Burnout: caring for critically ill and end of life patients with cancer

Background: Critical care and palliative care professionals treat and support seriously ill patients on a daily basis, and the possibility of burnout may be high. The consequences of burnout can include moral injury and distress, and compassion fatigue, which are detrimental to both care and staff.

Aims: To explore the incidence of moral distress in areas at high risk of burnout in a large cancer centre, and to explore possible measures for addressing moral distress.

Methods: The Maslach Burnout Inventory was administered to critical care, critical care outreach and palliative care teams in a specialist tertiary cancer centre. Open questions on supportive measures were also included. Burnout data were categorised into the three domains of emotional exhaustion, depersonalisation and personal accomplishment, and free-text analysis was conducted on the open-question data.

Results: 63 professionals responded across the teams (45% response rate). A low level of burnout was observed in the emotional exhaustion domain, depersonalisation was higher in the critical care professionals, and overall, personal accomplishment was higher than normative scores. Free text analysis highlighted three categories of responses: Debriefing, Managing emotional well-being and Valuing individuals. There was a need to proactively recognise issues, undertake more debriefs and open forums regarding cases, particularly with difficult deaths. Engaging all professionals, support to deal with families, mandatory moral distress and resilience training, were suggested, alongside a focus on team-building through external activities such as group relaxation sessions, and walks.

Conclusion: This study demonstrated a relatively low incidence of emotional exhaustion and depersonalisation, and a slightly higher sense of personal accomplishment than normative scores despite staff working in an environment where high levels of burnout were expected.

Relevance for Practice: Staff highlighted possible solutions to reduce burnout which included debriefing, managing emotional well-being and valuing individuals.

Background

Burnout is an important issue in an increasingly challenging health care environment. Health care

professionals are treating more patients, with a higher acuity and complexity than ever before, in

the face of increasing patient expectations and greater staff shortages [NHS England, 2014; NHS

Improvement, 2016; Health and Social Care Information Centre, 2017; Imison et al, 2017; Wyatt et

al, 2017]. Considered a priority for NHS staff wellbeing [NHS England, 2015; Chartered Institute for

Personnel Development, 2016], and the subject of a call to arms in the international intensive care

unit (ICU) community [Moss et al 2016], burnout as a concept was borne out of a need to

pragmatically understand why workers experienced gradual emotional depletion, and lack of

motivation and commitment. It is conceptualised as depersonalisation, emotional exhaustion, and

reduced personal accomplishment [Maslach and Schaufeli, 1993]. It describes the phenomenon of

employees' being too emotionally exhausted to maintain an intense involvement that has any

meaningful impact at work [Maslach, 1993]. These characteristics are resonant for health care

workers who are increasingly being accused of compassion fatigue [Poghosyan et al, 2010; Dasan et

al, 2015], leading to care inequities and patient harm as a result of inadvertent errors, poor quality

patient care and reduced empathy [West, 2015; van Mol et al, 2015]. Burnout is often used

interchangeably in practice with similar concepts, such as moral distress, compassion fatigue and

moral injury, However distinctions can be drawn: moral distress refers to knowing the right thing to

do but unable to achieve this due to organisational constraints [Jameton, 1984]; compassion fatigue

refers to a state of compassion discomfort leading to compassion stress that alter the individual's

ability for compassion [Coetzee and Klopper, 2010]. Moral injury can also be considered alongside

moral distress under the broader concept of moral suffering as is cognitively related to compassion

fatigue (Figley, 2002)

However, despite the commonalities there are said to be subtle distinctions, namely how burnout

can arise out of interactions with environment, whereas compassion fatigue relates to individual

interactions (Cherny et al, 2015) and moral distress focus on dissonance with one's own moral

compass. The consequences of these concepts are multifold, affecting the individual staff and the care which they provide, these include physical consequences related to chronic illness and issues such as cardiovascular disease, gastrointestinal disease, fatigue, pain and early mortality (Salvagioni et al 2017), as well as psychological: depression, insomnia, anxiety and poor mental health and occupational with job stress, absenteeism and presenteeism, and intention to leave all associated with burnout (Salvagioni et al, 2017). For those in receipt of care provided by those experiencing burnout, studies have shown associations with increased patient mortality (Aiken et al, 2002; Poghosyan et al, 2010) and worse patient reports of care (Rathert et al, 2018), and higher patient safety incidents (Panagioti et al, 2018) where there are high levels of burnout. This emphasises the very real clinical and personal risks associated with diminishing personal motivation, emotional exhaustion and burnout.

As health care professionals explore different ways of managing the emotional consequences of caring for seriously ill patients in high stress environments such as critical and palliative care, the concept of burnout has gained more attention. There have been a number of studies that have explored the impact of burnout associated with working in areas such as critical care, palliative care and oncology amongst nurses and clinicians [West, 2015; van Mol et al, 2015; Chuang et al, 2016; Pereira et al, 2016; West et al, 2016]. However, there is no published data looking at the impact of working in an oncology-specific critical care environment where professionals are treating and supporting seriously ill patients with cancer and /or patients dying with cancer in their daily work where the possibility of burnout may be high, given they are dealing with both issues of critical illness and cancer. Nor are there data for critical care outreach (CCOT) staff and burnout. Moreover, staff-generated suggestions for tackling burnout have been scarcely researched, and given the multifactorial issues related to burnout it would seem this is an important approach to consider. A better understanding of staff characteristics (such as profession and ICU experience), the incidence of burnout, how these relate to perceptions of burnout and staff opinions on mechanisms on how to reduce burnout requires further exploration. While there is debate as to the correct disorder to screen for in ICUs (Mealer and Moss, 2018), and an acknowledgement that screening alone will not

address burnout, it does serve to raise awareness of a focus on mental well-being for the benefit of

staff and patients.

Developing resilience, the concept of individuals being able to thrive when facing uncertainty,

emotional pressure and change [Mealer and Moss, 2012], and understanding how moral integrity

can be maintained is suggested for the health and wellbeing of workforces in high stress

environments, like ICU and palliative care [Gillman et al, 2015; Moss et al, 2016]. When resilience or

the capacity to deal with moral distress diminishes to the point of burnout, patient care is

significantly at-risk. In this project, we explored the incidence of burnout in critical care, oncology,

palliative care and critical care outreach professionals in a tertiary specialist cancer centre. We also

aimed to explore possible measures for addressing burnout as identified by staff members.

Methods

A descriptive cross-sectional design was undertaken using the Maslach Burnout Inventory (MBI)

[Maslach et al, 2016] a 22-item questionnaire. It has high construct validity and has been extensively

testing in healthcare settings across the world (Koeske and Koeske, 1989; Schaufeli and van

Dierendonck, 1993; Rathert et al 2017; Salvagioni et al, 2018; Panagioti et al, 2018).

The MBI burnout data were categorised as per Maslach and Jackson [1981], into the three domains

of emotional exhaustion, depersonalisation and personal accomplishment across a Likert scale of

frequency of feelings ranging from never to everyday (scored 0-6 respectively). In each domain,

scores were also collated to represent an overall score of low, moderate and high level of burnout

[Maslach and Jackson, 1981]. Emotional exhaustion subscale scales have nine items (Questions

1,2,3,6,8,13,14,16,20), depersonalisation subscale scales have five items (Questions 5, 10,11,15,22),

and the personal accomplishment subscales have eight items (Questions 4,7,9,12,17,18,19,21).

A section with two additional questions and a section for suggestions (*How well supported do you

feel in dealing with feelings of moral distress? (Please explain) What could we do to better support

staff in moral distress? Please make any suggestions in relation to looking after staff.*) were added to

explore how the teams could best be supported in order to yield information about measures to

deal with moral distress. These additions were designed with members of the ICU team but not

piloted. Demographics in terms of profession, banding (grade, indicating level of seniority) length

qualified, post-registration qualification, age, pattern of working (fulltime or part-time) were also

collected in order to explore relationships between these characteristics and burnout dimensions.

Setting

The MBI was administered across teams in a specialist tertiary cancer centre in the UK over a one-

month period in early 2017. In this centre, multi-disciplinary members of the critical care team work

closely with critical care outreach and palliative care teams to provide holistic care for cancer

patients with advanced, life threatening and often terminal illness.

Sample

All health care professionals (doctors, nurses and allied health professionals) and health care support

workers in critical care, palliative care, critical care outreach were invited to participate (agency and

non-permanent staff were excluded). A total estimated sample of 140 staff was targeted. A broad

eligibility criterion was chosen to generate data across the staff groups. No sample size calculations

were sought as we were not looking to determine an effect. Invitation was via email via a generic

and centrally held list of ICU staff (individual email addresses were not accessed) and an online

survey monkey link. Paper versions were also distributed to clinical areas to enhance participation

(participation only once was requested). Repeat email reminders at one month were carried out to

improve response rates.

Ethical considerations

This study was reviewed and approved by the Trust's Committee for Clinical Research and classed as

a service evaluation (ref: SE559) [HRA, 2016]. Therefore, ethical approval was not required. Only

aggregated, anonymised data was collected and any staff identifiable details were removed. An

information sheet outlining the project was written in a covering letter for the paper version and on

a covering page on the online version. The voluntary nature of participation was outlined and a

written statement outlined that consent was presumed through completion of the questionnaire

(and this was made clear in accompanying information).

Data analysis

The data was analysed using descriptive statistics, using Excel and SPSS, proportions, median SD and

mean. We also collated basic demographics (length qualified/post-critical care

qualification/grade/gender/age). The MBI burnout data were categorised as per Maslach and

Jackson [1981], into the three domains of emotional exhaustion, depersonalisation and personal

accomplishment across a Likert scale of frequency of feelings ranging from never to everyday

(scored 0-6 respectively). In each domain, scores were also collated to represent an overall score of

low, moderate and high level of burnout [Maslach and Jackson, 1981]. These were categorised as

emotional exhaustion ≥ 27 (high); 17-26 (moderate) ; ≤ 16 (low), depersonalisation ≥ 13 (high); 7-12

(moderate) ; ≤ 6 (low), personal accomplishment ≤ 21 (high), 38-22 (moderate); ≥ 39 (low) [Maslach

and Jackson, 1986]. These were compared with population-level normative scores (Maslach and

Jackson, 2016). Relationships between demographics and domains were explored using chi-square

(χ^2) with statistical package SPSS version 23 and 24. Free-text analysis was carried out on the open-

ended questions, with broad collation of categories using the principles of conventional content

analysis, where meaning was deductively interpreted from data and codes/categories ascribed

[Hseih and Shannon, 2005]. A deductive approach was chosen since this area has been conceptually

well-defined previously, but was being examined in a new area (critical care of cancer patients).

Results

63 participants responded, a response rate of 45% (assuming a sample of 140), yielding 61 usable

MIB questionnaire responses (the remaining two did not complete the MIB but still completed the

demographics and open-ended questions). Nurses formed the largest respondent group. The

demographics of respondents can be seen in the accompanying Supplementary file (Table 1).

>>Supplementary File. Table 1. Demographics

The overall level of burnout across the three domains is seen in table 2 demonstrating a low level of

burnout across the domains, particularly in the emotional exhaustion domain. The domain of

personal accomplishment showed a relatively high level of accomplishment in the cumulative scores

reported (Table 2), above normative scores. This contrasts with cumulative depersonalisation scores

of 9.9, which is slightly elevated above normative scores.

>>Table 2. Level of Burnout in each domain

A range of professions responded as seen in the Supplementary file (Table 1). In terms of

professional groups, on exploring associations between the MBI domains (emotional exhaustion,

depersonalisation and personal accomplishment, respectively) and types of professional groups,

gender, or team worked in (Table 3), the critical care team showed a higher level of burnout in the

depersonalisation domain (p=0.02 (χ^2), and physicians showed a higher level of personal

accomplishment domain, indicating lower burnout in this domain (p=0.04 (χ^2). There was an

association between length qualified and emotional exhaustion, (p=0.02 (χ^2) and reduced level of

burnout in the depersonalisation domain according to increasing level of qualification ((p=0.04 (χ^2)

(Table 3).

>>Table 3. Participant characteristics and MBI domains

Free text analysis

In terms of free text analysis, 39 comments were given for question 1 (*What could we do to better support staff in moral distress?*). Comments were grouped into themed into *emotional well-being* (aligned to the burnout sub-theme of emotional exhaustion), *support*, and *valuing individuals* (in line with depersonalisation and personal accomplishment). These were further organised into those with a negative, neutral or positive slant. These were subsequently categorised according to practical suggestions. A small proportion (3.3%) were negative; most (87.7%) were positive and the rest (10%) were neutral.

Examples of comments are given below.

- *I don't feel there is a setup for this. I think it falls on the individuals to seek support* (doctor)

- *I feel occasionally when looking after a patient who's dying the support after the patient has gone on your emotions that might be affected are not considered. Allocation for next shifts should be considered. Not having three end-of-life* [patients] *in row. Also not making that member of staff take another patient straight away as psychologically it needs to settle* (ICU nurse)

- *Don't feel well supported* (doctor)

- *Moderately well supported. Job involves a fair amount of lone working so feeling of stress/upset are often not addressed until getting home* (CCOT)

Thirty-six comments were submitted for the question: "What could the unit do better to support staff in moral distress?" and suggestions included a need to proactively recognise the issues, and requests for more debriefs/sessions/ open forums to discuss cases and issues, particularly when there were difficult deaths or cases. A need for more externally facilitated support and resilience

training, and to raise awareness of existing support available was highlighted. A need to review

caseloads, engage all professionals within the teams, support to deal with families, mandatory moral

distress and resilience training, and to focus on team-building through external activities such as

group relaxation sessions, walks and other forms of exercise were also suggested. Four people

commented that 'nothing' could be done. Further suggestions yielded by the third question "Please

make any suggestions in relation to looking after staff" were considered. These suggestions, as well

those from the second question, were organised into similar categories to above, with the

distinction of debriefing, which emerged from the suggestions and was more nuanced than the

support category. *Debriefing* (through open forums, or facilitated debriefing, regularly scheduled

meetings, or one-to-one sessions) that were provided in protected working time so that units were

covered by agency/bank staff. There was differing view about whether these should be generic or

linked to difficult cases, with both views being presented. *Managing emotional well-being* by

offering staff massage/ mindfulness/ meditation was seen as important, as well as ensuring

everyone understood and learnt about moral distress and how to develop resilience. *Valuing*

individuals was also regarded as an important initiative to support and this included: informal

mentors/buddies, settling-in periods for newcomers, and valuing people's skill sets. Allowing flexible

working and ensuring adequate staffing was also raised as possible mechanisms to reduce staff

burnout.

Discussion

This study assessed the impact burnout has on those teams that frequently encounter critically ill

and dying patients and the potential to experience high levels of burnout. In the study centre, these

teams work closely together both clinically and in terms of collaborative education and training. The

multi-professional teams regularly and actively engage in both formal and informal debriefing and

staff support. This may be one reason why in this study we found a relatively low incidence of

emotional exhaustion, and a slightly higher sense of personal accomplishment than normative

scores, indicating lower burnout in this domain [Maslach et al, 2016]. However, depersonalisation scores appeared slightly higher than normative scores, and the critical care team, in particular, showed higher depersonalisation scores. There were no clear links between MBI domain scores and participant characteristics, although there was an indication of increased personal accomplishment in certain groups, such as physicians, suggesting greater personal satisfaction. The reasons for increased personal accomplishment are unclear, and were not explained in free-text comments. However, an increased sense of professional efficacy, as it has been termed (Maslach and Leiter, 2016), suggests good interpersonal peer relationships (Maslach and Leiter, 2016) and a work environment conducive to personal growth. Also, length qualified and emotional exhaustion were associated, as was reduced depersonalisation with increasing level of qualification.

Depersonalisation may manifest as unprofessional comments, callousness, cynicism or importantly for ICU professionals, where nearly a fifth of all admitted die (ICNARC, 2018), the inability to process and express grief. Strategies for coming together, through suggestions like facilitated debriefing noted in the free-text comments, may help mitigate some of these manifestations of depersonalisation.

This difference in normative scores contrasts with other studies, noted in Chuang et al's [2016] systematic review, where prevalence in ICU ranged from 6% to 47% (and the four major studies in this review indicated rates between 28-61%). Age, sex, marital status, personality traits, work experience in an ICU, work environment, workload and shift work, ethical issues, and end-of-life decision-making were all linked with higher the MBI scores. It is worth noting that MBI is only one tool for measuring burnout, and has been criticised for being used as a diagnostic tool when it was intended as a research tool (Maslach et al, 2008), and for presenting burnout as a dichotomous. Furthermore, as alluded to earlier, burnout is only one of several inter-related concepts. Had we measured these related concepts with one of the 99 global well-being measures available (Linton et al 2016), or using The Burnout Measure, with a greater focus on exhaustion (Pines and Aranson, 1988) we may well have found very different results. A larger scale study that captures several measures would reflect a more nuanced perspective of all the conceptual facets.

The patients being cared for by staff in this study all had cancer, which may have significantly influenced findings. Staff working in cancer settings report lower prevalence of burnout (30% to 35% prevalence of high EE and low PA in cancer nurses; high DP noted was at 15% prevalence.) (Canadas de la Fuente et al 2018), as compared to ICU (Chuang et al, 2016), and report a higher sense of personal accomplishment. Therefore, the lower incidence in this study may relate to the fact these ICU, outreach and palliative care staff were all working in cancer hospital, even if not cancer-trained professionals. Novel in this study is the exploration of staff suggestions for what can be done to prevent, address and reduce likelihood of burnout. Some of the suggestions are echoed in a meta-analysis by Ahola et al (2017), who explored measures to support those with burnout at an individual and occupational level, including physical activity, group therapy and cognitive coping, with no strong evidence to suggest these helped given how burnout is an unstable phenomenon that changes over time. This temporal aspect of burnout is important to consider, since it can resolve over time, regardless of input but preventative measures may potentially help mitigate issues.

Very few places, including the UK, routinely collect data about the incidence of burnout. Better data collection would inform organisations and respective professions about the wellbeing of staff, and there is an argument to do so as a matter of course and as a duty of care to staff, particularly when staff work in high stress environments. The intensive care community noted that burnout, stress and intention to leave were cited by 1 in 5 respondents in a UK census (Faculty of Intensive Care Medicine, 2017), suggesting deleterious effects at individual and organisational levels.

Epstein and Hamric [2009] highlighted that moral distress should be tackled using a multidisciplinary approach. Strategies for reducing moral distress put forward previously include the following: being accountable, speaking up and having support network [Epstein and Hamric, 2009]. However, this relies on organisations and teams fostering cultures where people feel able to speak up, led by authentic leaders who can model challenging difficult decisions in a fair, open and constructive manner with moral integrity. Being empathetic, understanding, and finding meaning and value in work is also important. Learning from difficult cases can be positive, and practising cognitive restructuring – where negative events are used in a positive learning way (the core tenets of rational emotive therapy [Ellis, 1962]) can help.

Mindfulness, a meditation exercise that pays conscious attention to the moment, and similar activities such as meditation and massage were frequently suggested as preventative measures. The evidence supports its use to prevent job burnout [Luken and Sammons, 2016] in health professionals [Lomas et al, 2017]. Ensuring a work life balance, including rest (with reasonable work shift patterns) and exercise; and creating positive relationships at work, for example, through exercise-based social activities was also found to be important. The intensive care unit had already identified key individuals who had initiated several social activities involving outdoors exercise, which was seen to be valuable by staff.

Professional values may also help remind us of our duty to maintain moral integrity. This may help guard against the loss of compassion associated with depersonalisation. As Jameton's [1984] seminal work suggested, when professionals find themselves in situations that do not support maintaining integrity, it becomes difficult to act as they might feel is morally right [Heinen et al, 2013]. This moral discord or moral dissonance, leading to moral distress, can affect all staff groups.

Sustaining resilience in a rapidly changing workforce is challenging, particularly when junior doctors rotate through teams every six months in the UK, when there is high turnover in staff (particularly in intensive care environments), and when dealing with end-of-life decisions and situations. Resilience can buffer some of the adverse effects of work but it requires significant effort by organisations to promote resilience on behalf of employers. Burnout is directly associated with intention to leave [Heinen et al, 2013], therefore it is important to address moral distress and prevent burnout at an early stage. Incorporating regular review of staff emotional wellbeing into workforce management processes, such as frequent appraisal of wellbeing, is one way that units can identify areas and individuals that need support.

As a single centre study there a several limitations, however the free-text data adds to tentative findings that these staff groups generally felt well supported. In terms of limitations, firstly, we did not power the study to detect differences between the groups studied, and relied on a convenience sample. Second, our response rate was 45%, slightly lower than average response rates of health

professional surveys that Cook et al [2009] found (57%), but close to nurse survey responses using email [VanGeest and Johnson, 2011]. We did not have information on characteristics of non-responders, marital status and did not focus on shifts worked, where there is an established link with burnout [Chuang et al, 2016]. Finally, burnout is a complex and heterogenous concept. The ideal approach is to report each domain (emotional exhaustion, depersonalisation and personal accomplishment) as a continuous variable however we chose to categorise results into well-established definitions of low, average and high cut off scores for each domain in keeping with other papers in the literature. We also reported cumulative scores. We did not report overall burnout assessment as a dichotomous variable as there is no accepted standard definition.

Conclusions

This study demonstrated a relatively low incidence of emotional exhaustion, and a slightly higher sense of personal accomplishment than normative scores despite staff working in an environment where high levels of burnout were expected. Staff highlighted possible solutions to reduce burnout which included debriefing, managing emotional well-being and valuing individuals, some of which were already in place in the organisation possibly accounting for the unexpected relatively low incidence of burnout demonstrated.

What is already known about this topic

- Burnout and moral distress are increasingly recognised phenomena in critical care professionals and can affect the whole team.
- Data on staff wellbeing is not routinely collected in critical care.

What this paper adds

- Staff identified several strategies encompassing work/life balance that they felt could help ameliorate or mitigate against burnout.

- The importance of valuing individuals and managing emotional well-being was highlighted by staff.

- Routine appraisal of staff emotional wellbeing should be considered as part of every critical care unit workforce management.

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