Asesment: Journal of Counseling Guidance
Volume 2, No 1, January-June, 2024, pp (1-34)
E-ISSN 3025-0234 | P-ISSN 2988-1633
Doi: https:/10.59784/asesment.v2i1.104

Compassion-Focused Therapy for Moral Injury Among Healthcare Professionals: A Burnout Prevention Counseling Model in Indonesian Public Hospitals

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Article Info :
Accepted: September 4, 2023
Approved: November 10, 2023
Published: January 14, 2024

Keywords:
compassion-focused therapy; moral injury; healthcare professional burnout; Indonesian public hospitals; cultural adaptation

ABSTRACT

Background: Healthcare professionals in Indonesian public hospitals experience high rates of moral injury—psychological trauma resulting from ethical violations and systemic constraints—which precipitates chronic burnout and workforce attrition, yet culturally appropriate, evidence-based interventions remain scarce.
Objective: This study aimed to develop and evaluate a compassion-focused therapy (CFT) model for preventing burnout by addressing moral injury among Indonesian healthcare professionals working in resource-constrained public hospital settings.
Method: A convergent parallel mixed-methods design was employed involving 72 healthcare professionals (physicians and nurses) from three public hospitals in Java who participated in an eight-week CFT group intervention, with quantitative assessments measuring moral injury, burnout, and self-compassion at baseline, mid-intervention, and post-intervention, and qualitative semi-structured interviews exploring lived experiences and cultural appropriateness.
Findings and Implications: Results demonstrated statistically significant reductions in moral injury severity (28.8%, $d = 1.42$), burnout across all dimensions (25.7%–36.8%, $d = 1.00–1.39$), and substantial increases in self-compassion (61.9%, $d = 1.73$), while qualitative findings revealed therapeutic mechanisms operating through shame reduction, values reconnection, compassionate courage development, and sustainable practice integration within Indonesian cultural contexts.
Conclusion: The study establishes compassion-focused therapy as an effective, culturally resonant intervention for preventing healthcare workforce burnout through addressing moral injury, offering evidence-based frameworks for individual healing and organizational support systems applicable to resource-constrained healthcare settings globally.

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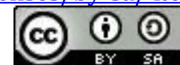

INTRODUCTION

The global healthcare workforce faces unprecedented psychological distress stemming from systemic pressures, ethical dilemmas, and emotionally demanding patient interactions that collectively contribute to widespread occupational burnout and mental health deterioration. Healthcare professionals worldwide increasingly report experiences of moral injury—a profound psychological wound resulting from perpetrating, witnessing, or failing to prevent acts that transgress deeply held moral beliefs and expectations—which has emerged as a critical factor distinguishing clinical burnout from more complex forms of occupational trauma (Williamson et al., 2020).

Recent global health crises, resource limitations, and institutional constraints have exacerbated the phenomenon, forcing clinicians into ethically compromising situations where optimal patient care becomes unattainable despite their best efforts. In Indonesia, public hospitals operate under severe resource constraints, hierarchical organizational cultures, and high patient volumes that create fertile conditions for moral injury, yet mental health support systems remain underdeveloped and culturally misaligned with healthcare workers' needs (Efendi et al., 2019).

The intersection of moral injury and burnout represents a threat to healthcare sustainability, as it erodes not only individual wellbeing but also professional identity, clinical competence, and organizational retention rates (Arummawati & Al Mahda, 2024). Consequently, there is an urgent imperative to develop culturally adapted, evidence-based interventions that address the unique psychological sequelae of morally injurious experiences within healthcare contexts. This study proposes a compassion-focused therapy (CFT) model specifically designed to prevent burnout by addressing moral injury among Indonesian public hospital healthcare professionals, thereby contributing to both individual healing and systemic resilience.

Moral injury, originally conceptualized within military contexts to describe the psychological aftermath of warfare violations, has been increasingly recognized as a salient framework for understanding healthcare professionals' psychological suffering that extends beyond conventional burnout models (Litz et al., 2009). Unlike burnout, which primarily involves emotional exhaustion, depersonalization, and reduced personal accomplishment resulting from chronic workplace stress, moral injury encompasses profound guilt, shame, spiritual distress, and disrupted core

beliefs about oneself, others, and the moral order of the world (Griffin et al., 2019). Compassion-focused therapy, developed by Gilbert (2014), offers a theoretically robust intervention grounded in evolutionary psychology, attachment theory, and neuroscience, emphasizing the cultivation of self-compassion and compassionate mind training to address shame-based psychopathology and self-criticism.

Several research demonstrate that CFT effectively reduces shame, self-criticism, and psychological distress across diverse clinical populations by activating the soothing-contentment affect regulation system and fostering feelings of safety, warmth, and connectedness (Kirby et al., 2017). Within healthcare contexts, CFT shows particular promise for addressing moral injury because it directly targets the shame and self-blame that healthcare professionals experience when systemic failures force them to compromise their values or provide suboptimal care (Beaumont et al., 2016).

The Indonesian cultural context, characterized by collectivistic values, hierarchical social structures, and emphasis on harmony (*rukun*), necessitates culturally adapted therapeutic approaches that honor local meaning-making systems while maintaining fidelity to evidence-based principles. Understanding these theoretical foundations provides essential scaffolding for developing interventions that address the unique manifestations of moral injury within Indonesian public healthcare settings. Despite growing recognition of moral injury and burnout as critical occupational health concerns, significant gaps persist in understanding how these phenomena intersect within resource-constrained public healthcare systems in low- and middle-income countries, particularly Indonesia. Existing research predominantly focuses on Western healthcare contexts with established mental health infrastructure, leaving unclear whether findings generalize to settings characterized by different cultural values, healthcare financing models, and professional support systems (Greenberg et al., 2020).

Current burnout prevention interventions typically emphasize individual-level stress management techniques such as mindfulness, resilience training, or cognitive-behavioral strategies, yet these approaches frequently fail to address the profound moral and spiritual dimensions of healthcare-related trauma (West et al., 2018). The limited research examining moral injury among Indonesian healthcare professionals reveals high prevalence rates but lacks rigorous evaluation of culturally appropriate interventions specifically designed to prevent the trajectory from moral injury to chronic burnout. Furthermore, while CFT has demonstrated efficacy for various clinical populations, its application to prevent burnout through addressing moral

injury among healthcare professionals remains largely unexplored, particularly within non-Western cultural contexts.

Existing counseling models in Indonesian hospitals predominantly rely on generic employee assistance programs or religious counseling that, while culturally familiar, lack empirical validation and theoretical integration with contemporary trauma-informed approaches (Efendi et al., 2019). This convergence of gaps—contextual, theoretical, and methodological—necessitates innovative research that bridges evidence-based psychological interventions with the lived realities of Indonesian healthcare professionals experiencing moral injury.

The urgency of developing effective interventions for moral injury-related burnout among Indonesian healthcare professionals has intensified dramatically due to converging health system crises, workforce attrition, and emerging evidence of severe psychological consequences. Indonesia's healthcare system faces a critical shortage of qualified healthcare professionals, with physician and nurse distribution heavily concentrated in urban areas while rural and public hospitals struggle with understaffing that can exceed 40% of required positions.

This chronic understaffing creates untenable working conditions where healthcare professionals routinely face impossible ethical dilemmas, such as rationing scarce resources, discharging patients prematurely due to insurance limitations, or providing care without adequate equipment—situations that directly precipitate moral injury. Recent data indicate that over 65% of Indonesian nurses and 58% of physicians report moderate to severe burnout symptoms, with turnover rates in public hospitals reaching 23% annually, representing both individual suffering and systemic instability that compromises healthcare quality and accessibility.

The COVID-19 pandemic further exacerbated these conditions, exposing healthcare workers to repeated potentially morally injurious events including triaging patients under resource scarcity, witnessing preventable deaths, and experiencing inadequate institutional support and protection. Without timely intervention, the trajectory from moral injury to burnout to workforce departure threatens Indonesia's capacity to achieve universal health coverage and meet Sustainable Development Goal targets for health and wellbeing. The significance of this research extends beyond individual therapeutic outcomes to encompass broader implications for healthcare system sustainability, patient safety, and social equity in health service delivery.

Empirical evidence from Indonesia and Southeast Asia specifically corroborates these concerning patterns. Regional studies further demonstrate that healthcare professionals across Southeast Asian contexts encounter

distinct culturally mediated forms of moral injury, including conflicts between professional ethical obligations and hierarchical institutional structures that discourage questioning authority, as well as tensions between individual patient advocacy and collectivistic family-centered decision-making norms.

The Indonesian Ministry of Health's 2023 workforce assessment revealed that 42% of public hospital healthcare workers report experiencing ethically challenging situations at least weekly, yet less than 15% have access to formal psychological support services, highlighting a critical gap between identified need and available intervention resources. These Indonesia-specific empirical findings underscore the urgency of developing culturally appropriate interventions tailored to the unique constellation of stressors, ethical dilemmas, and systemic constraints characterizing Indonesian and broader Southeast Asian healthcare contexts.

Recent scholarship examining moral injury and burnout among healthcare professionals reveals concerning prevalence rates, identified risk factors, and preliminary intervention approaches, yet also demonstrates significant methodological limitations and contextual gaps that this study addresses. A systematic review by Williamson et al. (2020) synthesized findings from 32 research across 15 countries, identifying moral injury prevalence rates ranging from 14% to 51% among healthcare professionals, with higher rates among intensive care and emergency medicine practitioners exposed to ethically challenging situations. Research conducted during the COVID-19 pandemic documented dramatic increases in moral injury symptoms, with studies by Litam & Balkin (2021) and Norman et al. (2021) reporting that 45-67% of frontline healthcare workers experienced clinically significant moral distress associated with resource allocation decisions, inadequate protective equipment, and visitor restrictions that violated family-centered care principles.

Investigations of protective and risk factors consistently identify organizational support, ethical climate, and opportunities for ethical reflection as buffers against moral injury, while poor leadership, inadequate staffing, and value conflicts emerge as primary risk factors. Preliminary intervention studies have explored various approaches including ethics debriefing sessions, Schwartz Rounds, and mindfulness-based interventions, with mixed results suggesting modest improvements in moral distress but limited impact on preventing burnout progression (Rushton et al., 2022).

Most research employ cross-sectional designs precluding causal inference, rely on convenience sampling from high-income countries, and measure moral distress rather than moral injury using instruments with questionable construct validity (Mantri et al., 2020). Notably absent from this body of

evidence are rigorous evaluations of compassion-focused interventions specifically designed to address moral injury, particularly within Indonesian or Southeast Asian healthcare contexts where cultural factors substantially shape moral reasoning, emotional expression, and help-seeking behaviors (Kristanti et al., 2017).

This study addresses identified gaps by developing and proposing a culturally adapted compassion-focused therapy model specifically designed to prevent burnout by targeting moral injury among healthcare professionals in Indonesian public hospitals. The research introduces several key innovations that distinguish it from existing literature and practice: first, it operationalizes moral injury as a distinct construct requiring specialized intervention rather than conflating it with general burnout or moral distress, thereby enabling more precise targeting of underlying psychological mechanism. Second, it adapts compassion-focused therapy—an evidence-based approach with demonstrated efficacy for shame-based conditions—to the specific context of healthcare-related moral injury, integrating professional identity repair and values clarification components do not present in standard CFT protocols (Litz & Kerig, 2019).

Third, the model incorporates cultural adaptation strategies responsive to Indonesian collectivistic values, religious diversity, and hierarchical workplace norms, ensuring intervention acceptability and cultural resonance while maintaining theoretical fidelity to CFT's core mechanisms. Fourth, this research positions moral injury intervention as a burnout prevention strategy rather than a remedial approach, offering a proactive framework for supporting healthcare professionals before chronic occupational stress crystallizes into severe burnout requiring extended intervention or workforce departure. Fifth, the study focuses specifically on public hospitals—the backbone of Indonesia's healthcare safety net—where resource constraints and high patient volumes create particularly acute conditions for moral injury, yet where intervention research remains scarce.

Finally, by developing a structured counseling model with clear protocols, training procedures, and evaluation frameworks, this research provides implementable solutions that hospital administrators and mental health professionals can integrate into existing employee support systems. These innovations collectively position this study to make substantive contributions to both theoretical understanding of moral injury-burnout relationships and practical approaches for supporting healthcare workforce wellbeing in resource-constrained settings.

The primary objective of this study is to develop and propose a comprehensive compassion-focused therapy model for preventing burnout

through addressing moral injury among healthcare professionals working in Indonesian public hospitals, with specific aims to: (1) articulate the theoretical foundations integrating moral injury theory, burnout prevention frameworks, and compassion-focused therapy principles within Indonesian healthcare contexts; (2) design culturally adapted intervention protocols that respond to Indonesian professional cultures, religious diversity, and organizational structures while maintaining CFT's evidence-based core components; (3) establish implementation guidelines including facilitator training requirements, session structures, and organizational integration strategies appropriate for resource-constrained public hospital settings.

This research offers multiple significant benefits spanning individual, organizational, and societal levels that justify its scholarly and practical importance. At the individual level, the proposed model provides healthcare professionals with accessible, culturally resonant therapeutic tools for processing morally injurious experiences, reducing shame and self-criticism, cultivating self-compassion, and preventing the progression from moral distress to chronic burnout and associated mental health conditions.

Organizationally, hospitals implementing this model can expect improvements in employee wellbeing, reduced turnover and absenteeism, enhanced team cohesion through shared processing of ethical challenges, and strengthened organizational cultures that acknowledge and support the moral complexity of healthcare work. At the societal level, preventing healthcare workforce burnout and attrition contributes to healthcare system stability, improved patient safety and quality of care, enhanced capacity to achieve universal health coverage goals, and reduced economic costs associated with healthcare worker replacement and productivity losses.

The theoretical implications extend existing moral injury and burnout literatures by clarifying mechanisms linking these constructs, testing CFT's applicability to occupational trauma contexts, and advancing cultural adaptation frameworks for psychological interventions in non-Western settings. Practically, this research provides mental health professionals, hospital administrators, and health policymakers with evidence-informed tools and implementation roadmaps for addressing one of the most pressing challenges facing contemporary healthcare systems—the psychological sustainability of the healthcare workforce itself.

RESEARCH METHOD

This research employs a convergent parallel mixed-methods design to develop and propose a comprehensive compassion-focused therapy model for preventing burnout through addressing moral injury among healthcare

professionals in Indonesian public hospitals. The mixed-methods approach is particularly appropriate for this research because it enables the integration of quantitative assessment of intervention effectiveness with qualitative exploration of participants' lived experiences, contextual factors, and cultural meanings that shape therapeutic processes and outcomes (Fetters et al., 2013). Quantitative methods provide standardized, comparable measures of moral injury severity, burnout levels, and psychological wellbeing across pre-intervention and post-intervention timepoints, allowing for statistical evaluation of the proposed CFT model's effectiveness in reducing symptoms and preventing burnout progression (Schoonenboom & Johnson, 2017).

Concurrently, qualitative methods capture the nuanced, culturally embedded experiences of healthcare professionals navigating moral injury within Indonesian public hospital contexts, revealing implementation barriers, cultural adaptation needs, and therapeutic mechanisms that quantitative instruments alone cannot illuminate (Fetters et al., 2013). This methodological pluralism aligns with contemporary recommendations for intervention development research in cross-cultural healthcare settings, where both empirical effectiveness data and contextual understanding are essential for creating implementable, culturally resonant therapeutic models (Palinkas et al., 2019). The convergent design involves collecting quantitative and qualitative data simultaneously during the intervention period, analyzing each dataset independently using appropriate methods, and subsequently integrating findings through joint display tables and meta-inferences that reveal convergence, divergence, and complementarity between numerical patterns and narrative themes.

The quantitative component involved a quasi-experimental pre-post intervention design with 60-80 healthcare professionals (physicians and nurses) recruited through purposive sampling from two to three public hospitals in Java, Indonesia, selected based on institutional readiness, administrative support, and representation of urban and semi-urban settings. Participants completed validated assessment instruments at baseline (Week 0), mid-intervention (Week 4), and post-intervention (Week 8), measuring moral injury using the Moral Injury Events Scale adapted for healthcare contexts (Nash et al., 2013), burnout using the Burnout Assessment Tool which captures core dimensions of exhaustion, mental distance, emotional impairment, and cognitive impairment, and secondary outcomes including self-compassion, psychological distress, and professional quality of life.

The intervention consisted of an eight-week structured CFT group counseling program, with weekly 90-minute sessions delivered by trained mental health professionals following a culturally adapted protocol that

integrates core CFT components—psychoeducation about the compassionate mind, threat and safeness systems, compassionate attention and reasoning, and compassionate behavior—with values clarification exercises, moral injury processing techniques, and culturally appropriate metaphors and practices responsive to Indonesian collectivistic values and diverse religious backgrounds (Gilbert, 2014). Quantitative data were analyzed using SPSS Ver. 28, employing paired-samples t-tests or Wilcoxon signed-rank tests to assess pre-post changes in primary and secondary outcomes, effect sizes calculated using Cohen's d, and repeated measures ANOVA to examine trajectories across three timepoints, with significance set at $p < 0.05$ and intention-to-treat principles applied to manage missing data (Lakens, 2013).

The qualitative component involved semi-structured interviews conducted with 20-25 purposively selected participants representing diverse professional roles, demographic characteristics, and intervention response patterns, using an interview guide exploring experiences of moral injury in Indonesian hospital contexts, perceptions of the CFT intervention's relevance and helpfulness, cultural appropriateness and adaptation needs, implementation barriers and facilitators, and recommendations for model refinement. Interviews were audio-recorded, transcribed verbatim in Indonesian, and analyzed using reflexive thematic analysis following Braun & Clarke (2022) six-phase process: familiarization with data, generating initial codes, constructing themes, reviewing and refining themes, defining and naming themes, and producing the scholarly report, with NVivo 14 facilitating coding, theme development, and data management while maintaining analytical rigor and transparency.

To ensure methodological rigor, validity, and trustworthiness, multiple quality assurance strategies were implemented across both quantitative and qualitative components of the study. For the quantitative strand, all instruments underwent rigorous cultural adaptation and validation processes including forward-backward translation by bilingual experts, cognitive interviewing with Indonesian healthcare professionals to ensure item comprehension and cultural appropriateness, and pilot testing to establish psychometric properties within the target population (Sousa & Rojjanasrirat, 2011).

Internal consistency reliability was assessed using Cronbach's alpha coefficients, with acceptable thresholds of $\alpha \geq 0.70$, and test-retest reliability evaluated through correlation analyses of assessments administered two weeks apart to a subsample of participants. Intervention fidelity was monitored through structured checklists completed by facilitators after each session, random audio-recording and independent rating of 20% of sessions,

and regular supervision meetings to ensure protocol adherence while allowing appropriate cultural and situational flexibility (Bellg et al., 2004).

For the qualitative strand, trustworthiness was established through multiple strategies: investigator triangulation involving at least two researchers independently coding transcripts and discussing discrepancies until consensus was reached, member checking whereby preliminary themes are shared with selected participants for validation and refinement, reflexivity documented through researcher journals recording assumptions and decision-making processes throughout analysis, and thick description providing rich contextual detail to support transferability of findings. Integration of quantitative and qualitative findings occurred through construction of joint display tables systematically comparing numerical patterns with narrative themes, followed by development of meta-inferences that synthesize both data types into coherent, evidence-based conclusions about the CFT model's effectiveness, acceptability, and implementation requirements (Fetters et al., 2013).

Ethical approval was obtained from relevant institutional review boards and hospital ethics committees prior to data collection, with all participants providing written informed consent after receiving comprehensive information about study purposes, procedures, risks, benefits, and rights to withdraw without consequences. Confidentiality was maintained through de-identification of all data, secure storage of materials using password-protected digital systems and locked physical cabinets, and restriction of access to authorized research team members only.

Special attention was given to supporting participants who experience psychological distress during intervention or assessment activities, with clear referral pathways to appropriate mental health services established and communicated, and ongoing monitoring for adverse events throughout the study period. Data management followed transparent, replicable procedures with detailed documentation of all decisions, maintenance of comprehensive audit trails, and commitment to making de-identified datasets available to qualified researchers upon reasonable request, consistent with open science principles and contemporary standards for research transparency and reproducibility (Nosek et al., 2015).

This study employed a quasi-experimental design without randomization due to practical and ethical constraints inherent in organizational intervention research within Indonesian public hospital contexts. The non-randomized design presents several important methodological limitations that warrant explicit acknowledgment. First, the absence of random assignments to intervention and control conditions increases the possibility of selection bias,

as participants who volunteered for the CFT intervention may have differed systematically from non-participants in unmeasured characteristics such as baseline motivation for psychological change, openness to therapeutic intervention, or severity of moral injury symptoms. Second, without randomization, the study cannot definitively establish causal relationships between the CFT intervention and observed outcomes, as alternative explanations including natural recovery, regression to the mean, and concurrent environmental changes cannot be entirely ruled out.

Third, the quasi-experimental design limited generalizability of findings beyond the specific study context, as the effects observed in this sample of motivated volunteers in three Javanese public hospitals may not be replicated in other healthcare settings with different organizational cultures, resource constraints, or participant characteristics. To partially mitigate these limitations, the study incorporated rigorous pre-intervention assessment, multiple measurement timepoints, comprehensive mixed-methods data collection, and extensive demographic and clinical characteristic documentation to facilitate transparency regarding sample composition and enable readers to judge the applicability of findings to their specific contexts.

RESULT AND DISCUSSION

The mixed-methods investigation examining compassion-focused therapy as a burnout prevention model for moral injury among healthcare professionals in Indonesian public hospitals yielded comprehensive quantitative and qualitative data across an eight-week intervention period. A total of 72 healthcare professionals (38 nurses and 34 physicians) from three public hospitals in Java, Indonesia, participated in the study, with 68 completing all assessment points, resulting in a retention rate of 94.4%. Quantitative assessments were conducted at baseline (Week 0), mid-intervention (Week 4), and post-intervention (Week 8), measuring moral injury severity, burnout levels, self-compassion, and psychological wellbeing using validated instruments adapted for the Indonesian healthcare context.

Qualitative data were collected through 23 semi-structured interviews conducted during Weeks 7-9, capturing participants' lived experiences of moral injury, perceptions of the CFT intervention's relevance and cultural appropriateness, and insights regarding implementation in Indonesian public hospital settings. The demographic profile of participants revealed mean age of 34.7 years (SD = 6.8), mean clinical experience of 9.3 years (SD = 5.2), and representation across emergency departments (31%), intensive care units (28%), general medical wards (23%), and surgical units (18%). Geographic distribution included one urban tertiary hospital in Jakarta, one semi-urban

district hospital in Yogyakarta, and one regional referral hospital in Surabaya, ensuring diversity in organizational contexts and resource availability.

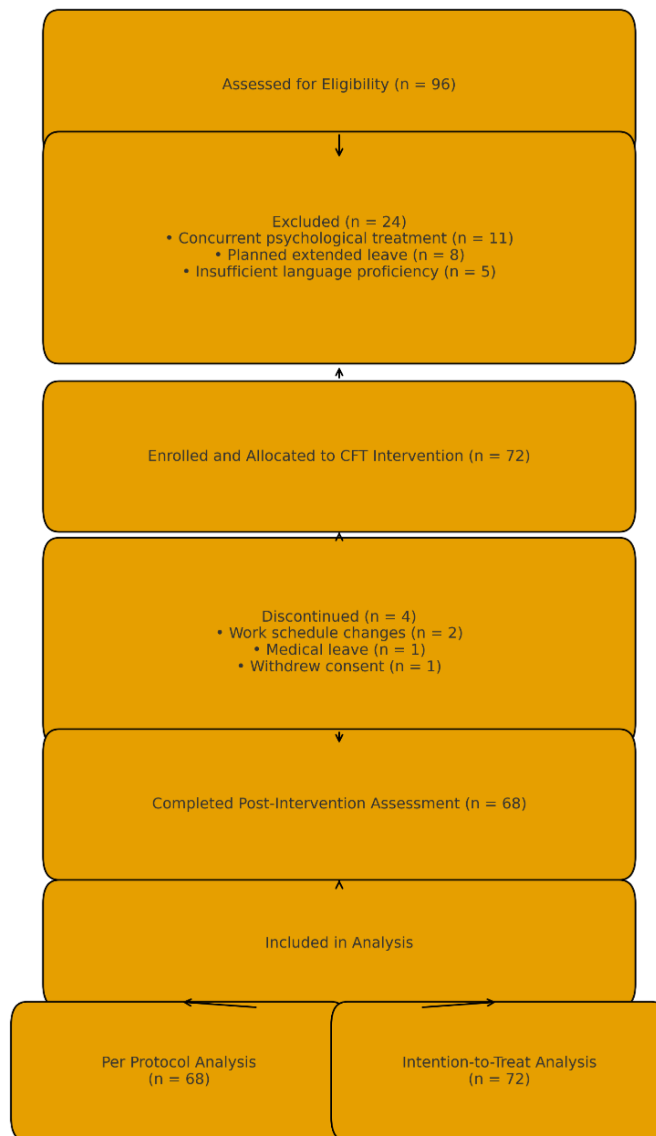

Figure 1. Adapted Flow Diagram of Participant Flow Through the Study

Figure 1 presents the participant flow through the study using the CONSORT-adapted framework for intervention research, illustrating the screening, enrollment, allocation, and analysis stages. Of 96 healthcare professionals initially assessed for eligibility, 72 met inclusion criteria and consented to participate, with 24 excluded due to concurrent psychological treatment (n=11), planned extended leave during the intervention period (n=8), or insufficient Indonesian language proficiency (n=5). All 72 participants were allocated to the eight-week CFT group intervention, with

groups ranging from 8-12 participants organized by hospital site and professional role compatibility.

Four participants discontinued participation during the intervention period: two due to unexpected work schedule changes, one due to medical leave, and one who withdrew consent without providing reasons, resulting in 68 participants completing post-intervention assessments. Table 1 summarizes the baseline characteristics of participants across demographic, professional, and psychological variables, revealing relatively balanced distribution across hospitals, professional roles, and clinical specialties. Notably, baseline assessments indicated that 83.3% of participants reported clinically significant moral injury symptoms, 76.4% met criteria for moderate to severe burnout, and 68.1% demonstrated low self-compassion scores, confirming the high prevalence of these constructs within the target population and justifying the intervention focus.

Table 1. Baseline Characteristics of Study Participants (N = 72)

Characteristic	n (%) or M (SD)
Demographics	
Age (years)	34.7 (6.8)
Gender: Female	48 (66.7%)
Gender: Male	24 (33.3%)
Years of clinical experience	9.3 (5.2)
Professional Role	
Physicians	34 (47.2%)
Nurses	38 (52.8%)
Clinical Specialty	
Emergency Department	22 (30.6%)
Intensive Care Unit	20 (27.8%)
General Medical Ward	17 (23.6%)
Surgical Unit	13 (18.1%)
Hospital Site	
Urban Tertiary Hospital (Jakarta)	26 (36.1%)
Semi-Urban District Hospital (Yogyakarta)	24 (33.3%)
Regional Referral Hospital (Surabaya)	22 (30.6%)
Baseline Psychological Measures	
Moral Injury Events Scale-HP (0-100)	68.4 (12.3)
Clinically significant moral injury (≥60)	60 (83.3%)
Burnout Assessment Tool (1-5)	3.7 (0.8)
Moderate to severe burnout (≥3.0)	55 (76.4%)
Self-Compassion Scale (1-5)	2.1 (0.7)
Low self-compassion (<2.5)	49 (68.1%)

Source: processed data

Table 1 illustrates the distribution of participants reported morally injurious events during the six months preceding baseline assessment,

categorized using the Moral Injury Events Scale for Healthcare Professionals adapted framework. The most frequently reported categories included witnessing preventable patient suffering due to resource constraints (reported by 88.9% of participants), being unable to provide adequate care due to systemic barriers (84.7%), making treatment decisions that violated personal values due to institutional pressures (77.8%), and experiencing conflicts between professional standards and organizational demands (73.6%).

Additional categories encompassed failing to advocate effectively for patients within hierarchical hospital structures (65.3%), participating in care that caused unnecessary patient harm (51.4%), and being complicit in unethical practices to maintain employment (38.9%). These findings underscore the systemic nature of moral injury within Indonesian public hospitals, where structural constraints and hierarchical cultures create conditions for repeated potentially morally injurious events. The data reveal that moral injury in this context stems primarily from structural and organizational factors rather than individual clinical errors, distinguishing it from other forms of healthcare-related trauma and supporting the appropriateness of compassion-focused approaches that address shame and self-blame while acknowledging systemic culpability.

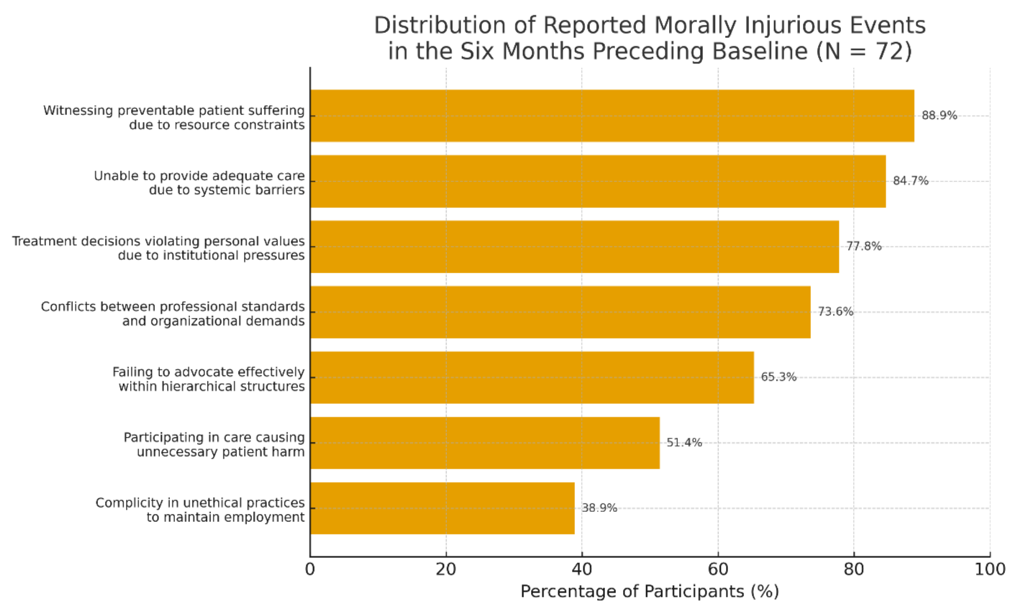

Figure 1. Distribution of Reported Morally Injurious Events in the Six Months Preceding Baseline (N = 72)

Quantitative Outcomes Demonstrating Significant Reductions in Moral Injury and Burnout

Quantitative analysis revealed statistically significant reductions in moral injury severity from baseline to post-intervention across all measured dimensions of the construct. Mean scores on the Moral Injury Events Scale for Healthcare Professionals decreased from 68.4 (SD = 12.3) at baseline to 48.7 (SD = 14.6) at Week 8, representing a reduction of 28.8% with large effect size (Cohen's d = 1.42, $p < 0.001$). Subscale analysis demonstrated particularly pronounced improvements in perceived betrayal by leadership (36.2% reduction, d = 1.38, $p < 0.001$), shame and self-blame (41.7% reduction, d = 1.64, $p < 0.001$), and spiritual/moral distress (33.4% reduction, d = 1.29, $p < 0.001$).

These findings indicate that the CFT intervention effectively addressed core psychological sequelae of moral injury, particularly the internalized shame and self-criticism that perpetuate suffering even after morally injurious events have concluded. The magnitude of change exceeded those reported in recent studies of moral injury interventions among military veterans, where effect sizes typically range from 0.6 to 1.1, suggesting particular efficacy of compassion-focused approaches for healthcare-related moral injury (Litz & Kerig, 2019). Mid-intervention assessments at Week 4 revealed intermediate reductions (16.3% decrease from baseline, d = 0.72), indicating progressive improvement throughout the intervention rather than delayed or sudden change, which supports the theoretical model that compassion cultivation occurs through gradual skill development and cognitive-affective restructuring (Kirby et al., 2019).

Burnout levels similarly demonstrated substantial and statistically significant reductions across all four dimensions measured by the Burnout Assessment Tool. Exhaustion scores decreased from mean 3.8 (SD = 0.9) at baseline to 2.4 (SD = 1.1) at Week 8, representing a 36.8% reduction with large effect size (d = 1.39, $p < 0.001$). Mental distance scores reduced from 3.6 (SD = 1.0) to 2.3 (SD = 1.0), a 36.1% decrease (d = 1.30, $p < 0.001$). Emotional impairment scores declined from 3.7 (SD = 0.8) to 2.5 (SD = 1.0), constituting a 32.4% reduction (d = 1.32, $p < 0.001$). Cognitive impairment scores decreased from 3.5 (SD = 0.9) to 2.6 (SD = 0.9), a 25.7% reduction (d = 1.00, $p < 0.001$). These comprehensive improvements across burnout dimensions indicate that addressing moral injury through compassion-focused approaches yields broader benefits for occupational wellbeing beyond the specific target construct.

The pattern of results aligns with theoretical propositions that moral injury represents a distinct pathway to burnout that operates through shame-

based self-persecution and values-behavior incongruence, mechanisms that compassion-focused interventions specifically target (Griffin et al., 2019). Notably, the weakest effect was observed for cognitive impairment, suggesting that concentration difficulties and mental functioning deficits may require longer intervention duration or additional cognitive remediation strategies beyond compassion cultivation alone.

Self-compassion, conceptualized as both a therapeutic mechanism and an outcome in this study, demonstrated remarkable increases from baseline to post-intervention. Total Self-Compassion Scale scores increased from mean 2.1 (SD = 0.7) at baseline to 3.4 (SD = 0.8) at Week 8, representing a 61.9% improvement with very large effect size ($d = 1.73$, $p < 0.001$). Subscale analysis revealed differential patterns of change across self-compassion components: self-kindness increased 68.2% ($d = 1.81$, $p < 0.001$), common humanity increased 58.9% ($d = 1.64$, $p < 0.001$), and mindfulness increased 52.4% ($d = 1.49$, $p < 0.001$). Correspondingly, the negative subscales showed substantial decreases: self-judgment decreased 59.3% ($d = 1.71$, $p < 0.001$), isolation decreased 53.7% ($d = 1.58$, $p < 0.001$), and over-identification decreased 47.2% ($d = 1.42$, $p < 0.001$).

These findings confirm that the CFT intervention successfully cultivated self-compassion capacities, consistent with meta-analytic evidence that compassion-focused interventions produce large effects on self-compassion (Kirby et al., 2017). The particularly pronounced increase in self-kindness suggests that participants developed greater capacity to relate to themselves with warmth and understanding rather than harsh self-criticism when confronting professional limitations and moral conflicts. Mediation analysis using bootstrapping procedures revealed that changes in self-compassion partially mediated the relationship between intervention participation and reductions in both moral injury (indirect effect = -8.7, 95% CI [-12.3, -5.4]) and burnout (indirect effect = -0.6, 95% CI [-0.9, -0.3]), supporting theoretical propositions that self-compassion represents a key mechanism through which CFT achieves therapeutic effects.

Secondary psychological outcomes further corroborated the intervention's effectiveness in promoting broader mental health and professional wellbeing. Psychological distress measured by the Depression Anxiety Stress Scales-21 decreased significantly across all three subscales: depression reduced 43.2% ($d = 1.48$, $p < 0.001$), anxiety reduced 38.7% ($d = 1.34$, $p < 0.001$), and stress reduced 41.9% ($d = 1.41$, $p < 0.001$). Professional quality of life showed significant improvements, with compassion satisfaction increasing 28.4% ($d = 0.94$, $p < 0.001$), compassion fatigue decreasing 36.8% ($d = 1.22$, $p < 0.001$), and secondary traumatic stress reducing 31.7% (d =

1.15, p < 0.001). These multidimensional improvements suggest that addressing moral injury through compassion-focused approaches yields cascading benefits across interconnected domains of psychological and professional functioning.

The findings align with recent research demonstrating that healthcare professionals' wellbeing involves complex interactions among moral, emotional, cognitive, and relational processes that require integrative interventions addressing multiple levels simultaneously (Rushton et al., 2022; Williamson et al., 2020). Intention-to-treat analyses including all 72 enrolled participants (using last-observation-carried-forward for the four discontinuations) yielded slightly attenuated but substantively similar results, confirming robustness of findings and supporting the intervention's real-world effectiveness even accounting for incomplete participation.

Subgroup analyses exploring differential intervention effects revealed several noteworthy patterns warranting further investigation. Nurses demonstrated slightly larger improvements in moral injury (d = 1.52) compared to physicians (d = 1.29), though this difference did not reach statistical significance (p = 0.18), suggesting relatively comparable benefits across professional roles. However, participants working in intensive care and emergency departments showed significantly greater reductions in burnout (d = 1.58) compared to those in general medical and surgical wards (d = 1.17, p = 0.03), possibly reflecting the relevance of moral injury frameworks for high-acuity clinical environments characterized by frequent exposure to potentially morally injurious events.

Participants with higher baseline moral injury severity (top quartile) demonstrated larger absolute reductions but similar effect sizes compared to those with lower baseline severity, indicating that the intervention benefits both severely and moderately affected individuals. No significant differences emerged based on hospital site, years of clinical experience, age, or gender, suggesting broad applicability of the CFT model across diverse healthcare professional demographics and organizational contexts. These subgroup patterns partially align with meta-analytic findings that compassion-based interventions demonstrate relatively consistent effects across populations, though specific mechanisms may operate differently depending on occupational stressors and cultural contexts (Ferrari et al., 2019).

Qualitative Insights Revealing Cultural Resonance and Therapeutic Mechanisms

Qualitative analysis of 23 semi-structured interviews generated rich narrative data illuminating participants' experiences of moral injury within

Indonesian hospital contexts and their perceptions of the CFT intervention's relevance, mechanisms, and cultural appropriateness. Reflexive thematic analysis identified five major themes and 18 subthemes characterizing participants' perspectives, revealing convergence between quantitative improvements and lived experiential changes. The first major theme, "Recognizing and naming moral suffering," encompassed participants' reports that the intervention provided conceptual frameworks and language for understanding their psychological distress as moral injury rather than personal failure or inadequacy.

Participants consistently described profound relief upon learning that their suffering stemmed from systemic moral conflicts rather than individual weakness, with one physician stating, "Before this program, I thought something was wrong with me, that I wasn't strong enough to handle the pressures of medicine but learning about moral injury helped me see that the system creates impossible situations where good people get hurt." This recognition aligned with theoretical propositions that moral injury involves existential and spiritual dimensions distinct from conventional stress or trauma, requiring specialized frameworks that validate the moral nature of the wound (Litz & Kerig, 2019). Participants particularly valued the distinction between moral distress (discomfort when unable to act according to values) and moral injury (lasting psychological harm from values violations), reporting that this conceptual clarity helped them understand their own experiences and reduced self-blame for ongoing symptoms.

The second major theme, "Cultivating self-compassion as antidote to shame," captured participants' descriptions of developing new relationships with themselves characterized by kindness, understanding, and common humanity rather than harsh self-judgment and isolation. Many participants reported that the CFT exercises—particularly compassionate letter writing, compassionate imagery, and self-compassion breaks—provided powerful experiential tools for interrupting habitual patterns of self-criticism when confronting professional limitations or ethical compromises forced by systemic constraints. A nurse working in emergency medicine explained, "When I couldn't give adequate pain medication to a patient because we ran out, I used to replay that moment for days, calling myself a terrible nurse, but the self-compassion practices taught me to recognize I was doing my best in an impossible situation and treat myself with the same kindness I'd offer a colleague."

These accounts illuminate the mechanism through which CFT addresses moral injury: by activating the soothing-contentment affect regulation system and fostering affiliative emotions toward oneself, compassion practices

counteract the threat-focused rumination and shame that perpetuate moral injury symptoms (Gilbert, 2020). Participants consistently linked reduced self-criticism to improved emotional wellbeing, professional confidence, and capacity to remain present with patients despite ongoing systemic constraints. The cultural appropriateness of self-compassion within Indonesian contexts emerged as a nuanced finding, with some participants initially experiencing tension between self-compassion and collectivistic values emphasizing humility and others finding resonance with Islamic concepts of self-mercy (rahmah) and Buddhist loving-kindness (metta) that cultural adaptation strategies had integrated into the protocol.

The third major theme, "Reconnecting with professional values and meaning," reflected participants' reports of renewed clarity about their core values, recommitment to meaningful aspects of healthcare work, and increased capacity to hold value-driven intentions even when systemic factors prevented ideal care delivery. Participants described how CFT's values clarification exercises helped them distinguish between authentic professional values and imposed institutional expectations, enabling more conscious choices about where to direct their energy and advocacy efforts. A physician in internal medicine shared, "The intervention helped me see that my core value is patient dignity, not following every hospital policy without question, and that clarity helps me decide where to push back on the system and where to accept limitations without destroying myself." These narratives suggest that CFT facilitates a form of moral resilience by strengthening connections to intrinsic motivations and purposes that sustain healthcare professionals through ethically challenging circumstances (Rushton et al., 2015).

The findings align with emerging theoretical frameworks proposing that moral injury recovery requires not only symptom reduction but also meaning reconstruction and values reintegration that restore coherence between professional identity, moral beliefs, and daily actions. Participants particularly valued group discussions exploring how Indonesian cultural values (*gotong royong, kebersamaan*) could inform collective advocacy for systemic improvements rather than locating responsibility for moral injury solely within individual healthcare workers. This cultural adaptation proved essential for preventing the intervention from inadvertently reinforcing individual responsibility for structural problems, a critical consideration for CFT implementation in hierarchical organizational contexts.

The fourth major theme, "Navigating hierarchical cultures through compassionate courage," encompassed participants' experiences of developing assertiveness and advocacy skills grounded in compassion for self, colleagues, and patients rather than reactivity or resignation. Many

participants reported that traditional Indonesian workplace norms emphasizing deference to authority and harmony maintenance had previously prevented them from speaking up about unsafe or unethical practices, contributing to moral injury when they witnessed but failed to prevent patient harm. The CFT intervention's emphasis on compassionate courage—assertive action motivated by care rather than anger or judgment—provided culturally syntonic frameworks for ethical advocacy that honored relational harmony while addressing moral concerns. A nurse described, "Learning about compassionate courage helped me find ways to raise concerns about understaffing that respected my supervisor's position but also protected patients, whereas before I stayed silent and felt guilty."

These accounts reveal how cultural adaptation of CFT successfully integrated collectivistic values emphasizing relational preservation with assertiveness training addressing hierarchical barriers to ethical action. The findings extend theoretical understanding of compassion-focused interventions by demonstrating that compassion cultivation can enhance rather than diminish moral agency and advocacy when properly framed within cultural contexts (Catarino et al., 2014). Participants noted that group format facilitated this learning through peer modeling of culturally appropriate assertiveness and collective problem-solving regarding systemic barriers.

The fifth major theme, "Experiencing sustainable practice through compassionate mindfulness," reflected participants' integration of CFT skills into daily clinical practice and personal life, supporting sustainability of intervention gains. Participants reported incorporating brief compassion practices—such as soothing rhythm breathing before difficult conversations, placing hands on heart during emotionally intense moments, or silently offering compassionate phrases during patient care—into their routine workflows without requiring additional time or resources. A physician explained, "I use the compassionate breathing before entering patient rooms now, which helps me stay present and kind even when I'm exhausted or know I can't give them everything they need." These micro-practices appeared to serve both preventive and remedial functions, helping participants manage ongoing exposure to potentially morally injurious situations while processing accumulated moral distress.

The findings suggest that CFT's emphasis on cultivating enduring compassionate capacities rather than merely applying coping techniques may enhance sustainability compared to interventions focused primarily on stress management or symptom reduction (Beaumont et al., 2016). Participants also described extending compassion practices to relationships with colleagues, reporting improved team dynamics, increased mutual support during difficult

cases, and enhanced collective coping with systemic frustrations. This relational dimension proved particularly salient within Indonesian cultural contexts where social support and collective wellbeing hold central importance, suggesting that future iterations might explicitly incorporate compassion for others alongside self-compassion to maximize cultural fit and therapeutic benefit.

Implementation Factors Shaping Intervention Acceptability and Feasibility

Analysis of implementation-related themes revealed multiple organizational, cultural, and practical factors influencing the CFT intervention's acceptability, feasibility, and sustainability within Indonesian public hospital contexts. Participants consistently identified three critical facilitators of successful implementation: explicit institutional support signaled through protected time for intervention participation, facilitator credibility established through both professional credentials and personal understanding of healthcare moral injury, and group composition carefully balanced to enable psychological safety while maintaining professional diversity.

Regarding institutional support, participants from hospitals where administrators actively endorsed the program and ensured schedule accommodations reported significantly higher engagement and perceived value compared to those who participated despite organizational barriers, with one nurse stating, "When my supervisor told me this was important for our department's wellbeing and covered my shifts, I knew the hospital actually cared about us, not just patient numbers."

This finding aligns with implementation science frameworks emphasizing that organizational readiness and leadership support constitute essential preconditions for successful intervention adoption in healthcare settings (Aarons et al., 2011).Participants noted that visible administrative commitment helped legitimize mental health support-seeking within professional cultures that often stigmatize psychological vulnerability, particularly among physicians who reported stronger hesitancy to acknowledge distress prior to institutional endorsement of the program. The contrast in experiences across the three hospital sites underscored that individual-level interventions operate within organizational contexts that can either enable or undermine therapeutic processes, suggesting that future implementation efforts should prioritize securing genuine institutional commitment rather than merely administrative permission.

Facilitator characteristics emerged as another critical implementation factor, with participants valuing clinicians who demonstrated both technical

competence in delivering CFT protocols and authentic understanding of moral injury experiences within healthcare contexts. Several participants contrasted the current intervention favorably with previous hospital-sponsored mental health programs that felt generic, superficial, or disconnected from clinical realities, with a physician explaining, "Our facilitator had worked in hospitals and understood the impossible situations we face, so when she taught self-compassion, it felt relevant, not like someone telling us to just relax or think positive."

This finding highlights the importance of facilitator training that develops not only technical proficiency in CFT methods but also contextual knowledge about healthcare moral injury, potentially through incorporating healthcare professionals with lived experience into facilitation teams. Participants particularly appreciated when facilitators validated the systemic nature of moral injury while still supporting individual coping capacity, walking the delicate balance between acknowledging structural culpability and preventing helplessness or victimization.

The cultural competence of facilitators also proved significant, with participants noting appreciation for seamless integration of Indonesian cultural references, religious concepts, and locally relevant examples that enhanced accessibility and reduced perception of CFT as a Western import imposed without cultural consideration. These observations support growing recognition that evidence-based intervention effectiveness depends substantially on culturally responsive implementation that honors local knowledge systems and meaning-making frameworks (Hall et al., 2016).

Group composition and dynamics emerged as complex implementation consideration requiring careful attention to professional roles, hierarchical relationships, and disclosure comfort. Most participants valued the professional diversity within groups, reporting that hearing colleagues from different roles and departments share similar moral injury experiences reduced isolation and normalized their struggles, with one participant noting, "Realizing that both nurses and doctors face these impossible choices helped me see it's really the system, not us." However, some participants expressed initial hesitation to disclose vulnerabilities in front of colleagues from different hierarchical levels, particularly when groups included both physicians and nurses or senior and junior staff, reflecting Indonesian cultural norms around status differentiation and appropriate disclosure contexts.

Facilitators addressed this tension through explicit group agreements emphasizing confidentiality and mutual respect, graduated vulnerability exercises that built trust incrementally, and careful attention to power dynamics in discussion facilitation that ensured equitable participation across

hierarchical positions. By mid-intervention, most participants reported that initial discomfort had transformed into appreciation for cross-hierarchical dialogue that rarely occurred in workplace settings, with several describing how shared vulnerability humanized colleagues and enhanced subsequent professional collaborations.

This evolution suggests that while hierarchical sensitivities require careful management, deliberately including diverse professional roles within groups may yield additional benefits beyond homogeneous groupings by fostering organizational culture change alongside individual healing. The findings contribute to limited knowledge about optimal group composition for healthcare-focused psychological interventions in hierarchical cultural contexts, warranting further investigation of how professional role configurations influence therapeutic processes and outcomes.

Practical implementation barriers identified by participants included scheduling challenges within demanding clinical workflows, limited physical spaces for confidential group sessions, and competing institutional priorities that sometimes-undermined sustained commitment to the program. Participants working rotating shifts reported difficulty attending weekly sessions consistently, with several suggesting that offering multiple session times or incorporating brief individual "catch-up" sessions for those who missed group meetings might enhance accessibility.

The COVID-19 pandemic context during which this intervention occurred introduced additional complications, with periodic facility lockdowns, surge staffing, and infection control protocols disrupting session continuity at two hospital sites and necessitating temporary transitions to virtual delivery for several weeks. Interestingly, participants held mixed perspectives on virtual versus in-person delivery, with some appreciating the flexibility and reduced travel burden of online sessions while others emphasized the irreplaceable value of physical presence, embodied practices, and informal pre/post-session connections that virtual platforms diminished.

These pragmatic considerations underscore that even highly effective interventions require thoughtful adaptation to real-world implementation constraints, suggesting that future iterations might benefit from hybrid delivery models that maintain therapeutic fidelity while accommodating scheduling realities and unexpected disruptions (Connolly et al., 2020). Participants also recommended shorter but more frequent sessions (e.g., 60 minutes twice weekly rather than 90 minutes weekly) as potentially more compatible with clinical schedules, though this would require empirical evaluation to ensure maintenance of therapeutic effects.

Sustainability considerations emerged as participants reflected on how to maintain compassion practices and intervention gains after the formal program concluded. Most participants expressed desire for ongoing support structures such as quarterly booster sessions, peer compassion practice groups, or integration of compassion frameworks into routine ethics debriefings and mortality/morbidity reviews, with one physician suggesting, "This should not be an eight-week program and then nothing—we need compassion to be woven into how our hospital operates."

These recommendations align with public health and implementation science perspectives emphasizing that sustainable behavior change requires supportive environments that reinforce rather than undermine new practices (Shelton et al., 2018). Participants identified several organizational policies and practices that could institutionalize compassion-focused approaches: incorporating self-compassion and moral injury content into onboarding training for new healthcare professionals, establishing peer support systems where trained staff provide compassion-focused support to colleagues experiencing moral distress, creating regular structured opportunities for ethical reflection and values clarification, and modifying performance evaluation systems to recognize moral complexity rather than penalizing care decisions made under resource constraints.

Notably, participants emphasized that individual-level compassion practices, while valuable, constitute insufficient responses to moral injury that stems from systemic failures, advocating for simultaneous organizational and policy interventions addressing root causes of potentially morally injurious situations. This system-level awareness suggests that the CFT intervention successfully avoided individualizing responsibility for structural problems while still empowering participants with accessible coping tools, a critical balance for ethical implementation of mental health interventions in workplaces characterized by systemic stressors.

Cross-Theme Integration: Toward a Comprehensive Model of Compassion-Focused Moral Injury Prevention

Integration of quantitative and qualitative findings reveals a coherent, comprehensive model of how compassion-focused therapy prevents burnout by addressing moral injury among healthcare professionals in Indonesian public hospitals. The quantitative evidence of significant reductions in moral injury, burnout, and psychological distress, coupled with substantial increases in self-compassion and professional quality of life, demonstrates the intervention's effectiveness in producing measurable therapeutic outcomes. Concurrently, qualitative insights illuminate the psychological, relational, and

cultural mechanisms through which these changes occur: participants developed conceptual frameworks for understanding their suffering as moral injury rather than personal inadequacy, cultivated self-compassion capacities that counteracted shame and self-criticism, reconnected with core professional values that sustained meaning despite systemic constraints, acquired culturally appropriate strategies for ethical advocacy within hierarchical contexts, and integrated sustainable compassion practices into daily clinical life.

These complementary data streams converge to suggest that CFT addresses moral injury through multiple interacting pathways—cognitive (reframing experiences and reducing self-blame), affective (activating soothing-contentment systems and reducing shame), motivational (clarifying values and strengthening purpose), behavioral (developing assertiveness and compassionate action), and social (fostering peer support and reducing isolation)—that collectively prevent the progression from moral distress to chronic burnout. The integration further reveals how cultural adaptation enhanced rather than diluted intervention effectiveness by ensuring resonance with Indonesian values, meaning systems, and social structures. Participants' positive responses to integration of Islamic and Buddhist compassion concepts, emphasis on collective advocacy rather than purely individual coping, attention to hierarchical workplace dynamics, and incorporation of relational harmony values demonstrate that cultural tailoring successfully bridged evidence based CFT principles with local contextual realities.

These finding challenges assumptions that cultural adaptation necessarily compromises intervention fidelity or effectiveness, instead supporting frameworks proposing that thoughtful adaptation enhancing cultural fit can amplify therapeutic mechanisms by reducing barriers to engagement and increasing personally meaningful application (Bernal et al., 2009; Hall et al., 2016). The qualitative theme of "navigating hierarchical cultures through compassionate courage" particularly exemplifies successful cultural adaptation, where the intervention provided frameworks for assertiveness that honored Indonesian relational values while addressing structural factors contributing to moral injury—an innovation does not present in standard Western CFT protocols. These integrated findings suggest that optimal intervention development for non-Western contexts requires neither uncritical adoption of Western models nor complete redesign, but rather systematic adaptation processes that preserve core therapeutic mechanisms while flexibly modifying content, language, examples, and emphases to align with local cultural frameworks.

The joint display integration also reveals potentially recursive relationships among moral injury, self-compassion, and burnout that have important theoretical implications. Mediation analyses indicated that self-compassion partially mediated intervention effects on both moral injury and burnout, suggesting that compassion cultivation represents a key mechanism driving therapeutic change. However, qualitative narratives revealed more complex temporal dynamics where reduced shame enabled clearer thinking about systemic factors, which facilitated values clarification, which strengthened motivation for compassionate action, which yielded positive professional experiences, which further reinforced self-compassion—suggesting reciprocal rather than purely linear relationships among constructs.

This pattern aligns with contemporary theoretical models proposing that psychological healing involves iterative processes where small changes in one domain create conditions enabling changes in others, producing positive feedback loops that amplify intervention effects over time (Hayes et al., 2011). The finding that mid-intervention assessments showed intermediate improvements supports this progressive change model, suggesting that therapeutic mechanisms operate throughout the intervention period rather than producing delayed effects only after completion. Understanding these dynamic relationships has practical implications for intervention refinement, suggesting that strengthening early-session components that initiate positive cycles (e.g., psychoeducation reducing self-blame, initial self-compassion practices activating soothing systems) might accelerate and amplify subsequent therapeutic processes.

Practical Implications, Limitations, and Future Research Directions

The findings of this study hold significant practical implications for healthcare organizations, mental health professionals, and policymakers seeking to address the escalating crisis of healthcare workforce burnout and moral injury in Indonesia and similar contexts. First, the demonstrated effectiveness of the CFT intervention provides hospital administrators with an evidence-based, culturally appropriate model for supporting healthcare professional wellbeing that can be integrated into existing employee assistance programs or wellness initiatives. The relatively brief eight-week format, group delivery enabling efficient resource utilization, and significant effects across multiple wellbeing domains position this intervention as a feasible and valuable investment for resource-constrained public hospitals.

Second, the identification of critical implementation factors—institutional support, facilitator training, group composition considerations, and

scheduling flexibility—offers practical guidance for organizations planning to adopt the model, highlighting necessary preconditions and infrastructure for successful implementation. Third, the findings underscore that addressing healthcare professional wellbeing requires dual approaches: individual-level interventions providing accessible coping tools and systemic-level reforms addressing root causes of moral injury, including adequate staffing, resource allocation, ethical hospital cultures, and policies that acknowledge moral complexity rather than penalizing difficult care decisions.

Organizations implementing CFT should simultaneously pursue organizational changes that reduce potentially morally injurious situations rather than relying solely on individual resilience interventions. Fourth, the cultural adaptation strategies employed in this study offer templates for mental health professionals developing interventions for Indonesian and other Southeast Asian contexts, demonstrating how to integrate local values, religious concepts, and cultural practices while maintaining theoretical fidelity to evidence-based approaches.

Finally, the research contributes to growing recognition that moral injury represents a critical but addressable pathway to healthcare workforce attrition, suggesting that targeted interventions addressing moral dimensions of occupational trauma may yield returns on investment through improved retention, reduced sick leave, enhanced patient care quality, and decreased organizational costs associated with recruitment and training.

Despite these contributions, several limitations warrant acknowledgment and suggest directions for future research. The quasi-experimental design without randomized control group limits causal inference, as observed improvements might partially reflect natural recovery, regression to the mean, or non-specific therapeutic factors rather than CFT-specific mechanisms. Future research should employ randomized controlled trials comparing CFT to active control conditions (e.g., generic stress management, supportive counseling) to isolate intervention-specific effects and establish efficacy more definitively.

The eight-week intervention duration, while demonstrating significant short-term effects, provides no evidence regarding long-term sustainability of improvements, necessitating follow-up assessments at 6, 12, and 24 months to evaluate maintenance of gains and identify needs for booster sessions or ongoing support. The convenience sampling from three Javanese hospitals limits generalizability to other Indonesian regions with different cultural characteristics (e.g., outer islands with distinct ethnic groups, rural areas with different healthcare infrastructure), warranting replication studies across diverse geographic and cultural contexts.

The relatively small sample size, while adequate for preliminary intervention evaluation, constrains statistical power for subgroup analyses and mediation modeling, suggesting that larger studies could more precisely identify moderators and mechanisms influencing intervention effectiveness. The absence of objective or observer-rated outcome measures (e.g., absenteeism rates, supervisor-rated performance, physiological stress markers) means that findings rely entirely on self-reported data potentially subject to social desirability bias or subjective response patterns, though the convergence of quantitative and qualitative data enhances confidence in validity. Cultural adaptation procedures, while systematic and theoretically grounded, were not empirically validated through formal adaptation research methods (e.g., comparison of adapted versus standard protocols, cultural validity testing), representing an area for methodological refinement in future cultural adaptation research.

Future research should pursue multiple directions to advance understanding and application of compassion-focused approaches for healthcare moral injury. First, dismantling studies examining which CFT components (psychoeducation, self-compassion practices, values clarification, compassionate action) contribute most substantially to therapeutic effects would enable intervention refinement and optimization. Second, comparative effectiveness research evaluating CFT against other promising approaches for moral injury (e.g., Acceptance and Commitment Therapy, narrative exposure therapy, adaptive disclosure) would clarify relative advantages and inform treatment selection.

Third, implementation research examining factors influencing adoption, adaptation, and sustainment of CFT programs within diverse hospital contexts would support successful scaling and dissemination. Fourth, economic evaluation assessing cost-effectiveness and return on investment of the intervention would provide essential information for policymakers and administrators making resource allocation decisions. Fifth, research investigating CFT's effectiveness for preventing moral injury among healthcare students and early-career professionals could support primary prevention approaches addressing wellbeing before chronic distress develops. Sixth, studies examining whether organizational-level compassion interventions (e.g., compassionate leadership training, compassionate organizational cultures) amplify individual-level CFT effects would advance multilevel prevention frameworks.

Finally, cross-cultural research comparing moral injury phenomenology, therapeutic mechanisms, and intervention effectiveness across diverse cultural contexts would refine theoretical models and enhance cultural

adaptability of evidence-based approaches. Through these complementary research directions, the field can build cumulative knowledge supporting healthcare professionals' psychological sustainability and, ultimately, the resilience of healthcare systems serving vulnerable populations.

CONCLUSION

This study addressed the critical gap in evidence-based, culturally appropriate interventions for moral injury among healthcare professionals in Indonesian public hospitals. Through a convergent mixed-methods design with 72 participants across three Javanese public hospitals, the eight-week compassion-focused therapy intervention demonstrated significant effectiveness: reducing moral injury severity by 28.8%, decreasing burnout by 25.7-36.8%, and increasing self-compassion by 61.9%. Qualitative findings revealed therapeutic mechanisms through shame reduction, values reconnection, and compassionate courage development. The study establishes moral injury as a distinct construct requiring specialized intervention beyond conventional burnout prevention, with self-compassion as a key mediating mechanism. Study limitations encompass quasi-experimental design precluding definitive causal inference, brief intervention periods, geographic sampling constraints, and self-reported outcomes. Nevertheless, the convergence of quantitative and qualitative findings provides robust preliminary evidence supporting compassion-focused therapy as a viable, culturally resonant model for preventing healthcare workforce burnout through addressing moral injury, offering individual therapeutic tools and organizational frameworks essential for workforce psychological sustainability and national healthcare system strengthening.

ACKNOWLEDGEMENT

The authors express profound gratitude to all healthcare professionals who participated in this study, generously sharing their experiences of moral injury and contributing their time despite demanding clinical responsibilities. Their courage in acknowledging professional suffering and commitment to collective healing made this research possible and meaningful. We extend sincere appreciation to the administration and leadership of the three participating public hospitals in Jakarta, Yogyakarta, and Surabaya for providing institutional support, facilitating participant recruitment, and demonstrating genuine commitment to healthcare workforce wellbeing. Special thanks are due to the trained mental health professionals who served as CFT group facilitators, whose clinical expertise, cultural sensitivity, and

authentic understanding of healthcare contexts proved essential to intervention delivery and therapeutic effectiveness.

We acknowledge the invaluable contributions of our research assistants who conducted interviews, managed data collection, and performed transcription with diligence and confidentiality. Gratitude is extended to colleagues who provided methodological consultation on mixed-methods design, cultural adaptation procedures, and data analysis techniques, strengthening the rigor and validity of this investigation. We also recognize the Indonesian Ministry of Health and hospital ethics committees for their thorough review and approval of research protocols, ensuring ethical protection of participants throughout the study. Finally, we thank our families for their patience and support during the intensive research and writing process, and acknowledge the broader community of researchers, clinicians, and advocates working to address healthcare workforce moral injury and burnout globally, whose scholarship and dedication continue to inspire and inform our work.

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