II behaviour and IS but not management by exception, improved motivation. • IS improved job satisfaction. • IIB, II attributed and contingent reward also improved teamwork. 	Transformational styles are more positively associated with job satisfaction, motivation, and teamwork than transactional or laissez-faire styles.
Wasyliw <i>et al.</i> ; Canada; 2015 [46]	Mixed-methods pilot study	11 retreat, 10 controls, 28 informants	<ul style="list-style-type: none"> • Retreat participants reported increased mindfulness and decreased stress across 8 weeks' post-intervention. • Leadership effectiveness also improved as corroborated by the informants. 	MAP showed preliminary support in reducing perceived stress and enhancing leadership efficacy.
Weaver <i>et al.</i> ; Canada; 2015 [43]	Case-study	4 cultural artifacts	<ul style="list-style-type: none"> • Leadership statements contained principles that oriented the primary care practice towards a reliability-seeking culture of care. • "Problem knowledge coupler" decision support tools and daily "huddles" also instilled the reliability principles. • Unexpected events or close calls are reported to adjust routines and prevent adverse events. 	Leadership, tools, and organizational processes are important elements to develop a reliable-seeking culture.
Weller <i>et al.</i> ; New Zealand; 2011 [44]	Semi-structured interviews	13 junior doctors and 12 nurses	<ul style="list-style-type: none"> • Junior doctors and nurses expressed professionalism, mutual respect and saw each other as complements with non-competitive roles in patient care. • Leadership which is required to establish an inter-professional team is not always apparent. • There were barriers identified in maintaining an open communication for patient safety. 	Junior doctors and nurses demonstrated professionalism, mutual respect, and adaptability, which are essential qualities to improve inter-professional collaboration.

analysis for system planning and the lack of vital information for decision-making at the patient level. High staff turnover had led to poor leadership and functioning of maternal health services. On the contrary, the better performing hospital witnessed a higher number of patients with relatively good staffing of their hospital departments. Their managers assemble diverse team members with complementary skills and invest in human resources when deemed necessary [42].

Weaver *et al.* also explained that the “Morning Huddle” addresses reliability principle (RP) 1: Preoccupation with failure; and reliability principle 3: Sensitivity to operations, whereby it prepares staff for unexpected absence or high service demands. This principle ultimately enhances teamwork, familiarities with other’s work and experience in facing challenges. Patient service representatives also utilise “problem knowledge couple” (PKC) informatics tools to effectively support patient care decisions [43]. Weller *et al.* found that nurses are not always present during ward rounds which could prolong hospital stay when subtle changes are not conveyed to junior doctors early. Frequent roster changes also impede the development of trust among inter-professional team members. Hence, the study results showed the need to improve inter-professional collaboration by recognizing the role of leadership in coordinating a team [44].

2.2. Senior Management Support

Mentors with “professional” qualities are team players, and they assist junior staff in technical aspects of the job whenever needed. Those with “personal” qualities are also caring, helpful and flexible. Good mentors hence shape a protégé’s professional growth, motivation, and job satisfaction [45]. Weller *et al.* found that senior leaders often avoid the responsibility of setting the scene for teamwork, making the inter-professional and well-functioning team less apparent [44]. This practice was further emphasized by Mathole *et al.*, in which the study showed that staff at the poorly performing hospital became less committed as they complained of infrequent support by their senior staff in clinical governance meetings and ward-visits. The inconsistency in resource management and lack of delegation and mentorship by their leaders were blamed for their feelings of work alienation, demotivation, mistrust and increasing adverse maternal health outcomes [42]. Besides, the pilot study by Wasylkiw *et al.* uncovered the limited caring connection between leaders and their employees hence it is challenging the integration of mindfulness-awareness practice (MAP) in organizational culture. This practice also resulted in poor stress management and leadership effectiveness. Although the results were not generalizable, they formed a basis for future research [46].

2.3. Learning Environment

Leaders are good role models to cultivate an organizational learning culture where information is shared, innovation is promoted, and problems are solved

as a team [34] [41]. Mathole *et al.* found that case discussions during perinatal meetings, feedback sessions and lectures for all staff categories in the better performing hospital facilitated communication and teamwork approach in dealing with challenges. The attendance was good as participants were motivated by the space to learn, which reinforced their knowledge and confidence in handling similar cases. Meanwhile, the comparatively poorly performing hospital recorded frequent cancellation (60%) of scheduled meetings, resulting in inadequate skills and knowledge among staff members and subsequently the functioning and quality of maternal health services delivered [42]. Weaver *et al.* also explained the ability of the “Morning Huddle” as a meeting for staff and providers in ensuring smooth patient flow and office function for each day [43]. Further, Weller *et al.* identified the need for specific training in speaking up to promote proper ways to escalate challenging actions to the authorities to improve patient safety [44].

A systematic review by Gordon *et al.*, however, showed that most studies (90%) with educational interventions such as simulation, group sessions, workshops, lectures, role-play exercises and online materials for medical students and healthcare workers to improve handovers only reported the outcomes at Level 2 (improved knowledge) of the Kirkpatrick’s model. Only one study (10%) reported the outcome at Level 3 (change of behaviour) and none at Level 4 (improved patient outcomes). This review was attributed to the poor methodological quality of reported studies with the lack of detail in the interventions used and clear conclusions. The review also did not include comprehensive literature, only included the research of an interventional nature [47].

2.4. Time for Improvement Efforts

In the pillars of performance culture in high-performing organizations, effective leaders, managers and staff members practice reflection despite their busy schedules [41]. Gordon *et al.* noted a study that reported a Level 2a outcome in which seniors provide feedback to interns on their performance in receiving handovers on their first night on-call [47]. Similarly, in the study by Mathole *et al.*, system failures were reflected upon in each meeting. Both leaders and operational staff were accountable, and they discussed solutions, lessons learned and what could be done differently. Data analysis and performance were reported in meetings with staff of all levels for programme improvements. Recommendations were also implemented. This learning culture was evidently observed in the better performing hospital, which valued every “failure” as a continuous learning opportunity. Meanwhile, the poorly performing hospital with managers who were ignorant to complaints recorded an increasing number of litigation cases per month [42]. Weaver *et al.* highlighted that the PKC decision support tools are also regularly improved according to user feedback and reviews to enhance reliability, decision-making, and quality of care, fulfilling the RP 4: commitment to resilience, which is the capacity to recover, learn from and prevent a similar problem from recurring [43].

2.5. Psychological Safety

Leaders should also empower staff members to speak up when problems arise [41]. Rather than blaming and condemning, Mathole *et al.* found that leaders at the better performing hospital are more open and willing to learn from anyone with diverse backgrounds and experience. Staff members respectfully challenged each other's thinking to find the best solution as a group [42]. In the case study by Weaver *et al.*, the "Principles of Practice" was employed in primary care practice to inculcate reliability-seeking and system-oriented organizational culture. Within this Principle of Practice, the leadership statements again reinforced RP 4, acknowledging that necessary improvements should be made in "systems" rather than "persons". The "Morning Huddle" also encouraged open discussions of system problems with no feelings of personal blame [43]. In the study to understand issues affecting inter-professional collaboration among new medical and nursing graduates, Weller *et al.* noted that most junior doctors were generally open to good and reasonable suggestions by nurses. Nurses felt that they could respectfully challenge a doctor's decision if they disagree with it. The study concluded by recommending the establishment of formal processes for sharing concerns and decision making to improve inter-professional collaboration [44].

3. Leadership Styles

Leadership styles influence the quality of patient care and efficiency [16]. Mathole *et al.* showed that the transformational leadership style at the better performing hospital successfully cultivated more confident, motivated, and trusting staff. They described their leaders as inspiring, supportive, and approachable but "firm". Their voices were valued as a team, and they felt a sense of responsibility and belonging. This acknowledgement-built momentum formed the basis of their good healthcare performance [42]. The transformational leadership style was similarly advocated in the cross-sectional study by Musinguzi *et al.*, in which, its idealized influence (II) behaviour and intellectual stimulation (IS) increased motivation of healthcare workers in Uganda by 4-fold and 2-fold, respectively [48]. IS and II were also positively associated with job satisfaction and teamwork, respectively. Both Mathole *et al.* and Musinguzi *et al.* found that the transactional leadership style was less favourable as it was feared by the staff of poorly performing hospital and was only slightly positively correlated with job satisfaction and teamwork [42] [48].

Furthermore, Laissez-faire leadership did not consolidate teamwork among health workers. Nevertheless, the authors concluded the need for various leadership styles in an organization to address different scenarios [48]. Likewise, Weaver *et al.* noticed that physicians rarely take the lead in the Morning Huddles. This practice supports RP5: Deference to expertise, in which the hierarchy lines were blurred, and all members' contributions were equally celebrated. The Principles of Practice also devoted to a collaborative approach in providing care,

where patient autonomy is promoted, and non-physicians are seen as team members [43]. However, Weller *et al.* noted the lack of acknowledgement of nurses' contribution to patient care by doctors. This practice affects the mutual respect and trust in an inter-professional team. Doctors also felt the need to be approachable to nurses to foster effective teamwork [44].

4. Leadership Qualities

The MLCF describes leadership as the ability of a doctor to develop self-awareness, manage resources and improve services [14]. Despite a small sample size, Wasylikiw *et al.* showed that MAP significantly decreased stress and anxiety across eight weeks post-intervention, improved self-care, work-life balance, and hence predicted greater leadership effectiveness [46]. Mathole *et al.* portrayed that the cause of discrepancies in maternal and perinatal healthcare outcomes of the two hospitals with broadly similar resources lay in the staff pro-activeness in the better-performing hospital. They used innovative strategies to overcome financial constraints, shortage of clinical and human resources. Besides, they practised an open-door policy and constantly updated their staff with new protocols [42]. Weaver *et al.* also highlighted the leadership statement, which emphasized the importance of the desire to improve the reliability of decision-making with modern information tools and flexible standardization. This attitude tailors decisions to each unique and complex patient. The morning hurdles and process improvement protocols also serve as a reminder to always be attentive and anticipate possible problems [43].

5. Conclusions

As most literature evaluated the impact of leadership development programs at personal levels, our study has addressed the paucity of studies that assess the mechanisms by which leadership programs stimulate learning and change at organizational-level outcomes [49]. Good medical leadership in an organizational culture includes effective human resources and staff management, strong senior management support, a learning environment, time for improvement efforts, and psychological safety. Transformational leadership style also showed a positive association with job satisfaction, motivation, and teamwork. A leader's well-being, pro-activeness, and willingness to learn are also essential factors.

Recent systematic reviews suggested the need for more efforts to build self-awareness through action-based learning, feedback sessions, and self-development activities rather than just imparting conceptual knowledge to physicians through lectures and seminars [49] [50]. Although limited, available evidence also suggested for interventions like small group teaching, project-based learning, mentoring, and coaching to be included in effective longitudinal leadership curricula [24] [50]. Hence, our review also advocates for leadership development programs in the medical curricula to morph leadership among medical students, graduates, and continuing physicians in a dynamic and interactive influence process.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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List of Abbreviations

II	Idealised influence
IS	Intellectual stimulation
MAP	Mindfulness awareness practice
MLCF	Medical Leadership Competency Framework
PKC	Problem-Knowledge Couplers
RP	Reliability principle