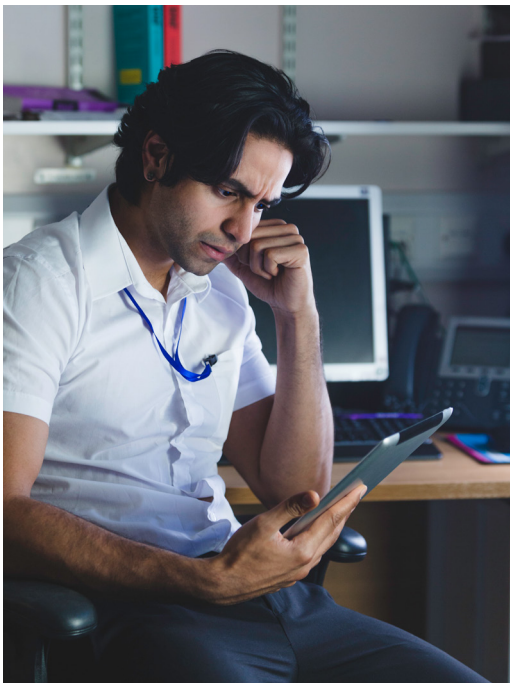

Risk factors for burnout in Australian general practice registrars: A qualitative study

Shaun Prentice, Taryn Elliott, Diana Dorstyn, Jill Benson

Background and objective
Research examining medical trainee burnout has typically not focused within specialties. The present study therefore explored perspectives and experiences of registrar burnout among Australian general practice training stakeholders.

Methods
Registrars, supervisors, training coordinators and educators (n = 47) from a single training organisation completed interviews and participated in focus groups. Data were iteratively analysed using template analysis and grounded theory.

Results
Risk factors for burnout were categorised into three themes: (1) lack of personal and/or job resources; (2) high demand or workload; and (3) unsupportive psychosocial context. Registrar subgroups (ie junior/senior, rural/urban) faced further specific risk factors.

Discussion
Identified themes highlight the complex nature of burnout development, including factors pertinent to the Australian general practice context. The findings highlight key areas for interventional design, including optimising supervision and educational practices to meet registrars' needs and easing the adjustment to general practice from hospital settings.

BURNOUT is a prevalent issue facing junior doctors globally.[1–3] A chronic condition traditionally characterised by emotional exhaustion, depersonalisation and a sense of low personal accomplishment,[4] burnout is associated with a variety of adverse outcomes for junior doctors as well as their patients and society more broadly.[5–7] Accordingly, efforts are ongoing to effectively prevent and manage burnout experienced by medical trainees.

Effective management of trainee burnout requires a comprehensive understanding of this occupational syndrome to equitably support those most at risk and create sustainable wellness at work. Accordingly, a considerable research agenda has investigated risk factors of medical trainee burnout such as high work demands and unsupportive work environments, an imbalance between one's personal and professional life, and/or pre-existing health concerns.[8,9] Such findings align with the Job Demands-Resources model, which posits that burnout arises from a chronic imbalance of excessive demands and inadequate resources to meet these demands.[10] However, research has largely treated medical trainees homogenously rather than consider specialty-specific contextual factors that might be relevant. This is despite evidence of different burnout presentations and risk factors based on trainee specialty.[2,11–14] Such differences are likely to have considerable influence on both the effectiveness and design requirements of preventive interventions.[15]

General practice trainees operate within a unique context when compared with other specialties, characterised by considerable breadth and clinical responsibility with relatively low levels of clinical supports.[16,17] It follows that burnout within this context deserves further exploration to inform effective interventions. To this end, literature has explored stressors facing this group, acknowledging the importance of a high degree of personal connection with patients, but also professional and social isolation.[18] However, stress is considered to be a temporary adaptation process, whereas burnout represents the final stage in a breakdown of adaptation.[19] Thus, whether these same stressors are relevant to the burnout experience of general practice trainees remains unclear.

Two studies have thus far addressed this literature gap. A study by Hoffman and Bonney identified self-expectations, others' expectations (including those of the supervisor and trainees' patients) and capacity to engage in self-care as critical, with burnout tending to occur when two or more of these factors were present.[20] Another study by Rutherford and Oda identified alternative contributors, such as medical culture, low autonomy and unresponsiveness of the training organisation.[21] However, neither study considered contextual factors such as location (eg urban vs rural). Additionally, this research does not consider the perspectives of other training stakeholders (eg supervisors, educators) who can draw on experiences spanning multiple cohorts of trainees, thereby enhancing the generalisability of findings. The present study addresses this research gap by exploring potential causative factors of burnout in general practice registrars as perceived by a broad group of Australian general practice training stakeholders.

Methods

The present study adheres to the Standards for Reporting Qualitative Research guidelines and forms part of a broader study.[22–24] It was conducted in one regional training organisation (RTO) within the Australian general practice training context during 2019 (ie prior to the transition to profession-led training). Participants were invited to participate via email. The sampling frame comprised registrars in their second term or later (so they could comment on their earlier and current experiences), supervisors attending one of two supervisor workshops, and training coordinators (hereafter 'coordinators') and medical educators (hereafter 'educators') affiliated with the RTO. Prospective participants were informed that participation was voluntary. Interviewed registrars were reimbursed in accordance with The Royal Australian College of General Practitioners' (RACGP's) guidelines, whereas focus groups were held during RTO-paid time.[25] Recruitment continued until all interested individuals had participated, declined or were not contactable.

Interviews and focus groups used the same schedule (Table 1). SP conducted all interviews/focus groups either in person or via Zoom (Zoom Communications Inc., San Jose, CA, USA), audio-recording these where participants consented. SP had exclusive access to recordings, which he transcribed verbatim, reviewed for accuracy and de-identified. Where participants declined to be recorded, SP's interviewer notes were used instead. For each transcript, SP documented the type of participant (ie coordinator, educator, registrar, supervisor) and data collection method (ie interview, focus group) in addition to registrars' gender, training term and pathway (ie rural or urban).

Data were thematically analysed by SP and TE, using the research questions to organise the development of codes.[26] This was underpinned by grounded theory, as the study sought to generate a framework for considering burnout risk factors.[27] Post-positivism was adopted to identify factors that were generalisable within the general practice training context. Analysis was conducted using NVivo Qualitative Software V12 for Windows (QSR International [Lumivero], Denver, CO, USA) to organise segments of transcripts within codes. An audit trail was created within NVivo; both analysts recorded their decisions and reflections on the coding structure's development. Each transcript represented a single unit of analysis. SP initiated analysis by reading all transcripts to identify general themes. From this, he selected a representative transcript for SP and TE to separately analyse and generate independent initial coding structures. This was fused in a consensus meeting, permitting investigator triangulation. SP applied this fused structure to the remaining transcripts, adapting the structure to reflect new content. He then reviewed the coding structure for consistency and to derive overarching themes, and he subsequently applied this revised structure to all transcripts. To establish inter-coder agreement, TE analysed a further two transcripts using the final coding structure. Inter-coder agreement – the proportion of agreements relative to the number of agreements and disagreements[28] – reached 98%.

Analysts' backgrounds were in psychology and medical education research. Both analysts were affiliated with the RTO, providing contextual understanding. Objectivity was enhanced through coding comparisons and analysis review by DD, who was not affiliated with the RTO. Power in pre-existing professional relationships between the interviewer and participants favoured participants. Participants were assured of the confidentiality of interviews/focus groups.

Ethical approval for this study was granted by The University of Adelaide Human Research Ethics Committee (ethics no. H-2019-072).

Results

Sample characteristics

Fourteen registrars, 15 educators, 13 supervisors and five coordinators participated in this study. Registrars were evenly distributed between rural and urban practices and across training terms. Although the sample comprised mostly female registrars (71%), this reflected the Australian general practice registrar cohort.[29] Most educator and supervisor participants were males (60% and 62%, respectively) and practised in urban areas (60% and 62%, respectively). All coordinators were female.

Table 1. Interview and focus group schedule

Question	Prompt/s
What do you think are the causes of burnout in general practice registrars?	• Personal • Workplace-based, especially supervisors • Training organisation (including training staff)/Colleges • General practice as a whole/discipline • Patient expectations • Do you think these causes of burnout change over the course of training?

What are the perceived risk factors for burnout?

Participants' accounts largely fell under two factors: (1) the high load faced by general practice registrars; and (2) resource gaps. Tension generated from these, exacerbated by the psychosocial context, was thought to increase risk of burnout. Within this framework, certain risk factors were highlighted for subgroups of registrars. Illustrative quotes are provided in Appendix 1 (available online only) and Appendix 2 (available online only).

Resource gaps

A universal theme across the dataset was perceived and actual deficiencies in the personal and/or organisational resources that registrars needed to fulfil their values and goals. A key resource often lacking was control. Feelings of powerlessness could manifest as professional helplessness (eg inability to 'cure' patients with chronic conditions). Inflexible training requirements, particularly regarding placement locations, or power imbalances between registrars and supervisors could also curtail personal autonomy.

Related to this, some registrars commented on financial stress, primarily from pay reductions associated with being a general practice registrar and the fee-for-service model in Australian healthcare. Some registrars could react by increasing their working hours; however, this compounded physical and psychological exhaustion, hastening the onset of burnout. Such financial stress also magnified the strain from the costs of sitting fellowship assessments, exacerbating pressure to pass these assessments on the first attempt. Participants believed financial stress could be more acute for urban registrars, who could have lower incomes than their rural colleagues.

Another common resource gap was time, particularly for engaging in replenishing activities. Time drains included long commuting times and reduced access and flexibility in leave when compared with hospital-setting working conditions and entitlements. The latter issue was more problematic for rural registrars, who often used their allocated leave for work- or training-related relocation or travel.

Professional resource gaps primarily focused on a critical shortage of clinical resources (ie equipment, patient finances, other clinicians), requiring registrars to constantly adapt to attain the best clinical outcomes for their patients. This resource gap was prominent for rural registrars. Additionally, registrars commented on a perceived lack of professional competence, which was amplified when they received little feedback from supervisors or educators. This subtheme was particularly relevant for junior trainees, who often had minimal experience within general practice. Likewise, supervisors lamented junior doctors' decreased working hours in the hospital system and resultant reduced professional experience.

High load

Complementing the previous theme was recognition of the taxing demands registrars faced across their personal and professional lives. This subtheme primarily concerned the quality and quantity of one's professional workload (eg high volumes of patients with mental health concerns, rapid decision making, administrative tasks). These demands were universal, although participants acknowledged that rural registrars additionally faced being on-call, holding higher levels of clinical responsibility and practising a broader array of medicine. Similarly, adverse patient incidents (eg critical incidents, deaths) could rapidly trigger burnout among registrars already under pressure.

Assessment stress further contributed to burnout, particularly high-stakes fellowship assessments for senior registrars. Exam failure could exacerbate this stress and lead to rapid burnout, partly because this could be the first time in their life that a registrar has failed an assessment. Likewise, registrars commented on the high volume of educational assessments, particularly early in training. Although some acknowledged that assessments ensured foundational knowledge, many doubted their utility and highlighted assessment overlap.

Junior registrars' load was compounded from having to navigate the adjustment to general practice. This adjustment entailed a high volume of clinical knowledge and skills to learn in a short time, as well as adjustment to the high patient volume and learning administrative systems (eg Medicare Benefits Schedule item numbers).

Finally, participants acknowledged these stressors were compounded by registrars' need to balance these with their personal responsibilities. Personal stressors, including relational stress and managing mortgages, added a further level of complexity. Importantly, pressures in registrars' personal lives could compound the pre-existing pressures they faced in their professional lives.

Psychosocial context

The strain that registrars experienced from the tension between resource gaps and high load was further exacerbated by the psychosocial context. A key example highlighted by participants was the practice culture – such as minimal social interactions, inflexibility, having a perceived financial (rather than educational) motivation for accepting registrars, and supervisors being unapproachable and disengaged from their role. Similarly, social networks could be inadequately broad (ie reliant on a small number of people) or deep (ie lacking psychological safety and vulnerability). Such gaps could hamper registrars' psychological and practical supports, increasing feelings of isolation and relationship stress.

Many participants raised concerns regarding the toxicity of the medical culture: perfectionist attitudes compelled registrars to meet extremely high expectations, whereas norms of self-sacrifice encouraged registrars to neglect their wellbeing. Additionally, the centrality of medicine to registrars' identity meant that threats in their professional domain, including burnout, were viewed as identity threats that could exacerbate the burnout experience. Conversely, several felt that discussions of doctors' health were more welcome within general practice than in other specialties. Further, one registrar believed that the Australian medical culture was considerably more supportive of junior doctors' wellbeing when compared with the medical culture in other countries.

Isolation was raised repeatedly across training. Junior registrars faced the adjustment from a team-oriented hospital system to a much more individualised way of working. This inevitably increased registrars' decision making and responsibility. Interestingly, some suggested that urban registrars might be more likely to experience

isolation than their rural counterparts; the latter were perceived to have a clear social network group defined by their geographical region. Nonetheless, rural registrars faced both social and cultural isolation from working in smaller towns.

Another core psychosocial concern was navigating others' (and one's own) expectations. When either too high or low, expectations could be stressful and undermine registrars' confidence. Unhelpful patient expectations included that registrars should always run on time or that registrars would have minimal clinical competence. By contrast, patients were thought to have more flexible expectations of more experienced general practitioners with whom they had established trust.

Self-expectations were equally hazardous. Participants noted that junior registrars needed to adapt to a different approach to medicine, accepting that not every patient concern can or needs to be remedied in the one consult. Additionally, junior registrars' recognition of their knowledge limitations decreased their confidence, increased their worry for patients' wellbeing and produced tensions between the need to act safely but also independently. Conversely, senior registrars grappled with changing expectations (both self and others'), particularly regarding greater independence. These rising expectations could trigger imposter syndrome (ie doubting one's competence, attributing their progress to fraud and luck[30]) and deter help-seeking to manage their workload. Interestingly, the greater connection with peers that urban registrars were observed to have could lead to more self-comparisons, undermining their self-esteem.

Mismatched expectations also lead to conflicts. These included interpersonal conflicts with patients (eg aggressive patients, balancing best practice with patient demands) and supervisors (eg generational norm and expectation differences). Additionally, mismatches between the expectations of practices, supervisors and registrars (eg regarding the registrars' competence) were seen as frustrating or overwhelming. Some participants even believed supervisors and patients had higher expectations of rural than urban registrars. Other conflicts were predominantly internal, such as personal–professional conflicts (eg work domination), as well as tensions between self-care, promoting one's image of competence and providing patients with optimal care.

A final concern raised by registrars was when they lacked insight into their own wellbeing. Poor insight could, in turn, prevent many from recognising early warning signs of burnout and instigating mitigation strategies.

Discussion

The present study explored stakeholders' experiences and perceptions of burnout and its potential risk factors among general practice registrars. Themes of resource gaps, high load and psychosocial context were identified and varied depending on stage of training and whether registrars were located in urban or rural areas.

These findings parallel those identified by previous research.[18,19,21,31–36] Notably, many of the specific examples provided in the present study – apart from medical culture[33,37] – differ from those reported by trainees in other specialties. In particular, a lack of positive reinforcement and feeling like a 'cog in the machine' has been raised by internal medicine trainees[31] but was not raised by participants in the present study. Similarly, the concepts of financial stress and patient expectations in the present study have not been previously raised.[31] Specialty-specific factor considerations are therefore integral when designing burnout prevention and management interventions.

The current findings also align with the six causes of burnout proposed by Maslach and Leiter,[38] as explored in the medical training context by Jennings.[39] For example, 'workload' in the present study aligns with the theme of 'high load', whereas the concepts of 'community' and 'control', as discussed by Jennings,[39] align with our broad conceptualisation of 'resource gaps'. Even more broadly, the tension between high load and resource gaps raised in the present study mirrors the Job Demands-Resources model.[10] However, the present study offers two important conceptual contributions. The first of these is the inclusion of personal factors (eg 'high load' encompasses professional and personal demands, and gaps in resources can apply to personal resources; refer also to the paper by Tavella et al[40]). Crucially, this also reflects participants' acknowledgement of the close interactions between registrars' personal and professional lives.[24] The present study's insights therefore offer a more holistic consideration of how burnout develops rather than focusing exclusively on registrars' professional lives. The second conceptual contribution is how the psychosocial context can interact with – and exacerbate – the tension between demands and resources. It follows that more intangible factors, such as registrars' psychological make-up, practice culture and medical culture, must also be addressed in establishing effective interventions.

Several practical implications are evident from these findings. These can be underpinned by three overarching principles: reducing registrars' demands, equipping registrars and optimising context. The former of these is likely to be the least amenable to change, as certain demands of training are relatively fixed. Nonetheless, one modifiable area is rationalisation of assessment. The remaining two domains could include strategies such as increasing pre-vocational trainees' exposure to general practice to minimise the 'culture shock' of adjusting to this specialty, ensuring supervision and teaching meet individual registrars' needs, and fostering a supportive practice culture.[41] Interventions can also be tailored on the basis of stage of training. For example, developing junior registrars' self-compassion could help them to be more accepting of their inexperience in order to minimise or reduce the stress associated with the adjustment to general practice.[42] Similarly, interventions for senior registrars might focus on enhancing their peer networks by allowing socialising opportunities via online communities or retreats.[43]

The present findings must be considered in the context of several limitations. First, although a variety of stakeholders participated, they were recruited from a single RTO. Although the generalisability of these findings is supported by previous studies in general practice training settings,[18,20] future research should test these findings in other general practice training contexts. Moreover, although multiple groups were consulted, the views of others (eg practice managers, nurses) who might have greater daily contact with

registrars were not included. Exploring their perspectives and experiences might further corroborate our findings. Given the stigma surrounding burnout, it is plausible that some stakeholders (particularly registrars) with relevant experiences might have avoided participation, preventing inclusion of their views and experiences. Future survey-based research, which can provide greater anonymity, might help to address this research gap. Finally, it is worth noting how the temporal context of this study might have affected the results. For example, the theme of financial stress likely relates to the context of a Medicare freeze on billings and no increase in registrars' minimum wages. Additional themes might have arisen had this study been conducted during the COVID-19 pandemic.

Conclusion

The present study identified the complexity of burnout among general practice registrars, with resource gaps, high load and psychosocial context seen as key risk factors among our sample. The findings highlight practical opportunities to prevent registrar burnout. The findings also indicate that effective burnout prevention and management interventions need to be sensitive to the specific issues faced by subgroups of registrars and, potentially, the temporal context.

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