

Moral Injury Signified by Levels of Moral Distress and Burnout in Health Science Clinical Educators

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Despite the importance of clinical education in the education of health science professionals, securing clinical placements and access to willing clinical educators has become increasingly difficult in recent years. Clinicians are being asked to do more, with less resources and time, creating an overwhelming and demanding work environment that is discordant to providing quality student education. In this study, we examined the prevalence of moral injury in clinical educators to determine if a relationship exists between the moral distress, burnout, and their roles as clinical educators. Health science professionals, occupational and physical therapists, speech language pathologist, and social workers who serve in the role of clinical educator completed anonymous surveys, consisting of a demographics questionnaire, the Moral Distress Scale-Revised-Occupational Therapist Adult Setting (MDS-R-OT[A]), and the Maslach Burnout Inventory Human Services Survey Medical Personal [MBI-HSS (MP)]. Descriptive statistics, Pearson correlations, post-hoc analyses using Bonferroni multiple comparison tests, and ANOVA were used to compare each dimension of the MBI-HSS (MP) to the MDS-R-OT[A]. Data from 75 completed surveys revealed that clinical educators identify as having moral distress and burnout, with a strong relationship between emotional exhaustion and depersonalization ($p < 0.01$). A statistically significant negative correlation was found when comparing the number of students per year and the MBI-HSS (MP) depersonalization dimension ($p < 0.01$). These findings elucidate the need for strategies to minimize sources of moral distress and burnout of clinicians to allow for engagement in clinical education. *J Allied Health* 2021; 50(3):190-197.

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HEALTH SCIENCE PROGRAMS recognize the clinical education portion of the curriculum as critical for providing student opportunities of social and professional growth^{1,2} and the transfer of didactic knowledge into clinic skill sets.^{1,3,4} To provide this portion of the curriculum, programs rely heavily on clinicians' willingness to serve as clinical educators, an intense commitment requiring a range of supervised contact hours from 325 to 1,250 hours^{5,6} in the clinical environment.

In recent years, identifying clinicians willing to accommodate students and securing clinical placements have become increasingly difficult across all health science disciplines, most apparent in educating students within doctorate of physical therapy (DPT) programs.^{6,7} This challenge is multifactorial, influenced heavily by healthcare restructuring, workforce shortages, increased pressure on clinical educators to supervise a greater number of students as established programs grow, and the increase in new programs seeking support.^{4,6-8} Balancing the pressure to deliver high-quality care in ever-shortening appointment slots, while balancing the educational needs of the students, in conjunction with conflicting societal and cultural values between student and educator, student and patient, and patient expectations and clinicians' have resulted in clinicians feeling overloaded and unable to meet the needs of both populations.⁹

Clinical education literature findings suggest that clinicians serving in the role as clinical educators are significant contributors for student success,^{3,4} with increasing evidence identifying specific characteristics of an effective clinical educator.¹⁰⁻¹² However, few studies have explored the feelings of clinicians serving in the role of clinical educators and their own well-being. Findings of published studies on physicians and nurses suggest clinicians are stressed with heightened concern for their own well-being.^{6,7} The changes in health science education, consumer access, and the shortage of clinicians willing to serve as clinical educators place increase pressure and risk for moral injury on the clinicians who do serve.¹³ The presence of

certain personality traits has been linked to an individual's resilience, grit, and resistance to moral injury which presents as moral distress and burnout.¹³⁻¹⁵ As such, the current literature available may not accurately reflect the level of moral injury exhibited as moral distress and burnout experienced by these individuals or accurately characterize the variables influencing the range of moral distress and burnout seen within each individual. Thus, given the paucity of available literature on this topic, the purpose of this study was to determine if moral injury of clinical educators has led to moral distress and burnout and the ability to supervise students.

Review of Literature

Moral injury, the sequel of events occurring counter to one's own conscience leading to moral distress and burnout,^{13,14,16,17} is a longstanding, widespread problem across all healthcare disciplines and settings.¹⁸⁻²³ Every day, clinicians must navigate the constraints of a financially driven healthcare system, with the unique needs of their patients, and make difficult decisions when what is best for the "bottom-line" is deemed more important than what is best for the patient.^{16,17} This environment places clinicians in morally complex situations, while also requiring small daily moral compromises, creating the potential for under-recognized moral injuries threatening their wellbeing.^{17,24-26} Daily compromises causing moral injury include perpetrating, failing to prevent, or exposure to distressing events that challenge moral beliefs and expectations.²⁷ Challenges arise when system-wide regulation and constraints create barriers preventing clinicians from delivering optimal care and burdening clinicians to find ways to navigate this dystopian system.²⁸ Consistently failing to navigate this system distorts the clinicians' view of themselves, creating the perception of their failure to meet the needs of others in combination with the violation of the code of ethics for the accepted standard of practice due to systematic constraints.^{16,29,30} This perception has deleterious effects on the clinician's wellbeing, placing them at risk for moral injury, which clinicians report as moral distress, and or burnout.^{16,29,30}

The impact of moral injury on clinicians is not limited to the deleterious impact on the clinician's own health and integrity. Clinician's moral injury can also impact health science students who may suffer from a lack of guidance, mentorship, and supervision as a result of the supervising clinician's burnout as a result of moral injury.⁹ Additionally, educators may project their own frustration due to their perceived lack of agency, sowing seeds of anxiety, guilt, and helplessness in the students they are charged with educating.^{7,31-33}

Corley et al. created the Moral Distress Scale to measure the frequency and intensity of moral distress utilizing the moral distress framework of Jameton,

House, and Rizzo's role conflict theory and Rokeach's value theory.^{34,35} Moral distress is associated with burnout and intention to leave or find a less stressful position within the profession.³⁵⁻³⁷ Individuals who experience moral distress frequently also experience higher levels for both emotional and physical exhaustion and depersonalization towards the profession.³⁸ Emotional exhaustion and depersonalization are two of three components recognized as "burnout syndrome," a psychological syndrome in response to chronic interpersonal stressors on the job, according to the Maslach Burnout Inventory.^{39,40}

Clinician burnout is a major concern in clinical education, as the innate stressfulness of being an educator, in combination with workplace stressors, clinical caseload, employer support, and strength of the student's preparedness for clinic, may exacerbate moral injury.⁴¹⁻⁴⁴ Lack of time to supervise a student, caseload demands, student attitudes, and competency of the student all contribute to clinical educator's perceived stress.⁴⁵⁻⁴⁷ Clinicians especially experience moral injury and therefore distress when faced with the moral dilemma of allocating extra time for students with difficulty achieving competency at the expense of patient care.^{45,47,48}

The first purpose of this study was to identify the prevalence of moral injury by measuring moral distress and burnout in health science clinicians who serve as clinical educators within physical therapy, occupational therapy, social work, and speech language pathology across practice settings. The second purpose was to identify traits contributing to the mitigation of moral injury. The third purpose was to identify the impact of moral injury and supervising students.

Methods

Design

The Human Subjects Review Board of the Office of Research and Sponsored Programs, Kean University, approved this descriptive correlational study (case no. 00005690). This study design utilized the theoretical framework of Corley Moral Distress (MDS) and Maslach Burnout Inventory to answer questions regarding relationships between moral distress and burnout due to moral injury and students supervised as perceived by clinical educators.

Participants

An invitation to participate in an anonymous online survey was emailed via Qualtrics® (Qualtrics, LLC, <https://www.qualtrics.com>) to health science clinicians who are members in the education sections of their professional association and the clinical education special interest group for physical and occupational

TABLE 1. Clinical Educators' Demographics

	N=75	%
Gender		
Female	61	81
Male	14	19
Ethnicity		
Euro-American/Caucasian	64	85
African American or Black	4	4
Asian	5	5
Hispanic/Latino	2	2
Credentialed educator		
Yes	52	69
No	23	31
Highest degree		
Bachelors	7	9
Masters	49	66
Clinical doctorate	12	16
PhD or equivalent	4	5
Other	3	4
No. of years as clinician		
1–5	9	12
6–10	21	28
11–15	12	16
16–20	5	7
20–over	28	37
No. of years in current position		
1–5	25	33
6–10	23	31
11–15	11	15
16–20	5	7
20–over	11	15
No. of years as a clinical educator		
1–5	31	41
6–10	14	19
11–15	9	12
16–20	6	8
20–over	15	20
No. of students supervised per year		
1–2	51	68
3–4	15	20
5–6	4	5
7–8	3	4
9–10	1	1
Other	1	1
No. of weeks for student rotations		
6–8	2	3
9–12	35	47
13–16	19	25
17–20	12	16
Other	7	9
Factors impacting serving in educator role		
Length of rotation	10	13
Level of rotation	32	43
Case load	33	44

therapists, speech language pathologists, and social workers. In addition, clinical educators affiliated with the University Health Science programs were invited to participate in the study. Inclusion criterion required participants to be a health science professional for at least 1 year and participated in clinical education within the last year. Exclusion criteria were clinicians practicing less than 1 year and clinicians who have not

supervised a student within the last year. Participants who returned incomplete surveys were excluded from result analysis. The link to participate contained the following: explanation of the study, a consent and debriefing form, and three surveys. No identifiers were collected and consent to participate was indicated through clicking the submission button.

Instrumentation

Instruments used in this study included: a demographic questionnaire, the Moral Distress Scale-Revised-Occupational Therapist Adult Setting (MDS-R-OT[A]), and the Maslach Burnout Inventory Human Services Survey Medical Personal [MBI-HSS (MP)]. The demographic questionnaire, designed by the lead researcher, was modeled from the American Physical Therapy Association's annually published demographic profile of physical therapists. Additional questions added to the survey were clinical educator data (years of experience serving as an educator, number of students per year) as well as type of rotation.

The MDS-R-OT[A], a modified version of Corley's MDS tool, was chosen as it was specifically created for health science professionals. It consists of 21 items using a 4-point rating scale for clinical situations, internal and external constraints, factors for distress intensity and frequency, and two open comment lines.⁴⁹ The MDS-R-OT[A] has a Cronbach alpha of 0.98 for the intensity scale and 0.90 for the frequency scale.⁴⁹ The MDS-R-OT[A] has acceptable content validity of 81.8%.⁴⁹ Each individual situation's score can range from 1 to 16. The overall MDS-R-OT[A] score is then calculated by summing the product for each of the 21 situations. The scoring is calculated by multiplying the Level of Disturbance (LOD) score for each of the 21 situations with the corresponding Level of Frequency (LOF) score.

The MBI-HSS (MP) is the gold standard instrument for measuring the three dimensions of burnout in health professionals and contains 22 questions. Each question is rated for frequency and intensity of the occurrence. A 7-point Likert scale for frequency ranges from 0 (never) to 6 (everyday) and for intensity 1 (mild) to 7 (very strong). The three dimensions of burnout are: emotional exhaustion (MBI-EE), depersonalization (MBI-DP), and personal accomplishment (MBI-PA).³⁶ MBI-EE measures the feelings of being emotionally overextended and exhausted by one's work. MBI-DP measures an unfeeling and impersonal response toward patients. MBI-PA measures feelings of competence and successful achievement in one's work. The MBI-HSS (MP) three dimensions have strong reliability with a Cronbach alpha of 0.90 for MBI-EE dimension and 0.76 for MBI-DP and MBI-PA dimensions.^{50–52} Scoring is performed for each dimension of burnout along the continuum of more or less "burned out."^{50–52}

TABLE 2. Moral Distress and Burnout Injury Means and Standard Deviation

Outcome Tool	Mean	SD
MDS-R-OT[A]	54.75	55.78
MBI-HSS emotional exhaustion averages	2.569	1.426
MBI-HSS depersonalization averages	1.107	1.135
MBI-HSS personal accomplishment averages	4.763	0.9682

$p=0.05$.

Statistical Analysis

In accordance with the MBI-HSS (MP) Manual and MDS-R-OT[A] instructions, results were calculated and statistical analysis performed utilizing Microsoft Excel 2016 to calculate the mean and standard deviations survey scores. Descriptive statistics, Pearson R correlation analysis, and analysis of variance (ANOVA) were completed using Statistical Package for Prism 8 GraphPad PRISM 8.4.3 (686) software.

Results

Demographics

A total of 103 completed surveys were returned, with 75 (73%) meeting the inclusion criteria for statistical analysis. Not all members of the health science professional associations serve as clinical educators, and therefore a definitive response rate could not be determined. The clinical educators had an average age of 42 years, were white (85%), with most self-identifying as females (81%) (Table 1). The highest categories for years of clinical practice were 21 years or more (28, 37%), followed by 6–10 years of experience (21, 28%). Thirty-one (41%) of the clinical educators reported 1–5 years' experience as a clinical educator. Only 25% of clinical educators were required to have a student, but a majority (51, >68%) supervised at least 1–2 students a year.

MBI-HSS (MP) and MDS-R-OT[A]

The mean score of the MBI-HSS (MP) was 2.80, and for the MDS-R-OT[A] the mean score was 54.75 (SD 55.78) (Table 2). Subgroup analysis of the MBI-HSS (MP) demonstrated the MBI-PA to have the highest mean score (4.7, SD 0.97) out of the three dimensions. The mean MBI-EE score was 2.56 (SD 1.43), and the MBI-DP mean score was 1.10 (SD 1.14). Pearson r correlations between each dimension of the MBI demonstrated

moderate correlations between the MDS-R-OT[A] and MBI-EE ($r=0.54$, $p<0.0001$) and between the MDS-R-OT[A] and MBI-DP ($r=0.52$, $p<0.0001$) (Table 3). The MBI-PA was not found to be significantly correlated with the MDS-R-OT[A] ($p=0.32$).

A one-way ANOVA comparing the MDS-R-OT[A] to the items of the MBI-HSS demonstrated a significant difference ($r^2 = 0.39$, $p<0.0001$). A post-hoc analysis using Bonferroni multiple comparisons test demonstrated in a statistically significant relationship between the MDS-R-OT[A] and each dimension of the MBI-HSS (MP) ($p<0.0001$) (Table 5).

A one-way ANOVA comparing the items of the MBI-HSS (MP) found a significant difference between the groups ($p<0.0001$) (Table 4). A post-hoc analysis using Tukey's multiple comparisons test ($p<0.05/9$) resulted in statistically significant relationships between each dimension of the MBI-HSS (MP) (Table 6).

The number of students per year was compared against each of the MBI-HSS items and to the MDS-R-OT[A] using a Pearson correlation analysis and found a statistically significant negative correlation between the number of students per year and MBI-DP ($p<0.05$). No other statistically significant correlations were found (Table 7).

Discussion

While other studies have assessed moral injury and burnout among physician and nurse clinicians, this study is one of the first to examine the impact of health science clinical educators' moral distress and burnout due to moral injury. Based on the results of this survey study, particular personality traits appear to play a role in the moral distress and burnout experienced by clinical educators, building on previous studies surrounding the presence of moral distress and burnout among nursing and medical/physician professionals.^{28,33,35,36}

Moral injury is a well-described factor leading to moral distress and burnout in physician and nursing health professions.^{20,36} Our findings suggest that clinical educators do have moral injury based on the reported moral distress and burnout surveys. Based on the results of the MBI-HSS (MP), clinical instructors do not feel competent and successful when performing work duties on a daily basis, but rather only once to a few times a week. Additionally, the results of the MBI-HSS (MP) suggest clinical instructors perceive emotional exhaustion due to feeling overextended and exhausted by work

TABLE 3. Pearson r Correlation between Moral Distress and Burnout Injury

Correlation	Pearson r	95% CI	R^2	p (2-tailed)
MDS-R-OT[A] vs MBI-EE	0.5477	0.3663, 0.6890	0.3000	<0.0001
MDS-R-OT[A] vs MBI-DP	0.5193	0.3315, 0.6676	0.2697	<0.0001
MDS-R-OT[A] vs MBI-PA	-0.1168	-0.3349, 0.1131	0.01365	0.3182

$p=0.05$.

TABLE 4. One-Way Analysis of Variance of Moral Distress and Burnout Injury Items

Source	df	SS	MS	F	p	r ²
MBI-HSS items vs MDS-R-OT[A]						
Between groups	3	152240	50747	F(3, 296) = 65.15	<0.0001	0.3977
Within groups	296	230559	778.9			
Total	299	382799				
MBI-HSS items						
Between groups	2	508.1	254.1	F(2, 222) = 179.0	<0.0001	0.6172
Within groups	222	315.2	1.420			
Total	224	823.3				

p=0.05.

on an occasional basis during a month. A positive finding indicated clinical instructors rarely report perceiving their interactions with patients being impersonal or unfeeling. A significant correlation existed between burnout of clinical educators, as defined as emotional exhaustion and depersonalization on the MBI-HSS (MP),³⁸ with the frequency and extent of moral distress among clinical educators as found using the MDS-R-OT[A]. The findings indicate that clinical educators are experiencing feelings of being emotionally exhausted by one's work.⁵³ This increases significantly with increased frequency and severity of moral distress as defined by negative feelings when an individual is limited in his/her moral decision-making due to constraints outside of his/her control.³³ In addition, our findings from the MDS-R-OT[A] indicate clinical educators report an increasing level of depersonalization, as defined as the measure of unfeeling and impersonal response toward patients,⁵³ as the frequency and severity of moral distress increases. Therefore, our findings from the MDS-R-OT[A] confirm the relationship that emotional exhaustion and depersonalization are higher in individuals who are reporting burnout as measured on the MBI HSS (MP). While Dean et al. found the level of burnout correlated to an individual's feeling a lack of personal accomplishment and achievement, the results of this study did not support the same findings.²⁵

In addition to personality traits, the number of students supervised per year significantly correlated with lower levels of the MBI-DP score, a measure of depersonalization. This suggests that although serving as a clinical educator is associated with increased stressors and responsibilities, supervising students may mitigate the degree of depersonalization experienced by

clinical educators. The intrinsic benefit of teaching fosters mentor-mentee relationship and community between clinicians and students.⁵⁴ Such a relationship has been shown in previous studies to play a role in reducing depersonalization and burnout.⁵⁵ In contrast to these results, previous studies have found the increase stress of supervising students to have a negative effect. Barton et al. found that increasing the demand on health science professionals with the supervision of students leads to clinician overload and decreased quality in patient care.⁹ To explain these conflicting results, supervision of students in particular environments that allow the inclusion of the students into the clinic workflow may help to minimize the degree of negative stress placed on the clinical educator, thus mitigating depersonalization and moral injury.

As the size of health science professional education programs grow, the increased need for willing clinical educators becomes more important than ever.^{3,4,6,10-12} Clinical educators are the cornerstone faculty preparing entry-level clinicians by combining the didactic coursework with clinical practice in order to develop strong, entry-level health science professionals.^{3,4} The strong, growing concern is less health science clinicians are willing to serve as clinical educators.³⁻⁶ The current landscape of the United States healthcare system contains competing values, as the business of healthcare can run counter-current to the delivery of care and education of future clinicians.⁵⁶⁻⁵⁸ Clinical educators are offered little incentive to serve in this capacity, as it requires additional responsibility to their daily stressors.^{5-7,9} When viewed through the lens of moral injury, the system-wide constraints necessitating moral compromise, propagating the erosion of one's moral code and

TABLE 5. Post-hoc of Moral Distress Scale and Burnout Injury Items

Bonferroni's Multiple Comparisons Test	Mean Diff.	95% CI of Diff.	Adjusted p Value
MDS-R-OT[A] vs MBI-EE	52.18	40.08, 64.29	<0.0001
MDS-R-OT[A] vs MBI-DP	53.64	41.54, 65.75	<0.0001
MDS-R-OT[A] vs MBI-PA	49.99	37.88, 62.09	<0.0001

p=0.05; Bonferroni's correction was applied for multiple tests (P<0.05/9) to keep the overall type I error level of 0.05.

TABLE 6. Post-hoc of Burnout Injury Items

Tukey's Multiple Comparisons Test	Mean Diff.	95% CI of Diff.	Adjusted p Value
MBI-EE vs. MBI-DP	1.462	1.003, 1.921	<0.0001
MBI-EE vs. MBI-PA	-2.194	-2.654, -1.735	<0.0001
MBI-DP vs. MBI-PA	-3.657	-4.116, -3.198	<0.0001

p=0.05; Tukey's correction was applied for multiple tests (P<0.05/9) to keep the overall type I error level of 0.05.

TABLE 7. Pearson *r* Correlation Between Number of Students Taken per Year and MDS-R-OT[A] and MBI-HSS Items

Correlation	Pearson <i>r</i>	95% CI	R ²	<i>p</i> (two-tailed)
No. of students vs MBI-EE	-0.1241	-0.3415, 0.1058	0.01540	0.2887
No. of students vs MBI-DP	-0.2619	-0.4614, -0.03712	0.06858	0.0232
No. of students vs MBI-PA	-0.04352	-0.2678, 0.1853	0.001894	0.7109
No. of students vs MDS-R-OT[A]	-0.1466	-0.3615, 0.08314	0.02149	0.2095

p=0.05.

inducing moral distress and burnout, directly impact the wellbeing of clinicians and may be exacerbated in clinical educators due to further increased stressors.^{30–33,36} As such, it is imperative to decrease the levels of moral distress and burnout in these professionals in order to provide clinical education. Educational programs need to work collaboratively with clinical sites, clinicians, and students to develop strategies for reducing moral injury potentially increasing professional satisfaction and increase placement of health science students in the clinics.

While we believe the results of our study have the potential to have a positive impact on the healthcare community, we realize no study is without limitations and as such our results should be interpreted with these in mind. First and foremost, as with any survey study, the results of our study may be impacted by sampling bias, as individuals responding to the survey may possess more extreme views towards either end of the Likert scales measuring burnout and moral distress. The sample size for this study was limited based on individuals who utilize the professional organization’s list and have served as clinical educators in the past for the healthcare professional programs at our institution. In addition, although we identified levels of education, we did not delineate results by profession. This factor limits our ability to compare data between healthcare professions.

Despite these limitations, we believe our study has numerous strengths. The findings of this study add to the body of research on moral injury and expand the findings beyond nursing and physicians to additional health science professions.^{16,19,25} Our study surveyed a variety of health professionals, allowing the results of the study to be generalizable to more than one profession. Furthermore, our study utilized multiple well-described and validated survey studies in order to report accurate and valid conclusions. We believe our study sets the stage for future studies to explore the contributing causes for moral distress and injury and to explore strategies to improve one’s self perception of moral distress and burnout.

Conclusion

Moral distress and burnout in clinical educators are well described for their harmful impact on an individual’s wellbeing and contribute to the decreased number of

available clinical educators. Based on the results of our study, inherent personality traits may play a role in influencing the self-perceived moral distress and burnout experienced by clinical educators. Open dialogue among all individuals involved in clinical education is warranted. Giving voice and recognition to moral injury in our clinicians who also serve as clinical educators is the first step. Developing an understanding of the underpinnings of moral distress and burnout of clinical educators could aid in the identification of effective strategies to address the pressing dilemma of the shortage of clinical educators and the difficulty of placing students for clinical education.

Strategies should be a multi-prong approach and focus on creating efficient and effective mechanisms for a supportive environment for clinical educators especially when value conflict hinders a common goal. Shared practice models may help alleviate moral injury and potentially allow for a more robust clinical education program supported by clinicians who have a strong sense of duty to give back by serving as a clinical educator.

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