Quality Leadership and Patient Care Quality Among Health Care Professional in Omani Government Hospitals: The Moderating-Mediating Role of Ethical Climate

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KEYWORDS

Quality Leadership, Ethical Climate, Patient Care Quality, Health Care Organizations, Oman, Smart PLS 4.0

ABSTRACT

In the healthcare industry, the relationship between quality leadership and ethical climate has garnered increasing attention due to the growing demand for quality healthcare. Therefore, it is very imperative to study the ethical climate as a moderating-mediating factor within the articulated research model. This study engaged 402 healthcare workers within the Omani government hospital sectors and employed self-administered questionnaires. Utilizing the statistical technique of Partial Least Square—Structural Equation Modeling with the SmartPLS 4.0 program as an analysis tool, the collected data underwent comprehensive analysis. The outcomes reveal that ethical climate has a partial mediating effect on the relationship between quality leadership and patient care quality. Conversely, there were no moderating effects of ethical climate on the relationship between quality leadership and patient care quality. These findings underscore the significance of quality leadership in fostering patient care quality via a positive ethical climate among employees within the Omani government hospital sectors. The study suggests that Omani government hospitals need to prioritize quality leadership to stimulate an ethical climate which subsequently improves patient care quality.

Introduction

The quality of health care is a critical concern for patients, health care providers and policymakers alike. In recent years, there has been a growing focus on the role of organizational factors in shaping the quality of care provided by health care professionals (Hamdan et al., 2024). Among these factors, quality leadership and ethical climate have

emerged as key determinants of health care quality (Strömgren et al., 2017). A positive workplace environment or ethical climate refers to the conditions and practices within an organization that promotes employee well-being, engagement and satisfaction (Borrelli et al., 2023). It encompasses various dimensions including physical work conditions, job design, interpersonal relationships and organizational culture. Research has demonstrated that a positive ethical climate is associated with improved employee job satisfaction, engagement and performance across various industries, including health care (Ning et al., 2023). Healthcare is a critical sector that requires a positive workplace environment to enhance the quality of patient care and the well-being of healthcare workers (Mahon, 2023). Studies have indicated that attaining a positive ethical climate poses a significant challenge for professionals collaborating in multi-specialty teams, departments, organizations and organizational networks (Taylor et al., 2015). Given the importance of quality leadership for both patients and employees, numerous organizations have undertaken efforts to assess it (Hamdan & Jaaffar, 2024). The ethical climate within an organization plays a crucial role in shaping various aspects of both individual and organizational outcomes and behaviors. It serves as a mechanism for regulating group behavior and significantly influences employees' emotions, perceptions and actions (Abd-Elmoghith et al., 2024). Extensive research has shown that quality leadership and an ethical climate can reliably predict both positive and negative attitudes and behaviors among employees but a limited number of studies have focused on the context of the performance within healthcare sectors, namely the quality of healthcare services (Duarte et. al., 2024).

This research model is designed to explore the moderating-mediating role of ethical climate on the relationship between quality leadership and patient care quality. The theoretical underpinnings of this mechanism draw from Quality Management Theory (Anderson et al., 1994) and Hackman's five-factor model (Hackman, 1987). Quality management theory elucidates the importance of quality management on individual and organizational performance (Xu et. al., 2020), while the five-factor model focuses on five conditions that will allow them to work together successfully – these include real team, compelling direction, supportive context, an enabling structure and expert coaching (Hackman,1987).In the context of this study, the theoretical premise is that individual healthcare workers who receive quality leadership will bring about improved patient care quality as a result of a positive ethical climate. This moderating and mediating framework provides a robust foundation for investigating the intricate relationship between quality leadership, positive ethical climate and patient care quality from the perspective of healthcare workers within Omani government hospital sectors. A clear and unequivocal understanding of the most critical factors for quality leadership and a positive work environment, as perceived by healthcare workers, is imperative if hospitals aim to gain systematic and objective insights into their work environment.

Relationship between Quality Leadership and Health Care Quality:

Quality leadership of healthcare workers is of great importance in ensuring high-quality patient care (Aiken et al., 2012). It plays a pivotal role in reducing rates of hospital-acquired infections (Braithwaite et al., 2017), hospital deaths (Curry et al., 2017), readmissions (Lasater &Mchugh, 2016) and mitigating adverse events. Furthermore, quality leadership is a powerful driver for recruiting and retaining healthcare professionals which is critical in times of healthcare workforce shortages, especially given the challenges posed by the COVID-19 pandemic. Quality leaders of organizations influence the daily activities of their staff members by encouraging them to use technology to improve the quality of patient care. According to the Quality Management Theory, leaders should make sound decisions based on the analysis of data and improve the efficiency of their organizations (Xu et al., 2020). Every department of a hospital needs to have the necessary information to make informed decisions and provide high-quality care. This information is needed to improve the quality of patient care and prevent errors. Having the necessary data and timely information is also important to improve the performance of public hospitals (Chandrasekaran et al., 2012). In order to make workplaces more conducive, management has to provide the necessary resources and training to make sure that workers are equipped with the necessary skills and knowledge to operate efficiently (Aiken et al., 2012). The quality leader is the person who informs all the different departments of the hospital about the need to work together (Chakraborty, 2019); their goal is to inspire employees to be creative and enable them to make a difference in providing high-quality patient care. Leaders who are skilled in their field need to earn the trust of their subordinates in order to effectively carry out their duties. A strong relationship between the two parties can help improve the quality of the work environment (Adil & Baig, 2018).

Quality leaders encourage their subordinates to focus on the quality of patient care instead of just on the day-to-day tasks. This helps team members avoid getting distracted and only focusing on their immediate tasks. To achieve physicians' goals for success in the hospital, quality leaders remove barriers and search for opportunities by providing the necessary tools (Nwanodi, 2017). Teamwork and leadership can help organizations achieve their goals and carry out their missions. It can also help maintain their competitive edge (Donnelly et al., 2019). Leadership needs to ensure that everyone on the team is headed in the same direction and working towards the same goals by motivating team members to use their talents, knowing that they can individually join in the hard work to achieve team goals (Adil & Baig, 2018). Quality leaders can help improve the quality of care by setting realistic goals and communicating effectively with all team members. They can also help emphasize hospital priorities and send consistent communications (Donnelly et al., 2019). Quality leadership can enhance the continued effectiveness of the health care team and ultimately its cohesion (Khan et al., 2018).

Thus, the following hypothesis is formulated:
Hypothesis (H1): Quality leadership is positively related to patient care quality.

Relationship between Ethical Climates and Health Care Quality:

Ethical climate pertains to the collective understanding of ethical norms and establishes the framework for what behaviors are considered ethical and acceptable within teams, groups and organizations (Muel Kaptein, 2023). It stands apart from other moral concepts by placing a primary emphasis on the "social context in organizations" and how this context shapes employees' ethical behavior by fostering their collective moral reasoning (Newman et al., 2017). Ethical climate draws upon various concepts in moral philosophy and has been increasingly applied in empirical research, including studies conducted in healthcare settings (Aly et al., 2020). Ethical climate has been shown to exert influence over job satisfaction, perceptions of workplace support, commitment (Abou Hashish, 2015), and the intention to leave one's position (Barr, 2020). Beyond its impact on staff well-being, ethical climate is intricately tied to the delivery of health services and patient safety. Negative ethical climates have been associated with suboptimal service delivery, including deficiencies in clinical and ethical competence (Aly et al., 2020). For instance, in a specific study, nurses who viewed their ethical climate positively were less likely to make medical errors compared to those who perceived their ethical climate negatively (Hwang & Park, 2013). Ethical climate also has links to the concept of moral distress (Abou Hashish, 2015), which generally refers to the discomfort experienced by individuals when their ability to carry out an ethical action is somehow restricted. Importantly, ethical climate itself is influenced by a complex interplay of factors, including organizational culture, leadership styles, policies, procedures, and team structures, among others (Koskenvuori et al., 2017).
Furthermore, ethical climate is not a static construct; it evolves over time and varies across different locations within organizations and among various teams (Newman et al., 2017). Even before the emergence of the COVID-19 pandemic, the healthcare workforce was confronting numerous significant challenges. However, the pandemic has amplified the urgency for research in this field, as it has placed heightened strain on the provision of health services on a global scale (Essex et al., 2023). These concerns are also garnering more prominent focus from major professional organizations. For instance, in the UK, the British Medical Association recently initiated a survey to investigate moral distress among its members (Lindert, 2021). Preliminary findings indicate that the ethical climate may play a crucial role in mitigating potential stressors intensified by the pandemic (Jiang et al., 2021).

The ethical atmosphere within a healthcare organization significantly shapes the social and professional dynamics among care team members. These interactions, in turn, have a direct impact on team workflows and the outcomes for both patients and team members. The ethical climate essentially represents a collective agreement on the principles that steer moral decision-making in the workplace (Victor & Cullen, 1988). Given that hospitals environments primarily deal with patients who are facing illness or injury, it is reasonable to assume that the decisions made by healthcare providers often involve ethical considerations. Therefore, the organizational ethical climate stands as a crucial element in the healthcare context. As highlighted by Austin et al. (2005), the practice of nursing, for example, becomes deeply entwined with moral considerations because care providers are dedicated to advancing the well-

being of those who are sick or injured. A recent focus on matters such as end-of-life decision-making, adverse medical events, heightened awareness of care processes that increase the risk of medical errors, and obligations to report and disclose these errors all underscore the critical need to effectively address and resolve the often intricate ethical dilemmas encountered by healthcare providers. It is reasonable to infer that the implicit messages conveyed by the ethical priorities within the environment should inevitably influence various other vital facets of clinical care.

Thus, the formulation of the following hypothesis:
Hypothesis (H2): Ethical climates are positively related to health care quality.

Ethical Climate as a mediator between Positive Workplace Environment, and Health Care Quality

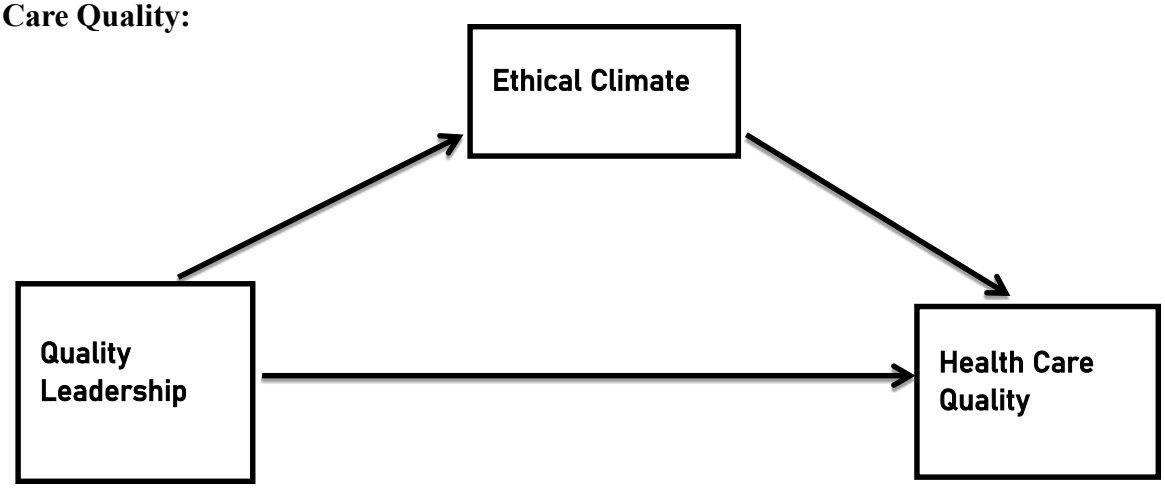
The concept of ethical climate refers to the overall perception of employees regarding the prevailing organizational practices and procedures that involve ethical considerations (Victor & Cullen, 1988). Treviño et al. (1998) emphasize that ethical climate within an organization encompasses the values and beliefs shared among employees, which align with the established norms concerning moral issues. Quality leadership has been found to promulgate ethical climate among healthcare workers in hospitals which in turn leads to a voluntary behavior to improve the service quality of the hospital (Aloustani et al., 2020). Empirical evidence from studies conducted by Schminke et al. (2005), and Mayer et al. (2009) support the notion that quality leadership which influences the workplace environment has a crucial impact on the development of an ethical climate. Quality leadership has the capability of establishing ethical standards within an organization through the implementation of procedures, policies and processes that help employees comprehend the ethical climate of the organization (Mayer et al., 2009; Schminke et al., 2005). Demirtas and Akdogan (2015) conducted empirical research which consistently demonstrated the connection between a quality leadership and various factors related to the ethical climate, such as organizational regulation, caring orientation, regulatory orientation and independent judgment.

Regarding the relationship between ethical climate and patient care quality, Hwang and Park (2014) discovered that nurses who perceived a more positive ethical climate regarding their relationships with patients were less prone to making medical errors during treatment. Moreover, Parboteeah and Kapp (2008) have found associations between different types of ethical climates and negative performance outcomes. They observed that the presence of principle climates was linked to a decrease in injury incidents and an increase in safety-enhancing behaviors. On the other hand, benevolent climates were only associated with a decrease in injury incidents, while egoism climates showed no significant relationship with either injury incidents or safety-enhancing behaviors. These studies underscore the influence of ethical climates on negative performance outcomes in healthcare settings, specifically in terms of treatment errors, injury incidents and safety behaviors.

Previous study has shown that ethical climate has a mediating effect on the relationship between ethical leadership and employee ethical behavior (Al Halbusi et

al., 2022); unethical peer behavior and employee performance (Gan et al., 2020); and leader conscientiousness and ethical leadership on employee turnover intention (Saleh et al., 2022).
Figure 1 shows the relationship between ethical climate as a mediator between quality leadership and health care quality.

Figure 1: Ethical Climate as a mediator between Quality Leadership, and Health Care Quality:



Thus, the following hypothesis is suggested:

Hypothesis (H3): Ethical climates mediate positively on the relationship between quality leadership and health care quality.

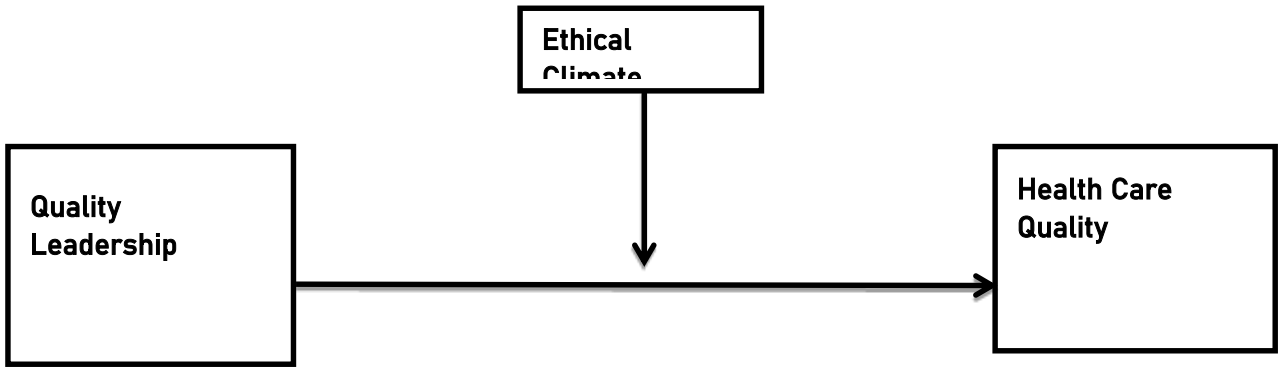
Ethical Climate as a moderator between Quality Leadership, and Health Care Quality

There is a possibility that ethical climate can influence the relationship between quality leadership and patient care quality. For instance, having a positive ethical climate can help employees feel more confident in their decisions (Lee & Ha-Brookshire, 2018). The ethical behavior of managers can have a significant impact on the development and maintenance of an organization's collective character. Grojean et al., (2004) note that the actions and relationships of a leader can influence the decisions that they make and the actions of their subordinates. Demirtas and Akdogan (2015) found a positive relationship between ethical climate and employees' ethical behavior. However, several other studies have reported inconsistent outcomes regarding the association between ethical climate and ethical behavior among employees (Deshpande and Joseph, 2009).

Ethical climate in a hospital is influenced by the leadership style and the management's climate. This suggests that the employees' ethical behavior is influenced by the leader's actions and decisions (Haldorai et al., 2020). Moreover, they also note that the ethical behavior of a leader can help reduce the concerns of the employees about the possible effects of their actions on the hospital's operations. They found that this behavior can be influenced by the leader's openness and trust, as well as the importance of

commitment (Frisch & Huppenbauer, 2014). The importance of an ethical climate in improving the quality of healthcare is acknowledged. Despite the complexity of the relationship between quality and ethics, hospitals can still use informal and formal administrative processes to improve the environment and implement effective ethical practices (Fulop & Ramsay, 2019). Research has shown that an ethical climate has a significant moderating effect on the relationship between quality leadership and employee behavior at the workplace (Haq et al., 2022). Moreover, an ethical climate has been found to strengthen the relationship between employees' self-verification striving and vigor and demand–ability fit (David et al., 2021). Another study byFahlivi et al. (2022) found significant moderating effects of ethical climate on the relationship between ethical leadership and ethical commitment. Figure 2 shows the relationship between ethical climate as a mediator of quality leadership and health care quality.

Figure 2: Ethical climate as a moderator of Quality Leadership and Health Care Quality



Thus, it is suggested that the following hypothesis be investigated:

Hypothesis (H4): Ethical climates moderate positively the relationship between quality leadership and health care quality.

METHOD

Data collection procedure

The research data collection involved a self-distributed questionnaire to 700 healthcare workers including administration staff, physicians, nurses, technical staff and paramedical staff in 14 Omani hospitals. Of the 700, 402 valid questionnaires were used for Smart PLS 4.0 structural equation modeling analysis to test the effect of independent and moderating-mediating variables. Ethics questions like identity, confidentiality and research consent were included in the questionnaires. tests. Most respondent characteristics were male (57.1%), had over 16 years of health industry experience (39.2%), were nurses (32.5%), had a bachelor's degree (40.9%), and were from Al-Buraimi governorate (26.6%). Table 1 shows complete demographic profiles.

Table 1. Respondents' Demographic Profile.

Group	Frequency	Percentage (%
Gender		
Male	230	57.1%
Female	173	42.9%
Working Experience		
1-5 Years	44	10.9%
6-10 Years	62	15.4%
11-15 Years	139	34.5%
More than 16 Years	158	39.2%
Designation		
Admin	127	31.5%
Physician	87	21.6%
Nurse	131	32.5%
Technician / Paramedical	58	14.4%
Educational Level		
High school / Lower	22	5.5%
Diploma	103	25.6%
Bachelor degree	165	40.9%
Master degree	90	22.3%
Ph.D. degree	23	5.7%
Governorate:		
Muscat	62	15.4%
North Batina	20	5%
South Batina	16	4%
Dakhilia	31	7.7%
Dahira	35	8.7%
North - Sharqiya	29	7.2%
South-Sharqiya	29	7.2%
Dhofar	41	10.2%
AL Buraimi	107	26.6%
AL Wusta	15	3.7%
Musandam	18	4.5%

Measurement

The research used quality leadership as the independent variable, ethical climate as the moderating-mediating variable, and patient care quality as dependent variable. This study

measured quality leadership using four indicators adopted from Nelson et al. (2011). For the measurement of ethical climate six items were adopted from Cullen et al., (1993). While the measurement of patient care quality was evaluated using the four-dimensional construct including Interpersonal Quality (Poulton & West, 1999), Technical Quality, Environmental Quality and Administrative Quality (Dagger et al, 2007) - each with four items and a total of 12. All measurement items are scored on a 5-point Likert scale from "strongly disagree" to "strongly agree".

Data analysis technique

The study used SmartPLS 4 to analyse Partial Least Squares – Structural Equation Modeling (PLS-SEM). PLS-SEM, a variance-based statistical method, evaluates the measurement and structural models simultaneously (Sarstedt et al., 2022). This study used regression analysis to evaluate the mediation-moderation effect of ethical climate as used by previous studies such as those by Ooi et al. (2019) and Jaaffar et al. (2023). PLS-SEM also fits easily into current research which validates theoretical models and seeks managerial advice (Hair et al., 2019). Technically reporting the results in this study consists of measurement model assessment and structural model assessment (Hair et al., 2019). In the measurement model assessment, the results of testing indicator loadings, internal consistency reliability (Cronbach's alpha and composite reliability), convergent validity or average variance extracted (AVE), and discriminant validity consisting of Fornell-Lacker criterion and heterotrait-monotrait (HTMT) ratio are reported. The structural model assessment reported the coefficient of determination (R2), the blindfolding-based cross-validated redundancy measure (Q2), and effect size ($f2$) and the significance of the path coefficient. In addition, the structural model test was run using 10,000 subsamples bootstrapping on a one-tail basis to adjust and offer a powerful approach to obtain more robust results Streukens & Leroi-Werelds (2016) and fit the theoretical foundations of the direction of the relationship in the model.

RESULT AND DISCUSION

Measurement model assessment

The measurement model results show that the indicators loadings, internal consistency reliability, convergent validity, and discriminant validity are met (see Table 2). Based on the loadings indicator, it shows that all items from quality leadership, ethical climate and patient care quality show that they are worthy of being maintained (>0.4), so that all items are not eliminated (Hair et al., 2022). Then the internal consistency reliability results show the overall construct in the satisfactory model in Cronbach's alpha and composite reliability (>0.7) (Hair et al., 2022). Next, convergent validity which was reviewed from AVE (0.5838–0.7365) produced a value above >0.5, so that all construct explains more than half of the variance of its indicators (Hair et al., 2022). Discriminant validity testing shows that the Heterotrait-Monotrait (HTMT) ratio is below the threshold of 0.9 (see Table 3), so it is suitable for further analysis (Henseler et al., 2015). In addition, the results imply that each construct is unique and captures phenomena not represented by other constructs in the model (Henseler et al., 2015).

Table 2: Measurement models.

Construct	Indicator	Mean	Loadings	Cronbach's Alpha	Composite Reliability	AVE
Ethical Climate	EC1	.9950	0.7279	0.8957	0.9008	0.6592
	EC2	.8610	0.7483			
	EC3	.7260	0.8629			
	EC4	.5900	0.8573			
	EC5	.6690	0.8388			
	EC6	.5500	0.8261			
Patient Care Quality	PCQ_AQ1	3.7840	0.8126	0.9518	0.9548	0.5838
	PCQ_AQ2	3.7290	0.7237			
	PCQ_AQ3	3.7340	0.7931			
	PCQ_AQ4	3.8230	0.8272			
	PCQ_EQ1	3.7290	0.6343			
	PCQ_EQ2	3.7690	0.6468			
	PCQ_EQ3	3.7090	0.7037			
	PCQ_EQ4	3.6790	0.6579			
	PCQ_IQ1	3.8160	0.7705			
	PCQ_IQ2	3.7460	0.7958			
	PCQ_IQ3	3.4330	0.7945			
	PCQ_IQ4	3.3310	0.7624			
	PCQ_TQ1	3.6620	0.8137			
	PCQ_TQ2	3.5220	0.8238			
	PCQ_TQ3	3.5920	0.7808			
	PCQ_TQ4	3.5270	0.8396			
Quality Leadership	QL1	3.8080	.812	0.88061	0.88767	0.7365
	QL2	3.6820	.888			

	QL3	3.6320	.848			
	QL4	3.6790	.882			

Table 3. Discriminant validity.

Heterotrait-monotrait ratio (HTMT)				**Fornell-Larcker criterion**			
	PCQ	QL	EC		PCQ	QL	EC
PCQ	0.816275			PCQ	0.811926		
QL	0.712977	0.745853		QL	0.760151	0.764081	
EC	0.466335	0.411163	0.426248	EC	0.633198	0.692701	0.858177

4.2 Structural model assessment

In testing the structural model, the results obtained were explained variance (R^2), effect size(f^2), and predictive power (Q^2) from the two dependent variables in the model tested (see Table 4). These metrics signify the degree to which exogenous variables factors can explain and predict endogenous variables (patient care quality) (Hair et al., 2022), thus they statistically support the findings of this study. The acceptance of R^2 is contingent upon the academic discipline, with the lowest acceptance rates observed in fields focusing on human behavior due to its inherent unpredictability compared to phenomena studied in the natural sciences. In the realm of social sciences, an R^2 value of 0.1 is deemed acceptable, indicating a satisfactory level of explained variance, while a value of 0.20 is considered high (Hair et al., 2012). The results of ethical climate (R^2 = 0.4009, Q^2 = 0.3930) and patient care quality (R^2 = 0.6532, Q^2 = 0.4700) can be said to be high in explained variance and medium in predictive power (Hair et al., 2022).

Table 4. Structural model testing.

Dependent Variable	**R2**	**F2**		**Q2**
		EC	**QL**	
EC	0.4009		0.6693	0.3930
PCQ	0.6532	0.4464	0.2011	0.4700

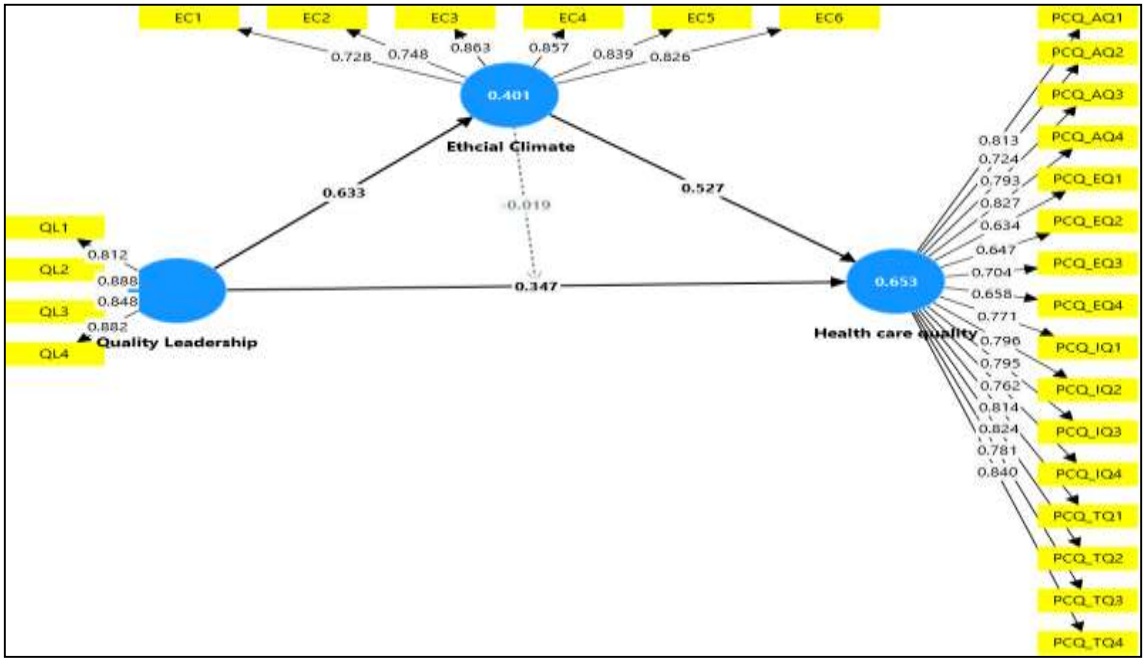
Furthermore, the results of the effect size (f^2) show that the two direct effects in the model vary between small, medium and large effects (Hair et al., 2022). The direct influence of quality leadership on patient care quality shows a medium effect (0.15–0.34). Furthermore, large effects (>0.35) were found in the direct influence of ethical climate on patient care quality. The subsequent analysis pertained to the path coefficient's significance. The findings indicated that several of the hypotheses formulated in this research were statistically significant and exhibited a positive correlation (refer to Table 5 and Fig 2). The findings regarding the direct impact of quality leadership on patient care quality (H1) indicate a statistically insignificant positive influence ($\beta = 0.347$, $t = 6.227$, $p < 0.05$). The findings from the analysis of the direct impact of ethical climate and patient care quality (H2) indicated a statistically significant and positive relationship ($\beta = 0.5270$, $t = 10.177$, $p<0.05$). The test outcomes pertaining to the direct impact of quality leadership on ethical climate (H3) indicate a statistically significant and positive relationship (β =

0.6330, t = 14.484, p<0.05). The results of moderating effect (H4) show that ethical climate has an insignificant effect on the relationship between quality leadership and patient care quality (β = -0.019, t = 0.772, p > 0.05). Furthermore, the results of the indirect influence show that the mediating role of ethical climate re the influence of quality leadership on patient care quality (H5) is proven to be significant (β = 0.334,t = 7.736, p<0.05) with the nature of partial mediation. These results show that the influence of quality leadership on increased (enhanced) patient care quality can occur as direct influence or indirect influence through ethical climate.

Table 5. Direct, indirect and moderating effect testing.

Path	Original Sample (Beta)	Sample Mean	Standard Deviation	T Statistic	P Values	Hypothesis
QL -> PCQ	0.3470	0.3460	0.0560	6.2270	0.0000	H1 Supported
EC->PCQ	0.5270	0.5280	0.0520	10.1770	0.0000	H2 Supported
QL->EC	0.6330	0.6350	0.0440	14.4840	0.0000	H3 Supported
EC*QL->PCQ	-0.0190	-0.0160	0.0240	0.7720	0.4400	H4 Rejected
QL->EC->PCQ	0.3340	0.3360	0.0430	7.7360	0.0000	H5 Supported Partial Mediation

Fig 2. Structural model test results.



RESULTS AND DISCUSSION

The findings of this study indicated that quality leadership and ethical climate have a significant impact on patient care quality, in line with prior research such as by Aiken et

al. (2012) and Hwang & Park (2013). Furthermore, they revealed a partial mediating effect of ethical climate on the relationship between quality leadership and patient care quality. This suggests that the influence of quality leadership on patient care quality is not solely channeled through ethical climate but from other variables. These results are in line with the findings of Xu et al. (2020) who found that quality leadership is positively aggregate organizational performance which is not only related to ethical climate. Regarding the moderating effect of ethical climate on the relationship between quality leadership and patient care quality, this study did not find significant results relating to the role of quality leadership on the relationship between patient care quality which suggests that patient care quality is influenced by the leader's actions and decisions (Haldorai et al., 2020). Moreover, the insignificance of the moderating effect of ethical climate was in line with previous studies by Deshpande and Joseph (2009).

CONCLUSION

The test results of this study predict the moderated-mediation effect of ethical climate on the relationship between quality leadership and patent care quality among healthcare workers in Omani government hospitals. It found that ethical climate did not strengthen or weaken the relationship between quality leadership and patient care quality. However, quality leadership is predicted to be able to produce patient care quality not only through an ethical climate but other important factors that were not investigated in this paper. This study provides the insight that in the context of health care workers that it is not just an ethical climate that plays an important role, other factors such as team effectiveness, patient-centred engagement, mindfulness and job satisfaction among the health care workers are also important.

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