

**Exploring Leadership Strategies to Address Employee Turnover in Pakistan's
Healthcare Supply Chain: A Qualitative Study**

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Abstract:

Attrition significantly impacts healthcare supply chain organizations in Pakistan, leading to operational disruptions, staffing shortages, and increased costs that affect the timely delivery of medical supplies and services. This study explores the perspectives of healthcare supply chain leaders in Pakistan regarding effective leadership strategies for reducing employee attrition. Using a generic qualitative inquiry approach, data were collected through semi-structured interviews with 10 healthcare supply chain leaders working in hospitals, pharmaceutical distribution, and medical logistics organizations. The collected data were analyzed using Braun and Clarke's thematic analysis technique. The findings revealed four key themes influencing employee retention: work-life balance, effective communication, teamwork, and opportunities for growth and development. The identified attrition-reducing practices provide practical insights for healthcare supply chain leaders in Pakistan to improve employee retention, strengthen workforce stability, and enhance overall supply chain performance.

Keywords: Employee Attrition; Leadership Strategies; Healthcare Supply Chain; Pakistan; Retention Strategies

Background

Employee Turnover

Employee attrition has posed significant challenges for organizational leaders within Pakistan's healthcare supply chain industry. These challenges became particularly pronounced during the COVID-19 pandemic, which placed extraordinary pressure on hospitals, pharmaceutical supply chains, medical distributors, and logistics providers across the country (Shaw et al., 2022; Li et al., 2024). During this period, healthcare supply chain organizations in Pakistan experienced increased employee stress, heavier workloads, and job insecurity, resulting in higher rates of employee turnover (Zhang et al., 2025). The pandemic also altered employee attitudes and work expectations, particularly among frontline supply chain staff who were responsible for managing critical shortages, emergency procurement, and the continuous delivery of medical services. Even after the immediate effects of the pandemic subsided, healthcare supply chain organizations in Pakistan continued to experience persistent attrition, as employees sought improved working conditions, job security, and opportunities for career development (Li et al., 2024; Shaw et al., 2022). In recent years, healthcare leaders in Pakistan have observed that many employees remain willing to leave their positions despite economic uncertainty, reflecting dissatisfaction associated with long working hours, limited work-life balance, and constrained professional growth opportunities (Zhang et al., 2025). The healthcare

supply chain industry is particularly affected due to its labor-intensive nature, dependence on skilled professionals, and the critical importance of uninterrupted operations. High attrition in this sector disrupts logistics processes, increases operational costs, and jeopardizes the timely availability of essential medical supplies, emphasizing the urgent need for effective leadership strategies to enhance employee retention and workforce stability (Shaw et al., 2022).

Turnover Impacts

Employee attrition contributes to labor shortages across Pakistan's healthcare supply chain, impacting hospitals, pharmaceutical distributors, medical warehousing, and logistics operations (Li et al., 2024; Zhang et al., 2025). These shortages disrupt the flow of essential medical goods, causing delays in procurement, storage, and transportation of medicines and medical equipment. Consequently, healthcare organizations face increased operational costs and inefficiencies, particularly during periods of high demand. Small and medium-sized healthcare organizations in Pakistan are particularly vulnerable to the effects of attrition due to limited human resources and financial constraints. Workforce shortages make it challenging for healthcare supply chain organizations to respond effectively to patient needs, leading to service delays and difficulties in meeting demand for critical medical supplies (Shaw et al., 2022). Healthcare organizations also incur additional financial burdens from recruiting, training, and onboarding replacement employees. Beyond these direct costs, attrition negatively affects the morale of remaining staff. Increased workloads and prolonged working hours contribute to stress, fatigue, and lower job satisfaction, which in turn reduce employee performance and overall organizational effectiveness (Li et al., 2024). Furthermore, the quality of work within healthcare supply chain operations declines as a result of understaffing. Overburdened employees are more prone to errors in inventory management, documentation, and logistics coordination, increasing the risk of supply disruptions and compromising the reliability of healthcare services. These outcomes underscore the critical importance of addressing employee attrition to maintain stability and efficiency within Pakistan's healthcare supply chain industry (Zhang et al., 2025; Shaw et al., 2022).

Research Study

Problem Statement

The general business problem is the rising rate of employee attrition within Pakistan's healthcare supply chain industry, which has resulted in adverse organizational and operational impacts (Shaw et al., 2022; Li et al., 2024). Workforce instability affects the timely procurement, storage, and distribution of medical supplies, undermining service delivery and overall organizational performance. The specific business problem is that, without effective leadership strategies, healthcare supply chain leaders in Pakistan are unable to reduce employee attrition rates. This inability contributes to operational disruptions, logistics delays, and performance challenges related to work quality, staffing adequacy, and financial efficiency (Zhang et al., 2025). Persistent attrition increases costs associated with recruitment, training, and onboarding while weakening workforce continuity and operational reliability. The purpose of this qualitative inquiry is to explore the perspectives of healthcare supply chain leaders in Pakistan regarding effective leadership strategies to reduce employee attrition. By identifying leadership practices that enhance retention, the study aims to improve workforce stability, minimize logistics disruptions, and strengthen organizational performance in hospitals, pharmaceutical distributors, and medical logistics operations. The research question What are the perspectives of healthcare supply chain leaders in Pakistan regarding effective leadership strategies to reduce employee attrition, and how can these strategies help minimize logistics disruptions and improve organizational performance in terms of work quality, staffing, and financial outcomes?

Research Gap

A notable gap in practice within Pakistan's healthcare supply chain sector is the lack of effective leadership strategies to reduce employee attrition. This gap negatively impacts the timely delivery of medical supplies, staffing adequacy, work quality, and overall organizational performance (Shaw et al., 2022; Li et al., 2024). Reducing attrition is particularly critical in healthcare supply chains, where workforce shortages can disrupt hospital operations, pharmaceutical distribution, and medical logistics services. Many healthcare leaders in Pakistan report that managing attrition remains a top priority due to its direct effects on operational efficiency and service delivery. First, there is a lack of awareness among healthcare supply chain leaders regarding best practices for reducing attrition. Many leaders are unfamiliar with effective retention strategies, especially given the changes to work environments brought on by the COVID-19 pandemic. Healthcare employees increasingly expect leaders to provide clear communication, flexibility, support, engagement, respect, and psychological safety. Traditional retention tactics, such as periodic performance reviews, small engagement activities, or monetary incentives, are increasingly less effective in addressing attrition challenges (Li et al., 2024; Zhang et al., 2025). Second, many healthcare supply chain leaders do not fully understand why employees leave. Some are unaware of evolving workforce dynamics, while others struggle to identify the factors that motivate or discourage employees within hospital supply operations, pharmaceutical distribution, and medical logistics. This lack of insight hampers the implementation of targeted retention strategies tailored to the unique challenges of Pakistan's healthcare supply chain sector (Shaw et al., 2022). Third, formal training on attrition-reducing leadership practices is often insufficient. Leadership development programs in healthcare supply chain organizations in Pakistan are frequently limited, brief, or outdated. During crises such as the COVID-19 pandemic, many leaders were promoted or given broader responsibilities without adequate leadership preparation, making it difficult to maintain team morale, manage workloads, and reduce employee turnover effectively (Li et al., 2024).

Significance of study

Exploring effective leadership strategies to reduce employee attrition in Pakistan's healthcare supply chain is highly significant for organizational sustainability and operational performance. Previous studies highlight that retention strategies are critical for workforce stability, service quality, and overall organizational resilience (Zhang et al., 2025). High attrition within healthcare supply chains directly impacts logistics activities, including the procurement, storage, and distribution of medical supplies and pharmaceutical products. Workforce shortages can cause delays in delivering essential medicines and medical equipment, disrupt hospital operations, and increase operational costs. Attrition also negatively affects coordination and efficiency across transportation and distribution networks within healthcare supply chains, further delaying service delivery to patients (Shaw et al., 2022). Reducing employee attrition is likely to improve operational efficiency, minimize delays in delivering critical medical goods, and enhance patient care quality. Workforce stability supports better planning, communication, and teamwork elements essential for maintaining resilient supply chains in hospitals, clinics, and pharmaceutical distributors across Pakistan.

Finally, findings from this study may benefit leaders beyond the healthcare supply chain sector. By understanding and applying effective leadership strategies for attrition reduction, organizational leaders across industries can adopt similar practices to enhance workforce retention, operational continuity, and overall organizational performance (Li et al., 2024; Zhang et al., 2025).

Literature Review

Themes

Most scholars agree that reducing employee attrition in supply chain operations revolves around well-being, transformational leadership, and learning and growth, which are

particularly critical in the healthcare supply chain industry of Pakistan (Li et al., 2024; Zhang et al., 2025).

Well-being has emerged as a crucial factor for employee retention in healthcare supply chains. Research shows that promoting well-being improves retention, supports mental health, and fosters psychological safety (Yakut & Kara, 2022; Wigert & Agrawal, 2021). In Pakistan, healthcare supply chain employees—working in hospitals, pharmaceutical distribution, and medical logistics—operate under high-pressure conditions with long working hours and responsibility for timely delivery of essential medical supplies. Well-being initiatives, including respectful treatment, fair workload allocation, and attention to work-life balance, are vital to reduce stress and attrition. Younger employees, particularly millennials and Generation Z, prioritize meaningful work, flexibility, and manageable workloads, reinforcing the need for well-being-focused practices (Fowler, 2021; Moore, 2022).

Transformational leadership is another critical theme in reducing attrition. Studies indicate that transformational leadership enhances employee retention by fostering empowerment, trust, and strong leader-employee relationships (Jordan & Troth, 2011; Sobaih et al., 2022). Within Pakistan's healthcare supply chain industry, transformational leaders positively influence both professional engagement and personal well-being. During high-pressure periods, such as shortages in medical supplies or crises like COVID-19, leaders adopting transformational practices create supportive, safe work environments that strengthen workforce stability and reduce turnover (Sobaih et al., 2022; Cascio, 2019).

Learning and growth is an increasingly important factor, especially for younger employees in Pakistan's healthcare supply chain. While earlier studies suggested that learning initiatives could sometimes overwhelm employees (DeLong, 2015), contemporary research indicates that career growth opportunities, professional training, and skills development are highly valued (Emilisa et al., 2022; Badrinarayanan et al., 2021). Employees in hospitals, pharmaceutical logistics, and medical distribution expect leadership to provide structured learning and development programs to prepare them for complex, high-responsibility tasks. Facilitating continuous learning enhances job satisfaction, strengthens retention, and ensures workforce engagement and commitment (Li & Xie, 2022; Parker & Horowitz, 2022). Transformational leaders who emphasize learning and growth are better able to maintain workforce stability and reduce attrition (Kaleel et al., 2021; Jordan & Troth, 2011).

Past Research Disagreements

Researchers have expressed differing opinions on several aspects of employee attrition, which are also relevant to Pakistan's healthcare supply chain industry. Some scholars emphasize that addressing root causes such as job satisfaction is critical to retaining employees. Lambert et al. (2001) suggested that improving satisfaction could reduce turnover, while Davies (2001) and Lu and Gursoy (2016) argued that job satisfaction may sometimes be a symptom rather than the cause, emphasizing broader organizational and leadership interventions. In Pakistan, healthcare supply chain job satisfaction is closely linked to work-life balance, employee support, and recognition, making it a critical factor in attrition management (Shaw et al., 2022).

Remote work and flexibility have been debated. Jamal et al. (2021) argued that remote work increases satisfaction and flexibility, potentially reducing attrition. Conversely, Wang et al. (2020) and Bulińska-Stangrecka and Bagieńska (2021) suggested remote work could increase isolation and stress, thereby raising turnover risk. In Pakistan's healthcare supply chain, where on-site presence is often required for inventory management, procurement, and distribution, leaders must balance flexibility with operational needs to retain employees effectively (Li et al., 2024).

Pay and compensation as retention strategies are also debated. Cappelli (2000) viewed pay as an outdated motivator, whereas Bersin (2013) and Willyerd (2014) emphasized competitive compensation for retaining top performers. Fisman and Luca (2018) maintained pay remains a strong motivator, and during crises such as COVID-19, Sull et al. (2022) noted that pay incentives helped reduce attrition, although Shuster (2022) argued that post-pandemic, pay alone is insufficient. In Pakistan's healthcare supply chain, competitive pay is important but must be complemented by career development, supportive leadership, and safe working conditions (Zhang et al., 2025). Finally, scholars disagree on the scope of attrition prevention strategies. Butler and Waldroop (1999) and Olenski (2015) emphasized careful candidate screening to prevent attrition, while Maloni et al. (2017) suggested strategies should be context-specific rather than universal. For Pakistan's healthcare supply chain, this implies that retention practices must be tailored to hospitals, pharmaceutical distributors, and medical logistics teams, considering unique operational challenges and workforce expectations (Sobaih et al., 2022; Emilisa et al., 2022).

Past Research Limitations

Although many studies examine attrition in supply chain operations, most research has been conducted outside Pakistan or in non-healthcare sectors (Li et al., 2024; Zhang et al., 2025). Some studies explored generic attrition impacts in industries such as hospitality, retail, or general healthcare but not specifically within Pakistani healthcare supply chains. In supply chain research, focus often remains on trucking, warehousing, or manufacturing logistics, which may not reflect the unique challenges of healthcare supply chain operations in Pakistan. Non-scholarly practitioner sources provide limited transparency regarding methods and data analysis, often relying on opinions rather than evidence-based findings. Many of these sources, especially pre-2019, are difficult to access or outdated. Even scholarly peer-reviewed studies, though more reliable, frequently rely on self-reported quantitative surveys, which may not capture the complexity of attrition issues in healthcare supply chains, including critical operations, medical inventory management, and regulatory compliance (Yakut & Kara, 2022). Additionally, some frameworks for attrition-reducing strategies include numerous steps or lack practical guidance, making them difficult to implement effectively in Pakistani healthcare supply chain organizations.

Past Research on Gap in Practice Difficulties Reducing Attrition

Historically, managing employee attrition has posed a significant challenge for leaders in Pakistan's healthcare supply chain industry (Sobaih et al., 2022; Li et al., 2024). Guidance on best practices for retaining employees during crises and rapidly changing work environments—such as those experienced during COVID-19—has been minimal. Leaders in hospitals, pharmaceutical distribution, and medical logistics organizations often misdiagnosed the root causes of attrition and lacked structured frameworks for addressing it effectively (Bartrop-Sackey et al., 2022). Shifting employee motivations have compounded these difficulties. Healthcare supply chain employees increasingly expect supportive leadership, flexible work arrangements where feasible, opportunities for career growth, and safe working conditions (Emilisa et al., 2022; Zhang et al., 2025). These expectations intensified after COVID-19, as employees became more aware of personal and professional well-being, job security, and work-life balance (Wigert & Agrawal, 2021; Yakut & Kara, 2022). Evidence from regional workforce surveys indicates that many healthcare supply chain organizations struggle with employee retention (Kaleel et al., 2021). Leaders often lack tools and strategies to implement targeted retention measures, highlighting the urgent need for leadership development, context-specific retention strategies, and operational policies tailored to Pakistan's healthcare supply chain industry (Sobaih et al., 2022).

COVID-19

Many leaders in Pakistan's healthcare supply chain reported that the COVID-19 pandemic significantly impacted employee retention (Sobaih et al., 2022; Li et al., 2024). Traditional strategies, such as pay increases or routine engagement activities, proved insufficient as employees' priorities shifted during the crisis. Healthcare supply chain staff—working in hospitals, pharmaceutical distribution, and medical logistics placed greater importance on work-life balance, psychological safety, and supportive leadership (Emilisa et al., 2022). Balancing these evolving expectations presented challenges. Leaders often struggled to upskill and adapt to workforce needs, which sometimes caused strained relationships and reduced trust between leadership and staff. In high-pressure healthcare environments, where timely procurement and distribution of medicines and medical supplies is critical, the pandemic amplified these retention challenges (Zhang et al., 2025).

Challenges in Reducing Attrition in Pakistani Healthcare Supply Chains

Outdated Strategies

Some leaders in Pakistan's healthcare supply chain have struggled to move away from outdated management practices, such as micromanagement, which exacerbates employee attrition (Bartrop-Sackey et al., 2022; Sobaih et al., 2022). Others are resistant to adopting strategies that prioritize employee well-being, engagement, and leadership development. Conservative leadership approaches hinder organizational agility and make it difficult to adapt tactics to evolving employee expectations.

Leadership Confusion

Many leaders are unclear about priorities, facing difficulties balancing investments in employees which are critical for reducing attrition against organizational cost-cutting measures. In several healthcare organizations, financial metrics are prioritized over employee well-being, unintentionally increasing attrition and creating downstream operational and financial challenges (Li et al., 2024; Emilisa et al., 2022).

Fear

Fear among leaders contributes to ineffective attrition-reduction practices. Some leaders hesitate to implement new strategies due to concerns about unintended consequences, such as workflow disruption or staff dissatisfaction. This issue is particularly pronounced in healthcare supply chains, where leaders often lack clear guidance on improving employee commitment, well-being, and retention in high-pressure environments (Yakut & Kara, 2022).

Generational Challenges

Healthcare supply chain leaders in Pakistan manage a workforce spanning multiple generations, each with distinct expectations. Younger employees, particularly Generation Z, prioritize workplace culture improvements, flexible work options, and career growth opportunities. Many leaders lack the experience or guidance to manage these generational differences effectively, making it challenging to maintain engagement and reduce turnover (Zhang et al., 2025; Kaleel et al., 2021).

Remote Work Challenges

The introduction of hybrid or flexible work arrangements, particularly in administrative and procurement roles, requires leaders to practice effective e-leadership. Many leaders struggle to manage hybrid employees, lacking training in virtual leadership and failing to provide clear guidance for flexible work schedules. These gaps contribute to employee confusion, lower engagement, and higher attrition risks (Sobaih et al., 2022).

Lack of Prioritizing Learning and Leadership Development

Many healthcare supply chain leaders in Pakistan have limited access to structured leadership training. Over the past decade, several leaders have reported minimal training hours, leaving them unprepared to address workforce attrition (Emilisa et al., 2022; Li et al., 2024). Challenges such as managing large teams, misunderstanding the root causes of attrition, or perceiving turnover as a temporary generational issue prevent effective retention strategies. Some leaders also view attrition primarily as a human resources responsibility rather than a shared leadership challenge (Bartrop-Sackey et al., 2022).

Methodology

Population

The target population for this study consisted of leaders within Pakistan's healthcare supply chain industry, including hospitals, pharmaceutical distributors, medical logistics firms, and related healthcare supply organizations. Ten participants were recruited using a combination of purposive and referral sampling through professional networks, such as LinkedIn, healthcare associations, and industry contacts (Etikan, Musa, & Alkassim, 2016). Participants held positions ranging from team leader to senior director and were screened against inclusion and exclusion criteria. **Inclusion criteria** required participants to be currently employed in the Pakistani healthcare supply chain industry, have direct reports, and at least three years of experience managing teams. **Exclusion criteria** included participants with personal or professional conflicts of interest with the researcher. All participants received study details, including potential benefits, risks, and assurances of confidentiality, and provided written informed consent prior to participation (Creswell & Creswell, 2018).

Research Design and Data Collection

A generic qualitative inquiry design was employed to explore leaders' perspectives on attrition reduction in Pakistan's healthcare supply chains (Caelli, Ray, & Mill, 2003). Data were collected via semi-structured virtual interviews conducted on Zoom, each lasting 45–60 minutes. All interviews were audio-recorded, and transcripts were generated using automatic transcription software, followed by manual verification for accuracy (Braun & Clarke, 2012). The interview protocol consisted of ten open-ended questions focusing on: Challenges associated with employee attrition in healthcare supply chains. Employee well-being, learning, and growth initiatives. Best practices for reducing attrition. Support required from senior leadership. Impacts of attrition on logistics efficiency, staffing, and financial performance. Participants were given the opportunity to review transcripts to verify content, enhance credibility, and ensure that the recorded perspectives accurately reflected their experiences (Rowlands, 2021).

Data Analysis

Thematic analysis was applied to all participant transcripts following Braun and Clarke's (2012) inductive approach. The process included: Familiarization with data reading transcripts repeatedly to gain a thorough understanding of participants' perspectives on attrition and leadership strategies. Generating initial codes labeling meaningful quotes with descriptive codes. Grouping codes into categories clustering similar codes to identify patterns across participants. Identifying themes synthesizing categories into overarching themes reflecting key insights on attrition reduction in Pakistan's healthcare supply chain. Reviewing and refining themes ensuring themes accurately represented the data and were consistent across participants. Defining and naming themes articulating each theme to capture its content and significance clearly. Final synthesis and visual presentation creating a matrix of quotes, codes, categories, and themes to highlight interconnections and provide a structured overview (Byrne, 2022; Creswell & Creswell, 2018; Percy, Kostere, & Kostere, 2015).

Reliability and Validity Measures

To ensure rigor, the study adhered to established qualitative research principles, with a focus on the Pakistani healthcare supply chain context: Reliability maintained by following systematic steps of qualitative inquiry (Creswell & Creswell, 2018). Credibility enhanced through participant transcript reviews, ensuring findings accurately reflected leader perspectives (Rowlands, 2021). Transferability supported by detailed, rich descriptions of participants, organizational contexts, and operational environments to facilitate application in similar healthcare supply chains (Lincoln & Guba, 1985). Dependability ensured through peer debriefing to confirm the consistency and trustworthiness of the research process (Stahl & King, 2020). Confirmability achieved by acknowledging potential researcher biases and maintaining transparency during data collection and analysis (Gill, Stewart, Treasure, & Chadwick, 2018).

Results

From the interviews with 10 leaders in Pakistan's healthcare supply chain industry, a total of 245 meaningful quotes were extracted. These quotes reflected participants' experiences managing employee attrition in hospitals, pharmaceutical distributors, medical logistics, and related healthcare supply organizations.

Coding and Theme Development

Using an inductive approach, the quotes were initially coded into 82 descriptive codes, each summarizing a participant's statement with concise terms or short phrases. These initial codes were then reviewed and condensed based on overlap, redundancy, and similarity. Through iterative analysis, the codes were refined into 28 final codes, forming the basis of the final codebook. Each code was assigned a clear definition and supported with illustrative quotes from participants. The codes were then clustered into four overarching themes that captured the core factors influencing employee retention in Pakistan's healthcare supply chain:

Work-Life Balance and Employee Well-Being

Leaders emphasized the importance of flexible scheduling, manageable workloads, and mental health support. Example quotes. We noticed that employees often leave due to burnout; balancing shifts and providing counseling really helps. Flexible work options during peak pandemic times helped retain staff who were otherwise thinking of leaving."

Effective Communication and Leadership Support

Clear guidance, regular feedback, and transparent decision-making were identified as key retention strategies. Example quotes. Staff stay longer when they feel informed about organizational decisions and changes in logistics priorities. Consistent check-ins and open communication channels reduced misunderstandings and dissatisfaction.

Teamwork and Organizational Culture

Supportive peer relationships and a collaborative work environment were important for employee engagement and loyalty. Example quotes. Encouraging teamwork across departments improves morale and makes employees feel part of something bigger. A positive culture, where efforts are recognized, reduces attrition significantly.

Learning, Growth, and Career Development Opportunities

Participants highlighted the significance of professional development, skill enhancement, and promotion pathways to retain talent. Example quotes. Staff value opportunities to upskill in supply chain management or medical logistics; this encourages them to stay. Those who see a clear career path are less likely to leave, especially younger employees in hospitals and

distribution centers.

Summary of Findings

The results indicate that employee retention in Pakistan’s healthcare supply chain is influenced by a combination of personal well-being, leadership quality, workplace culture, and growth opportunities. Participants reported that focusing on these four areas not only reduces attrition but also improves logistics efficiency, workforce stability, and operational performance.

The findings also highlight unique challenges in the Pakistani context, including high-pressure healthcare environments, multi-generational workforce expectations, and the ongoing impact of post-pandemic workforce dynamics. Leadership strategies that integrate well-being initiatives, transparent communication, team cohesion, and structured development programs are critical to mitigating attrition in hospitals, pharmaceutical supply chains, and medical logistics organizations across Pakistan.

Table1

Theme	Key Categories	Sample Leadership Practices
Work-Life Balance & Empowerment	Flexible schedules; Set boundaries; Inclusion in decision-making	Allow schedule flexibility, telecommuting options, empower employees to take initiatives
Communication & Leadership Support	Regular check-ins; Feedback; Motivation & engagement	Conduct one-on-one meetings, provide constructive feedback, recognize contributions
Teamwork & Recognition	Collaboration; Team-building; Gratitude & support	Promote team projects, organize team-building events, acknowledge and reward performance
Learning, Growth & Career Development	Training & tools; Cross-training; Mentorship & career planning	Provide skill development programs, cross-train employees, offer educational reimbursement
Operational Outcomes	Quality of work; Staffing adequacy; Logistics & financial impacts	Monitor inventory accuracy, maintain staffing levels, reduce costs, ensure timely supply delivery

Theme Development and Final Themes

During the third step of thematic analysis, initial themes were developed from the 245 quotes collected from healthcare supply chain leaders in Pakistan. In the fourth step, these themes were carefully reviewed to ensure they accurately reflected the dataset and the unique challenges of the Pakistani healthcare supply chain context, including hospitals, pharmaceutical distributors, and medical logistics organizations. Finally, the fifth step involved defining and naming the final themes, which are summarized in, Table 3. Each theme captures key leadership strategies for reducing employee attrition and their impact on operational performance.

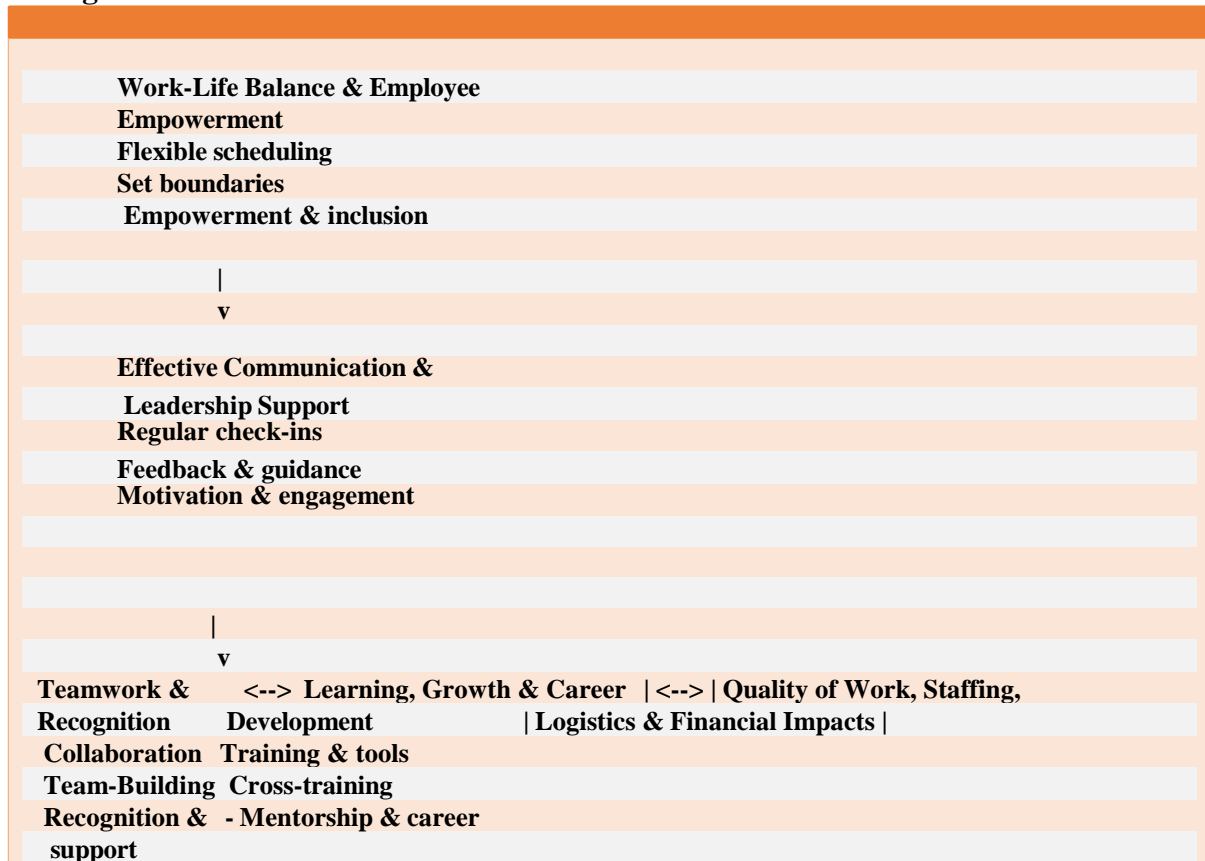
Table 3.
Final Themes for Employee Retention in Pakistan’s Healthcare Supply Chain

Theme	Interconnected Categories & Description
Work-Life Balance and Employee Empowerment	Ensuring employees have work-life balance through flexible scheduling, support to set boundaries, empowerment to take initiative, and inclusion in decision-making can reduce attrition. These strategies mitigate associated challenges such as logistics delays, decreased quality of work, staffing shortages, and financial inefficiencies.
Effective Communication and Leadership Support	Focusing on clear and consistent communication, checking in with employees to understand their needs, providing feedback, and engaging in meaningful conversations enhances retention. Supporting learning and growth while motivating employees helps address attrition-related quality and financial issues.
Teamwork and Recognition	Promoting teamwork through collaborative projects, team-building activities, and recognition of efforts fosters a sense of belonging. This reduces turnover and minimizes operational disruptions, such as logistics delays and staff shortages, while improving morale and cohesion in healthcare supply chains.
Learning, Growth, and Career Development	Supporting employee development by providing job-related training, cross-training opportunities, mentorship, and educational reimbursement encourages retention. Leaders who guide employees in career planning and skill development can reduce attrition and improve quality of work and staffing stability.

Table Discussion

- a. In Pakistan’s healthcare supply chain, **work-life balance** is a major determinant of employee retention, particularly in hospitals and pharmaceutical logistics, where high workloads and emergency demands are common.
- b. **Communication and leadership support** directly influence morale, engagement, and motivation, helping employees feel valued and reducing the likelihood of turnover.
- c. **Teamwork and recognition** strengthen organizational culture, fostering employee loyalty and reducing attrition-related operational disruptions.
- d. **Learning and career development** opportunities are critical for retaining younger employees (millennials and Gen Z), who prioritize professional growth and skill enhancement in the healthcare supply chain context.

Figure1



Discussion and Conclusion

This study explored the perspectives of healthcare supply chain leaders in Pakistan regarding effective leadership strategies to reduce employee attrition. Findings indicate that attrition is influenced by multiple interconnected factors, including work-life balance, effective communication, teamwork, and opportunities for learning and growth. These factors not only affect employee retention but also have direct implications for operational efficiency, quality of work, staffing adequacy, and financial performance within healthcare supply chains. Employee well-being emerged as a critical determinant of retention. Leaders who implement flexible schedules, empower employees in decision-making, and support work-life balance can reduce turnover and mitigate operational disruptions in hospitals, pharmaceutical distribution networks, and medical logistics organizations. This aligns with prior research showing that employee satisfaction, psychological safety, and work-life integration are essential for retention in high-pressure healthcare settings (Yakut & Kara, 2022; Sobaih et al., 2022). Effective communication and leadership support were also identified as central to reducing attrition. Regular check-ins, constructive feedback, and personalized engagement allow leaders to identify and address employee concerns proactively. These practices build trust and strengthen the leader-employee relationship, which is particularly important in the healthcare supply chain, where timely decisions and operational coordination are critical. Teamwork and recognition emerged as complementary strategies. Leaders who encourage collaboration, facilitate team-building activities, and acknowledge employee contributions foster a sense of belonging, which can decrease turnover and reduce attrition-related disruptions in logistics, staffing, and financial performance. Finally, learning, growth, and career development were highlighted as essential for retention, especially among younger employees. Training programs, mentorship opportunities, cross-functional exposure, and educational support enhance employee skills and motivation while enabling organizations to maintain a resilient

and competent workforce. Transformational leaders who prioritize learning and growth create environments where employees feel supported, valued, and committed to the organization. This research confirms that attrition in Pakistan's healthcare supply chain is a multifaceted challenge that requires integrated leadership approaches. By focusing on work- life balance, communication, teamwork, and professional development, healthcare supply chain leaders can improve employee retention, enhance workforce stability, and maintain operational efficiency. Addressing attrition not only benefits employees but also strengthens the overall supply chain, ensuring the uninterrupted delivery of essential medical supplies and services across Pakistan. These findings provide actionable insights for healthcare organizations and leaders. By implementing evidence-based retention strategies, organizations can reduce operational risks, improve service quality, and build a sustainable workforce capable of meeting the complex demands of Pakistan's healthcare supply chain sector. Moreover, these strategies may serve as a model for other labor-intensive, high-stakes industries where employee retention is critical for organizational performance.

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