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Leadership Skills of School Administrators and Interpersonal Skills of Teachers in a Chinese Medical University

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ABSTRACT

This descriptive-correlational study investigated the leadership skills of school administrators and the interpersonal skills of teachers at Qilu Medical University in Shandong Province, China. The study was conducted in the first semester of the 2024–2025 academic year with 55 participants, including 5 school administrators and 50 full-time teachers with at least five years of service. Data were collected using an adapted leadership skills scale, a researcher-developed and validated interpersonal skills questionnaire, and a semi-structured interview guide. Data analysis involved descriptive statistics and Pearson correlation analysis. Results showed that administrators demonstrated a very high level of administrative skills and interpersonal leadership skills, as well as a high level of conceptual skills. Teachers likewise achieved very high levels across communication, conflict resolution, emotional intelligence, empathy, and active listening. A significant positive correlation was identified between administrators' overall leadership skills and teachers' overall interpersonal skills. Based on the findings, a targeted professional development plan was proposed to strengthen strategic leadership, conflict management, communication, empathy, and collaborative teamwork. This study highlights the critical role of administrative leadership in promoting teachers' interpersonal competence and improving educational quality in higher medical education institutions.

INTRODUCTION

Leadership in educational institutions functions as a core driving force that shapes organizational culture, operational efficiency, and faculty professional performance (Kalkan *et al.*, 2020). Effective leadership from school administrators helps establish a trusting, collaborative, and motivating academic atmosphere, which in turn improves teaching quality and student learning outcomes (Daing & Mustapha, 2023; Pruitt, 2024). In educational management, leadership is typically structured around three interrelated dimensions: administrative skills focused on resource allocation, daily operations, and policy implementation; interpersonal skills that support communication, relationship building, and conflict management among stakeholders; and conceptual skills emphasizing strategic thinking, long-term planning, and innovative problem-solving (Arif Prastiawan *et al.*, 2020; Rini *et al.*, 2023). Together, these capabilities enable administrators to guide institutional development and adapt to evolving educational demands. Teachers' interpersonal skills are equally essential to sustaining high-quality educational practice. These skills include effective communication, empathy, conflict resolution, emotional intelligence, and active listening—all of which directly shape classroom climate, student well-being, peer collaboration, and teacher-administrator relationships (Petani & Krajinović, 2019). Empathetic and attentive teaching strengthens teacher-student rapport, reduces behavioral conflicts, and enhances student engagement and academic achievement (Anggoro & Ningsih, 2023; Zhang, 2022). Despite the well-established

importance of both administrative leadership and teacher interpersonal skills, existing research rarely explores their direct correlation, especially in the context of rapidly expanding Chinese higher medical universities (Li *et al.*, 2023; Cheng & Zhu, 2023).

Founded in 1995 and located in Zibo, Shandong Province, Qilu Medical University has expanded its academic programs, infrastructure, and student population in recent years. In alignment with China's National Plan for Medium- and Long-term Education Reform and Development (2010–2020), the institution places strong emphasis on improved governance, professional leadership capacity, and faculty development. This context provides a meaningful setting to examine how administrators' leadership practices relate to teachers' interpersonal competencies. This study aims to address the research gap by assessing the levels of leadership and interpersonal skills, examining their statistical relationship, and proposing a contextually appropriate development plan. The findings are intended to support policy formulation, professional development design, and continuous improvement in medical education, consistent with Sustainable Development Goal 4 of ensuring inclusive and quality education for all (United Nations, 2023).

LITERATURE REVIEW

Educational leadership has been widely conceptualized as a multidimensional construct composed of administrative, interpersonal, and conceptual skills (Arif Prastiawan *et al.*, 2020). Administrative skills refer to the capacity

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to manage resources, implement policies, and maintain daily institutional operations. Interpersonal leadership skills involve communication, stakeholder engagement, motivation, and conflict management, while conceptual skills include strategic thinking, long-term planning, problem-solving, and organizational innovation (Rini *et al.*, 2023). Kalkan *et al.* (2020) noted that strong leadership enhances school culture and organizational image, thereby improving the overall performance of educational institutions. In the Chinese educational context, Cheng and Zhu (2023) observed that university administrators tend to adopt transactional and authoritarian leadership styles, suggesting a need to strengthen strategic and supportive leadership behaviors.

Teachers' interpersonal skills consist of communication, empathy, conflict resolution, emotional intelligence, and active listening (Petani & Krajnović, 2019). These skills significantly influence classroom dynamics, student mental health, learning motivation, and academic achievement (Sabrifha & Darmawati, 2023; Zhang, 2022). Kharta *et al.* (2022) emphasized that supportive teacher communication improves student engagement, while Tian and Shen (2023) confirmed that positive interpersonal behaviors enhance learning experiences. Although research has established the individual importance of administrative leadership and teacher interpersonal skills, limited empirical evidence explains their direct relationship, particularly within medical higher education settings.

The Path-Goal Theory (House, 1970) suggests that supportive and participative leadership enhances employee motivation and performance. The Interpersonal Circumplex Theory (Wiggins, 1996) further explains how leadership styles shape interpersonal behaviors among organizational members. Administrators can foster improved interpersonal competencies among teachers. This study draws on these theories to examine leadership-interpersonal relationships in a Chinese medical university.

MATERIALS AND METHODS

Research Design

This study employed a descriptive-correlational research design. The descriptive component illustrated the current levels of administrators' leadership skills and teachers' interpersonal skills, while the correlational component determined the nature and strength of the relationship between the two variable sets.

Participants and Sampling

The study was conducted at Qilu Medical University during the first semester of the 2024–2025 academic year. Respondents were selected from five colleges: the School of Stomatology, School of Nursing, School of Clinical Medicine, School of Pharmacy, and School of Laboratory Testing. The total sample consisted of 55 participants: 5 school administrators selected via total enumeration and 50 full-time teachers chosen through purposive sampling. All teachers included had at least five

years of teaching experience to ensure familiarity with institutional leadership practices and stable interpersonal development. Part-time faculty, newly hired teachers, and those not actively teaching during data collection were excluded.

Research Instrument

Three research instruments were used to collect quantitative and qualitative data. First, a leadership skills questionnaire adapted from Lachica (2024) was administered to school administrators, consisting of 36 items equally divided among administrative, interpersonal, and conceptual skills. Second, a researcher-developed interpersonal skills questionnaire was distributed to teachers, including 50 items measuring communication, empathy, conflict resolution, emotional intelligence, and active listening. Both questionnaires used a five-point Likert scale ranging from 1 (Very Low Level) to 5 (Very High Level). Third, a semi-structured interview guide was used to gather supplementary qualitative data on practical challenges in applying leadership and interpersonal skills. All instruments were validated by a panel of experts in educational management.

Procedure and Ethical Considerations

Prior to data collection, ethical approval was obtained from the Mariano Marcos State University–University Research Ethics Review Board under reference number 2024-439, valid from September 19, 2024, to September 19, 2025. Participants were fully informed of the study's purpose, procedures, potential risks, and benefits. Voluntary participation and written informed consent were obtained from all respondents. Strict confidentiality and anonymity were maintained throughout data collection, processing, and storage. All personal identifiers were removed, and data were kept in a secure location accessible only to the researcher.

Data Analysis

Quantitative data were processed and analyzed using descriptive and inferential statistics. The mean was used to evaluate the level of leadership skills among administrators and interpersonal skills among teachers. Pearson correlation coefficient (r) was calculated to examine the relationship between administrators' leadership skills and teachers' interpersonal skills, with significance tested at the 0.05 probability level. Qualitative data from interviews were thematically analyzed to support and contextualize the quantitative findings.

RESULTS AND DISCUSSION

Administrators at Qilu Medical University demonstrated very high levels of administrative skills ($M=4.60$) and interpersonal leadership skills ($M=4.62$), and a high level of conceptual skills ($M=4.38$). Strong administrative performance reflected effective resource management, responsiveness, and operational efficiency. High interpersonal scores indicated positive stakeholder

relationships and emotional awareness. Conceptual skills remained strong but relatively lower, particularly in long-term strategic planning. These results align

with established leadership frameworks emphasizing operational, relational, and strategic competence (Arif Prastiawan *et al.*, 2020; Blancada, 2023).

Table 1: Relationship between administrators' leadership skills and teachers' interpersonal skills

Teachers' Interpersonal Skills	School Administrators' Leadership Skills		
	Administrative	Interpersonal	Conceptual
Communication Skills	$r=0.77^{**}$ $p=0.0081$	$r=0.81^{**}$ $p=0.00093$	$r=0.74^{**}$ $p=0.00029$
Conflict Resolution Skills	$r=0.69^{**}$ $p=0.0033$	$r=0.78^{**}$ $p=0.0071$	$r=0.61^{**}$ $p=0.0084$
Emotional Intelligence Skills	$r=0.62^{**}$ $p=0.0017$	$r=0.74^{**}$ $p=0.0048$	$r=0.50^{*}$ $p=0.0193$
Empathy Skills	$r=0.75^{**}$ $p=0.0031$	$r=0.80^{**}$ $p=0.0029$	$r=0.65^{**}$ $p=0.0027$
Active Listening	$r=0.30^{*}$ $p=0.0625$	$r=0.47^{*}$ $p=0.0232$	$r=0.46^{*}$ $p=0.0369$
Administrators' Leadership Skills and Teachers' Interpersonal Skills	$r=0.69^{**}$ $p=0.00736$		

****Significant at .01 probability level (2-tailed)**

***Significant at .05 probability level (2-tailed)**

Teachers achieved very high levels across all interpersonal dimensions: communication ($M=4.61$), conflict resolution ($M=4.68$), emotional intelligence ($M=4.68$), empathy ($M=4.73$), and active listening ($M=4.71$). The highest scores appeared in empathy and active listening, reflecting student-centered classroom practices. Slightly lower scores were noted in communication with administrators and parents, likely reflecting structural expectations in higher education rather than skill deficits. These findings support previous research highlighting the positive impacts of teacher interpersonal skills on student well-being and learning (Sabrifha & Darmawati, 2023; Tian & Shen, 2023; Zhang, 2022).

Pearson correlation analysis revealed a significant positive relationship between overall leadership skills and overall interpersonal skills ($r=0.69$, $p<0.01$). Communication and empathy showed the strongest associations with administrative and interpersonal leadership, while active listening yielded the weakest but still significant correlation. These results support Path-Goal Theory and Interpersonal Circumplex Theory, indicating that supportive, organized, and strategic leadership enhances teachers' interpersonal development (House, 1970; Wiggins, 1996). In medical education, where teamwork and ethical communication are critical, such alignment between leadership and interpersonal practice is particularly valuable.

CONCLUSION

School administrators at Qilu Medical University demonstrate very high levels of administrative and interpersonal leadership skills and a high level of conceptual skills. Teachers exhibit very high levels of

interpersonal skills across communication, empathy, conflict resolution, emotional intelligence, and active listening. A significant positive correlation exists between administrators' leadership skills and teachers' interpersonal skills, indicating that strong administrative leadership supports the development of stronger interpersonal competencies among teachers. The main limitation of this study is its relatively small sample size and focus on one medical university; future studies may include larger samples and multiple institutions. The findings imply that professional development programs targeting strategic planning and conflict resolution for administrators and upward communication practices for teachers can further strengthen institutional effectiveness.

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