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Moral Distress and Allostatic Overload in Clinicians: Mitigating Burnout Through Expressive  
Arts Therapy

A Literature Review

Capstone Thesis

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Expressive Arts Therapy

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## Abstract

Work-related stress conditions such as burnout and moral distress have been observed to have significant negative impacts on the mental and physical health of helping professionals, contributing to higher allostatic load and stress-related disease, higher rates of job turnover, and overall poorer consumer outcomes. This paper provides an overview of burnout, moral distress, and allostatic overload pertaining to clinicians, and discusses the unique potential of Expressive Arts Therapy as an intervention for mental health providers experiencing moral distress, toward mitigation of stress-related impacts on provider mental and physical well-being. Analysis of available literature in each topic area was completed through investigation of qualitative, quantitative, and arts-based research studies and review of currently available literature. This review concluded that urgent attention is needed toward developing mitigation measures to maximize the health and well-being of clinicians working in the mental health field; Expressive Arts Therapy may offer innovative intervention for clinicians experiencing moral distress and burnout through a holistic and person-centered approach to exploring moral suffering.

*Key words:* Burnout, moral distress, allostasis, allostatic load, Expressive Arts Therapy

*Author identity statement:* The author identifies as a straight, White woman from rural New England.

## Moral Distress and Allostatic Overload in Clinicians: Mitigating Burnout Through Expressive Arts Therapy – A Literature Review

### **Introduction**

Clinical mental health work is widely acknowledged as an important source of care and support for persons who experience vulnerabilities to unique combinations of social, emotional, mental, and physical suffering. While individual experiences of mental health services and providers of care are widely varied and impacted by many factors, the vocation of caring for others can be generally described as a helping profession. Research has consistently illustrated that helping professionals are vulnerable to a variety of occupational hazards, some of which include physical health risks such as bodily injuries, while other categories of risk may be characterized as emotional injuries, such as compassion fatigue, vicarious trauma, secondary trauma, and burnout. A unique category of risk for those employed in helping professions encompasses a combination of physical and emotional injury: stress-related disease. This paper will focus on the topic of burnout in helping professionals. Through exploration of the interconnectivity between the phenomena of moral distress and allostatic overload experienced by mental health clinicians, I will highlight how these experiences can lead to stress-related disease. In the interest of identifying innovative approaches to mitigating burnout experienced by mental health clinicians, exploration of relationships between these topics were examined in-depth and informed by Expressive Arts Therapy, a modality which has provided person-centered perspective via a lens of the universal human strength that has furthered the development and survival of our species: creativity.

Burnout syndrome is defined as a psychological condition widely experienced by helping professionals, characterized by emotional exhaustion, depersonalization, and decreased sense of efficacy resulting from occupational stress (Brown, Walters, & Jones, 2019; Fukui et al., 2021;

Harder et al., 2014; Morse et al., 2012; Salyers et al., 2017), and develops due to an imbalance between work demands and job resources. Symptoms of burnout can include a range of social, mental, and physical health problems. Symptoms including anxiety, depression, emotional fatigue, substance misuse, problems in social relationships, diminished sense of well-being, and cynicism toward populations served have been frequently reported by helping professionals experiencing burnout (APA 2018; Harder et al., 2014; Morse et al., 2012). In addition to emotional, mental and social problems, burnout has also been linked to numerous negative health impacts of the cardiovascular, immune, digestive, and respiratory systems (Harder et al., 2014; Morse et al., 2012). Other physical health impacts can include headaches, stomachaches, musculoskeletal pain, high blood pressure, heart disease, sleep disruptions, disordered eating patterns, cognitive fog, and memory issues (Harder et al., 2014; Morse et al., 2012). Higher rates of reported flu symptoms and gastrointestinal problems have also been linked to burnout syndrome (Acker, 2010 in Morse et al., 2012).

Contemporary social, political, cultural, organizational, and systemic factors have been found to impact rates of burnout, which have been observed to be ever-increasing at alarming rates (APA, 2018; Hricova, Nezkusilova, & Raczova, 2020; Morse et al., 2011; Sklar, Erhardt, & Aarons, 2021). Focused research has highlighted a variety of biological, psychological, social, and environmental factors that both contribute to and protect against burnout, and continued efforts to produce research geared toward better understanding the influence of occupational stress was critical to identifying options for intervention. A prominent factor understood to lead to burnout is a lack of organizational and supervisory support in the workplace (APA, 2018; Brown, Walters, & Jones, 2019; Harder et al., 2014; Morse et al., 2012; Thomas & Hersen, 2002). While organizational support has been observed to be a protective factor against burnout,

organizational and systemic factors such as high productivity expectations (APA, 2018; Brown, Walters & Jones, 2019; Harder et al., 2014), lack of scheduling flexibility, high caseloads, lack of professional development opportunities, and organizational culture that prioritizes productivity over person-centered care have been noted as significant factors contributing to burnout syndrome (Brown, Walters, & Jones, 2019; Harder et al., 2014; Morse et al., 2012; Rollins et al., 2021; Thomas & Hersen, 2002). Burnout is distinct from other stress-related conditions that have been observed to develop at higher rates within helping professions, such as compassion fatigue, vicarious trauma, secondary trauma, and moral distress.

Moral distress was described by Jameton in Epstein and Delgado (2010) as “a phenomenon in which one knows the right action to take, but is constrained from taking it” (para. 2). Epstein and Delgado (2010) discussed moral distress as a conflict between personal, professional, and organizational values, distinct from ethical dilemmas, wherein multiple potential courses of appropriate action are available for consideration in decision-making. Repeated experiences of “compromised moral agency” accumulated by helping professionals over time has been identified as a contributing factor of burnout syndrome, resulting in higher rates of job turnover in helping professions (Mänttari-van der Kuip, 2020, p. 741). Chronic exposure to restricted agency to act in alignment with one’s values over time has been observed to result in “moral residue”, or, accumulated embodied responses to unprocessed moral distress, leading to pervasive individual experiences of powerlessness, pessimism, emotional exhaustion, depression, anger, helplessness, hopelessness, and decreased capacity for empathy (Smithstein & DeMarco, 2021). Epstein and Delgado (2010) elaborated:

In situations of moral distress, one’s moral values have been violated due to constraints beyond one’s control. After these morally distressing situations, the moral wound of

having had to act against one's values remains. Moral residue is long-lasting and powerfully integrated into one's thoughts and views of the self. It is this aspect of moral distress—the residue that remains—that can be damaging to the self and one's career, particularly when morally distressing episodes repeat over time. (para. 15)

By definition, the term 'moral distress' contains an emphasis on the natural biological response to perceived threats: stress. Human beings have evolved uniquely equipped with an intricate alarm system that serves to respond to perceived danger, allowing an individual to take action in appropriate ways to maintain safety. This occurs through the brain's deployment of stress hormones to the nervous system, and allows the body to adapt to unique environmental stressors. As a result, the body can then employ resources designed to aid self-preservation, such as heightened senses and higher levels of energy. This shift in physiological state results in interruption of homeostasis, which may then be resolved through a process of regulation following resolution of the perceived threatening situation. "The process by which an organism maintains physiological stability by changing parameters of its internal milieu by matching them appropriately to environmental demands" was defined by Juster, McEwen, and Lupien (2010) as *allostasis* (p.2). Allostasis encompasses the body's regulatory process following experiences of stress. "Repeated allostatic responses" or, *allostatic load*, describes the cumulative physiological response to stress, or "wear and tear" that results in the body as a result of prolonged or repeated exposures to stress (Juster, McEwen, & Lupien, 2010, p. 3). Individual life experiences, trauma, genetics, development, behavioral and cognitive factors have been found to contribute to overall allostatic load, which consequently impacts the body's vulnerability to stress-related disease. Noted impairment of the metabolic, cardiovascular, endocrine, and immune systems and

decreased cognitive functioning (Juster, McEwen, & Lupien, 2010), and increased rates of burnout have been associated with higher allostatic load (Hints et al., 2016).

As discussed by Martin et al. (2017), studies have reflected that Creative Arts Therapies show significant promise in mitigating harmful effects of stress. Expressive Arts Therapy offers a unique lens for highly adaptable person-centered work due to its intermodal framework, which can provide opportunity to mobilize therapeutic use of visual art, music, dance, movement, drama, writing, poetry, and other arts modalities based on individual needs, strengths, and interests. Due to the adaptive and creative nature of the arts, interventions may be customized to support specific biophysiological and neuropsychological processes; Martin et al. (2018), discussed, “respective art media (art, music, dance, theater)...provide different methods to activate resources and coping abilities and increase action flexibility, self-efficacy, and empowerment” (p.1). Nonverbal modalities may be particularly helpful in treating burnout and moral distress, conditions characterized by complex emotions and ambiguous systemic factors. As discussed by Huss and Hafford-Lechfield (2019), complex emotions can be significantly more difficult to verbalize, and arts-based intervention may provide more accessibility for individuals to explore personal experiences through aesthetic distance, particularly those experiences of stress within larger systems that may feel more ambiguous. Williamson, Lobban, and Murphy (2021) elaborated that:

Biological indicators have been used to gather empirical evidence that charts change related to artmaking, for instance, through tracking heart rate variability and monitoring cortisol levels. There is growing association between artmaking and stress reduction. Furthermore, barriers to progress, such as previously unidentified concerns or anxiety,



can find expression through image-making, and once recognised, can begin to be challenged. (p.2)

Ongoing research centered around use of biological indicators to further explore the relationships between artmaking and stress reduction has shown a promising avenue for continued inquiry.

The considerable available research demonstrated that significant negative health impacts occur in mental health clinicians who experience burnout syndrome, and that burnout syndrome is furthermore complicated by individual experiences of moral distress. While moral distress has been a regular topic of training among healthcare providers such as physicians and nurses, it has been significantly less discussed in mental health provider training (Epstein & Delagdo, 2010; Fantus, 2017). Research further indicated that as healthcare professionals encounter increasing instances of moral distress in the workplace, individual allostatic load increases concurrently with risk to development of stress-related disease (Hinta et al., 2016; Juster, McEwen, & Lupien, 2009).

Critical review of available literature was needed to shed light on connections between burnout, moral distress, and allostatic load. Through identifying gaps in training of mental health clinicians related to moral distress, and how clinician well-being and client care may be impacted, I intended to bring awareness to the impacts of occupational stress in mental health work. With consideration of the complex and dynamic nature of systems that have contributed to these areas of concern, I believe that Expressive Arts Therapy can offer needed innovative and creative interventions to support clinicians and other helping professionals in maximizing self-compassion, self-efficacy, and overall wellness, and to empower individuals to provide care in alignment with their professional and personal values. I hope to contribute to improved health and wellbeing of mental health clinicians and advocate toward impacting needed systemic

changes in the mental health field. While it was beyond the scope of this paper to identify conclusive solutions to the issues of burnout and moral distress within systems of care, my research has highlighted the interrelationship between burnout, moral distress, allostatic load, and Expressive Arts Therapy, as well as action that could be taken toward deconstruction of contextual experiences of clinicians navigating moral distress and burnout within their occupational environments.

### **Burnout, Moral Distress, Allostatic Overload, and Expressive Arts Therapy**

As rates of burnout syndrome have consistently been observed to be increasing among helping professions over time (APA, 2018; Hricova, Nezkusilova, & Raczova, 2020; Sklar, Ernhart, & Aarons, 2021), it is important to understand how burnout develops and what measures may be taken to mitigate occupational stress. Moral distress has been defined as a specific category of emotional injury characterized by having to make decisions that are out of alignment with one's personal and/or professional values, leading to moral turmoil; moral distress has been reported to be frequently experienced by human service workers, although has been surprisingly less discussed in mental health provider training than in training for healthcare providers such as physicians and nurses (Epstein & Delgado, 2010; Fantus, Greenberg, Muskat, & Katz, 2017). Persistent exposure to stress without resolution has been observed to result in a biophysiological stress response, which is followed by a process of regulation known as allostasis (Juster, McEwen, & Lupien, 2010). Cumulative allostatic responses have been shown to cause damage within the body and contribute to a person's overall allostatic load; when allostatic load was observed to be high, the risk of development of stress-related disease was also raised (Hints et al., 2016; Juster, McEwen, & Lupien, 2010).

Expressive Arts Therapy has consistently been shown to be a highly effective treatment for stress. I proposed that participation in Expressive Arts therapeutic intervention could be a protective factor against development of burnout and could enhance processing and resolution of instances moral distress experienced by clinicians; decreased risk of burnout and acquisition of better tools to manage moral distress may decrease the risk of stress-related disease through lessening the impact of stress and consequent damage to the body. Review of available literature will examine the relationships between burnout, moral distress, allostatic load in clinicians, and the potential of Expressive Arts Therapy as intervention to support clinicians in decreasing the risk of stress-related disease, increasing provider well-being, and consequently may positively impact quality of care and consumer outcomes.

### **Burnout syndrome**

As discussed, burnout syndrome develops through ongoing exposure to occupational stress and has been observed to occur at higher frequency in helping vocations such as physicians, nurses, first responders, police officers, and mental health professionals. Characterized by emotional exhaustion, depersonalization, and feelings of ineffectiveness, burnout syndrome may present with a variety of negative physical and mental health impacts, as well as significant negative effects on work performance, quality of services provided, and consumer outcomes. In addition to direct negative impacts on the health of individual workers and consumers of care services, burnout has also been shown to negatively impact organizations and exacerbate larger, systemic problems within systems of care such as high rates of turnover and negative attitudes in the workplace. (Fukui, Salyers, Morse, & Rollins, 2021; Hricova, Nezkusilova, & Raczova, 2020; Morse et al., 2012; Salyers et al., 2017; Sklar, Ernhart, & Aarons, 2021).

Salyers et al. (2017) conducted a quantitative meta-analysis in order to examine the relationship between quality of healthcare services and provider burnout, during which 210,669 providers of healthcare from 32 countries participated in research across 82 studies related to safety and perceived quality of care, and how these were affected by burnout. Perhaps unsurprisingly, a significant negative relationship was consistently observed between quality of services provided and burnout across community healthcare disciplines including physicians, nurses, and mental health professionals. Important implications for this study included broader physical and mental impacts of burnout on individual patients and providers, the healthcare system, and community health organizations, and subsequently decreased quality of care. The researchers observed that of the three key components of burnout, emotional exhaustion appeared to have the greatest overall impact on quality of care while depersonalization and reduced sense of efficacy appeared to have significant but lesser effects; the researchers noted potential significance of this observation, positing that emotional exhaustion may drive the progression of burnout and lead to development of additional symptoms.

As understood through the Job Demands-Resources (JD-R) theory, burnout develops from an imbalance between job demands and available job resources (Bakker & Demerouti, 2014; Harder et al., 2014; Sklar, Ehrhart, & Aarons, 2021). As discussed by Bakker and Demerouti (2014), JD-R theory has highlighted opposing components of occupational experiences through examination of what comprises job demands, including, “those physical, psychological, social, or organizational aspects of the job that requires sustained physical and/or psychological effort and are therefore associated with certain physiological and psychological costs”, and job resources, including “physical, psychological, social, or organizational aspects of the job that are (a) functional in achieving work goals, (b) reduce job demands and the associated

physiological and psychological costs; or (c) stimulate personal growth, learning, and development” (para. 18). Saliently, JD-R theory outlines that job demands and job resources were predicative of positive impacts, such as work engagement and enjoyment, as well as negative impacts such as stress-related mental and physical health conditions (Bakker & Demerouti, 2014). Fukui, Salyers, Morse, and Rollins (2021) discussed emotional exhaustion as a key factor in employee perceived quality of service provision as related to job stress, however observed that this connection lowered when job resources were introduced into the equation. Beaumont et al. (2016) reported intriguing results from their qualitative study, which utilized validated data collection instruments, and indicated significant associations between higher levels of burnout and lower levels of self-compassion in behavioral health counselors and graduate students in their final year of study. These authors noted promising potential for mental health providers and students to access self-compassion training and interventions to mitigate burnout, and further advocated for completion of future longitudinal and quantitative research studies on this topic to complement their research methods.

While burnout is a well-studied phenomenon, empirical studies related to this topic are relatively scarce. In a comprehensive review of available literature focused on examining the prevalence of burnout and consequential impacts on mental health providers, organizations, and service populations, Morse et al. (2012) highlighted difficulties of quantifying actual rates of burnout due to lack of consistency in methodology of studies pertaining to this area of study. The authors observed a scarcity of well-constructed research studies, naming issues such as small and/or convenient sample populations, lack of longitudinal design, and problems of methodology within studies. While the authors provided thorough review of a large amount of literature, they also highlighted how limitations in available and existing research interfere with advocacy for

mental health providers experiencing burnout, as organizations may be less inclined to implement systemic changes needed without clear data to illustrate direct impacts on workers, service populations, and organizations. Fukui, Salyers, Morse, and Rollins (2021) provided additional insight into these challenges, noting “evaluation of the quality of mental health care can be challenging, given the lack of consensus about what constitutes quality and how to measure it” (p.204).

Burnout has been observed to occur cross-culturally and at higher frequency in mental health providers; it is distinct from compassion fatigue, secondary trauma, and vicarious trauma (Brown, Walters, & Jones, 2019; Salyers et al., 2016). Burke and Richardson in Brown, Walters, and Jones (2019) observed that burnout tended to persist over time; their research showed that after one year from onset, 40% of workers remained in same stage of burnout, 30% reported increased burnout, and 30% reported decreased burnout. The researchers noted the importance of further research in studying longevity due to lack of longitudinal research in this area.

In addition to negative impacts on employees as individuals, lack of organizational commitment has been shown to lead to decreased continuity of care, leading to poorer outcomes for service populations; youth in the child welfare system who experienced high turnover of providers reported increased feelings of loss of trusting relationships and lack of stability in services. Additionally, youth who experienced service disruptions due to worker turnover stayed in foster care up to twice as long and were less likely to achieve permanency (Brown, Walters, & Jones, 2019). A number of organizational factors have been shown to contribute to higher rates of burnout and lack of organizational commitment among employees, including high productivity expectations, large caseloads, lack of scheduling flexibility and long work hours, lack of employee autonomy, role ambiguity, lack of supervisory support, and lack of equity in

the workplace (APA , 2018; Brown, Walters, & Jones, 2019; Fukui et al., 2021; Harder et al., 2014; Morse et al., 2012; Salyers et al, 2016; Sklar, Ehrhart, & Aarons, 2021). Morse et al. (2012) noted the irony of a lack of focus on the mental health of service providers working in the field. Researchers of burnout have consistently highlighted significant need for new and innovative development of strategies for intervention and have collectively underscored a lack of available or consistent and methodologically sound research on organizational implementation. Research has shown that a combination of organizational and individual interventions is likely most effective in mitigating burnout amongst employees, including reduced workloads, increased flexibility, a shared sense of meaning between individuals and organizations, development of staff wellness programs, increased employee participation in development of policy, and training supervisors to express gratitude (Fukui et al., 2021; Hricova, Nezkusilova, & Raczova, 2020; Morse et al., 2012).

While organizations could enhance employee wellness through above measures, Hricova, Nezkusilova, and Raczova (2020) concluded that poorly implemented interventions by organizations may even increase symptoms of burnout, specifically depersonalization, when professional self-care strategies are not adequately applied with corresponding job resources. Morse et al. (2012) also noted, “The shortage of organizational intervention may stem in part from research challenges...in part from biases in the human services and mental health fields to focus on changing the individual rather than systems” (p. 10).

### **Moral distress**

As discussed by Epstein and Delgado (2010), moral distress was defined by Jameton in 1984 as circumstances in which “one knows the right action to take, but is constrained from taking it” (para. 2). Examples of moral distress can arise in a variety of situations in professional

mental health work, such as being unable to meet clients' needs due to high productivity expectations, insurance barriers, organizational policies, or power imbalance; researchers and participants in studies around this topic have named institutional constraints as a primary cause of moral distress, among other causes (Epstein & Delgado, 2010; Fantus et al., 2017). Moral distress was underscored as distinct from an ethical dilemma, wherein multiple potential courses of actions can be considered to identify a resolution to a problem (Epstein & Delgado, 2010).

Situations in which there is a distinct conflict between the values of the individual and the action that must be taken (as opposed to the action that the individual feels *should* be taken) result in a sense of powerlessness and “compromised moral agency” of the individual (Mänttari-van der Kuip, 2020, p. 741). Studies have shown that chronic exposure to experiences of moral distress contributed directly to development of burnout syndrome, decreased quality of care, negative consumer outcomes, high rates of job turnover, and negative impacts on the physical and mental health of helping professionals (Epstein & Delgado, 2010; Fantus et al., 2017; Hinsta et al., 2014; Mänttari-van der Kuip, 2020). Moral injuries have been observed to lead to persistent experiences of guilt, shame, depression, or anger, and over time can impact the injured person's sense of self. Williamson, Lobban, and Murphy (2021) stated:

Studies have consistently found that moral injury can negatively impact an individual's social and occupational functioning; with affected individuals reporting familial breakdown, pervasive difficulties interacting with authority figures and unemployment due to their distress related to the morally injurious event(s) and their maladaptive coping responses. Taken together, moral injury is increasingly becoming recognised as a key public health concern. (p.1)



In addition to the ethical codes of their profession, providers of mental health services are often guided by strong professional and personal values in their work. Restricted agency to work in alignment with one's values results in stress experienced by the individual, and can result in feelings of resentment, anger, guilt, frustration, and lack of organizational commitment (Brown, Walters, & Jones, 2019; Mänttari-van der Kuip, 2020). Manttari-van der Kuip (2020) discussed that providers may experience increased distress related to the potential of clients experiencing suffering as a result of the quality of care they are provided, resulting in negative emotions around the provider's morality. It has also been noted that determinations of what constitutes a "correct" action, and therefore one that is moral, are subjective and can be differentiated across individual interpretations of principles, dependent on a variety of social, political, and cultural factors.

Huss and Hafford-Lechfield (2019) examined states of work-related moral suffering in social workers during a study which concluded that participants tended to report systemic factors as determinants of symptoms of burnout, such as lack of organizational support. However, the authors observed that participants held expectations of themselves to mitigate "macro-problems" with "micro-solutions" and "experience[d] stress as lack of personal efficacy and self-worth and expect[ed] to cope by drawing on inner strengths rather than challenging the system" (p. 751).

Education about moral distress has been a regular part of training for healthcare professionals such as doctors and nurses, however this topic has inexplicably been included significantly less in the training of mental health professionals (Epstein & Delgado, 2010; Fantus, Greenberg, Muskat, & Katz, 2017; Jaskela et al., 2018). Researchers of this topic continue to strongly advocate for mental health professionals to access sufficient training on

recognizing moral distress and note a need for further research to inform appropriate interventions on organizational and systemic levels.

Persistent experiences of unresolved moral distress over time result in accumulated embodied responses of stress, or, *moral residue* (Epstein & Delgado, 2010; Mänttari-van der Kuip, 2020; Smithstein & DeMarco, 2021). Epstein and Delgado (2010) discussed:

After these morally distressing situations, the moral wound of having had to act against one's values remains. Moral residue is long-lasting and powerfully integrated into one's thoughts and views of the self. It is this aspect of moral distress—the residue that remains—that can be damaging to the self and one's career, particularly when morally distressing episodes repeat over time (p.4).

Fantus et al. (2017) further discussed, “Recurrent incidences of moral distress may intensify, as moral residue from previous experiences produces a new baseline upon which subsequent encounters of moral distress builds, escalating moral distress and the resulting consequences over time.” (p.2276). A study by Jaskela et al. (2018) described that social workers who experienced moral distress reported high rates of emotional exhaustion, sleep disturbances, low self-esteem, guilt, self-doubt, anger, and sadness. Mänttari-van der Kuip (2020), as well as Epstein and Delgado (2010) separately noted that negative psychological responses may manifest at delayed rates following experiences of moral distress.

### **Allostatic load**

Humans are innately equipped with adaptive biological and physiological tools to manage stress; by mobilizing hormones designed to enhance the deployment and performance of life-saving responses, such as fighting predators and fleeing from danger, our bodies have

evolved to sustain survival over time despite our physical vulnerabilities relative to other predators. While the fight-flight-freeze-fawn response has been well-studied and widely accepted across psychological and scientific communities, the process by which the body regulates following stress – allostasis – has been less widely understood.

Allostasis was first described in 1988 by Sterling and Ewer as a dynamic bodily state during which the central nervous system implements physiological changes to regulatory processes in order to adapt to demands or changes in the environment (Ganzel, Morris, & Wethington, 2010; Ramsay & Woods, 2014; Reybrouck, Podlipniak, & Welch, 2021). As discussed by Ramsay and Woods (2014), allostasis has a biological origin and has allowed for humans to further survival of their species. The authors noted:

...the originally stated basic tenets of allostasis are that (a) the most efficient regulation is anticipatory, relying upon past experiences or learning from past events; (b) rather than regulated variables having invariant set points, the defended level of a regulatory value can and should change to optimally cope with demands presented by environmental changes; and (c) optimal regulation is achieved by a command center (in the brain) that directs activation/deactivation of the multiple responses that influence on or more regulated variables in order to arrive at the most cost-beneficial compromises. (Ramsay & Woods, 2014, p. 228)

While considering the evolutionary function and dynamic nature of allostasis, researchers have also emphasized that although allostatic responses serve to mobilize stress responses toward furthering survival, short-term benefits occur in tandem with significant and pervasive impacts on other important biophysiological systems. Ramsay and Woods (2014) described that allostatic responses “may include activating a hormonal stress response that, while facilitating an animal’s

overall ability to respond to a challenge...may also lead to concurrent activation of responses that have opposite and competing effects on a different regulated variable” (p.228). Juster, McEwen, and Lupien (2010) described allostasis as embodying “physiological dysregulations that ensue when normal homeostatic functioning is shifted towards abnormal ranges via the prolonged secretion of stress hormones and the subsequent mal-adaptations this strain exerts on interdependent systems” (p.2).

Chronic exposure to stress has been observed to result in repeated deployment of allostasis over time. This has been shown to lead to cumulative embodied responses to stress, or “wear and tear” on bodily systems, called *allostatic load*. As described by McEwen and Stellar in Ramsay and Woods (2014), allostatic load may be understood as “the cost to the response system for maintaining a regulated variable at a value chronically displaced from its previous level by prolonged activation of compensatory effectors” (p.229). Allostatic load accumulates over the lifespan and has been associated with a range of mental, physical, social and emotional health issues; this has been identified as an increasingly important area for future research. (D’Amico, Amestoy, & Fiocco, 2020; Ganzel, Morris, & Wethington, 2010; Giuni et al. 2020; Hints et al, 2016; Juster, McEwen, & Lupien, 2010; Ramsay & Woods, 2014).

D’Amico, Amestoy, and Fiocco (2020) discussed that:

...allostasis, the process by which physiological stability is maintained by altering biological parameters of the internal milieu to meet environmental demands, can lead to physiological dysregulation over time. Namely, chronic or consistent intermittent activation of the neuroendocrine and immune system (i.e. primary mediators) may eventually lead to dysregulation of metabolic, and cardiovascular systems (i.e. secondary mediators). The chronic activation and imbalance of these interconnected regulatory

systems ultimately results in allostatic load (AL), or the biological ‘wear and tear’ of the organism. (p. 1)

Juster, McEwen, and Lupien (2010), described that in response to a perceived threat, allostatic responses are mobilized in the brain via the *sympathetic-adrenal-medullary* (SAM) axis and the *hypothalamic-pituitary-adrenal* (HPA) axis; in reaction to real or perceived danger, these axes flood the body with the stress hormones necessary to engage the fight-or-flight response through activation of the central nervous system. Chronic secretion of stress hormones such as epinephrine, norepinephrine, and cortisol has been shown to lead to damage of the brain and bodily systems over time. Allostatic load initially results in primary effects to cells, tissue, and organs, which in turn begin to overcompensate in adaptation to dysregulated functioning, leading to secondary negative impacts to metabolic, cardiovascular, and immune functioning. When allostatic load progresses to *allostatic overload*, tertiary outcomes such as stress-related disease, disorder, and mortality can occur (Juster et al., 2010).

D’Amico, Amestoy and Fiocco (2020) also noted significant impacts of allostatic load on metabolic, cardiovascular, immune, and endocrine systems, and presented a thorough systematic meta-analysis of available literature pertaining to the impact of high allostatic load on cognitive functions. Through systematic analysis of cross-sectional and longitudinal studies, the authors concluded that a significant correlation existed between high allostatic load and poorer executive functioning and overall global cognition.

Hintsala et al. (2016) conducted a multidisciplinary epidemiologic health study in a sample of over 8,000 participants which noted a significant association between high allostatic load and burnout through linear regression analysis; associations were found to be independent of age, sex, occupation, education, or psychological condition. Additionally, though the researchers

reported they did not observe direct association between high allostatic load and depression, when the presence of depression in participants was factored in, the researchers noted a reciprocal association between burnout and depression in that, employees with depression were more vulnerable to developing burnout, while employees with burnout more vulnerable to developing depression. The researchers posited that dysregulation of the HPA axis due to chronic stress and over-activation of stress hormones may be related to consequential decreased production of cortisol, which has been associated with depressed mood. Similarly, Juster et al. (2010) also concluded that a significant association between high allostatic load and symptoms of burnout exist and noted association between higher allostatic load and fluctuating cortisol levels.

### **Expressive Arts Therapy**

The interrelationship of arts and science has been well-studied and acknowledged throughout human history, and research continues to support ongoing and emergent positive impacts that therapeutic use of the arts can have on human health and well-being. As discussed by King (2016):

the brain does not distinguish the process of scientific invention and the making of art, which are in fact found to be similar. This functional similarity helps to conceptualize the replacement of a dichotomized perception of hard and soft sciences, and of art-as and art psychotherapy, within one continuum of what we know we can explain on one end (the left [brain]) and what is more difficult to capture on the other (the right [brain]). (p.2)

As described by Rogers (1993), Expressive Arts Therapy utilizes creative modalities such as visual art, music, dance, movement, drama, writing, sound, and improvisation to facilitate

healing and growth through expression and exploration of emotional and intuitive aspects of the human experience. By nature, the arts offer vast flexibility for adaptation to dynamic and unique needs of individuals and are widely accessible. Researchers have noted that while a major benefit of expressive therapies in practice is the discipline's inherently wide variety of approaches, interventions, and methods available to meet individual needs, this heterogeneity has historically made the efficacy of these approaches harder to quantify due to difficulties completing conventional evidence-based research (Huss & Hafford-Lechfield, 2019; Martin et al., 2017). Thus, ongoing research and empirical validation are critically important for the field of expressive therapies.

Vaisvaser (2021) provided insight into the neurological roots of creative arts therapies, and offered in-depth observation of the associations between the arts and neuroplasticity:

The brain...actively creates perceptual experiences from sensory stimuli accumulating from the body's internal milieu (interoceptive and proprioceptive) and from the surroundings (exteroceptive), in a generative manner. Mental representations dynamically evolve over time, in the form of nerve impulses that propagate in circuits and functional network assemblies, in order to anticipate, decode, and respond to complex concrete (physical) and abstract (social) variables in the environment, based on prior information...the reciprocity between the human mind and the sensing active body, within the relational environment, underscores the need for holistic and integrative mental health approaches such as [Creative Arts Therapies]. (p. 2)

Vaisvaser's (2021) research described that the same neural structures that interpret sensory and emotional stimuli were also mobilized in linguistic associations of meaning, or, verbalizing those experiences, and explained the connection between the brain's ability to link physical

experiences to abstract and metaphorical cognitive processes through imagination via the sensory system. King (2016) further discussed:

Spatial summation indicates that cellular learning occurs most efficiently with converging multisensory input, which, from the standpoint of human behavior, can be used to understand memory establishment. For instance, when we learn using only one sensory modality, such as vision, it takes more time and effort to master the task and form a memory; however, if we have learned using two modalities, such as vision and audition, the converging sensory information will expediate our learning. (p.12)

Similarly, Reybrouck, Podlipniak, and Welch (2021) discussed their research in neuroaesthetics, which examined aesthetic processing through the body's use of the visceral and peripheral systems within the limbic system to interpret stimuli and categorize information through adaptive responses such as arousal (the body's level of activation, heightened through stress responses of the HPA axis) and valence (the body's continuum of pleasure vs displeasure, as interpreted via the sensory system), both responses of the central nervous system. The authors described that the continuous relationship between the body and its environment results in constant physiological appraisal to maintain homeostasis through employing allostatic responses, and denoted evidence showing that music has the capability to lower stress hormones. The authors discussed "a major finding in this regard is that neural activity in the reward circuit is a key component of the aesthetic experience" (p. 17). The authors further observed associations between neural correlates in the brain's reward systems that are shared by both aesthetic judgement and ethical decision-making processes, noting, "the relation of aesthetic judgement and ethical and moral decision-making and judgements, which weaves together emotion, high reasoning, creativity,



and social functioning in a cultural context, is one of the most promising findings of current research” (p. 16-17).

Martin et al. (2017) completed a systematic review of literature pertaining to the prevention and management of stress through use of creative arts interventions. The authors amassed and reviewed 37 studies conducted between 1980-2016, including qualitative, quantitative, and mixed-method studies that met the researchers’ inclusion criteria through having clearly stated methods and outcome variables. The authors described that participants appeared to experience significant reduction of stress and anxiety in the context of creative interventions:

In the context of stress prevention, the quality of efficacy studies analyzing creative arts interventions is high. Three quarters of included studies could be allocated to evidence level I and over 80% found significant improvement in one of their stress-related outcomes. Looking at [Creative Arts Therapies], conducted by licensed therapists, that percentage rises to more than 90%. (p. 14)

Huss and Hafford-Lechfield (2019) engaged in arts-based research to explore social workers’ stress through a holistic “person-within-context” approach that utilized visual and verbal narratives of 80 mental health professionals (p.763). The researchers arrived at several important conclusions, including noted exacerbation of social workers’ stress due to a “lack of moral fluency in organizational settings...reflected in the inconsistency between personal and professional values” leaving social workers “unable to navigate between these conflicting values positions, thus exacerbating stress in different forms” (p.763). The researchers further described that co-research participants identified a lack of organizational support and broad systemic problems that left them feeling incapable of meeting consumers’ need, however notably “showed

a shift to blaming oneself for lack of strengths, optimism, or efficacy, rather than looking to the system for solutions”, underscoring a tendency for workers to expect to find micro-level solutions to macro-level problems despite receiving extensive training in systemic inequalities and larger social systems; the authors deemed that this was unsurprising given the nature of stress responses during which the physiological process of coping with stress itself is likely to override one’s ability to analyze situations from a systems perspective (Huss & Hafford-Lechfield, 2019, p. 763-764). When arts-based methods were used, the researchers reported conclusive findings supporting that engagement in expressive arts interventions using imagery helped participants to identify what the problem was, the participants’ reaction to the problem, as well as the solution to the problem. The researchers noted that the use of arts-based methods:

...helped to deconstruct the participants’ stress narrative and to create a connection between the structural causes of lack of support with the social workers’ reality where there were psychological symptoms of depression and low self-esteem. Another advantage of using the arts was that participants expressed their problems within their system or those holding power in a symbolic form, without directly confronting them. For social workers dependent on these systems, it may be hard to express criticism directly.” (Huss & Hafford-Lechfield, 2019, p. 765)

These findings are in sync with Lynch and Glass’s (2020) observations in their phenomenological and arts-based research approach during a study which examined the impacts of secondary trauma and mental health support work on professionals working with college students with lived traumatic experiences. The researchers examined visual representations created by participants that reflected their experiences in helping work, and noted important themes that arose during their study including the impact of helping work on overall well-being,

and the impact of organizational and systemic factors. Lynch and Glass (2020) described that many co-researchers reported experiencing “difficulty dealing with perceived ways in which professionals were supposed to support students”, “being put in compromising situations”, “being silenced when trying to express their own negative emotions resulting from trauma support” and “an internalized philosophy that centered student support no matter the cost to themselves” (p. 1055).

### **Discussion**

As discussed thus far, research has shown that burnout and moral distress develop from constellations of factors that interact within the context of a person’s experiences and perceptions, which interact to mobilize a succinctly unique adaptive stress response. Fully understanding one’s individual experiences and how these shape distinct perspectives requires delving into the abstract of the psyche, as well as the ambiguity of the larger systems that create the context in which we operate. Experience has been shown to have a dynamic impact on the brain’s neuroplasticity, as new experiences are constantly adjusting and remodeling the neurotransmitters that drive human cognition, emotion, and behavior (King, 2016). Given the intermodal nature of Expressive Arts Therapy, this modality can offer particularly salient potential for highly individualized, holistic treatment of stress-related responses. Vaisvaser (2021) discussed that therapeutic use of the expressive arts, “offer clients the opportunity to explore, articulate, and express experiential content, grounded in the body and connected with representations of feelings and mental perceptions of the self and the outer-world” (p. 2-3).

The implications of this research are especially poignant given the widespread emergent impacts that stress, burnout, and moral distress can have on individuals working in the mental health field, which have been exacerbated significantly by the COVID-19 pandemic (Guidi et al.,

2020; Sklar, Ehrhart, & Aarons, 2021; Williamson, Lobban, & Murphy, 2021). On the systemic level, broadly increasing rates of burnout linked to an amalgamation of factors such as high workloads, high productivity expectations, high acuity consumer needs, and low job resources have resulted in system-wide disparities in mental health services and magnify the effects of stress on employees, leading to higher rates of job turnover and lack of organizational commitment (Brown, Walters, & Jones, 2019; Fukui et al., 2021; Morse et al., 2012; Salyers et al., 2016).

On the individual level, the impacts of stress and moral residue have been found to contribute to overall higher allostatic load in workers (Juster et al., 2010); mental health workers report pervasive and disturbing effects of job stress on their mental, physical, and emotional health, and higher rates of stress-related disease and disorder (Harder et al., 2014; Morse et al., 2012). These impacts have also been linked to decreased work performance and sense of professional efficacy, lower quality of care provided, and ultimately, poorer consumer outcomes (Fukui et al., 2021). However, while we may assess these impacts on separate micro- and macro-levels, they are distinctly intertwined; widespread organizational and systemic disparities within systems of care have significant effects on individual mental health workers, their families, communities, and most importantly, consumers of mental health services. As discussed, a combination of organizational and individual interventions may be the most effective approach to mitigating the effects of burnout and moral distress within the mental health workforce (Fukui et al., 2021; Hricova, Nezkusilova, & Raczova, 2020; Morse et al., 2012).

While those in helping professions may be aware of certain job hazards such as compassion fatigue, vicarious trauma, and burnout upon preparing to enter this vocational field, it can be reasonably assumed that they proceed forward with earnest intention to help. As

discussed by Mänttari-van der Kuip (2020), the goal in mitigating effects of moral injuries is not to eliminate experiences of moral distress altogether, but to remove barriers that prevent professionals from acting with agency and feeling empowered to make decisions that align with their values, training, and knowledge base. Expressive arts therapeutic interventions have been mobilized in a range of studies pertaining to treatment of burnout and moral injuries, with high reported rates of success in mitigation.

As described in my research, impediment of moral agency has been shown to have strong negative effects on providers and service populations alike. Persons served by mental health service providers seek services for support with varied forms of pain and suffering and are especially vulnerable to the harmful negative impacts of low-quality care, while mental health professionals, who seek to help others, suffer due to experiencing moral distress and feelings of being unable to provide the quality of care that is needed. The consequences of inadequate care have been consistently shown through evidence-based research to lead to poor consumer outcomes, perpetuating a spectrum of public health problems across geographic, social, and cultural landscapes. Widespread deficits in mental health service provision must be examined through a larger lens with which to magnify systemic issues that are filtered through organizational policies and procedures, impacting individual workers and thus impacting vulnerable people seeking help and support. Within this perspective, providers of services suffer immense socioemotional, mental, and physical health impacts alongside consumers that they dedicate their time and energy toward supporting, creating a complex paradigm of caring and unwellness.

Building upon the foundations of this research, use of Expressive Arts Therapy shows great promise in offering avenues for mental health clinicians to engage in arts-based

interventions toward mitigating the effects of burnout and moral distress, and ultimately decreasing allostatic load through proactive engagement of creativity, sensory input, and emotional regulation. Research has highlighted the potential for Expressive Arts Therapy to provide a range of opportunities for clinicians to explore and better understand their individual experiences and emotions, and to increase self-compassion, which may ultimately help clinicians feel empowered to act with agency to advocate for themselves, the work that they do, and those that they care for, toward effecting change within systems of care and toward ensuring the best possible care is accessible to those in need.

## References

- American Psychological Association. (2018). Coping with stress at work.  
<https://www.apa.org/topics/healthy-workplaces/work-stress>
- Bakker, A. B., & Demerouti, E. (2014). Job demands—resources theory. In C. L. Cooper (Ed.), *Wellbeing: a complete reference guide*. Wiley.  
[http://ezproxy.flo.org/login?url=https://search.credoreference.com/content/entry/wileyw/job\\_demands\\_resources\\_theory/0?institutionId=1429](http://ezproxy.flo.org/login?url=https://search.credoreference.com/content/entry/wileyw/job_demands_resources_theory/0?institutionId=1429)
- Beaumont, E., Durkin, M., Hollins Martin, C. J., & Carson, J. (2016). Measuring relationships between self-compassion, compassion fatigue, burnout, and well-being in student counsellors and student cognitive behavioural psychotherapists: A quantitative study. *Counselling & Psychotherapy Research, 16*(1), 15-23. <https://doi.org/10.1002/capr.12054>
- Brown, A. R., Walters, J. E., & Jones, A. E. (2019). Pathways to retention: Job satisfaction, burnout, & organizational commitment among social workers. *Journal of Evidence - Based Social Work, 16*(6), 577-594. Doi: 10.1080/26408066.2019.1658006
- D'Amico, D., Amestoy, M. E., & Fiocco, A. J. (2020). The association between allostatic load and cognitive function: A systematic and meta-analytic review. *Psychoneuroendocrinology, 121*, 1-14. Doi: 10.1016/j.psyneuen.2020.104849
- Epstein, E. G., & Delgado, S. (2010). Understanding and addressing moral distress. *The Online Journal of Issues in Nursing, 15*(3). Doi: 10.3912/OJIN.Vol15No03Man01
- Fantus, S., Greenburg, R. A., Muskat, B., & Katz, D. (2017). Exploring moral distress for hospital social workers. *British Journal of Social Work, 47*, 2273-2290. Doi: 10.1093/bjsw/bcw113

- Fukui, S., Salyers, M. P., Morse, G., & Rollins, A. L. (2021). Factors that affect quality of care among mental health providers: Focusing on job stress and resources. *Psychiatric Rehabilitation Journal, 44*(3), 204-211. <https://doi.org/10.1037/prj0000469>
- Ganzel, B. L., Morris, P. A., & Wethington, E. (2010). Allostatic and the human brain: Integrating models of stress from the social and life sciences. *Psychological Review, 117*(1), 134-174. Doi: 10.1037/a0017773
- Giudi, J., Lucente, M., Sonino, N., & Fava, G. (2020). Allostatic load and its impact on health: A systematic review. *Psychotherapy and Psychosomatics, 90*, 11-27. Doi: 10.1159/000510696
- Harder, H. G., Wagner, S., Rash, J., Burke, R. J., & Cooper, C. L. (2014). *Mental illness in the workplace*. Taylor & Francis Group.
- Hintsala, T., Elovainio, M., Jokela, M., Ahola, K., Virtanen, M., Pirkola, S. (2016). Is there an independent association between burnout and increased allostatic load? Testing the psychological contribution of psychological distress and depression. *Journal of Health Psychology, 21*(8), 1576-1586. Doi: 10.1177/1359105314559619
- Hospers, J. (2018). Art and Morality. *Journal of Comparative Literature and Aesthetics, 41-2*(1). [https://link.gale.com/apps/doc/A596850021/LitRC?u=les\\_main&sid=ebsco&xid=142b94f3](https://link.gale.com/apps/doc/A596850021/LitRC?u=les_main&sid=ebsco&xid=142b94f3)
- Hricova, M., Nezkusilova, J., & Raczova, B. (2020). Perceived stress and burnout: The mediating role of psychological, professional self-care and job satisfaction as preventive factors in helping professions. *European Journal of Mental Health, 15*(1), 3-22. Doi: <https://doi.org/10.5708/EJMH.15.2020.1.1>



- Huss, E., & Hafford-Letchfield, T. (2019). Using art to illuminate social workers' stress. *Journal of Social Work, 19*(6), 751-768.
- Jaskela, S., Guichon, J., Page, S. A., Mitchell, I. (2018). Social workers' experience of moral distress. *Canadian Social Work Review, 35*(1), 91-107.
- Juster, R. P., McEwen, B. S., & Lupien, S. J. (2010). Allostatic load biomarkers of chronic stress and impact on health and cognition. *Neuroscience and Biobehavioral Reviews, 35*, 2-16.  
Doi: 10.1016/j.neubiorev.2009.10.002
- Juster, R. P., Sindi, S., Marin, M. F., Perna, A., Hashemi, A., Pruessner, J. C., & Lupien, S. J. (2010). A clinical allostatic load index is associated with burnout symptoms and hypocortisolemic profiles in healthy workers. *Psychoneuroendocrinology, 36*, 797-805.  
Doi: 10.1016/j.psyneuen.2010.11.001
- King, J. (2016). *Art therapy, trauma, and neuroscience: Theoretical and practical perspectives*. Routledge Taylor & Francis Group.
- Lewis, M. L., & King, D.M. (2019). Teaching self-care: The utilization of self-care in social work practicum to prevent compassion fatigue, burnout, and vicarious trauma. *Journal of Human Behavior in the Social Environment, 29*(1), 96-106.  
<https://doi.org/10.1080/10911359.2018.1482482>
- Lynch, J. R., & Glass, C. R. (2020). The cost of caring: An arts-based phenomenological analysis of secondary traumatic stress in college student affairs. *Review of Higher Education, 43*(4), 1041-1068.

- Mänttari-van der Kuip, M. (2020). Conceptualizing work-related moral suffering – Exploring and refining the concept of moral distress in the context of social work. *British Journal of Social Work*, 50, 741-757. Doi: 10.1093/bjsw/bcz034
- Martin, L., Oepen, R., Bauer, K., Nottensteiner, A., Mergheim, K., Gruber, H., & Koch, S. C. (2018). Creative arts interventions for stress management and prevention – A systematic review. *Behavioral Sciences*, 28(8), 1-18.
- Morse, G., Salyers, M. P., Rollins, A. L., Monroe-Devita, M., & Pfahler, C. (2011). Burnout in mental health services: A review of the problem and its remediation. *Administration and Policy in Mental Health and Mental Health Services Research*, 39, 341-352. Doi: 10.1007/s10488-011-0352-1
- Ramsay, D. S., & Woods, S. C. (2014). Clarifying the roles of homeostasis and allostasis in physiological regulation. *Psychological Review*, 121(2), 225-247. Doi: 10.1037/a0035942
- Reybrouck, M., Podlipniak, P., & Welch, D. (2021). Music listening and homeostatic regulation: Surviving and flourishing in a sonic world. *International Journal of Environmental Research and Public Health*, 19(278), p. 1-24. Doi: 10.3390/ijerph19010278
- Rogers, N. (1993). *The creative connection: Expressive arts as healing*. Science & Behavior Books.
- Rollins, A. L., Eliacin, J., Russ-Jara, A. L., Monroe-Devita, M., Wasmuth, S., Flanagan, M. E., Morse, G. A., Leiter, M., & Salyers, M. P. (2021). Organizational conditions that influence work engagement and burnout: A qualitative study of mental health workers. *Psychiatric Rehabilitation Journal*, 44(3), 229-237.  
<http://dx.doi.org.ezproxyles.flo.org/10.1037/prj0000472>

Salyers, M. P., Bonfils, K. A., Luther, L., Firmin, R. L., White, D.A., Adams, E. L., & Rollins, A. L. (2017). The relationship between professional burnout and quality and safety in healthcare: A meta-analysis. *Journal of General Internal Medicine*, 32, 475–482. Doi: <https://doi.org/10.1007/s11606-016-3886-9>

Sklar, M., Ehrhart, M. G., & Aarons, G. A. (2021). COVID-related work changes, burnout, and turnover intentions in mental health providers: A moderated mediation analysis. *Psychiatric Rehabilitation Journal*, 44(3), 219-228. Doi: <https://doi.org/10.1037/prj0000480>

Smithstein, S. & DeMarco, M. (2021). That powerlessness you feel is called moral distress. *Psychology Today*.

Vaisvaser, S. (2021). The embodied-enactive-interactive brain: Bridging neuroscience and creative arts therapies. *Frontiers in Psychology*, 12, 1-13. Doi: [10.3389/fpsyg.2021.634079](https://doi.org/10.3389/fpsyg.2021.634079)

Williamson, V., Lobban, J., & Murphy, D. (2021). Moral injury and the potential utility of art therapy in treatment. *BMJ Military Health*, 0, 1-3. Doi: [10.1136/bmj-military-2021-001947](https://doi.org/10.1136/bmj-military-2021-001947)

**THESIS APPROVAL FORM**

**Lesley University  
Graduate School of Arts & Social Sciences  
Expressive Therapies Division  
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**Student's Name:**           **Kate Salonen**          

**Type of Project:** Thesis

**Title:**           **Moral Distress and Allostatic Overload in Clinicians: Mitigating Burnout Through Expressive Arts Therapy - A Literature Review**          

**Date of Graduation:**           **May 21, 2022**          

In the judgment of the following signatory this thesis meets the academic standards that have been established for the above degree.

**Thesis Advisor:**           **Sarah Hamil, Ph.D., LCSW, RPT-S, ATR-BC**                     **05/01/2022**