

ORIGINAL ARTICLE

Designing an Organizational Trauma Management Model Based on Knowledge Management Strategies among Healthcare Staff of Hospitals Affiliated with Kerman University of Medical Sciences

Mohammad Naji¹ , Hojat Talebi^{2*} , Alireza Peyvand³ , Sanjar Salajegheh⁴ , Ali Hamzehee⁵ 

1. Department of Public Administration, Kerman Branch, Islamic Azad University, Kerman, Iran.
2. Department of Public Administration, Kerman Branch, Islamic Azad University, Kerman, Iran.
3. Department of Psychology, Kerman Branch, Islamic Azad University, Kerman, Iran.
4. Department of Public Administration, Kerman Branch, Islamic Azad University, Kerman, Iran.
5. Faculty of Basic Sciences "Department of Mathematics, Kerman Branch, Islamic Azad University" Kerman, Iran.

Correspondence:

Hojat Talebi
Email: talebi.h@iau.ac.ir

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ABSTRACT

In this study, the role of knowledge management strategies in reducing organizational trauma among the healthcare staff of hospitals affiliated with Kerman University of Medical Sciences was examined. The present study employed a mixed-methods approach: the qualitative part involved semi-structured interviews with 15 managers and health specialists, while the quantitative part involved data collection from 306 healthcare staff members. The qualitative findings revealed that organizational trauma in the hospital environment is influenced by factors such as psychological and emotional pressures, an unsafe work environment, and lack of organizational support. In contrast, effective knowledge management strategies, including informal knowledge sharing, strengthening knowledge management processes, and targeted organizational learning, play a significant role in mitigating the negative effects of organizational trauma. The quantitative results, using structural equation modeling (PLS), also showed that knowledge management strategies have a positive and significant impact on reducing organizational trauma, with factors like a safe work environment, psychological and organizational support, and reduced emotional and psychological consequences playing the greatest roles in strengthening organizational trauma management. The model fit indices also indicated the adequacy and validity of the conceptual model. Based on the study findings, implementing knowledge management systems, fostering knowledge sharing environments, enhancing organizational learning, and creating a safe and supportive work environment can effectively boost staff resilience, improve organizational performance, and reduce organizational trauma in healthcare settings.

KEYWORDS

Trauma, Knowledge, Management.

Introduction

Healthcare workers routinely face traumatic experiences—including patient deaths, emergencies, and ethical dilemmas—that accumulate and manifest as "organizational trauma." Organizational trauma refers to collective psychological distress and functional impairment permeating an organization when members are exposed to traumatic events without adequate systemic support, affecting productivity, morale, retention, and patient care quality. Healthcare professionals experience higher rates of burnout, secondary traumatic stress, and turnover compared to other groups, representing systemic failures in organizational support structures.

Knowledge management (KM)—systematic processes of acquiring, creating, storing, sharing, and applying knowledge—has gained traction in healthcare as a strategic approach to improving effectiveness and service quality. Effective KM practices are associated with enhanced clinical decision-making, reduced costs, improved patient safety, and increased professional satisfaction.

The intersection of organizational trauma and KM represents an underexplored area. Robust KM systems may serve as protective factors against trauma by facilitating coping strategy sharing, peer support, and organizational learning cultures. This relationship is particularly significant in resource-limited settings like Iranian university hospitals facing economic sanctions, public health emergencies, and systemic constraints.

This study addresses: (1) dimensions of organizational trauma among healthcare staff in Kerman University hospitals; (2) KM strategies to address trauma; (3) the relationship between KM strategies and trauma management; and (4) an integrated model for trauma management through KM.

Using an exploratory sequential mixed-methods design, research was conducted in hospitals affiliated with Kerman University of Medical Sciences.

Method

Research Design: Exploratory sequential mixed-methods approach.

Qualitative Phase: Semi-structured interviews with 15 managers, faculty members, and healthcare specialists selected through purposive and theoretical sampling until saturation. Thematic analysis with open, axial, and selective coding. Lincoln and Guba's criteria ensured trustworthiness.

Quantitative Phase: Researcher-developed questionnaire based on qualitative findings covering KM dimensions and organizational trauma components. Validity confirmed by experts; reliability established through pilot study (Cronbach's alpha acceptable). Statistical population comprised all healthcare staff (approximately 1,500) in Kerman University hospitals. Using Morgan's table, 306 participants randomly selected from Bahonar and Afzalipour hospitals. Data analyzed using SPSS and PLS-4 for structural equation modeling.

Findings

Qualitative Results: Six main themes and 17 axial codes emerged:

Organizational Trauma Components:

Psychological and emotional consequences: experiences of death, negative emotions, burnout, job turnover

Lack of psychological-organizational support: absence of counseling, neglect of employee feelings, inadequate crisis training

Stressful work environment: chronic pressure, excessive workload

Effective Knowledge Management Strategies:

Informal knowledge sharing: shift conversations, WhatsApp exchanges, peer learning

Strengthening organizational KM: improving documentation, formal experience transfer, reward systems

Targeted organizational learning: collective learning, technological infrastructure, feedback meetings

Quantitative Results: Structural equation modeling revealed:

KM strategies significantly affected organizational trauma management ($\beta = 0.52$, $t = 10.65$, $p < 0.001$), explaining 57% of variance

Strongest predictors: safe work environment ($\beta = 0.60$), reduced psychological-emotional consequences ($\beta = 0.53$), psychological-organizational support ($\beta = 0.39$)

Key KM components: targeted organizational learning ($\beta = 0.46$), informal knowledge sharing ($\beta = 0.21$), strengthening KM ($\beta = 0.19$)

Model fit confirmed (SRMR = 0.048, NFI = 0.62, all CR > 0.70, all AVE > 0.50)

Discussion and Conclusion

This study confirms that organizational trauma among healthcare staff is significantly influenced by psychological pressures, unsafe work environments, and lack of organizational support. Conversely, knowledge management strategies—particularly informal knowledge sharing, strengthening KM processes, and targeted organizational learning—play crucial roles in mitigating these negative effects.

The findings align with previous research demonstrating that psychological pressures in healthcare settings lead to burnout and reduced service quality. The lack of organizational support emerged as a key trauma exacerbator, consistent with trauma-informed care frameworks. The study also confirms that informal knowledge sharing functions as a socio-psychological safety mechanism, transmitting both technical knowledge and emotional support. Targeted organizational learning enables systematic learning from past crises, fostering psychological safety and organizational resilience.

Theoretical contributions demonstrate that knowledge management serves not merely as a technical tool for information organization but as a psycho-social support mechanism in high-stress environments. By transforming individual traumatic experiences into collective organizational learning, knowledge management reduces feelings of powerlessness and neglect while improving mental health outcomes.

Practical Implications: Implementing knowledge management systems, fostering sharing environments, enhancing organizational learning, and creating safe, supportive workplaces can effectively:

Boost staff resilience

Improve organizational performance

Reduce organizational trauma in healthcare settings

Specific recommendations include: establishing psychological counseling programs, group feedback sessions, stress reduction initiatives, expanding informal knowledge networks, strengthening targeted organizational learning, and creating mechanisms for improved documentation and experience transfer.

Limitations: The study was limited to hospitals in Kerman province, relied on self-reported data, and employed a cross-sectional design.

Future Research: Expanding the sample to other provinces, incorporating mediating variables (organizational culture, transformational leadership, peer support), conducting longitudinal studies, and investigating emerging technologies (AI, digital KM systems) for trauma reduction are recommended.

Conclusion

Organizational trauma in healthcare settings arises from a combination of psychological-emotional pressures, insufficient organizational support, and stressful environmental conditions. Knowledge management strategies can effectively address these challenges through two complementary pathways:

Creating psycho-social support through knowledge sharing and collaboration

Transforming bitter experiences into organizational knowledge assets through systematic knowledge management and targeted learning

Thus, knowledge management functions as both a technical tool and an organizational-therapeutic mechanism for preventing and managing organizational trauma, ultimately contributing to enhanced healthcare service quality, employee well-being, and organizational resilience in crisis conditions.

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