

Burnout, compassion fatigue and suicidal ideation in oncology healthcare professionals

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Abstract

Central to the practice of oncology is the mental and physical resilience of the oncology clinician and the associated care providers. Healthcare professionals working with cancer patients have considerable risk for burnout; however, the mental health of oncology healthcare professionals has received little attention in the literature. The increasingly high rates of burnout and suicide in the field of medical and specifically oncological practice have rendered this area of research in psycho-oncology critical. Oncology presents the practitioner with unique and challenging issues that contribute to burnout, depression and, in some cases, suicide. Working with patients at or nearing the end of life and the administrative and insurance demands they often face in order to obtain needed oncotherapeutic medications, onerous workloads and long working hours, administrative record demands and staying abreast with expanding oncologic knowledge for practice may at times be overwhelming. This work reviews recent research in the field of burnout and compassion fatigue in oncology healthcare workers and posits recommendations for interventions to ameliorate the status quo.

Keywords: Burnout, Compassion fatigue, Oncology, Psychology, Suicidal ideation

Points of significance

- There is relatively little reported in the literature regarding the incidence of burnout among oncology healthcare professionals, both across the African continent and globally, the rates of which are increasing as numbers of diagnoses rise and workload increases.
- The importance of recognizing and addressing stress and burnout in healthcare workers, with its effect of suboptimal patient care, higher staff turnover and poorer quality of life measures of staff is emphasized.
- Burnout and suicidal ideation in oncology professionals is now regarded as a public health epidemic worldwide. In this review, some possible interventions to ameliorate the status quo are posited.

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Introduction

The incidence of cancer is rising globally, including a rapid rise in Africa, with a corresponding need for more oncology professionals [1, 2]. This increasing need for palliative care leads to multiple challenges and stressful situations for healthcare professionals [3]. Oncologists are at high risk of impaired psychological wellbeing and burnout syndrome due to the emotionally exacting nature of their work, the many cumulative stressors they face and personality factors [4-8]. Within the African context, studies have shown that African oncologists falling under the scope of the African Organization for Research and Training in Cancer (AORTIC) network have a significantly higher clinical workload and lower job satisfaction than oncologists elsewhere in the world [1].

Studies show that few physicians are confronted with death and grieving as often as oncologists and that patient loss is an intrinsic part of clinical oncology [4]. In Africa, the mortality incidence is markedly higher than in higher-income countries (0.66 in Africa while in Europe it stands at 0.40, and in the USA, at 0.29). This disparity can be largely ascribed to the fact that approximately 80% of patients in Africa are diagnosed with cancer at a more advanced stage, the limited health system infrastructure, a paucity of specialized health personnel and patients' inability to afford oncology treatment [1]. Frustration caused by limited treatment success and continued exposure to fatal disease renders oncologists particularly vulnerable to stress, burnout and suicidal ideation (SI) [9, 10]. However, it is broadly acknowledged that physicians frequently do not recognize symptoms of their burnout, and seldom seek help [11].

Burnout affects physicians, patients, and the healthcare system. It disrupts perceptions of personal well-being and increases the risks of SI, absenteeism, and poorer medical productivity [11-13]. Physicians who report symptoms of burnout have higher turnover rates, represent higher prevalence of substance abuse and numerous malpractice claims [11]. Suboptimal physician mental wellbeing is related to poorer patient care and a risk of medical errors. Patients of burned-out physicians report decreased satisfaction with their care, and undergo more unnecessary tests and consultations [5,14]. Research demonstrates that burnout in the healthcare professions has increased in the past decade with statistics indicating that approximately 54 % of physicians and between 10%-70% of nurses are burnt out [10, 15-17]. In terms of gender, studies show that female oncologists report greater grief responses to patient loss and more emotional distress and burnout than male oncologists [4].

Oncology nursing has been found to be a source of significant stress for nurses, particularly for novice nurses who may be inadequately prepared to care for patients at the end-of-life stage [18].

Prior research has identified heavy workload as a key predictor of burnout. Compassion fatigue (CF) among oncology healthcare professionals has received less attention despite this specialty's particular risk of CF [5]. Burnout, CF, and SI are multifactorial issues that include the healthcare professional's socioeconomic stresses, lifestyle factors, loss of autonomy in the workplace and the demands of changing regulations which all

pose a burden on healthcare professionals at different stages of their careers [10].

Identification of burnout is critical not only for healthcare professionals' quality of life, but also for the well-being of patients. Additional risk factors for burnout, such as young age, lack of family supportive network and the effects of burnout and CF demonstrate the need for better screening tools for burnout [19]).

Stress

Stress and burnout differ. Burnout refers to work-related issues, unlike stress, which may be experienced in all aspects, and is defined as any unpleasant emotional experience accompanied by predictable biochemical, physiological, and behavioral changes [20]. Stress is characterized by over-engagement, hyperactivity and loss of energy which may lead to anxiety. Conversely, burnout is characterized by disengagement, feelings of helplessness/hopelessness and loss of motivation which may lead to detachment and depression [21].

Recent research into stress has explored the link between work effort, or the effort necessary to meet job demands, and the reward for job performance. Imbalance in the relationship between effort and reward has been linked to the dysregulation of the hypothalamic-pituitary axis which may be the mechanism through which job stress leads to physical illness [11].

The result may be the development of the well documented symptoms of stress including accelerated respiration, tachycardia, and headache. Other symptoms, including psychiatric disorders, are more subtle and often not recognized as such. These may include difficulty in interpersonal relationships, apathy towards people or activities, irritability, and anxiety. In terms of professional performance, lower productivity, relationship problems, procrastination and decreased performance may result. Studies suggest that psychosomatic symptoms, such as chest pains, headache and fatigue seem to occur more frequently than psychological symptoms, such as depression and anxiety [22].

According to Selye's General Adaptation Syndrome [23], stress can be subdivided into three phases: Alert, resistance and exhaustion. The alert stage occurs when a stressor disturbs homeostasis and the rate of bodily functions increases to mobilize the system against attack resulting in symptoms such as perspiration, tachycardia, and hypertension. The function of this phase is to consolidate the physiological response to the stressor. The resistance phase is an attempt to recover the imbalance of the initial phase by attempting to resist the negatively perceived consequences of the stressor and may manifest as fatigue and memory problems as a result of the depletion of energy. At this stage the system will try to adapt to the stressor and the symptoms of the first phase will be reduced or eliminated. However, if the body is not able to reestablish homeostasis because the stressor is chronic and excessive, the system will begin to show signs of adaptation failure, reaching the third phase of exhaustion. If the stressor continues to weaken the system, energy reserves are depleted. Systems begin to break down and become more susceptible to a range of biopsychosocial symptoms. At this stage, symptoms of the alarm phase revert, but are now irreversible. The consequence is that

the individual will present with a high degree of physical impairment [22, 24].

Burnout

Burnout, first described in the 1970s, refers to a prolonged reaction to chronic emotional and interpersonal work-related stressors where a perceived dissonance exists between job demands and available resources [20, 25]. Burnout is a multidimensional work-related syndrome. It is defined as a stress-related condition characterized by *emotional exhaustion*, or feelings of emptiness and physical and emotional fatigue, *depersonalization*, or negative or impersonal attitudes towards others, or treating them as objects rather than human beings and the *diminution of personal accomplishment*, or feelings of failure and a decrease in self-esteem [26-28]. Studies suggest that burnout is highly prevalent within the healthcare professions due to the intensity and continuous nature of contact with patients receiving care [29].

The literature suggests that the patient-physician relationship is one of the most gratifying areas of practice. However, it can also be a significant source of stress [4]. Workload, in particular, is a consistent predictor of burnout in oncology. Studies regarding physicians have linked a range of objective and subjective workload factors to burnout, including work hours, number of nights on call, perceptions of work as overwhelming and overall perceived job stress [5, 30]. Further factors are communication difficulties and emotional aspects of relating with patients and colleagues [31].

The symptoms of burnout typically develop slowly, are triggered by multi-causal factors, and are seldom identified in the early stages [29]. The primary symptoms of burnout may be emotional exhaustion, a sense of ineffectiveness or dissatisfaction with work, which can result in a growing cynicism and detachment from work. Poor sleep, concentration problems, social withdrawal, interpersonal conflicts, and poor judgment may be present. Physicians with burnout are more likely to incur errors, and their patients tend to be less satisfied with the quality of their care [32]. Studies show that burnout is associated with mental illness, substance abuse, emotional exhaustion, depersonalization, and suicide [5].

Recent research regarding gender differences in burnout rates in oncology physicians observed that although female oncologists reported more distress and burnout, higher levels of grief following patient death correlated with greater emotional distress in both genders. For male oncologists, the correlation between grief reactions and emotional distress was observed at moderate levels of burnout, suggesting that male oncologists already suffering from burnout are more vulnerable to grief and distress than female oncologists. The possibility exists that burnout leads to more pronounced sensitization in oncologists, causing greater vulnerability to patient loss and distress than either one of these factors alone [4].

Further, age is significantly correlated to health professional burnout. A recent study found that as age increased, burnout potential decreased [33]. Recent research in Europe suggests that over 70% of young oncologists at early career stage are at risk for burnout [2, 32]. While making complex decisions about disease management, supervising the application of toxic therapies, long working hours, and continually facing patients

suffering and dying, younger oncologists also face increased administration, medico-legal issues, rising expectations and reduced resources [34]. A recent survey of oncologists in the USA suggested that burnout seems to peak in the first year of practice and subsequently decreases in the second and third years, with improvements in fatigue, quality of life, and work/life balance [35]. While younger age and female gender constitute risk factors for burnout, single relationship status, not having children, higher student loan debt and longer hours spent seeing patients also represent high risk [36]. The lack of work-life balance, living alone and inadequate vacation time are further risk factors.

In the African context, studies suggest that African oncologists tend to be substantially older than oncologists in other parts of the world which indicates that without new models of healthcare and an increase in capacity, clinical workload volumes, already higher than elsewhere, might worsen in the coming years, rendering burnout an increasing risk [1].

Compassion fatigue (CF)

CF and burnout may coexist but are two distinct entities. Where burnout is caused by stressors related to the work environment and may include loss of empathy, CF results from the stress of the bond between caregiver and patient, and although empathy is preserved, the caregiver becomes overwhelmed by the trauma to which they are exposed. While burnout refers to the clinician's interaction with the environment, CF (also termed vicarious traumatization) arises more from the relationship between the physician and the patient and the stress of caring for patients, through the protracted and traumatic continuum of diagnosis, difficult treatment regimens and the management of intractable pain which patients often suffer [36, 37]. Research suggests that the more empathic the carer, the more they are at risk of absorbing the stress of their patients and developing CF [38].

The symptoms of CF differ in nature to those of burnout. While the signs of burnout comprise emotional exhaustion (EE) or dissatisfaction with work, CF may compromise the physician's ability to care for patients as a consequence of the impairment in ability to empathize with the patient due to exposure to trauma and suffering [39]. The symptomatology resembles that of posttraumatic stress disorder (PTSD), ranging from avoidance of situations where the patient is suffering to intrusive thoughts with feelings of distress or physiological reactions to reminders of a patient's traumatic experience as well as numbness, hyperarousal, and exhaustion in terms of confronting distressing clinical situations [32, 40].

Among the multiple stressors that may lead to CF in healthcare professionals are the unpredictable course of terminal illness, family distress and the need to assist patients who are facing death without social support [41].

CF is seldom examined among clinicians, even in specialties such as oncology which involve continuing exposure to the stress of death and dying. CF is a phenomenon typically understood to encompass both being too exhausted to care and a need to forsake a sense of compassion in an effort to protect the individual from despair [5].

Relationship between burnout and CF

While burnout and CF may appear to be similar in that caregivers may lose the ability to care for patients, the underlying mechanism differs. Burnout is linked to occupational factors such as the exhaustion that comes about as a result of chronic overwork and caring for others. Burnout may affect a worker in any field of work and describes the incapacity of an individual with low work satisfaction primarily due to demands that are beyond their ability [40]. In contrast, CF is typical to the caring professions and is linked to exposure to extremely stressful events associated with patients' pain and suffering [26]. Burnout can be experienced without exposure to others' trauma whereas CF is directly linked to secondary traumatic stress. Burnout may arise from minor chronic stressors that accumulate from day to day and over a period of time become overwhelming, whereas CF may result from exposure to a single extremely stressful event such as a traumatized patient. CF may emerge suddenly, and recovery tends to be faster [5, 40, 41].

Some studies have found a significant correlation between burnout and CF, suggesting that these are similar phenomena and there may be an overlay of one or more of the components of these phenomena [40]. Other studies suggest that burnout is a pre-condition for CF, while further research proposes that the concept of burnout is outdated and should be replaced by CF in describing the phenomenon in oncology healthcare professionals [26].

Suicidal ideation (SI)

SI may be defined as an alteration of one's thought process where ending his or her life is the preferred avenue to seeking options to cope with stressors at the time. Burnout plays a key role in SI [5, 42]. Research shows that there are significant relationships between EE and SI and between depersonalization and SI [43, 44]. Physician, nurse and student burnout and suicide is currently regarded as a public health epidemic worldwide, with nurses and physicians having higher rates of suicide than the general population. Some studies suggest that physician burnout is associated with a doubled risk of SI, and the suicide rate amongst male physicians being 40% higher than males in the general population and amongst female physicians, 130% higher than females in the general population [28, 45]. Some studies suggest that female physicians have higher suicide rates, which may possibly be due to their social family role or to unequal professional status integration [46].

A recent study found that stressors associated with SI in physicians included personal, financial, health and occupational difficulties and that ideation was more likely in the face of multiple stressors. Work disengagement, or an uncaring, distanced and cynical attitude towards the work or colleagues, and sickness presenteeism, or working despite illness, were strongly associated with thoughts of suicide [47]. SI is also associated with complaints procedures against practitioners [48]. Those physicians espousing SI were found to lack personal support structures from faculty, peers, staff, and family [49, 50].

Suicidal physicians encounter additional barriers to care, compared with the general population. Whereas both groups face concerns about stigma, lack of time and lack of access to care, physicians have the added burden of concerns

regarding confidentiality, and fear of discrimination in licensing [51].

Personality as a specific risk factor

Not all individuals experiencing similar working conditions develop burnout, suggesting that individual factors determine its development. Personality factors play a key role in burnout development since they are relevant in defining the way and the efficacy with which the individual approaches work [52]. Personality is also related to the individual's perception of work tasks as more or less stressful. Studies suggest that anxious individuals are more vulnerable to job stress and that personality factors are important in the occurrence of burnout syndrome in health professionals [8].

Studies examining personality factors in healthcare professionals have identified neuroticism as a factor strongly associated with burnout. Elevated levels of neuroticism appear to render the individual more prone to anger, anxiety, depression and stress, less adept at controlling their emotions in stressful situations and with immature defense mechanisms which elevate their levels of exhaustion [8].

Recent studies suggest that EE and depersonalization correlate positively with neuroticism [53, 54] but negatively with agreeableness, conscientiousness, extraversion, and personal accomplishment. Further, EE and depersonalization correlate positively with anxiety and depression, which are negatively correlated with personal accomplishment [52].

Conscientiousness, perfectionism and narcissism have been identified as common personality traits in healthcare professionals. Perfectionism or the attempt to constantly improve and the setting of overly high standards of performance may lead to hyper-critical self-evaluation. Exhaustion in this context is not due only to the task, but how the individual relates to it. Narcissism, or the need to make achievements visible and be recognized for them, is a further personality factor identified as a risk factor for burnout particularly in terms of EE and depersonalization [8].

Studies report that individuals with low esteem exhibit limited coping resources, leading to increased psychological distress and problems in controlling stressful events. The initial result is the experience of EE which is often the earliest manifestation of burnout [27].

In relation to personality types, a Type A profile, or individuals who display impulsivity, competitiveness, and impatience and who have difficulties managing job stress, has been found to correlate with burnout. Healthcare professionals who exhibit these behaviors appear to have higher levels of job anxiety and EE leading to greater vulnerability to burnout [8].

A Type D, or individuals who experience a wide range of negative emotions but suppress these emotions due to social inhibition, have been found to be at 5 times higher risk of burnout [55]. These individuals tend to employ more passive and maladaptive avoidance coping strategies, such as resignation and withdrawal which are associated with increased levels of perceived stress and linked to higher levels of burnout symptoms [56].

Studies suggest that certain personality factors are associated with the choice of training in healthcare professions and with levels of stress, satisfaction and burnout, with most

healthcare professionals tending towards an anxious, emotional temperament, characterized by the need to care for others. This temperament may render them particularly vulnerable to anxiety, stress and burnout [8].

Risk factors for CF include the traumatic stress of families, failure to recognize one's own experiences of secondary traumatization, and an unhealthy work culture [57].

In sum, there appears to be a significant correlation between health professional burnout and personality traits. More extraverted, open, and agreeable individuals are less likely to experience burnout while more narcissistic and perfectionistic individuals are more at risk [33].

Protective factors

Personality traits that buffer the negative effect of job demands and act as protective factors against job stress have been identified. Research posits suggests that elements of emotional intelligence (EI), defined as skills for understanding, perceiving, and adapting one's emotions and their relationship with engagement and job performance, and individuals' perceived self-efficacy with regard to their ability to control their surroundings, as burnout protection factors [58]. Thus, cognitive empathy, self-esteem and high affective empathy with patients are associated with less burnout and CF [8].

Other factors include adequate social support, self and occupational development and self-awareness [40]. Research suggests that a good work/life balance, adequate vacation time and access to support services are requirements to address burnout. A recent study highlighted the importance of a supportive supervisor with whom communication could be open [57].

Positive challenges at work, a sense of mastery of the work and commitment to the organization have been associated with decreased levels of burnout and CF [59].

Resilience or the ability to recover from adverse events, may protect professionals from the stresses of the work environment and the tendency to burnout. Studies suggest that several characteristics facilitate resilience: EI, empathy, self-compassion, and mindfulness are all associated with higher resilience and less EE. This expands on other studies of factors associated with less burnout such as more social support, less fatigue and stress. However, more interventional research is warranted [34, 60].

Strategies to manage burnout

Evidence suggests that self-care, both mental and physical, can improve wellbeing. Interventions found to reduce burnout can be classified into the two categories of *physician-directed* interventions focused on individuals, and *organizational* interventions focused on the work environment. Physician-directed interventions include mindfulness techniques, stress management and cognitive behavioral therapy (CBT) to improve job competence, communication skills and personal coping mechanisms. Organization-directed interventions imply simple changes in the work schedule and environment, the implementation of tasks designed to lower stress levels, such as reductions in workload through improved teamwork, alterations in evaluation, increasing participation in decision-making, supervision to improve job control and more fundamental improvements in the operation of healthcare systems. These

interventions have been associated with significant reductions in EE and depersonalization and have been shown to have greater effects when compared to individual interventions [13].

A technique gaining popularity involves the cultivation of self-awareness and mindfulness-based practices. Research suggests that participation in a mindful communication program may be associated with both short-and long-term improvement in burnout among physicians [61]. A recent study shows that a strategy of appreciative inquiry and meditation was associated with decreases in burnout and mood disturbances and showed increases in levels of empathy. Further, physician discussion groups incorporating mindfulness and shared experiences led to a 15% reduction in rates of depersonalization over a three-month period which was sustained over twelve months. There was, however, no impact on stress reduction, symptoms of depression, and overall quality of life or job satisfaction [36].

Meditation has been demonstrated to combat symptoms of burnout and mindfulness training is suggested to be beneficial in decreasing anxiety and perceived work stress. Individual professional life coaching for stress management has been shown to be successful but there is little data to suggest the long-term benefit of particular stress management interventions in preventing burnout [11].

Conclusion

As cancer diagnoses increase annually, especially in Africa, rising levels of stress will be experienced by oncology healthcare workers. Given the known consequences of high stress, leading to burnout and CF, it is essential to raise awareness regarding the prevalence of mental health issues within this population and identify and address those individuals in distress. Failure to do so would have profound implications for the quality of life of both physicians, nursing staff and patients. Wider acknowledgment of the inherent stressors associated with current oncology practice may have the effect of destigmatizing burnout and render support for these healthcare professionals more conventional and accessible.

There is consensus in the literature that prevention of burnout appears to be more beneficial than treatment. Broader study of the issues associated with increased stress and burnout may lead to improved methods of addressing these problems to lessen the load of physicians and nursing staff working in an already difficult and psychologically challenging discipline of medicine. It is a matter of urgency that governments and health systems improve oncologist-to-patient ratios and develop innovative models of capacity building, staff retention and skills advancement to bolster cancer care systems, both globally and across continental Africa.

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