



A Narrative Review of the Interplay Between Empathy, Cognitive Dissonance, and Wellbeing Among Physicians

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Abstract

Empathy is a cornerstone of effective healthcare, shaping both patient outcomes and physician wellbeing. It comprises two interrelated components: affective empathy, the capacity to share a patient's emotional state, and cognitive empathy, the ability to understand the patient's perspective without necessarily experiencing their emotions. Physicians often experience emotional distress in response to patients' suffering while needing to maintain objectivity to make sound clinical decisions. This tension can give rise to cognitive dissonance, a psychological discomfort resulting from conflicting thoughts. The aim of this narrative review is to synthesise conceptual foundations, theoretical frameworks, and empirical evidence to examine the interplay between empathy, cognitive dissonance, and physician wellbeing. A targeted narrative search using PubMed, Scopus, Google Scholar, and the BMC journal platform was undertaken to identify relevant theoretical and empirical studies. This review integrates seminal works such as the Dual-Component Model of Empathy, Emotional Labour Theory, and Festinger's Cognitive Dissonance Theory. Although cognitive dissonance has been explored among medical students, its influence on physicians' use of empathy, particularly the distinction between affective and cognitive empathy, remains underexplored. Direct research has not yet examined whether empathy reduction may occur as a response to dissonance in this context. This review maps the conceptual relationships among these constructs and highlights the usefulness of the action-based model of cognitive dissonance in explaining empathy fluctuations. It calls for further research into how different types of empathy and dissonance management strategies influence physician wellbeing. The findings aim to inform interventions that preserve the benefits of empathy, reduce dissonance, and enhance wellbeing in clinical practice.

Keywords: action-based model; affective empathy; cognitive dissonance; cognitive empathy; healthcare; physician wellbeing

1. Introduction

1.1 Background and Rationale

The physician-patient relationship (Pemberton, 1972) is the cornerstone of healthcare, with communication and physician wellbeing (Wang et al., 2022) as key determinants of care quality. Effective communication enhances diagnosis, treatment adherence, and patient satisfaction (Ha et al., 2010). Defined as the interactive exchange of information, emotions,

and expectations between providers and patients (WHO, 2007), it underpins trust and therapeutic success. Nonetheless, substantial workloads, patient distress, fear of litigation, cognitive dissonance, and time constraints frequently hinder communication and physician engagement (Ha et al., 2010; Quill, 1995). Within this context, empathy, originating from Theodor Lipps' concept of *Einfühlung* ("feeling into"), denotes the ability to understand another's emotions and thoughts while maintaining self-other awareness (Montag et al., 2008; Decety & Lamm, 2006). Empathy integrates cognitive, affective, moral, and behavioural components to foster patient trust, treatment adherence, and positive outcomes (Stueber, 2019; Borkar, 2022; Hojat et al., 2011). Yet systemic pressures and insufficient empathy education hinder its sustainability (Moudatsou et al., 2020), intensifying the tension between compassion and clinical detachment (Kerasidou & Horn, 2016). Given these challenges, examining how empathy interacts with cognitive dissonance to influence physician wellbeing is essential for sustaining compassionate and ethical medical practice.

1.2 Problem Statement and Research Objectives

Despite its recognised importance, the intersection of empathy, cognitive dissonance, and physician wellbeing remains insufficiently explored, particularly among practising clinicians (Yu et al., 2022). While empathy is vital for effective and compassionate patient care, limited attention has been given to its emotional costs for physicians (Kerasidou & Horn, 2016). No existing research has examined whether empathy reduction may occur as a response to cognitive dissonance, a psychological discomfort arising from conflicting thoughts (Festinger, 1957; King & Cai, 2021). Since dissonance can hinder emotional recognition, a key component of empathic understanding, investigating this relationship can clarify the operation of affective and cognitive aspects of empathy under clinical stress. Addressing this gap, the present narrative review synthesises conceptual foundations, theoretical frameworks, and empirical evidence to examine the interplay between empathy, cognitive dissonance, and physician wellbeing. To address these gaps and guide future inquiry, the present review is structured around the following objectives:

1. To examine the conceptual and theoretical foundations of empathy, cognitive dissonance, and physician wellbeing within medical contexts.
2. To analyse empirical evidence on the interrelationships among empathy, cognitive dissonance, and physician wellbeing.
3. To identify strategies and future research directions for sustaining empathy and mitigating dissonance-related distress in clinical practice.

2. Methodology

This study adopts a narrative review approach to synthesise theoretical and empirical literature on empathy, cognitive dissonance, and physician wellbeing. A narrative review was chosen to integrate diverse perspectives across psychology, neuroscience, social psychology, and medical education, enabling conceptual depth rather than quantitative aggregation. This approach is particularly suited to the present study because the literature on the interplay between empathy, cognitive dissonance, and physician wellbeing remains limited, conceptually dispersed, and methodologically heterogeneous. Rather than aiming for exhaustive aggregation or quantitative synthesis, as in a systematic review, the present study seeks to integrate conceptual, theoretical, and empirical insights in order to explore an underexamined phenomenon, namely the potential emergence of empathy-related cognitive dissonance in clinical practice. Narrative reviews are especially valuable for theory development, conceptual clarification, and identification of emerging research gaps in areas where evidence remains fragmented or uneven (Baumeister & Leary, 1997; Torracco, 2005;

Snyder, 2019). Accordingly, the present review adopts an interpretive and integrative approach to advance understanding and generate directions for future research.

A targeted literature search was undertaken to identify theoretical and empirical literature relevant to empathy, cognitive dissonance, emotional labour, burnout, and physician wellbeing. Because the study adopted a narrative review design, the search was intended to support conceptual integration rather than exhaustive retrieval. Searches were conducted through PubMed, Scopus, Google Scholar, and the BMC journal platform, and were supplemented by backward citation searching of relevant articles and review of seminal theoretical works. Search concepts combined terms relating to empathy (for example, empathy, clinical empathy, cognitive empathy, affective empathy), dissonance-related processes (for example, cognitive dissonance, emotional dissonance, emotional labour, moral distress), population (for example, physician, doctor, resident, trainee, medical student), and outcomes (for example, burnout, wellbeing, professional fulfilment). Representative search combinations included “empathy AND cognitive dissonance,” “clinical empathy AND physician wellbeing,” and “emotional labour AND physicians AND wellbeing,” with search syntax adapted to the native functionality of each source. PubMed and Scopus were searched from database inception to 31 December 2024, while Google Scholar and the BMC journal platform were searched across all years available on the platform to 31 December 2024. Searches were limited to English-language sources, either directly through platform restrictions or through eligibility screening. Full platform-specific search strategies, including exact search strings, limits, and dates, are reported in Supplementary Table S1.

A total of 219 sources were identified through targeted searching and reference tracing. All 219 were screened by title and abstract. Because screening was intentionally inclusive at this stage, no sources were excluded before full-text assessment. Full texts were retrieved for all 219 sources, and all 219 were assessed for eligibility. Following full-text review, 154 sources were excluded and 65 were retained for thematic synthesis. Inclusion criteria comprised studies focusing on physicians or medical trainees and addressing empathy, cognitive dissonance, emotional labour, burnout, or wellbeing within clinical contexts. Exclusion criteria included studies unrelated to healthcare professionals, publications lacking conceptual relevance to the review themes, and non-English sources. A PRISMA-like schematic of the study selection process is presented in Figure 1. The included literature ultimately spanned publications from 1957 to 2024.

Formal study-level quality appraisal tools were not applied because the review was designed as a narrative synthesis spanning heterogeneous empirical studies, theoretical papers, and review literature rather than as a systematic review aimed at pooled effect estimation. Nevertheless, a brief critical appraisal informed the synthesis. Priority was given to peer-reviewed empirical studies, seminal theoretical contributions, and widely cited work. The empirical literature was interpreted with particular attention to study design, population, measurement approach, and contextual transferability. Recurrent limitations included the predominance of cross-sectional and self-report designs, heterogeneity in measures of empathy, burnout, and related constructs, frequent reliance on proxy constructs such as emotional dissonance or moral distress in place of direct measures of empathy-related dissonance, over-representation of trainee samples relative to practising physicians, and concentration of studies within single institutions or national contexts, which may limit comparability and generalisability. These considerations were taken into account during synthesis, and the review’s conclusions are therefore presented as concept-building rather than confirmatory.

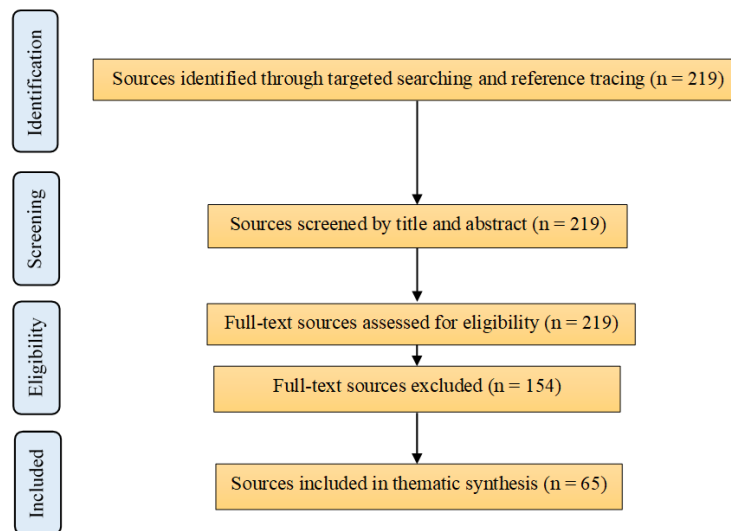


Figure 1. Schematic of Study Selection Process

Figure 1: PRISMA-like schematic of the study selection process

Note. All 219 records judged potentially relevant at title/abstract screening proceeded to full-text assessment because the initial screening stage was intentionally inclusive; 154 were excluded after full-text review and 65 were retained for thematic synthesis.

The analysis followed an integrative thematic process involving repeated reading, conceptual clustering, and synthesis across three domains: (1) conceptual foundations, (2) theoretical frameworks, and (3) empirical evidence. This structured approach enabled identification of recurring themes and conceptual linkages that advance understanding of how empathy and dissonance interact to shape physician wellbeing. Guided by a post-positivist perspective, this study acknowledges that understanding human experience in medicine is context-dependent and influenced by theoretical interpretation rather than absolute objectivity (Young & Ryan, 2020). This stance supports a reflective and interpretive synthesis of evidence, enabling a nuanced understanding of how empathy and cognitive dissonance interact within clinical practice.

3. Conceptual Foundations of Empathy, Cognitive Dissonance, and Wellbeing

Empathy in medicine manifests as two interrelated processes: affective empathy, the emotional resonance with patients, and cognitive empathy, the intellectual understanding of patients' perspectives (Hojat et al., 2002; Guidi & Traversa, 2021). While affective empathy strengthens physician-patient connection, it can heighten vulnerability to burnout, particularly in high-stress specialties such as oncology and emergency medicine (Pearlman & Saakvitne, 1995; Yue et al., 2022). Cognitive empathy, in contrast, supports emotional regulation and clinical judgement but, when overemphasised, may suppress natural emotional responses, creating internal tension. This tension may manifest as cognitive dissonance, a psychological discomfort arising from inconsistencies between thoughts, beliefs, emotions, and behaviours (Festinger, 1957; King & Cai, 2021). Neuroscientific evidence supports this duality, linking affective empathy to limbic activation and cognitive empathy to prefrontal regulatory networks (Singer & Lamm, 2009; Shamay-Tsoory & Aharon-Peretz, 2007). Cognitive dissonance becomes particularly salient in clinical environments where institutional expectations encourage emotional restraint. Under such conditions, physicians may reduce empathic engagement as a coping mechanism, potentially compromising emotional recognition, ethical decision-making, and professional integrity (Harmon-Jones & Mills, 2019; Klein & McColl,

2019; King & Cai, 2021). Persistent unresolved dissonance may therefore contribute to emotional distress and burnout. Physician wellbeing is a multidimensional construct encompassing emotional, psychological, and social vitality beyond the mere absence of distress (Wallace et al., 2009). Rooted in self-determination theory, wellbeing reflects the fulfilment of autonomy, competence, and relatedness (Ryan & Deci, 2001). These dimensions support sustained professional engagement and compassionate care (Shanafelt & Noseworthy, 2017). However, contemporary healthcare environments characterised by heavy workloads, emotional demands, and organisational inefficiencies often undermine these psychological needs, increasing vulnerability to burnout marked by exhaustion and depersonalisation (Maslach & Leiter, 2017). Taken together, empathy, cognitive dissonance, and physician wellbeing form an interconnected framework shaping emotional resilience in medical practice. While empathic engagement strengthens therapeutic relationships, conflicts between empathic ideals and systemic constraints may evoke cognitive dissonance. Depending on how this tension is managed, it may contribute either to burnout or, through reflective regulation and supportive organisational environments, to adaptive wellbeing and sustained professional fulfilment (Ryan & Deci, 2001; Shanafelt & Noseworthy, 2017).

4. Theoretical Frameworks

The present review integrates four complementary frameworks to explain how empathy interfaces with cognitive conflict and physician wellbeing in clinical work.

The Dual-Component Model of Empathy conceptualises empathy as comprising affective resonance and cognitive perspective-taking (Davis, 1983), underpinned by partly dissociable neural systems, limbic/paralimbic substrates for affective sharing and prefrontal-temporoparietal networks for perspective-taking (Decety & Jackson, 2004; Shamay-Tsoory, 2011). In medicine, effective care requires calibrated modulation of these components: affective empathy humanises encounters, while cognitive empathy sustains judgement and boundary-keeping; overemphasising either risks overidentification or detachment (Halpern, 2001; Larson & Yao, 2005). **Emotional Labour Theory** explains how clinicians regulate felt and displayed emotion to meet role expectations, typically via surface acting (altering display without inner change) or deep acting (aligning feelings with role demands) (Hochschild, 1983; Brotheridge & Grandey, 2002). Persistent surface acting generates emotional dissonance and predicts exhaustion and depersonalisation (Morris & Feldman, 1996; Wilkinson et al., 2017). **Festinger's Cognitive Dissonance Theory** posits that inconsistencies among beliefs, emotions, and actions produce aversive arousal that motivates attitude or behaviour change; in constrained clinical contexts, unresolved dissonance contributes to moral distress and burnout (Festinger, 1957; Harmon-Jones & Mills, 2019; Maslach & Leiter, 2016). **The Action-Based Model** extends this account by framing dissonance as a motivational mechanism that restores action readiness: arousal from conflict propels alignment of cognitions with goal-directed behaviour, yielding either constructive engagement (e.g., reflection, ethical advocacy) or defensive disengagement (e.g., rationalisation, withdrawal), contingent on coping resources and organisational climate (Harmon-Jones, E., & Harmon-Jones, C., 2019; Wilkinson et al., 2017). Together, these frameworks depict empathy as a regulated, context-sensitive process whose management can either buffer or amplify dissonance, thereby shaping physician wellbeing. Figure 2 illustrates the action-based process through which challenging clinical situations may evoke cognitive dissonance in empathic practice and motivate cognitive and behavioural adjustments that influence physician wellbeing.

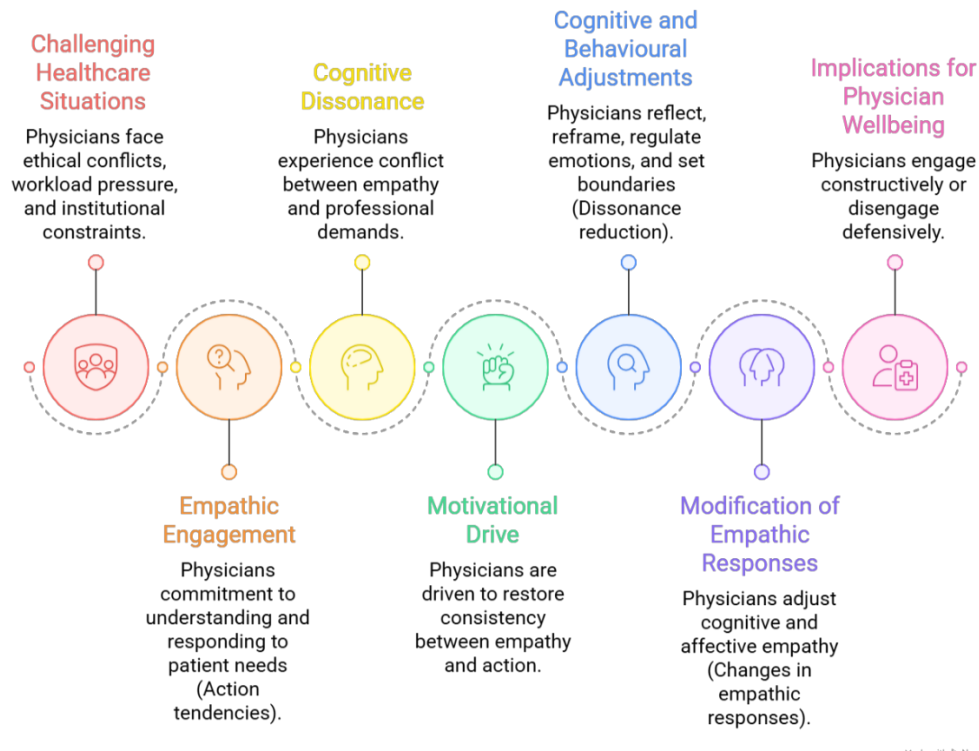


Figure 2. *Physician empathy and cognitive dissonance: Action-based model*

Note: Adapted from the Action-Based Model of Cognitive Dissonance by Harmon-Jones, E., & Harmon-Jones, C. (2019). Challenging clinical situations may evoke empathic engagement that conflicts with professional constraints, generating cognitive dissonance. According to the action-based model, this dissonance motivates cognitive and behavioural adjustments aimed at restoring action readiness. These adjustments shape empathic responses and may lead either to constructive engagement or defensive disengagement, depending on coping resources and organisational context.

Collectively, these frameworks guided the integration of empirical findings by offering complementary lenses: psychological (Davis, 1983; Festinger, 1957), sociological (Hochschild, 1983), and motivational (Harmon-Jones et al., 2019), through which to interpret how empathy is regulated, strained, and sustained in medical practice. The dual-component and emotional labour models informed the synthesis of studies on empathy's behavioural expression, while cognitive dissonance theory and the action-based model shaped interpretations of distress, adaptation, and physician wellbeing.

5. Empirical Evidence

Across clinical and educational settings, empirical studies converge on how empathy, cognitive dissonance, and physician wellbeing co-evolve. Empathy develops through interacting personal factors such as inherent characteristics, physiological and mental states, and professional identity, as well as contextual influences including the work environment, life experience, and situational stressors, which vary in stability (Yu et al., 2022). In clinical practice, patients' perceptions of physician empathy strengthen the physician-patient relationship both directly and indirectly through the development of trust (Wang et al., 2022). Yet empathy's components function asymmetrically: cognitive perspective-taking supports communication accuracy and clinical judgement (Davis, 1983; Decety & Jackson, 2004; Halpern, 2001), whereas affective resonance, while humanising care (Larson & Yao, 2005), can heighten emotional strain. There are consistent positive links between empathy and patient outcomes (Derksen et al., 2013; Hojat et al., 2011). However, evidence, largely derived from

studies of medical students and trainees within medical education contexts, suggests that empathy may decline during training. This phenomenon has been attributed to professional socialisation, time pressure, and emotional overload rather than moral erosion (Neumann et al., 2011; Halpern, 2001).

Scholarship on emotional labour further indicates that physicians and other healthcare professionals are expected to display calm authority and compassion while regulating internal emotional states in clinical interactions (Hochschild, 1983; Brotheridge & Grandey, 2002; Larson & Yao, 2005). Surface acting, which involves managing emotional displays without internal change, and deep acting, which involves aligning internal feelings with role expectations, carry different psychological costs. Surface acting has been associated with emotional dissonance, which has been linked to exhaustion and depersonalisation in healthcare professionals (Morris & Feldman, 1996; Wilkinson et al., 2017). Moral distress arises when clinicians recognise the ethically appropriate course of action but are unable to pursue it due to systemic constraints (Lamiani et al., 2015; Schrepel et al., 2019). Within medical education, Laughey, Brown, and Finn (2020) identified pathways to empathy among medical students, describing empathy modifiers and the phenomenon of empathic dissonance, discomfort experienced when students feel pressured to express empathic responses that they do not sincerely feel. They proposed a model in which affective empathy (“from the heart”) represents the primary pathway, whereas cognitive empathy (“from the head”) is often adopted to manage time pressure and emotional burden. Beyond training contexts, evidence from practising physicians also points to professional dissonance. Frontline primary care practitioners describe a mismatch between institutional values and clinicians’ own values, which, alongside excessive workload, undervaluation, and imbalances between authority and responsibility, contributes to burnout. Proposed remedies include managing workload, amplifying clinician voice, fostering professional community, and pursuing institutional reforms (Agarwal et al., 2020).

Experimental and observational work further clarifies mechanisms linking empathy and action under conditions of conflict. Stephan and Finlay (1999) distinguished cognitive, reactive, and parallel forms of empathy, demonstrating empathy’s role in promoting prosocial behaviour and mediating changes in prejudice and cognitive dissonance. Tolerance for ambiguity, moderated by empathy, has also been shown to predict clinical performance, illustrating the integration of cognitive and emotional processes in clinical decision-making (Morton et al., 2000). When experienced empathy conflicts with awareness of prior failures to help, dissonance is evoked and may motivate helping behaviour, supporting the Action-Based Model of cognitive dissonance (Harmon-Jones et al., 2009). Evidence from related clinical professions also illustrates similar emotional dynamics. For example, in high-stakes settings, ICU nurses report cognitive, affective, and behavioural coping strategies, such as reframing, compartmentalising, and temporary withdrawal, to manage distress associated with end-of-life care (Badger, 2005).

A critical review by Pedersen (2009) cautions that much research on medical empathy relies on limited quantitative instruments and insufficiently captures the lived experiences of physicians and patients or the influence of training and organisational contexts. Empirical evidence also indicates that empathy’s profile is differentially associated with burnout among practising physicians. Among general practitioners, perspective-taking and empathic concern are inversely associated with burnout; deficits in perspective-taking increase vulnerability, while balanced cognitive-affective empathy appears protective and may be fostered through educational interventions (Lamothe et al., 2014). Evidence from trainee populations further highlights empathy’s complex and dual nature. Among pre-medical students, clinical empathy indirectly affects depression through burnout: perspective-taking reduces emotional exhaustion, whereas compassionate care, which emphasises affective empathy, may increase

it. These findings underscore the need to cultivate cognitive empathy while mitigating affective overload (MacArthur et al., 2021).

More broadly, cognitive dissonance can distort judgements and slow optimal responses under pressure (Klein & McColl, 2019), while unresolved emotional or moral dissonance predicts exhaustion and depersonalisation (Wilkinson et al., 2017). Framed within broader understandings of wellbeing as vitality, engagement, and meaning (Ryan & Deci, 2001; Wallace et al., 2009; Shanafelt & Noseworthy, 2017), burnout, characterised by exhaustion, depersonalisation, and reduced accomplishment, emerges when empathic commitment is not supported by adequate organisational buffering (Maslach & Leiter, 2016). The evolution from the era of distress through wellbeing 1.0 to wellbeing 2.0, emphasising vulnerability, community, and purpose, reflects system-level learning about sustaining humane clinical practice (Shanafelt, 2021). Consistent with cognitive dissonance theory (Festinger, 1957) and its action-based extension (Harmon-Jones et al., 2009), clinicians who resolve dissonance through value-congruent action report greater professional fulfilment, whereas unresolved dissonance may foster cynicism and withdrawal.

Taken together, the available evidence supports the present review's central claim that empathy in medicine can be both beneficial and psychologically costly, but it also reveals important gaps in the existing evidence base. First, the literature is disproportionately trainee-focused; a substantial proportion of studies derive from medical students and trainees and therefore primarily reflect empathy development within educational contexts and processes of professional socialisation. By contrast, comparatively fewer studies directly examine practising physicians in routine clinical settings, and fewer still assess empathy-related dissonance explicitly rather than inferring it from burnout, emotional labour, or moral distress. As a result, the empirical evidence specific to practising physicians remains relatively limited. Second, cross-cultural and system-level variability remains under-specified: existing work suggests that empathy trajectories, scores, and correlates vary across regions, specialties, instruments, and healthcare systems, but formal comparison is often limited by heterogeneity in methods and measures. Third, most studies remain cross-sectional and rely on self-report data. These limitations should be taken into account when interpreting the applicability and generalisability of current findings and underscore the need for future research directly examining practising physicians, for the examination of empathy-related cognitive dissonance as a distinct construct, and for the use of multi-method designs combining self-report, patient-rated, and encounter-level measures across diverse clinical, organisational, and cultural settings.

Table 1 summarises selected key empirical studies most directly relevant to the review's central themes of empathy, dissonance-related processes, and physician wellbeing. It is intended as an illustrative synthesis rather than an exhaustive inventory of all included sources.

Table 1. Summary of Key Empirical Studies

Study	Population	Setting	Empathy construct	Dissonance-related variable	Outcome
Physician-focused studies					
Hojat et al. (2011)	Physicians	Clinical	Clinical empathy	–	Physician empathy positively associated with clinical competence and patient outcomes.
Derksen et al. (2013)	Physicians	Clinical	Empathy (general)	–	Evidence synthesis suggests positive associations between physician empathy and patient satisfaction, enablement,

					reduced distress, and improved clinical outcomes.
Trainee-focused studies					
Neumann et al. (2011)	Medical students	Educational	Empathy (general)	Emotional strain (indirect)	Empathy declines during medical training, associated with training-related stress and potential implications for professionalism and care quality.
Laughey et al. (2020)	Medical students	Educational	Affective and cognitive empathy	Empathic dissonance	Identification of “empathic dissonance” as discomfort arising from pressured or insincere empathic expression in clinical training contexts.
Dissonance-related mechanisms in clinical contexts					
Wilkinson et al. (2017)	Healthcare professionals	Clinical	Empathy (general)	Emotional dissonance (via emotional labour)	Synthesised evidence indicates a predominantly negative association between empathy and burnout.
Agarwal et al. (2020)	Physicians (primary care)	Clinical	–	Professional dissonance	Professional dissonance linked to mismatch between physician values and system demands, contributing to burnout and reduced fulfilment.
Empathy and burnout relationships					
Lamothe et al. (2014)	General practitioners	Clinical	Affective and cognitive empathy	– (indirect)	Balanced cognitive and affective empathy associated with lower burnout; low perspective taking linked to higher burnout.
MacArthur et al. (2021)	Pre-medical students	Educational	Clinical empathy	Burnout (mediating pathway)	Cognitive empathy protective against burnout, whereas affective empathy associated with increased emotional exhaustion, indicating differential effects of empathy components.

6. Discussion

Empathy, cognitive dissonance, and physician wellbeing together form an interdependent psychosocial framework that helps explain both the fulfilment and strain inherent in medical practice. The literature reviewed indicates that while empathic engagement strengthens diagnostic accuracy, patient trust, and adherence (Hojat et al., 2011; Derksen et al., 2013), it may also generate internal tension when physicians must regulate or suppress emotional responses in order to maintain professional objectivity (Larson & Yao, 2005; Wilkinson et al., 2017). Such tensions can evoke cognitive dissonance, particularly when clinicians’ empathic values conflict with institutional constraints or role expectations.

When unresolved, this dissonance may contribute to moral distress, burnout, and emotional detachment (Maslach & Leiter, 2016; Klein & McColl, 2019). However, the literature also suggests that dissonance can function as a catalyst for adaptive reflection when physicians are able to process emotional conflict constructively. In line with the Action-Based Model of Dissonance (Harmon-Jones et al., 2011), discomfort arising from empathic conflict may motivate behavioural and cognitive adjustments that restore value congruence, potentially fostering professional growth, ethical clarity, and resilience (Lamothe et al., 2014; MacArthur et al., 2021).

These insights suggest that efforts to support physician wellbeing should extend beyond individual resilience training to include systemic strategies that acknowledge and address empathic tension in clinical practice. Organisational environments that normalise reflective dialogue, peer support, and structured ethical debriefing may help physicians process empathic conflict in constructive ways (Shanafelt & Noseworthy, 2017; Wallace et al., 2009). Similarly, medical education programmes should promote balanced empathy by cultivating cognitive perspective-taking alongside regulated affective engagement, enabling clinicians to sustain compassionate care without emotional depletion.

The concept of empathy-related cognitive dissonance may be operationalised to facilitate empirical investigation. It may be defined as the aversive state that arises when a physician's empathic understanding, internally felt emotional response, outward empathic display, and ability to act on that understanding become misaligned because of professional role expectations or structural constraints. This construct overlaps with, but is not reducible to, emotional dissonance, emotional labour, moral distress, or burnout. Emotional dissonance captures a discrepancy between felt and displayed emotion; moral distress reflects the inability to enact what one believes is ethically right; and burnout reflects downstream occupational exhaustion and disengagement. Empathy-related cognitive dissonance is narrower than burnout and broader than emotional dissonance because it specifically concerns discord within the empathic process itself and includes not only affective incongruence but also constraint-driven failures of empathic action. It may therefore be examined through measurable dimensions such as emotional dissonance (discrepancy between felt and expressed emotion), moral distress (inability to act in accordance with ethical judgement), and imbalances between affective and cognitive empathy. Established instruments, including the Emotional Labour Scale, Moral Distress Scale, and empathy measures such as the Jefferson Scale of Empathy and the Basic Empathy Scale, may serve as useful candidate instruments for capturing different aspects of this phenomenon. Burnout measures, such as the Maslach Burnout Inventory, may further capture downstream outcomes of unresolved dissonance. Emerging efforts to directly assess dissonance in clinical contexts, including adaptations of cognitive dissonance measures, highlight the feasibility of operationalising this construct. Recent work beyond the review period has also begun to examine the association between cognitive dissonance and empathy in physicians (Jose et al., 2025), reinforcing the relevance of this line of inquiry. Because the final search for the present review was completed in December 2024, this study is cited only as post-period corroborative evidence and was not included in the reviewed corpus.

A preliminary measurement model may therefore conceptualise empathy-related cognitive dissonance as a multidimensional construct with four core domains: (1) a gap between felt and expressed empathy, referring to discrepancy between genuine empathic feeling and communicated response; (2) empathic action constraint, referring to situations in which the physician understands the patient but is unable to respond empathically because of structural or situational barriers; (3) value-role conflict, referring to tension between professional or institutional expectations and the care the physician believes is right; and (4) regulatory strain, referring to the emotional effort involved in sustaining empathic display or compelled detachment. A state-dissonance component may further capture the immediate discomfort experienced by physicians after a particularly difficult clinical encounter. In this framework, empathy baseline represents a background orientation, patient-perceived empathy provides an external validation indicator of whether empathic communication is actually experienced by patients, moral distress reflects a related proximal construct, and burnout or professional fulfilment represent downstream outcomes.

7. Practical Implications and Future Research Directions

The present synthesis also highlights several practical implications for medical education and healthcare organisations. First, training programmes should emphasise balanced empathy, integrating cognitive perspective-taking with emotional regulation skills. Structured curricula that incorporate reflective practice sessions, simulation-based communication training, and narrative medicine exercises may help clinicians maintain compassionate engagement while managing emotional strain. Second, healthcare institutions may benefit from implementing structured team debriefing protocols following ethically challenging clinical encounters or emotionally demanding cases. Regular interdisciplinary reflection forums can provide opportunities for clinicians to process empathic conflict collectively, thereby reducing unresolved cognitive dissonance and its potential contribution to burnout. Third, organisational leadership should incorporate physician wellbeing indicators, such as burnout prevalence, perceived organisational support, and opportunities for reflective dialogue, into institutional quality improvement frameworks. Leadership practices that encourage open discussion of moral distress, shared decision-making, and supportive professional communities may strengthen physicians' capacity to manage empathic tension constructively.

Future research may benefit from developing context-specific measures to directly assess empathy-related dissonance within clinical settings and further operationalise this construct. It should also investigate how reflective practices, moral resilience, and supportive leadership structures mitigate its potential adverse effects (Pedersen, 2009; Rushton, 2023; Epstein & Krasner, 2013). Longitudinal and mixed-methods studies could examine how physicians regulate empathic conflict across different stages of their professional development and within varying organisational environments. Based on the present synthesis, the following hypotheses warrant empirical investigation: First, higher levels of cognitive empathy may be associated with lower levels of physician burnout, whereas excessive affective empathy without adequate emotional regulation may increase vulnerability to emotional exhaustion. Second, cognitive dissonance arising from conflicts between empathic values and institutional constraints may be positively associated with physician burnout and moral distress. Third, reflective practices and supportive organisational environments may moderate the relationship between empathy-related cognitive dissonance and physician wellbeing. Testing these hypotheses may contribute to the development of evidence-based strategies that support sustainable empathic practice in healthcare.

Ultimately, this review highlights empathy not merely as an individual virtue but as a systemic competency embedded within the relational and organisational structures of healthcare. When appropriately supported, empathic tension can shift from a source of distress to a driver of meaning, ethical maturity, and enduring physician wellbeing.

8. Limitations

This review has several limitations. First, as a narrative review, it does not follow a fully systematic methodology and therefore may be subject to selection bias and limited reproducibility. Second, publication bias may influence the available literature, with studies reporting significant or theoretically prominent findings being more likely to be published and cited. Third, the included studies vary in design, measurement approaches, and sample populations, which may limit the comparability and generalisability of findings. Finally, while the narrative approach enables conceptual integration and theory development in an underexplored area, it relies on interpretive synthesis and is not intended to provide the exhaustive coverage or replicable study selection procedures typical of a systematic review.

9. Conclusion

This narrative review elucidates the intricate interplay between empathy, cognitive dissonance, and physician wellbeing, revealing that the very capacities that sustain compassionate care can also generate emotional strain when constrained by institutional or moral pressures. Integrating psychological, sociological, and motivational perspectives, the synthesis highlights empathy as both a relational strength and a potential vulnerability in medical practice. Cognitive dissonance, when unaddressed, may contribute to burnout and moral distress; however, when reflectively managed, it can foster ethical maturity and professional resilience. Sustainable physician wellbeing therefore requires systemic empathy, embedding reflective practice, humane leadership, and value-congruent organisational environments that enable physicians to transform empathic tension into professional meaning and enduring fulfilment.

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