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RESTORATIVE JUSTICE IN MEDICAL EDUCATION: A SCOPING REVIEW OF CURRENT PRACTICES AND BARRIERS

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ABSTRACT

Introduction: Restorative justice is increasingly recognized as a promising approach to address harm, mistreatment, and inequity in medical education. This scoping review explores how restorative justice is currently integrated into undergraduate medical education, with attention to formal curricula, educational interventions, and institutional culture. It aims to identify key strategies, conceptual frameworks, barriers, and reported outcomes related to restorative practices in medical training.
Methods: A structured search was conducted across five databases for peer-reviewed literature published between 2000 and 2024. Studies were included if they focused on undergraduate medical education and described or evaluated restorative justice concepts. Data were synthesized thematically into five domains: curricular delivery, conceptual framing, outcomes, implementation barriers, and connections to related frameworks.
Results: Sixteen studies were included in the final analysis. Restorative justice was implemented through formal and hidden curricula, often using restorative circles, community dialogues, and consensus-based approaches. Reported benefits included improved collaboration, trust, and equity; however, barriers such as hierarchical norms, lack of training, and insufficient evaluation were widespread. Conceptual links to just culture, trauma-informed education, and moral repair reinforced the relevance of restorative approaches to broader institutional reform.
Conclusion: Restorative justice in medical education represents a valuable yet underutilized framework for healing harm and promoting equity. Future efforts

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must address structural and cultural barriers, invest in educator training, and develop robust methods to evaluate long-term impact.

Keywords: restorative justice, medical education, mistreatment, professionalism, hidden curriculum, learner well-being, trauma-informed education, moral repair, just culture, equity

INTRODUCTION

In recent years, there has been growing interest in the application of restorative justice in medical education as a response to healthcare harm, learner mistreatment, and institutional breakdowns in trust. Rooted in principles of dialogue, accountability, and relational repair, restorative justice aims to rebuild trust and foster a more inclusive and healing-oriented environment by engaging affected parties in collaborative problem-solving (Acosta & Karp, 2018; Wailling et al., 2022). Within academic medicine, these practices have been proposed not only to address the aftermath of adverse events and unprofessional conduct, but also to support system learning and promote resilience among learners (Wailling et al., 2022).

Despite its promise, the implementation of restorative justice in medical education faces significant challenges, particularly due to the influence of the hidden curriculum. This hidden curriculum refers to the implicit values, norms, and behaviors that are conveyed informally within educational settings, often in contradiction to the formal teachings on ethics, equity, and professionalism (Lehmann et al., 2018). Hierarchical structures, tolerance of mistreatment, and entrenched power dynamics within clinical and educational environments can severely limit the adoption and impact of restorative practices (Lawrence et al., 2018).

Nevertheless, restorative justice offers distinct strengths within medical education. These include a focus on humanizing harm, promoting dual healing and accountability, and cultivating dialogue that fosters community trust and professional growth (Acosta & Karp, 2018; Wailling et al., 2022). Importantly, restorative practices may also help learners process the emotional toll of adverse events, contributing to their psychological resilience and ethical development (Mira et al., 2024). However, the literature highlights several limitations in current implementation: a lack of standardized protocols, limited evaluation of long-term outcomes, and inadequate institutional structures for psychological support (Wailling et al., 2022; Mira et al., 2024).

Compounding these barriers is the ongoing influence of the hidden curriculum, which continues to perpetuate exclusionary practices and inhibit structural reform (Lawrence et al., 2018; Martimianakis et al., 2015). Students underrepresented in medicine (URMs) report disproportionately higher levels of moral injury and distress due to these cultural dynamics, underscoring the urgency of institutional change (Nemiroff et al., 2024).

Given the increasing calls for equity, professionalism, and trauma-informed learning environments in medical education, restorative justice represents a compelling framework for cultural transformation. This scoping review seeks to explore how restorative justice is currently incorporated into undergraduate medical education, with attention to formal curricula, educational interventions, and the institutional and cultural factors that shape its implementation. Specifically, the review aims to identify existing strategies, conceptual frameworks, and key barriers that influence how medical students are taught to approach harm, accountability, and ethical repair in clinical and academic contexts.

METHODS

A structured literature search was conducted across five academic databases: PubMed, MEDLINE, ERIC, Scopus, and Google Scholar. These databases were selected due to their relevance to medical education, health sciences, and pedagogy. The search strategy employed a combination of keywords and MeSH terms related to restorative justice and medical education. Key terms included: "restorative justice," "medical education," "medical students," "accountability in healthcare," "mistreatment in medicine," "error disclosure," "ethics education," "hidden curriculum," "professionalism training," "healing after harm," and "relational approaches." Boolean operators (AND/OR) were used to refine the results. Filters were applied to limit the search to English-language articles published between 2000 and 2024.

Inclusion criteria for this review were as follows: peer-reviewed articles published in English between 2000 and 2024; studies focused on undergraduate medical education (UME); and literature that described or evaluated restorative justice concepts, relational accountability, or dialogue-based approaches to addressing harm in medical training. Studies that addressed the hidden curriculum, professional identity formation, or ethics education in the context of restorative justice were also included.

Articles were excluded if they focused solely on postgraduate medical training, continuing professional development, or non-clinical healthcare disciplines. Editorials, commentaries, or opinion pieces without empirical or educational content were excluded, as were studies unavailable in full text or those discussing general ethics without specific reference to restorative justice or harm and repair.

The selection process involved a two-stage screening procedure. First, titles and abstracts were screened for relevance. Second, full-text articles were reviewed to determine eligibility based on the inclusion and exclusion criteria. From each eligible study, data were extracted on country and setting, educational level and program, format and content of restorative justice-related instruction, theoretical frameworks used (e.g., restorative practices, ethics, humanism), implementation challenges (e.g., hidden curriculum, faculty

resistance), and reported outcomes (e.g., student attitudes, understanding of harm, changes in learning culture).

The extracted data were synthesized thematically. Findings were organized into five key domains: (1) curricular content and delivery methods, (2) conceptual framing of restorative justice, (3) reported benefits or impacts, (4) barriers to integration—including the influence of the hidden curriculum and institutional culture—and (5) identified gaps and recommendations for future implementation. An interpretive lens grounded in professional ethics, critical pedagogy, and systems-based thinking was applied throughout the analysis.

In preliminary searches, a total of 815 articles were identified across the five databases, with an additional 58 records retrieved from reference lists. After removing duplicates, 530 unique records remained for screening. Title and abstract screening excluded 469 records due to irrelevance or non-empirical content. Of the 61 full-text articles assessed, 45 were excluded for not meeting the inclusion criteria. Ultimately, 16 studies were included in the final qualitative synthesis.

RESULTS

This scoping review identified 16 eligible studies that described or evaluated restorative justice practices in undergraduate medical education. Thematic synthesis of the literature revealed five major domains: (1) curricular content and delivery methods, (2) conceptual framing of restorative justice, (3) reported benefits and outcomes, (4) barriers to integration, and (5) alignment with related frameworks such as just culture, trauma-informed education, and moral repair. These domains collectively illustrate both the current practices and the evolving role of restorative justice in medical education, with emphasis on how it is used to address mistreatment, promote equity, and enhance learning environments.

CURRICULAR CONTENT AND DELIVERY METHODS

Restorative justice practices are being integrated into both the formal and hidden curricula of medical education through structured interventions such as restorative circles, community-building dialogues, and consensus-based problem-solving. In the formal curriculum, these practices are embedded in courses and extracurricular programs that emphasize ethics, professionalism, and anti-oppressive education. The REPAIR Project at the University of California, San Francisco exemplifies this integration by embedding restorative principles—such as reparations, abolition, and decolonization—into cross-disciplinary curricula and research (REPAIR Project Steering Committee, 2022). Similarly, the Phoenix Gender-Based Violence Lab incorporates restorative justice through monthly community-building circles that prioritize safety, trust, transparency, and shared accountability (Shetty et al., 2024).

Within the hidden curriculum, restorative justice practices seek to challenge the implicit values and power structures that shape learner experiences. The American College of Physicians has emphasized the importance of addressing the hidden curriculum to align educational environments with medicine's core values of empathy, integrity, and professionalism (Lehmann et al., 2018). Programs such as the Phoenix Lab have demonstrated how structured, inclusive dialogue can disrupt hierarchical dynamics and promote cultural change within medical learning spaces (Shetty et al., 2024).

CONCEPTUAL FRAMING OF RESTORATIVE JUSTICE

Across the reviewed literature, restorative justice is conceptualized as a dialogic and relational process aimed at repairing harm, restoring community trust, and promoting accountability. These practices typically involve facilitated discussions that bring together affected parties to understand the nature of harm, encourage responsibility-taking, and co-create solutions (Acosta & Karp, 2018). This approach is particularly salient in medical education contexts, where hierarchical structures and professional norms can obscure the personal and collective impacts of harm. The Indigenous Health Dialogue (IHD), for example, frames restorative justice within antiracist, decolonizing, and Indigenous methodologies to support health equity and reconciliation in medical education (Henderson et al., 2023).

REPORTED BENEFITS AND OUTCOMES

Several studies reported positive impacts from restorative justice interventions in medical education. The Phoenix Gender-Based Violence Lab documented reduced power differentials, enhanced lab cohesion, improved research collaboration, and increased honesty and accountability among participants (Shetty et al., 2024). The REPAIR Project demonstrated how restorative principles can facilitate institutional reflection on racial injustice and support the development of reparative educational structures (REPAIR Project Steering Committee, 2022). Likewise, the IHD reported progress in building critical reflective frameworks to improve Indigenous health outcomes and advance reconciliation (Henderson et al., 2023).

In addition to program-specific outcomes, restorative practices have been associated with improved learning environments and reduced burnout. Burnout among medical students is strongly linked to mistreatment and negative perceptions of the clinical learning environment (Dyrbye et al., 2021). By fostering psychological safety, mutual support, and community belonging, restorative practices help mitigate emotional exhaustion and disengagement. Structured opportunities for social interaction, which are aligned with

restorative approaches, have also been shown to enhance resilience and prevent burnout (Ziegelstein, 2018).

BARRIERS TO INTEGRATION

Despite their promise, restorative justice practices face multiple barriers to integration within medical education. Cultural resistance was a common theme, with many institutions entrenched in hierarchical and punitive traditions that conflict with the collaborative ethos of restorative justice (Acosta & Karp, 2018; Pradhan et al., 2019). Faculty and learners often lack foundational knowledge or training in restorative principles, impeding effective implementation (Fleit et al., 2017; Acosta & Karp, 2018). Institutional constraints, including limited funding, time, and administrative support, further challenge the sustainability of these programs (Mazer et al., 2018).

Additionally, institutions struggle to balance the anonymity and confidentiality essential to restorative processes with demands for transparency and formal accountability mechanisms (Fleit et al., 2017; Mazer et al., 2018). Evaluation methods for restorative justice interventions also remain underdeveloped. Most studies rely on qualitative data or anecdotal reports, with limited use of standardized metrics to assess long-term outcomes such as learner well-being, cultural climate, or professional identity development (Mazer et al., 2018).

ALIGNMENT WITH RELATED FRAMEWORKS AND FUTURE DIRECTIONS

Restorative justice in medical education is deeply connected to related frameworks that emphasize ethics, equity, and healing. Just culture, for example, promotes system-level accountability and learning from errors, rather than individual blame. This framework is increasingly recognized in healthcare organizations as a foundation for improving safety and trust (van Baarle et al., 2022; Barnsteiner et al., 2023), and aligns closely with restorative justice's focus on collective responsibility and dialogue.

Trauma-informed education is another complementary approach. Grounded in the recognition that many learners carry personal and systemic trauma, trauma-informed pedagogy emphasizes safety, transparency, and empowerment. Frameworks have outlined trauma-informed competencies for medical education that complement restorative practices in addressing structural inequities and psychological harm (Berman et al., 2023; Halabi Najjar & Ackerman-Barger, 2024; Shetty et al., 2024).

Finally, the concept of moral repair—addressing the ethical and emotional consequences of institutional betrayal or mistreatment—frequently intersects with restorative justice efforts. Restorative circles and structured dialogue provide learners with opportunities for moral acknowledgment, repair of

relationships, and reconnection with professional values (Kumagai et al., 2017; Acosta & Karp, 2018).

DISCUSSION

This scoping review reveals that while restorative justice is still an emerging practice within undergraduate medical education, it is gaining traction as a meaningful response to learner mistreatment, inequity, and institutional harm. The programs and frameworks identified across the 16 included studies illustrate both innovative approaches to curriculum design and the challenges associated with shifting entrenched cultural norms in academic medicine.

One of the most notable findings is the dual role restorative justice plays within both the formal and hidden curricula. Programs such as the REPAIR Project at the University of California, San Francisco and the Phoenix Gender-Based Violence Lab demonstrate how restorative principles—emphasizing inclusion, trust, and accountability—can be embedded in structured learning activities and extracurricular initiatives (REPAIR Project Steering Committee, 2022; Shetty et al., 2024). These efforts reflect an intentional shift away from hierarchical and punitive traditions toward more dialogic and community-centered models. Furthermore, the American College of Physicians has underscored the importance of addressing the hidden curriculum to foster environments where professionalism, empathy, and integrity can flourish (Lehmann et al., 2018). Restorative justice is particularly well suited to this challenge, as it directly engages the relational and cultural dynamics that traditional professionalism frameworks may overlook.

Across the literature, restorative justice is conceptualized not only as a method of conflict resolution but also as a relational process that promotes ethical repair and systems learning. This framing is evident in the Indigenous Health Dialogue, which integrates restorative justice with Indigenous methodologies and decolonizing pedagogies to promote health equity and reconciliation (Henderson et al., 2023). These approaches position restorative justice as a transformative tool, capable of advancing both individual healing and collective accountability.

The documented outcomes of restorative justice in medical education support its potential to improve both learner experience and institutional culture. For example, the Phoenix Lab reported reductions in power imbalances, improved team cohesion, and greater openness in communication (Shetty et al., 2024). Similarly, the REPAIR Project demonstrated how structured restorative approaches can prompt critical institutional reflection on systemic racism and guide reparative educational practices (REPAIR Project Steering Committee, 2022). These outcomes are particularly salient given the well-established association between mistreatment and burnout among medical learners (Dyrbye et al., 2021). By fostering psychological safety and relational trust, restorative justice offers a viable strategy to counteract emotional

exhaustion and disengagement. Initiatives that promote social engagement, such as those described by Ziegelstein (2018), further reinforce the idea that community connection is protective against burnout and enhances learner resilience.

Despite its promise, several significant barriers to restorative justice implementation persist. Many institutions remain steeped in hierarchical cultures that resist collaborative, non-punitive approaches to conflict resolution (Acosta & Karp, 2018; Pradhan et al., 2019). Faculty development and learner training on restorative principles are often lacking, which limits both buy-in and fidelity of implementation (Fleit et al., 2017; Acosta & Karp, 2018). Even when programs are in place, logistical challenges such as limited facilitator availability, lack of protected time, and inadequate administrative support create sustainability concerns (Mazer et al., 2018). Additionally, institutions must navigate the tension between confidentiality and transparency—balancing the need for safe restorative spaces with expectations for formal accountability and reporting (Fleit et al., 2017; Mazer et al., 2018). Compounding these issues is the limited availability of rigorous evaluative tools. Few studies in this review employed standardized metrics, making it difficult to draw definitive conclusions about the long-term effectiveness of restorative practices on learner outcomes, professional identity formation, or institutional climate (Mazer et al., 2018).

Importantly, restorative justice does not operate in isolation but intersects meaningfully with other reform-oriented frameworks in medical education. Its alignment with just culture, which emphasizes learning over punishment in the context of medical error, reinforces the shift toward systems-level accountability (van Baarle et al., 2022; Barnsteiner et al., 2023). Similarly, trauma-informed educational approaches share a foundational commitment to safety, trust, and empowerment—principles that resonate deeply with restorative practice (Berman et al., 2023; Halabi Najjar & Ackerman-Barger, 2024; Shetty et al., 2024). Finally, the literature on moral repair highlights the value of structured dialogue in helping learners process ethical distress and institutional betrayal, further positioning restorative justice as a means to restore trust and realign medical training with its moral purpose (Kumagai et al., 2017; Acosta & Karp, 2018).

Taken together, these findings suggest that restorative justice holds significant promise for advancing equity, fostering professionalism, and mitigating harm in medical education. However, its success will depend on medical schools' willingness to confront structural barriers, invest in sustained implementation, and embed restorative approaches across both curricular and cultural domains.

CONCLUSION

Restorative justice presents a promising and underutilized framework for addressing mistreatment, fostering accountability, and transforming the culture of undergraduate medical education. This review identified multiple pathways

through which restorative practices are being implemented—from formal curricular integration to informal community-building interventions—and highlighted their alignment with broader educational goals such as equity, professionalism, and learner well-being. Programs like the REPAIR Project, Phoenix Gender-Based Violence Lab, and Indigenous Health Dialogue illustrate how restorative justice can serve as both a pedagogical strategy and a cultural intervention. These initiatives demonstrate the potential of restorative practices to disrupt hierarchical power structures, promote relational accountability, and build more inclusive and supportive educational environments.

Despite these promising developments, the field faces critical challenges. Cultural resistance, inadequate institutional support, limited training, and underdeveloped evaluation frameworks continue to hinder the widespread adoption of restorative justice in medical education. Moreover, the hidden curriculum—manifested through unspoken norms and power dynamics—remains a pervasive barrier to transformative change. To fully realize the potential of restorative justice, medical schools must invest in faculty development, protected time, and culturally responsive facilitation, while also integrating these practices into structural processes such as accountability mechanisms and student support systems. Future research should prioritize the development of standardized implementation frameworks and long-term evaluative strategies that center learner voice and equity. In doing so, medical education can move closer to cultivating an environment grounded in trust, healing, and ethical growth.

ETHICS AND CONSENT TO PARTICIPATE

This study did not involve human participants, human data, or human tissue. Therefore, ethics approval and consent to participate were not required.

COMPETING INTERESTS

The authors declare that they have no competing interests.

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AUTHOR CONTRIBUTIONS

S.Q., K.Z. – Conception and Design, K.Z. – Supervision, S.Q., S.L., S.Z. – Data Collection and/or Processing and Analysis and/or Interpretation, S.Q., S.L. – Literature Review, S.Q., S.L. – Writing, S.L., S.Z., K.Z. – Critical Review. All authors contributed to the development of this manuscript.

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