

Burnout syndrome among Australian intensivists: a survey

Yahya Shehabi, Geoffrey Dobb, Ian Jenkins,
Ranald Pascoe, Nicholas Edwards and Warwick Butt

The role of intensivists extends beyond the intensive care unit and the clinical management of critically ill patients. In addition to being pressed to compensate indirectly for staff shortages and deskilling across the hospital system, intensivists are increasingly engaged in hospital management and administration, allocation of human and material resources, and many non-intensive care activities that are neither acknowledged nor remunerated.

The ability of intensivists to play so many roles has created the so-called "super doctor", who is expected "to cope no matter what". There has been little examination of the impact of this complexity and high demand on the psychological and personal well-being of intensivists. We conducted a survey to determine the workload of Australian intensivists and to examine the incidence of markers of "burnout". The survey also examined the expectations that intensivists have of their professional body, the Australian and New Zealand Intensive Care Society (ANZICS).

Methods

The survey was conducted by the Practice and Economics Committee of ANZICS to investigate the practice patterns and workload of practising Australian intensivists and their risk of burnout. It also examined their professional needs and their expectations of ANZICS.

An invitation to participate in the survey was emailed to all 324 intensivists listed on the ANZICS database and practising in Australia. Intensivists in New Zealand did not participate, as it was considered some industrial issues might be specific to Australia. This was followed by a mailout to ICU directors explaining the aims and conduct of the survey. The invitation directed participants to a web-based survey instrument (SurveyMonkey.com, <<http://www.surveymonkey.com>>). The survey asked intensivists to record work practice and patient load during a week in October 2007 and also to estimate average workload over a 12-week period.

Burnout syndrome was assessed using a modified Maslach Burnout Inventory-General Survey (MBI-GS) with the domains exhaustion, cynicism and professional efficacy.¹ Respondents ranked the following questions on a scale from strongly agree, agree, don't know, disagree to strongly disagree:

- Most of my working days I feel emotionally stretched and exhausted;

ABSTRACT

Objective: To examine practice patterns and workload of practising Australian intensivists and to investigate the risk and prevalence of "burnout syndrome".

Design and setting: On-line survey was emailed to 324 intensivists listed on the database of the Australian and New Zealand Intensive Care Society (ANZICS) and practising in Australia.

Main outcome measures: Prospectively recorded workload during a specific week in October 2007, self-reported 12-weekly averaged work pattern, and prevalence of burnout syndrome assessed by modified Maslach Burnout Inventory-General Survey (MBI-GS).

Results: 115 intensivists (36%) responded; respondents were representative of mainstream tertiary intensive care practitioners. On average in a 12-week period, intensivists spent 42% of working days in bedside patient management, 16% in administration, 11% in locum positions, 9% in research and 9% in recreational leave. During 1 week of prospective recording of actual workload, 26% of intensivists managed more than nine ventilated patients, and most admitted more than two new patients per day. Most were involved in more than two family conferences with a median duration of 1 h. The MBI-GS showed that 80% of respondents had signs of psychological stress and discomfort, 42% showed signs of emotional exhaustion, 32% had negative feelings and cynicism, and 37% considered they underachieved in terms of personal accomplishments.

Conclusions: Intensivists are at high risk of burnout syndrome. Recognising the drivers and early signs of burnout and identifying a preventive strategy is a professional priority for ANZICS and the intensive care community.

Crit Care Resusc 2008; 10: 312-315

- Most days I have negative feelings and a high degree of cynicism towards work-related matters;
- I have underachieved in my personal accomplishments;
- I need more support from my colleagues and the team I work with;
- I am aware of my susceptibility to stress and psychological discomfort; and

- In general, I have no job satisfaction in most areas of my practice.
The results were analysed with simple descriptive statistics.

Results

Of the 324 invited intensivists, 115 (36%) completed the survey, which included a record of 7 consecutive days of actual practice and workload pattern. Although the response rate was relatively low, the sample of intensivists was representative of tertiary hospital intensivists, with similar demographic characteristics to the respondents to a Joint Faculty of Intensive Care Medicine survey conducted in 2007² (Table 1).

The survey confirmed that administration is a significant part of intensivists' workload, with a ratio of administrative to clinical time in the primary appointment of 0.38 (15.8% to 42.1%). Ratios of both research time to clinical time and recreational leave to clinical time were 0.20 (9.0% to 42.1%) (Table 2). However, the total clinical load for most intensivists, including outside practice, approached 60% of total week-day time, with total non-clinical time close to 25%–30%.

Many intensivists work as locums in addition to their primary appointment. The average ratio of locum outside work to primary appointment clinical load was 0.28 (11.4% to 42.1%) (Table 2).

The workload during the week recorded was high, with 26% of intensivists managing more than nine ventilated patients, most managing more than two new admissions, and an average of two lengthy family conferences per day. As expected, activity on the weekend was less than activity on weekdays (data not shown).

Table 1. Demographic characteristics of survey respondents (n = 115)

Characteristics	Number (%)
ANZICS member	104 (90%)
Staff specialist	94 (82%)
Primary adult practice	94 (82%)
JFICM Fellowship	99 (86%)
ANZCA Fellowship	55 (48%)
Tertiary public hospital appointment	86 (75%)
Regional and rural appointment	34 (30%)
Group practice (private)	35 (31%)
No private practice	9 (8%)

ANZICS = Australian and New Zealand Intensive Care Society.
JFICM = Joint Faculty of Intensive Care Medicine.
ANZCA = Australian and New Zealand College of Anaesthetists.

Table 2. Self-reported workload of survey respondents (n = 115)

Workload	
Average no. of days per 12 weeks* (% of total weekdays)	
Clinical ICU	30.3 (42%)
Clinical HDU (if separate)	5.3 (7%)
Non-clinical in hospital	12.7 (21%)
Non-clinical other	5.8 (10%)
Research	5.4 (9%)
Administration	9.4 (16%)
Locum outside primary appointment	6.8 (11%)
Leave	5.4 (9%)
Weekly workload (no. of intensivists [%])	
> 12 patients per day	13 (11%)
> 9 ventilated patients per day	18 (16%)
New admissions per day	
> 5	8 (7%)
2–5	84 (73%)
Family conferences	
Average number per day	2
Mean duration ±SD (min)	60 ± 35.4

HDU = high dependency unit.
* Average number of weekdays per 12-week (60-day) period.

Most intensivists rated ANZICS highly for leadership in research and data management (Table 3). However, more than half agreed that ANZICS should do more to support the welfare of intensivists. The professional needs of intensivists identified included advice on industrial issues, such as remuneration and employment benefits, leadership and coaching, mediation and conflict management. The suggestion that ANZICS establish a central locum agency and a central medicolegal register was also rated highly.

Although the survey showed most intensivists have high job satisfaction and enjoy their clinical role, the MBI-GS showed a worryingly negative portrait of intensivists. More than 80% of respondents showed signs of psychological stress and discomfort, with 42% showing signs of emotional exhaustion, 32% having negative feelings and cynicism, and 37% considering they underachieved in terms of personal accomplishments (Figure 1).

Discussion

Our survey of the workload, commitments, and attitudes of intensivists in Australia included the collection of data on the presence of "burnout syndrome".¹ We found that intensivists undertake many administrative tasks, which occupy a large part of their weekly activities, and often

Table 3. Intensivists' opinions about ANZICS

	Mean rating*
Satisfaction with ANZICS role	
Research leadership	4.2
Database management	4.0
Personal and professional support	3.6
Welfare of intensivists	3.2
Professional needs of intensivists	
Advice on medical industrial issues	4.1
Leadership and professional coaching	3.6
Mediation and conflict resolution	3.5
ANZICS central locum agency	3.2
Central medicolegal registry	3.1
Billing software or service	2.1

ANZICS = Australian and New Zealand Intensive Care Society.
 * On a scale of 1 (lowest rating) to 5 (highest rating).

perform locum clinical duties, which further impinge on their clinical workload. More worryingly, we found that a significant proportion of intensivists display negative and cynical feelings about their professional activities. Taken together, these emotions place a large proportion of respondents in the category of significant risk of both burnout syndrome and depressive illness.

Maslach and Jackson defined burnout syndrome as a three-dimensional syndrome characterised by emotional exhaustion, depersonalisation and reduced personal accomplishment.¹ The common warning signs of burnout are chronic fatigue and exhaustion, anger, self-criticism, irritability, "exploding" easily, sleeplessness, suspiciousness, feelings of helplessness and increased risk taking.³ A number of these symptoms and signs are also associated with depression and loss of self-worth. Work intensity, the pressures of modern family life and a trend to larger ICUs, where there may be less of a sense of camaraderie and social support, can easily cause these signs to pass unnoticed.

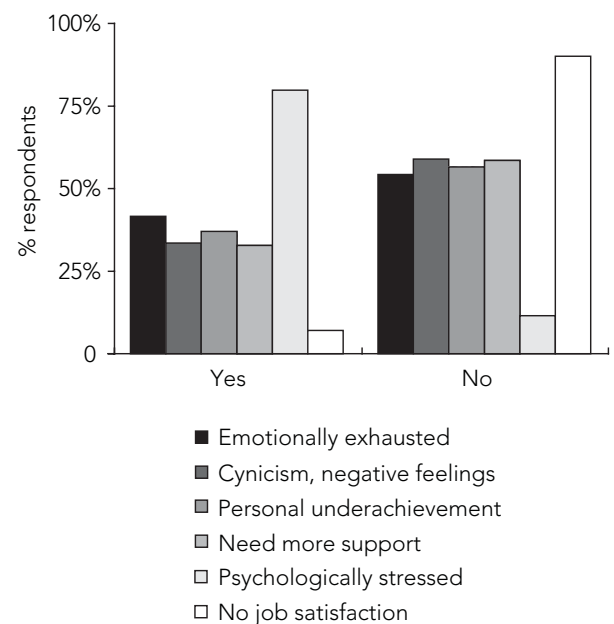
A recent survey of 323 emergency physicians in Australia showed that most had healthy psychosocial status, but that 20% exhibited high levels of stress and work dissatisfaction.⁴ The same survey demonstrated a significant trend towards a reduction in clinical hours worked per week for reasons related to emotional and work stress, shift work, dealing with management and insufficient staffing.⁵ These observations were confirmed by a recent review, which highlighted the factors likely to worsen burnout among physicians and nurses working in emergency departments.⁶ A survey of paediatric critical care physicians in academic and private centres in the United States found that 36% of

respondents were at risk of burnout, and an additional 14% were classified as burned out. There was no demonstrable association between practice pattern or workload and the risk of burnout.⁷

A similar survey among nurses showed a clear correlation between burnout and the perception of imbalance in the relationship with patients. This was accompanied by negative feelings and a high degree of cynicism. The perception of inequity was a major driver of the core symptoms of burnout syndrome and emotional exhaustion.⁸ A prospective study of 123 paediatric trainees in the US showed that an alarming 74% met burnout criteria, and 20% had depressive tendencies. Furthermore, a significant correlation was found between medical errors and depressive tendency.⁹

Our survey profiles the professional practice pattern and workload of intensivists primarily working in ICUs in Australia. Our findings carry a clear message for leaders, managers and policy makers within the specialty of intensive care. A focus on recognition of early signs of burnout syndrome and implementation of strategies to prevent and manage burnout among critical care practitioners should be a priority. Further research is needed to establish the drivers of burnout and depressive tendencies in critical care specialists in Australia and New Zealand and to identify necessary preventive measures.

Figure 1. Assessment of burnout warning signs among 115 practising intensivists in Australia



Author details

Yahya Shehabi, Medical Director Program Acute Care, Director of Intensive Care and Research, and Chair of ANZICS Practice and Economics Committee¹

Geoffrey Dobb, Professor and Director of Critical Care²

Ian Jenkins, Director of Intensive Care³

Ranald Pascoe, Director of Intensive Care⁴

Nicholas Edwards, Senior Intensivist⁵

Warwick Butt, Senior Intensivist⁶

1 Prince of Wales Hospital, Sydney, NSW.

2 Royal Perth Hospital, Perth, WA.

3 Fremantle Hospital, Fremantle, WA.

4 Wesley Hospital, Brisbane, QLD.

5 Royal Adelaide Hospital, Adelaide, SA.

6 Royal Children's Hospital, Melbourne, VIC.

Correspondence: y.shehabi@unsw.edu.au

occupational groups and nations. *J Occup Organ Psychol* 2000; 73: 53-66.

2 Australian and New Zealand College of Anaesthetists annual report. Joint Faculty of Intensive Care Medicine. JFICM intensivists survey, 2007. Melbourne: ANZCA, 2008.

3 Neils H. Motivational appraisal of personal potential (MAPP). Edina, Minn: Assessment.com. <http://www.assessment.com> (accessed Jul 2007).

4 Taylor D, Pallant J, Crook H, Cameron P. The psychological health of emergency physicians in Australasia. *Emerg Med Australas* 2004; 16: 21-7.

5 Crook H, Taylor D, Pallant J, Cameron P. Workplace factors leading to planned reduction of clinical work among emergency physicians. *Emerg Med Australas* 2004; 16: 28-34.

6 Potter C. To what extent do nurses and physicians working within the emergency department experience burnout: a review of the literature. *Australas Emerg Nurs J* 2006; 9: 57-64.

7 Fields A, Cuedon T, Brasseux C, et al. Physician burnout in pediatric critical care medicine. *Crit Care Med* 1995; 23: 1425-9.

8 VanYperen N, Buunk B, Schaufeli W. Communal orientation and the burnout syndrome among nurses. *J Appl Soc Psychol* 1992; 22: 173-89.

9 Fahrenkopf AM, Sectish TC, Laura K, et al. Rates of medication errors among depressed and burnt out residents: prospective cohort study. *BMJ* 2008; 336: 488-91. □

References

1 Schutte N, Toppinen S, Kalimo R, Schaufeli W. The factorial validity of the Maslach Burnout Inventory-General Survey (MBI-GS) across

The Norva Dahlia Intensive Care Research Foundation



The Norva Dahlia Intensive Care Research Foundation is the research foundation of the Australasian Academy of Critical Care Medicine. It has been established as a tax deductible body for the purpose of promoting research in critical care and intensive care medicine.

DONATION FORM

Surname (block letters)

Given names

Address

Street

City..... State.....

Country..... Postcode.....

To support the Foundation a Cheque/Money Order of \$..... payable to "The Norva Dahlia Foundation"

OR charge to my: Bankcard Mastercard Visa

Card Number

Expiry date /.....

Signature

Cardholder's name

Mail donation to: The Norva Dahlia Foundation
"Ulimaroa", 630 St Kilda Road, Melbourne, VIC 3004 Australia