

Recent Developments in the Study of Moral Injury in Nursing

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Abstract: Nurses often face moral dilemmas in their work, and the resulting moral injury has become an important factor affecting the stability of the nursing workforce and nurses' professional health. This article reviews the concept of moral injury, the measurement tools, the influencing factors of moral injury such as demographic factors, psychological factors, and the adverse outcomes, to provide reference for the promotion of nurses' physical and mental health and the enhancement of the quality of nursing services, and the development of effective interventions for nurses' moral injury, through the systematic summary of the knowledge related to moral injury.

Keywords: Moral injury; Nurses; Trauma; Occupational health; Influencing factors

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1. Introduction

Nursing is an important part of Chinese health construction. With the improvement of living standards and the aging of the population, public demand for high-quality nursing services continues to grow. The physical and mental health of nurses, as the core force in the provision of nursing services, is of great significance in realizing the strategic goal of a healthy China and actively responding to the aging population. The 2022 International Code of Medical Ethics clearly states that attention should be paid to the physical and mental health of healthcare professionals to ensure that they can practice safely ^[1]. In clinical work, nurses are often unable to provide higher quality care to patients and help them effectively due to a variety of reasons (e.g. family preference, organizational reasons, personal reasons, etc.), and these situations not only affect the patient's recovery process, but also bring great moral pressure to the nurses themselves ^[2]. As moral stress increases, it can cause burnout, posttraumatic stress of disorder (PTSD), and other moral injury problems for nurses ^[3]. Although moral injury is not classified as a mental disorder, its development not only affects nurses' professional recognition and the quality of nursing

services, but also may lead to mental health and behavioral problems such as burnout, depressive tendencies, PTSD, and suicidal ideation^[4-8]. Given the adverse effects of moral injury on the stability of the nursing workforce and the occupational health of nurses, measures need to be taken to mitigate and prevent the occurrence of moral injury. The purpose of this paper is to provide an overview of the research progress on moral injury in nurses to inform the development of nurses' occupational health and the stability of the nursing workforce.

2. Concepts of moral injury

The concept of moral injury can be traced back to the term “survivor’s guilt”, and in 1994 Shay, who worked for the U.S. Department of Military Affairs, in his study of traumatic experiences of war, found that when some soldiers found that their officers had betrayed their moral code, they experienced such undesirable psychological states as anger, withdrawal, and a lack of trust^[9]. Based on this finding, he first defined the concept of moral injury: the betrayal of justice by a person with legitimate authority (e.g. a leader) in a high-stakes situation. Due to the limitations of the application of this definition in other scenarios, Litz *et al.* redefined moral injury in 2009 from a psychological point of view, stating that moral injury is: the experience of inner conflict that results from an individual’s default, failure to prevent and stop, witnessed or heard behavior that is contrary to his or her own moral beliefs and expectations, and that may have a psychological physiological, spiritual, behavioral, and social lasting effects^[10]. In 2019, Talbot *et al.* introduced the concept of moral injury to the field of nursing, defining moral injury as the internal conflict that results from a nurse’s knowledge of a patient’s care needs, yet failure to meet them due to a variety of factors and constraints beyond his or her control, which in turn results in internal conflict^[11]. In 2020, Jinkerson further summarized on the basis of previous studies that moral injury is a syndrome that includes a variety of adverse psychological experiences, primarily in the form of guilt, shame, spiritual conflict, and loss of trust, and secondarily in the form of depression, anxiety, anger, and self-harm^[12].

As can be seen, moral injury is a complex psychological phenomenon resulting from an individual’s encounter with a moral dilemma or ethical conflict in a professional or other high-stakes environment. It is rooted in the individual’s inability to prevent or cope with behavior that is contrary to his or her moral beliefs, which leads to intense internal conflict and long-term psychological, physiological, spiritual, and behavioral adverse reactions. In nursing, moral injury manifests itself as a series of negative physical and psychological outcomes resulting from the nurse’s long-term internal conflict over the inability to perform morally or ethically compliant operations for a variety of reasons.

3. Measurement tools for moral injury

3.1. Moral Injury Symptoms Scale-Health Professional(MISS-HP)

This scale was revised by Koenig *et al.* based on the MISS-M-SF developed for military personnel, making it specifically suitable for medical personnel^[13, 14]. The scale contains 10 dimensions: betrayal, guilt, shame, moral cognition, loss of trust, loss of meaning, difficulty in forgiveness, self-condemnation, religious struggle, and loss of religious/spiritual beliefs. Each dimension corresponds to a visual analog scale as an answer option. Each dimension is scored (“strongly agree” = 1 to “strongly disagree” = 10). The total score ranges from 10 to 100 points. The higher the score, the more severe the moral damage suffered. The uniqueness of the Moral Injury Symptoms Scale-Health Professional (MISS-HP) lies in its association with religious belief and moral injury, but

given the differences in values and beliefs in different countries, a wider sample is needed to further demonstrate the reliability of the scale.

3.2. Moral Injury Events Scale (MIES)

The Moral Injury Events Scale (MIES) developed by Nash *et al.* in 2013 was used to assess the degree of moral injury^[16]. The scale consists of 11 items in two dimensions, including 9 items related to “feelings of betrayal” including self-betrayal, perceived betrayal by others, and feelings of being betrayed by others. As well as two “trust” related items with reverse scoring: trust in leaders and trust in self-ethics. The scale is scored on a 6-point Likert scale (“Strongly Disagree” = 1 to “Strongly Agree” = 6) with higher scores indicating greater severity in the number of moral injury symptoms. The scale was initially developed as a measure of impairment suffered by a military population and later tested by Morris and Fino in a group of nurses^[17, 18]. The scale is increasingly being used by researchers in the healthcare industry to measure the level of moral injury suffered by healthcare workers.

3.3. Expressions of Moral Injury Scale- Health Professional (EMIS-HP)

In 2020 Currier developed the 17-item moral injury measurement scale for healthcare professionals (EMIS-HP) by modifying some of the wording of the 17-item moral injury measurement scale (EMIS-M) designed for the military population^[13]. The scale consists of 17 items scored on a 5-point Likert scale (“strongly disagree” = 1 to “strongly agree” = 5), with higher scores indicating a higher number and severity of moral injury symptoms, reflecting the degree to which clinical healthcare professionals are involved with moral injury.

3.4. Moral Injury Outcome Scale (MIOS)

In 2022, Litz *et al.* developed and validated the moral injury outcome scale (MIOS)^[19]. The scale contains two subscales, shame-related and trust-break-related, with 14 entries. Shame-related moral injury is intrinsic and relates to self-confrontation concerns; trust breach-related moral injury is extrinsic and involves feelings of betrayal. Each subscale has 7 items and is scored on a 5-point Likert scale (“Strongly Disagree” = 0 to “Strongly Agree” = 4), with higher scores indicating symptoms of moral injury after a researcher applied it to a group of emergency nurses in the United States. The MIOS has the advantage of a more comprehensive development and construction process involving multiple occupational groups including nurses in multiple countries, finalized through interviews and debugging, and has a wider range of applications^[20].

Most of the moral injury measurement instruments used in the nursing field have been modified from military population measurement scales. Based on the foundation of moral and ethical requirements in the medical field, the issue of targeted development and validation with a sample of nurses’ group needs to be urgently solved, to facilitate the census of the moral injury status of nurses in different regions, hospitals, and departments, and to provide a basis for the subsequent development of moral injury interventions.

4. Correlates of moral injury

There are more factors affecting the occurrence of moral injury in nurses. Clarifying the relevant factors will be helpful in constructing a relationship model in the future and the principles of its occurrence and development, which is very important for the development of effective interventions in the future. In this study, it is divided into demographic factors, psychological factors, moral-related factors, organizational-related factors, and other factors

for discussion.

4.1. Demographic factors

Studies have shown that gender is an important demographic factor influencing moral injury in nurses. It was found that female nurses suffered higher levels of moral injury than male nurses, and other studies have also reached the similar conclusion that females are more likely to experience anxiety, depression, and PTSD after a traumatic experience^[21–23]. In clinical work, female nurses, as the mainstay of nursing practice, are more likely to experience the phenomenon of moral injury, and need to pay attention to the potential moral injury events they suffer in their work and improve their psychological adjustment ability. In terms of clinical practice ability, nurses with more work experience show a stronger ability to withstand moral injury events when faced with them^[24]. In 2020, Chen *et al.* found that nurses practicing in hospitals had a higher degree of moral trauma and showed the characteristics of a higher degree of moral injury caused by self-betrayal^[25]. In addition, nurses with higher education face more moral dilemmas, and highly educated nurses have more professional knowledge and stronger judgment, and therefore are subjected to greater moral shock, and stronger moral shock may lead to moral injury^[26]. It has also been shown that the degree and number of negative moral injury events suffered by nurses are closely related to the number and length of times nurses are exposed to potentially morally damaging events in the course of their daily work^[27]. It was also found that the type of hospital and department were influential factors in the moral injury of nurses^[23]. A study conducted in China noted that nurses in ICU and oncology departments had significantly higher moral dilemma scores than internal medicine nurses and thus may have higher levels of exposure to moral injury^[26].

Overall, there are fewer studies related to demographic factors affecting nurses' moral injury, and future studies can further deepen the exploration of demographic factors to provide strong support for a deeper understanding of nurses' moral injury.

4.2. Psychological factors

Psychological resilience refers to the frustration a person can withstand and the ability to recover positively in the face of adversity. It is also one of the key factors affecting nurses' moral injury. A cross-sectional study showed that the stronger the psychological resilience, the smaller the negative effects associated with moral injury^[23]. Enhancing nurses' psychological resilience will help to improve nurses' coping skills and reduce the degree of moral injury^[26]. In addition, the results of the study also showed that there was a significant negative relationship between empathy satisfaction and moral injury. Low reward and high emotional needs were important factors affecting nurses' moral injury^[27]. Significantly, lack of empathy has also been identified as a significant influence on moral injury^[28]. This is further supported by a study by Ahmadi *et al.*, which emphasized that compassion fatigue and secondary traumatic stress were significantly and positively correlated with moral injury^[30]. In addition, nurses' moral injury scores were negatively correlated with their mental health and well-being, suggesting that moral injury has a profound impact on nurses' minds and bodies^[15, 31]. Finally, spirituality was positively correlated with moral injury scores, while lack of psychological security further exacerbated the risk of moral injury^[32, 33].

4.3. Moral factors

Moral-related factors such as moral dilemma, moral culture, moral resilience and moral courage are important factors affecting nurses' moral injury. In clinical practice, the pressure caused by ignoring patients' autonomy and

committing unethical behaviors towards patients is another key factor affecting nurses' moral injury^[29]. Some scholars have suggested that moral dilemma and moral damage are on a continuum, with moral dilemma being at the milder end of the symptom spectrum. When moral dilemma is not effectively resolved, it may evolve into moral damage through a variety of pathways^[34]. The study of Rushton *et al.* also confirmed this view^[35]. When moral dilemma is not effectively alleviated or the intensity is too high, it may cause more serious moral injury. Moral resilience refers to an individual's ability to resist temptation and uphold his or her own moral integrity even when his or her own interests are threatened^[36]. Moral courage is the ability of nurses to rationally defend professional ethical principles and take corresponding actions, even if such behavior will have expected or actual adverse consequences^[37]. A study conducted in the Philippines showed that nurses' moral resilience and moral courage were negatively correlated with the degree of moral injury^[38]. This shows that the stronger the nurses' personal moral resilience and moral courage, the stronger their ability to self-regulate to the injury event, and the milder the adverse consequences caused by moral injury. Some studies have shown that when nurses have low moral resilience, it may lead to moral injury^[39]. In addition, some studies have found that poor moral culture in the organization is a factor that affects nurses' moral injury, which suggests that moral culture may be a potential factor in preventing moral injury^[28].

4.4. Organizational factors

Good organizational management can be a supportive factor for nurses coping with moral injury. One study showed a significant correlation between nurses' perceptions of organizational efficacy and moral injury, and promoting perceptions of organizational efficacy has the potential to reduce moral injury symptoms^[40]. It is also crucial to ensure the safety of nurses in their practice, and workplace violence can lead to moral injury^[41]. Studies have also found that nurses who experience significant psychological stress at work are 2.22 to 5.58 times more likely to suffer moral injury. Finally, it has been noted that lack of respect for nurses by managers is also a potential risk factor that may lead to moral injury in nurses^[28].

4.5. Other factors

In addition to psychological factors, major events or disasters (e.g. epidemics) are key factors affecting moral injury^[33]. Major public health emergencies force nurses to adjust their work priorities accordingly, requiring nurses to prioritize social interests to a large extent and fail to meet the needs of patients. This situation breaks the professional standards and ethical concepts followed by nurses^[6]. Many past studies have shown that nurses experienced a high level of moral injury during the COVID-19 pandemic, and the factors that led to moral injury were unique to the pandemic^[42, 43]. Secondly, physical health scores are also considered to be factors affecting moral injury^[23]. Therefore, in nursing practice, it is important to make emergency plans for major events, pay attention to the mental health of nurses, and promptly identify and deal with potential moral injury events to reduce moral injury.

5. Adverse consequences of moral injury

The adverse effects of moral injury have a serious impact on the psychological condition of nurses and the stability of the nursing team, mainly in terms of both adverse personal and organizational consequences.

5.1. Personal aspects

Moral injury has a profound effect on the personal mental health of nurses. It is first manifested in its violation of nurses' professional beliefs, which triggers inner conflict. This inner conflict often leads to nurses experiencing a range of adverse psychological experiences, including emotional problems such as sleep disturbances, anxiety and depression^[44]. Relevant studies have shown that nurses experiencing moral injury not only face cognitive and behavioral changes, but may also suffer from serious mental disorders such as social withdrawal and suicidal tendencies^[7]. In addition, moral injury in nurses is strongly associated with a variety of negative emotions, including depression, anxiety, anger, and self-harming tendencies, and with extensive social adjustment problems^[45]. A significant positive correlation between moral injury and posttraumatic stress disorder has also been found^[8]. Further demonstrating the potential threat of moral injury to nurses' mental health. At the same time, there is a significant positive correlation between the degree of moral injury and burnout among nurses. The greater the burnout, the lower the sense of occupational well-being, and the higher the risk of moral injury among nurses^[26, 31, 46].

In conclusion, it can be seen that moral injury negatively affects nurses' mental health, occupational behavior, and social functioning. Systematic attention to moral injury and its impact on nurses' mental health is essential for improving the quality of nursing care and nurses' occupational well-being. Future research should further explore the mechanism of action of moral injury, finding out more about the adverse consequences of moral injury and providing a theoretical basis for carrying out interventions.

5.2. Organizational aspects

Moral injury not only affects nurses' personal mental health, but also has a significant impact on the stability of the organization. Studies have shown that the severity, duration, and frequency of exposure of nurses' moral injury are positively correlated with their turnover rate. That is, the more severe the moral injury, the longer the duration and the higher the frequency of exposure, the greater the likelihood of nurses' turnover^[47]. Hines *et al.* found that when potential incidents of moral injury were effectively resolved, the retention rate of nurses was significantly improved, indicating that effective intervention measures can improve nurses' work experience and enhance their willingness to stay^[48]. In addition, there is a negative correlation between nurses' moral injury and job satisfaction, which means that the more severe the moral injury, the lower the nurses' job satisfaction^[49]. Therefore, nursing managers need to pay attention to potential immoral events in nursing practice in a timely manner and take effective measures to mitigate the negative impact of nurses' moral injury on the organization. It not only helps to enhance nurses' occupational well-being, but also effectively improves the stability and work efficiency of the nursing team.

5.3. Interventions for moral injury

At present, the intervention research on moral injury of nurses in China is still in the exploratory stage, and no systematic intervention plan has been formed. Based on the multidimensional influencing factor analysis of the formation mechanism of moral injury, this study proposes an intervention strategy framework that is coordinated from the two dimensions of organizational support system construction and individual psychological intervention as follows:

5.3.1. Prevention and treatment of moral injury

- (1) Improve moral decision-making ability: Moral decision-making is a reasoning process of systematic

thinking to determine the correct behavior based on moral principles ^[50]. In clinical work, nurses should pay careful attention to the changes in patients' conditions, communicate fully with patients' families, and collect their attitudes and requirements for diseases and treatments to provide a basis for ethical decision-making. At the same time, studies have shown that mastering relevant ethical knowledge, especially ethics courses based on the principles of autonomy and practicality, is of certain significance to the cultivation of nurses' moral decision-making skills ^[51]. Therefore, conducting ethics courses based on the principles of autonomy and practicality to help nurses master relevant ethical knowledge is conducive to improving moral decision-making skills.

- (2) Improve organizational ethical atmosphere: Organizational ethical atmosphere affects nurses' behavior and motivation in dealing with ethical issues ^[52]. The moral dilemma flowchart developed by Dudainski can provide reference and help for all aspects of nurses' moral decision-making, help create a good organizational ethical atmosphere, enhance nurses' sense of organizational support in ethical decision-making, and give them more space for self-thinking ^[53].
- (3) Develop a multidisciplinary collaboration model: Given that nurses have low autonomy, they are not able to cope with moral conflict events ^[52, 54]. Therefore, establishing a teamwork model led by nurses and involving multiple disciplines can help expand the source of patient support, allow nurses to participate more in discussions about patients' illnesses, increase their participation in moral injury events, and prevent moral injury.
- (4) Create a good working atmosphere: Clinical nurses are under great work pressure and face occupational exposure risks, which affects the stability of the team ^[55]. Nursing managers should reasonably allocate workload, respect the work results of nurses, provide resource guarantees, and formulate clear rules and regulations and work processes. Encourage nurses to deal with decision-making dilemmas according to their own wishes without violating laws and morals, reduce the level of moral dilemmas, and prevent moral injury ^[54].
- (5) Establish a system of peer support: peer support refers to individuals with the same or similar experiences supporting each other and sharing their experiences ^[56]. By establishing a peer support system, nurses can share moral injury experiences and coping experiences, and improve their psychological resilience ^[57]. Nurses can establish a peer support system to share moral injury experiences and successful dealing experiences with each other, which in turn creates a supportive environment for possible future moral injury events and enhances nurses' sense of professional benefit.

5.3.2. Psychological treatment methods

Moral injury can have a negative impact on nurses' mental health and occupational health. Effective psychological intervention can reduce these adverse effects. The following are several psychological intervention methods suitable for moral injury of nurses:

- (1) Mindfulness therapy: Mindfulness therapy includes mindfulness-based stress reduction, acceptance and commitment therapy, mindfulness-based cognitive therapy, etc. It aims to cultivate the individual's attention and awareness of the present moment, and to enhance the ability to cope with stress and challenges ^[58]. Chinese studies have shown that this therapy can alleviate the distrust and pain symptoms caused by moral injury ^[59]. It also has a positive effect on improving nurses' self-efficacy, burnout, and occupational stress ^[60]. Mindfulness therapy training courses can be carried out regularly to guide nurses

to focus on the present. Nurses can be encouraged to express negative emotions and learn stress relief techniques to reduce self-pressure in moral injury situations, improve their emotional state, and enhance their self-efficacy.

- (2) Cognitive behavioral therapy: Litz proposed a modified version of cognitive behavioral therapy, which treats moral injury through steps such as active connection, pre-treatment preparation and education, reshaping exposure components, detection and integration, dialogue with benevolent moral authority, repair and forgiveness, cultivation of reconnection, and long-term planning ^[10]. Chinese scholars also recognize its role in the treatment of moral injury ^[25]. In practical applications, following the steps of this therapy can help nurses reduce physical arousal, reduce social isolation, increase social support. They are guided to change their perceptions of trauma, reduce the intensity of re-experience, and gradually rebuild a new moral compass. For example, nurses can be organized to participate in relevant workshops and complete various treatment steps under the guidance of professionals. The operation is standardized and suitable for use as a manual or learning method.

At present, research on moral injury intervention is still in its infancy, and there is still no systematic and effective model strategy for the prevention and treatment of moral injury. Therefore, in subsequent research, it is necessary to continue to explore the prevention, treatment, and rehabilitation of moral injury in order to effectively respond to the occurrence and development of moral injury incidents.

6. Conclusion

At present, the moral injury problem faced by nurses has gradually attracted social attention. However, intervention research in this area is still in its infancy, and a systematic and effective prevention and treatment model and strategy system has not yet been established. It is very important to further explore the formation mechanism, prevention and treatment measures, and intervention programs for moral injury of nurses based on the international research on moral injury of nurses, taking into account the culture of different countries and universal moral values of the society. Nevertheless, there are many shortcomings in the current research. On the one hand, the lack of moral injury assessment tools specifically for nurses limits the comprehensive understanding of this issue and the development of intervention research. On the other hand, the limited number of related intervention studies restricts the formulation and practice of effective coping strategies. At the same time, there is a lack of detailed and in-depth research on the psychological status of nurses under different moral injury situations. Nurses from different departments and years of work have significant differences in psychological reactions when facing different moral injury scenarios. But the existing studies lack systematic profiling and categorization studies. Although mindfulness therapy and cognitive behavioral therapy have application prospects, they cannot be generalized. Before implementing intervention, it is necessary to have a deep understanding of nurses' psychological needs and real dilemmas, and flexibly choose intervention programs according to different situations to achieve the best results. Therefore, future research should focus on developing a moral injury assessment scale suitable for nurses to accurately assess and monitor influencing factors. Moreover, the theories and methods of psychology, sociology, nursing, and other fields should be combined to study the moral injury problem of nurses in depth, to provide a scientific basis for the development of effective interventions. By deeply exploring the psychological conditions of nurses in different moral injury situations, psychological stressors, change processes, and crisis risk points can be accurately identified. Targeted psychological counseling plans should be formulated

in advance to provide guidance for nursing management departments to optimize work processes and improve the working environment. Improve the mental health level of nursing staff and the quality of nursing services, build a scientific, accurate, and targeted intervention system, and effectively respond to the occurrence and development of moral injury incidents.

Disclosure statement

The authors declare no conflict of interest.

References

- [1] Parsa-Parsi RW, 2022, The International Code of Medical Ethics of the World Medical Association. *JAMA*, 328(20): 2018–2021. DOI:10.1001/jama.2022.19697.
- [2] Xue B, Wang S, Chen D, et al., 2024, Moral Distress, Psychological Capital, and Burnout in Registered Nurses. *Nursing Ethics*, 31(2–3): 388–400. DOI:10.1177/09697330231202233.
- [3] Currier JM, McCormick W, Drescher KD, 2015, How Do Morally Injurious Events Occur? A Qualitative Analysis of Perspectives of Veterans with PTSD. *Traumatology*, 21(2): 106. DOI:10.1037/trm0000027.
- [4] Williamson V, Murphy D, Phelps A, et al., 2021, Moral Injury: The Effect on Mental Health and Implications for Treatment. *The Lancet Psychiatry*, 8(6): 453–455. DOI:10.1016/S2215-0366(21)00113-9.
- [5] Williamson V, Stevelink SAM, Greenberg N, 2018, Occupational Moral Injury and Mental Health: Systematic Review and Meta-Analysis. *The British Journal of Psychiatry*, 212(6): 339–346. DOI:10.1192/bjp.2018.55.
- [6] Wang Z, Koenig HG, Tong Y, et al., 2022, Moral Injury in Chinese Health Professionals During the COVID-19 Pandemic. *Psychological Trauma: Theory, Research, Practice, and Policy*, 14(2): 250.
- [7] Rodríguez EA, Agüero-Flores M, Landa-Blanco M, et al., 2021, Moral Injury and Light Triad Traits: Anxiety and Depression in Health-Care Personnel During the Coronavirus-2019 Pandemic in Honduras. *Hispanic Health Care International*, 19(4): 230–238. DOI:10.1177/15404153211042371.
- [8] Jovarauskaitė L, Murphy D, Truskauskaitė-Kuneviciene I, et al., 2022, Associations Between Moral Injury and ICD-11 Post-Traumatic Stress Disorder (PTSD) and Complex PTSD Among Help-Seeking Nurses: A Cross-Sectional Study. *BMJ Open*, 12(5): e056289. DOI:10.1136/bmjopen-2021-056289.
- [9] Shay J, 2003, *Odysseus in America: Combat Trauma and the Trials of Homecoming*. Simon and Schuster. Scribner, 1–352.
- [10] Litz BT, Stein N, Delaney E, et al., 2009, Moral Injury and Moral Repair in War Veterans: A Preliminary Model and Intervention Strategy. *Clinical Psychology Review*, 29(8): 695–706. DOI:10.1016/j.cpr.2009.07.003.
- [11] Dean W, Talbot S, Dean A, 2019, Reframing Clinician Distress: Moral Injury Not Burnout. *Federal Practitioner*, 36(9): 400.
- [12] Jinkerson JD, 2016, Defining and Assessing Moral Injury: A Syndrome Perspective. *Traumatology*, 22(2): 122. DOI:10.1037/trm0000069.
- [13] Mantri S, Lawson JM, Wang ZZ, et al., 2020, Identifying Moral Injury in Healthcare Professionals: The Moral Injury Symptom Scale-HP. *Journal of Religion and Health*, 59(5): 2323–2340.
- [14] Currier JM, Farnsworth JK, Drescher KD, et al., 2018, Development and Evaluation of the Expressions of Moral Injury Scale—Military Version. *Clinical Psychology & Psychotherapy*, 25(3): 474–488. DOI:10.1002/cpp.2170.

- [15] Zhizhong W, Koenig HG, Yan T, et al., 2020, Psychometric Properties of the Moral Injury Symptom Scale Among Chinese Health Professionals During the COVID-19 Pandemic. *BMC Psychiatry*, 20: 1–10. DOI:10.1186/s12888-020-02954-w.
- [16] Nash WP, Marino Carper TL, Mills MA, et al., 2013, Psychometric Evaluation of the Moral Injury Events Scale. *Military Medicine*, 178(6): 646–652. DOI:10.7205/MILMED-D-13-00017.
- [17] Morris DJ, Webb EL, Trundle G, et al., 2022, Moral Injury in Secure Mental Healthcare: Part I: Exploratory and Confirmatory Factor Analysis of the Moral Injury Events Scale. *The Journal of Forensic Psychiatry & Psychology*, 33(5): 708–725. DOI:10.1080/14789949.2022.2111318.
- [18] Fino E, Daniels JK, Micheli G, et al., 2023, Moral Injury in a Global Health Emergency: A Validation Study of the Italian Version of the Moral Injury Events Scale Adjusted to the Healthcare Setting. *European Journal of Psychotraumatology*, 14(2): 2263316. DOI:10.1080/20008066.2023.2263316.
- [19] Litz BT, Plouffe RA, Nazarov A, et al., 2022, Defining and Assessing the Syndrome of Moral Injury: Initial Findings of the Moral Injury Outcome Scale Consortium. *Frontiers in Psychiatry*, 13: 923928. DOI:10.3389/fpsyt.2022.923928.
- [20] Tao H, Nieuwsma JA, Meador KG, et al., 2023, Validation of the Moral Injury Outcome Scale in Acute Care Nurses. *Frontiers in Psychiatry*, 14: 1279255. DOI:10.3389/fpsyt.2023.1279255.
- [21] Akhtar M, Faize FA, Malik RZ, et al., 2022, Moral Injury and Psychological Resilience Among Healthcare Professionals Amid COVID-19 Pandemic. *Pakistan Journal of Medical Sciences*, 38(5): 1338. DOI:10.12669/pjms.38.5.5122.
- [22] Idrees S, Faize FA, Akhtar M, 2017, Psychological Reactions, Social Support, and Coping Styles in Pakistani Female Burn Survivors. *Journal of Burn Care & Research*, 38(6): e934–e943. DOI:10.1097/BCR.0000000000000525.
- [23] Liang T, Kaka Mirza H, Malakoutikhah A, et al., 2023, Moral Injury and Its Correlates Among Iranian Nurses in the Second Year of the COVID-19 Pandemic: A Multicenter Cross-Sectional Study. *Journal of Religion and Health*, 62(6): 3979–3994. DOI:10.1007/s10943-023-01938-w.
- [24] Rushton CH, Thomas TA, Antonsdottir IM, et al., 2022, Moral Injury and Moral Resilience in Health Care Workers During COVID-19 Pandemic. *Journal of Palliative Medicine*, 25(5): 712–719. DOI:10.1089/jpm.2021.0076.
- [25] Chen X, Wang L, Wang L, 2020, Study on the Status and Correlation of Moral Trauma Among Medical Interns. *Chinese Medical Ethics*, 33(11): 1335–1340.
- [26] Dai H, Li Y, Wu H, 2023, Relationship Between Moral Courage and Moral Distress Among Nurses. *Journal of Nursing Science*, 37(21): 53–57.
- [27] Fitzpatrick JJ, Pignatiello G, Kim M, et al., 2022, Moral Injury, Nurse Well-Being, and Resilience Among Nurses Practicing During the COVID-19 Pandemic. *JONA: The Journal of Nursing Administration*, 52(7/8): 392–398. DOI:10.1097/NNA.0000000000001171.
- [28] Zahirihsini A, Gilbert-Ouimet M, Langlois L, et al, 2022, Associations Between Psychosocial Stressors at Work and Moral Injury in Frontline Healthcare Workers and Leaders Facing the COVID-19 Pandemic in Quebec, Canada: A Cross-Sectional Study. *Journal of Psychiatric Research*, 155: 269–278. DOI:10.1016/j.jpsychires.2022.09.006.
- [29] Riedel PL, Kreh A, Kulcar V, et al., 2022, A Scoping Review of Moral Stressors, Moral Distress and Moral Injury in Healthcare Workers During COVID-19. *International Journal of Environmental Research and Public Health*, 19(3): 1666. DOI:10.3390/ijerph19031666.
- [30] Ahmadi MH, Heidarzadeh M, Fathiazar A, et al., 2025, Investigating the Relationship Between Compassion Fatigue and Moral Injury in Nurses. *Nursing Ethics*, 32(1): 201–211. DOI:10.1177/09697330241247323.
- [31] Wang Z, Koenig HG, Tong Y, et al., 2022, Moral Injury in Chinese Health Professionals During the COVID-19 Pandemic. *Psychological Trauma: Theory, Research, Practice, and Policy*, 14(2): 250. DOI:10.1037/tra0001026.

- [32] Wang Z, Al Zaben F, Koenig HG, et al., 2021, Spirituality, Moral Injury and Mental Health Among Chinese Health Professionals. *BJPsych Open*, 7(4): e135. DOI:10.1192/bjo.2021.972.
- [33] Beadle ES, Walecka A, Sangam AV, et al., 2024, Triggers and Factors Associated With Moral Distress and Moral Injury in Health and Social Care Workers: A Systematic Review of Qualitative Studies. *PLoS One*, 19(6): e0303013.
- [34] Litz BT, Kerig PK, 2019, Introduction to the Special Issue on Moral Injury: Conceptual Challenges, Methodological Issues, and Clinical Applications. *Journal of Traumatic Stress*, 32(3): 341–349.
- [35] Rushton CH, Turner K, Brock RN, et al., 2025, Invisible Moral Wounds of the COVID-19 Pandemic: Are We Experiencing Moral Injury? *AACN Advanced Critical Care*, 36(1): 37–43.
- [36] Oser FK, Reichenbach R, 2005, Moral Resilience – The Unhappy Moralist. In W. Edelstein & G. Nunner-Winkler (Eds.), *Morality in Context*, 204–224.
- [37] Numminen O, Katajisto J, Leino-Kilpi H, 2019, Development and Validation of Nurses' Moral Courage Scale. *Nursing Ethics*, 26(7–8): 2438–2455.
- [38] Berdida DJE, Grande RAN, 2023, Moral Distress, Moral Resilience, Moral Courage, and Moral Injury Among Nurses in the Philippines During the COVID-19 Pandemic: A Mediation Analysis. *Journal of Religion and Health*, 62(6): 3957–3978. DOI:10.1007/s10943-023-01873-w.
- [39] Shao R, Wang Y, 2024, Reflections on the Moral Injury and Coping of Medical Staff From the Perspective of Caring Ethics. *Chinese Medical Ethics*, 37(11): 1378–1386.
- [40] Rushton CH, Nelson KE, Antonsdottir I, et al., 2022, Perceived Organizational Effectiveness, Moral Injury, and Moral Resilience Among Nurses During the COVID-19 Pandemic: Secondary Analysis. *Nursing Management*, 53(7): 12–22. DOI:10.1097/01.NUMA.0000834524.01865.cc.
- [41] Rabin S, Kika N, Lamb D, et al., 2023, Moral Injuries in Healthcare Workers: What Causes Them and What to Do About Them? *Journal of Healthcare Leadership*, 2023: 153–160. DOI:10.2147/JHL.S396659.
- [42] Mantri S, Song YK, Lawson JM, et al., 2021, Moral Injury and Burnout in Health Care Professionals During the COVID-19 Pandemic. *The Journal of Nervous and Mental Disease*, 209(10): 720–726. DOI:10.1097/NMD.0000000000001367.
- [43] Williamson V, Lamb D, Hotopf M, et al., 2023, Moral Injury and Psychological Wellbeing in UK Healthcare Staff. *Journal of Mental Health*, 32(5): 890–898. DOI:10.1080/09638237.2023.2182414.
- [44] Coimbra BM, Zylberstajn C, van Zuiden M, et al., 2024, Moral Injury and Mental Health Among Health-Care Workers During the COVID-19 Pandemic: Meta-Analysis. *European Journal of Psychotraumatology*, 15(1): 2299659. DOI:10.1080/20008066.2023.2299659.
- [45] Stovall M, Hansen L, van Ryn M, 2020, A Critical Review: Moral Injury in Nurses in the Aftermath of a Patient Safety Incident. *Journal of Nursing Scholarship*, 52(3): 320–328. DOI:10.1111/jnu.12551.
- [46] Dale LP, Cuffe SP, Sambuco N, et al., 2021, Morally Distressing Experiences, Moral Injury, and Burnout in Florida Healthcare Providers During the COVID-19 Pandemic. *International Journal of Environmental Research and Public Health*, 18(23): 12319. DOI:10.3390/ijerph182312319.
- [47] Whitehead PB, Haisch CE, Hankey MS, et al., 2024, Studying Moral Distress and Moral Injury Among Inpatient and Outpatient Healthcare Professionals During the COVID-19 Pandemic. *The International Journal of Psychiatry in Medicine*, 59(4): 469–486. DOI:10.1177/00912174231205660.
- [48] Hines SE, Chin KH, Glick DR, et al., 2021, Trends in Moral Injury, Distress, and Resilience Factors Among Healthcare Workers at the Beginning of the COVID-19 Pandemic. *International Journal of Environmental Research and Public Health*, 18(2): 488. DOI:10.3390/ijerph18020488.

- [49] de Veer AJE, Francke AL, Struijs A, et al., 2013, Determinants of Moral Distress in Daily Nursing Practice: A Cross Sectional Correlational Questionnaire Survey. *International Journal of Nursing Studies*, 50(1): 100–108. DOI:10.1016/j.ijnurstu.2012.08.017.
- [50] Cerit B, Dinç L, 2013, Ethical Decision-Making and Professional Behaviour Among Nurses: A Correlational Study. *Nursing Ethics*, 20(2): 200–212. DOI:10.1177/0969733012455562.
- [51] Baysal E, Sari D, Erdem H, 2019, Ethical Decision-Making Levels of Oncology Nurses. *Nursing Ethics*, 26(7–8): 2204–2212. DOI:10.1177/0969733018803662.
- [52] Kamisli S, Yuce D, Karakilic B, et al., 2017, Cancer Patients and Oncology Nursing: Perspectives of Oncology Nurses in Turkey. *Nigerian Journal of Clinical Practice*, 20(9): 1065–1073.
- [53] Dudzinski DM, 2016, Navigating Moral Distress Using the Moral Distress Map. *Journal of Medical Ethics*, 42(5): 321–324. DOI:10.1136/medethics-2015-103156.
- [54] Henrich NJ, Dodek PM, Gladstone E, et al., 2017, Consequences of Moral Distress in the Intensive Care Unit: A Qualitative Study. *American Journal of Critical Care*, 26(4): e48–e57.
- [55] Drenkard K, Swartwout E, 2005, Effectiveness of a Clinical Ladder Program. *JONA: The Journal of Nursing Administration*, 35(11): 502–506.
- [56] Parker S, Dark F, Newman E, et al., 2016, Longitudinal Comparative Evaluation of the Equivalence of an Integrated Peer-Support and Clinical Staffing Model for Residential Mental Health Rehabilitation: A Mixed Methods Protocol Incorporating Multiple Stakeholder Perspectives. *BMC Psychiatry*, 16: 1–21.
- [57] Dennis CL, 2003, Peer Support Within a Health Care Context: A Concept Analysis. *International Journal of Nursing Studies*, 40(3): 321–332.
- [58] Xiao P, Xhu M, 2023, Effect of Solution-Focused Model Combined With Mindfulness-Based Stress Reduction Therapy on Resilience and Quality of Life of Nurses in Disinfection Supply Center. *China Journal of Health Psychology*, 31(6): 882–886. DOI:10.13342/j.cnki.cjhp.2023.06.017.
- [59] Chen S, Chang YL, Yang F, 2017, Research Progress of Treatment and Prevention of Moral Injury in Foreign Army. *Medicine & Philosophy (A)*, 38(10): 34–38.
- [60] Motamed-Jahromi M, Fereidouni Z, Dehghan A, 2017, Effectiveness of Positive Thinking Training Program on Nurses' Quality of Work Life Through Smartphone Applications. *International Scholarly Research Notices*, 2017(1): 4965816.

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